An Embedded Mixed Methods Investigation of Factors Associated with the Quality of Mental Health Care in the Kingdom of Saudi Arabia (KSA): A Structure, Process and Outcome Evaluation

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Abstract

Background: Quality of care (QoC) is the essential determinant of service provision improvement for service users in mental health settings. However, there is a lack of research investigating the factors associated with the quality of mental health care and their relationship to service user outcomes, particularly in Saudi Arabia. This is despite the high priority given to QoC in mental health care in the Kingdom of Saudi Arabia's (KSA) national health strategy.

Aim: To investigate factors associated with the quality of mental health care and their relationship to service user outcomes (the so-called '5Ds': death, disability, disease, discomfort and dissatisfaction), and to explore service users' perceptions of the quality of mental health care that they receive.

Methods: An embedded mixed methods design was applied in this study, whereby a qualitative strand was embedded in a quantitative study. In the quantitative strand, a survey was distributed to 176 staff nurses and 321 service users aged 18 years or over, diagnosed with mental disorders and admitted to 11 male and 3 female inpatient psychiatric wards. The nurses' measures consisted of the staff characteristics sheet (SCS), used to elicit information about nurses' age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers; Attitudes Towards Acute Mental Health (ATAMH-33), used to assess nurses' perceptions of the mentally ill/mental illness, and the Competency Assessment Tool-Mental Health (CAT-MH), used to assess nurses' competency levels in the delivery of mental health care. Meanwhile, the service users' measures comprised: the Service User Characteristics Sheet (SUCS), used to collect information about service users' age, gender, marital status, employment status, educational level, area of residence and diagnosis; the Arabic version of the Social Functioning Scale (SFS), used to assess psychiatric service users' capacity to engage in necessary social activities; the Arabic version of the Glasgow Antipsychotic Side-effect Scale (GASS), used to assess service users' experience of the side-effects of psychiatric medication; the Arabic version of the Client Satisfaction Questionnaire (CSQ-8), used to assess service users'

satisfaction with the mental health care services received, and the Brief Psychiatric Rating Scale (BPRS), used to assess specific psychiatric service user symptoms, based on service users' self-reports. In addition, participant observation was conducted of the interaction between staff and service users across six admission wards (4 male/2 female), using the Interaction-Observation Checklist (IOC). For the qualitative component, semi-structured interviews were conducted with 30 service users (24 male/6 female), using purposive sampling to explore their perceptions of the quality of their care provision.

Findings: Multilevel modelling showed that service users' characteristics, such as age, marital status, employment status, educational level, area of residence, and diagnosis, significantly predicted disability, whilst gender did not. In fact, with just one exception (unemployment), none of the service user characteristic variables was found to be a statistically significant predictor of disease, although educational level was found to be a significant predictor of discomfort and dissatisfaction. However, age and years of experience were found to significantly predict disability amongst nurses and years of experience was a significant predictor of their dissatisfaction. Moreover, nurses' competence was found to be a statistically significant predictor of disability, while their attitudes toward the mentally ill/mental illness and staff-service user interaction did not significantly predict service user outcomes. An exploration of service users' perceptions of important dimensions of perceived service quality subsequently included the themes: the 'hospital is like a prison', quality of interaction, service quality, staff qualities, and suggestions for achieving quality of care.

Conclusion: Overall, the quantitative results revealed that the factors associated with quality in mental health care (i.e. structure and process measures) and/or measures of service user outcomes (i.e. SFS, BPRS, GASS and CSQ-8), used within Donabedian's Framework, indicate less relevance in the Saudi context, although the study used a considerable sample size and implemented valid and reliable measures. In contrast, the qualitative results identified factors of greater importance in the Saudi context. Therefore, future research should consider evaluating the conceptual model developed (a revised model); utilising Donabedian's Framework for QoC, incorporated into the

Andersen Behavioural Model of Health Service Use and based on the outcomes of the qualitative analysis. This can be tested quantitatively to determine the significant predictors. Thus, the originality of the current study comes from the first test of these proposed qualitative indicators, in a context that has not previously been studied. The implications of these findings for mental health care policy and clinical practice are subsequently discussed, with recommendations being made for future mental health service planning, in order to enhance QoC for patients with mental disorders in KSA.

Keywords: Quality of health care, mental health services, evaluation

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List of Abbreviations

ATAMH	Attitudes toward Acute Mental Health
BPRS	Brief Psychiatric Rating Scale
CAT-MH	Competency Assessment Tool-Mental Health
CSQ	Client Satisfaction Questionnaire
EBP	Evidence-based Practice
GASS	Glasgow Antipsychotic Side-effect Scale
GDMSH	General Department for Mental and Social Health
GDRS	General Directorate of Research and Studies
HCS	Hospital Characteristics Sheet
IOC	Interaction-Observation Checklist
IRB	Institutional Review Board
KFSH-D	King Fahad Specialist Hospital-Dammam
KSA	Kingdom of Saudi Arabia
MHA	Mental Health Act
MMR	Mixed Methods Research
MoH	Ministry of Health
PHC	Primary Health Care
PHCs	Primary Health Care Centres
QoC	Quality of Care
QoL	Quality of Life
QoS	Quality of Services
SCS	Staff Characteristics Sheet
SFS	Social Functioning Scale
SPSS	Statistical Package for Social Science
SUCS	Service User Characteristics Sheet

Operational Definitions of Terms

Death: mortality rate of hospitalised psychiatric service users, collected from hospital records.

Disability: inability of psychiatric service users to perform the requisite social activities, as measured by the Social Functioning Scale (SFS).

Discomfort: service users' experiences of the side-effects of psychiatric medication, as measured using the Glasgow Antipsychotic Side-effect Scale (GASS).

Disease: specific symptoms of psychiatric service users based on their self-reporting or staff observation and measured using the Brief Psychiatric Rating Scale (BPRS).

Dissatisfaction: service users' dissatisfaction with the mental health care services received, as measured using the Client Satisfaction Questionnaire (CSQ-8).

Frequency of staff-service user interaction: the number of times staff and service users interact with each other and the impact of this on service users' health outcomes, as measured with the Interaction-Observation Checklist (IOC).

Hospital characteristics: hospital profile (including the availability of essential infrastructure in the hospital and the availability of essential drugs for psychiatric service users).

Quality of care (QoC): defined as the effectiveness of the care received by an individual, in terms of the factors influencing health structures and processes through which the care is provided (Donabedian, 1988a). Structural factors include staff characteristics, service user characteristics and hospital characteristics, while process factors include staff attitudes, staff competency and staff-service user interaction. The outcomes of effective care are described in terms of the 'five Ds'.

Service user's characteristics: profile of a service user admitted to an inpatient psychiatric facility (including socio-demographic variables, such as age, gender, marital status, employment status, educational level, area of residence, and medical profile, such as disease diagnosis).

Service user outcomes: defined as the 'five Ds' (death, disability, disease, discomfort and dissatisfaction) and measured using reliable, conventional instruments, which reflect the service user outcomes.

Staff attitudes: staff perceptions of the mentally ill/mental illness, as measured by the Attitudes towards Acute Mental Health Scale (ATAMH-33).

Staff characteristics: profiles of staff working in psychiatric settings (including socio-demographic variables, such as age, gender, nationality and qualifications, as well as job-related variables, namely years of experience in the hospital, attendance of psychiatric training courses and staff numbers).

Staff competence: levels of staff competency in the delivery of mental health care, as measured using the Competency Assessment Tool-Mental Health Scale (CAT-MH).

1 Introduction and Description of the Saudi Context

1.1 Introduction

This chapter presents background information about the study and its settings; explaining the conceptual context and then providing a brief description of the Kingdom of Saudi Arabia (KSA), in geographical and demographic terms. This is followed by an overview of the national general and mental health care system, as well as an outline of the significance of the study and service user outcomes. Also explained is the conceptual framework used to guide the research. Finally, the chapter concludes with a breakdown of the thesis structure.

1.2 Background

It is essential to provide quality of care (QoC), in order to improve service user outcomes in health care systems. However, QoC is a multidimensional concept, defined in different ways. Donabedian (1980) has formulated a framework for assessing QoC and presents a definition of quality based on the three most important dimensions in the evaluation of health services: structure, process and outcomes. 'Structure' refers to such components as the hospital setting, service users and health care provider's resources. These create the system through which health care is received and delivered (Donabedian, 1966, Hong et al., 2008). Meanwhile, 'process' refers to the way in which care is provided for service users, thus affecting outcomes (Ravelli et al., 2003). These outcomes are in fact the result of actions arising from the process (Mainz, 2003). Finally, service users' health care 'outcomes' are wide-ranging and need to be considered when investigating QoC. A classic list of outcome measures, capturing the effect of the care process on service users' health and well-being, can be expressed as 'the five Ds': death, disability, disease, discomfort and dissatisfaction (Lohr, 1988). Since the central goal of structure and process is to promote better service user outcomes, it is helpful to understand quality in terms of the interdependence of these three components (structure, process and outcomes) (Donabedian, 1988b). Thus, information about them should be gathered before any QoC assessment can take place (Donabedian, 1988a).

Mitchell et al. (1998) cite structure as an important component impacting on health care outcomes. However, Campbell et al.'s (2000) findings contradict this as a component of care; identifying it instead as a channel through which care services are delivered. However, it could be argued that the structural features/characteristics of a health care

system (for example, the institutions and administrative practices that enable care to be provided) are important antecedents to quality assessment. Therefore, the structure of health care provision is a prerequisite for being able to directly impact processes of care delivery and even to improve service user outcomes. Moreover, Coyle and Battles (1999) propose the structural domain as a vital component in acquiring a thorough understanding of the true effectiveness of care strategies or change within care processes. As a result, QoC can be enhanced by changing the structure of the care delivered, thus increasing or decreasing the likelihood of receiving high QoC. For example, this can arise, if special equipment, skills or qualifications are unavailable for carrying out an effective intervention. In addition, it is a view asserted by Gaebel et al. (2012), who indicate that structure can cause an increase (or decrease) in QoC, due to its direct or indirect impact on processes and outcomes. This point is explored in greater depth later in the present thesis, in light of the qualitative findings and under the theme, 'staff qualities' (see p.249), where Campbell's disavowal of 'structure as care' is revisited.

While other QoC frameworks are used in different countries, such as the National Service Framework for Mental Health (NSF-MH) in the UK (Thornicroft, 2000); Health Information Technology in the US, including electronic health records (EHRs), the Patient-centred Medical Home (PCMH) Framework (Cantiello et al., 2016), and the WHO-Recommended Quality of Care Framework (McQuestion, 2006), the dominant model for evaluating QoC in health care is still Donabedian's Framework and this is due to several primary reasons. Firstly, it provides an integrated framework, which links the structure, process and outcomes underpinning programme evaluation theory in general terms (Reeve et al., 2015). Secondly, it is proposed as the best established model for assessing QoC delivery in relation to general medical quality, as well as more specialised areas, such as mental health (Grabowski et al., 2010). Thirdly, it is recognised in the literature as being important for explaining the impact of structure and care processes on service user outcomes (Sawyer et al., 2002). Fourthly, a consideration of these three dimensions allows the weaknesses of one to be enhanced by the strengths of the others (Donabedian, 1988b). Finally, the three QoC dimensions have the potential to provide evidence from which inferences can be drawn regarding predictors of quality in mental health care (Yakimo et al., 2004). Therefore, the current researcher felt the need to apply Donabedian's Framework to collect data on the factors related to quality

of mental health care in KSA; the sampling of service users; health care professionals, and health care institutions.

1.2.1 Quality of Health Care in Saudi Arabia

The quality of mental health care services varies from country to country. However, it is acknowledged that there is room for improvement in mental health services and reforms worldwide. This is especially the case in low- and middle-income countries, including those of the Middle East (Jacob et al., 2007). However, based on the above study of mental health systems and mental health resources, QoC needs to be well articulated and should include appropriate policy and legislation to direct mental health programmes and services; be supported by the infrastructure; offer an adequate range of mental health and community resources; employ adequate numbers of competent mental health workers, and receive adequate funding. On the other hand, barriers to care quality in low- and middle-income countries include the prevailing public-health priority agenda and its effect on funding; resistance to the decentralisation of mental health services; poor distribution; challenges to the implementation of mental health care in primary health care centres (PHCs), and a scarcity of resources available to mental health workers and corresponding to the public-health perspectives of mental health leadership (Saraceno et al., 2007).

Nevertheless, health care services have improved dramatically in KSA over the past few decades, although this improvement has also presented challenges for health care stakeholders (e.g. service users, their caregivers, staff, organisations and policy makers); emphasising a need to improve health care quality. These challenges include: growing demands on health care services, together with a rise in costs; changing patterns of disease; staff shortages; the absence of a national health information system; a lack of indigenous health care providers; a significant annual pilgrim population; a rise in the incidence of medical errors, and long waiting times (Walston et al., 2008, Jannadi et al., 2008, Qureshi, 2010, Almalki et al., 2011, Almasabi, 2013).

The rising problem of admission rates (including relapse rates) involves multiple factors, especially stigma in mental health care (manifested as labelling/othering, devaluation and discrimination, all of which harm the service user); medical error (such as medication errors and the misidentification of service users by health care providers when administering treatment), due to health care workers' lack of skills and knowledge and negatively impacting on service users' health outcomes; service user injury (for

example, from falls and physical fights between users), arising from the negligence and therapeutic pessimism exhibited by health care providers, which threaten service users' safety. As a result, their physical complaints are usually neglected, with a consequent effect on service user outcomes; poor baseline or statistical records of service users' sentinel events (for example, sudden death); loss of information, due to the absence of a computerised system (as in the case of death); increasing public demands and expectations (for example, satisfaction with services), and poor involvement of service users in auxiliary treatments (such as occupational and rehabilitation therapies, which are not given much importance by health professionals), thus affecting service user outcomes. Therefore, the Saudi Ministry of Health (MoH) (represented in health organisations) has been actively pursuing efforts to improve the quality of mental health care services in KSA. Numerous initiatives have been launched to improve QoC, mainly by establishing health plans and policies. However, to the author's best knowledge, no other studies have been conducted to date on the quality of mental health care in the above-mentioned context. Thus, the present research topic is centred upon QoC, with a view to providing evidence.

A primary policy applied as part of the KSA's Ninth Development Plan (1431-1440 H) for its health services addresses the need to adopt new approaches to improving QoC in health care and to apply these across all health care facilities. This will ensure that adequate levels of efficiency and quality are achieved and maintained (Aljuaid et al., 2016, MoH, 2017). Through the current strategic plan, the MoH aims to design a system for health care services, which will be fully tailored towards the service user. In other words, it will be designed as a user-centred health care system, aimed at meeting the needs of service users (MoH, 2017). This view incorporates all aspects of professionally administered health care, from PHC to specialised therapeutic services, while upholding and safeguarding the rights of service users. It includes users' rights to high quality health care, appropriate disclosure and appropriate treatment, the right to choose one's own physician, and the right to be treated with care and respect at all times. These aspects have not received much attention over the years, but they are now amongst the main objectives in Saudi Arabia's strategy (MoH, 2017).

In KSA, the MoH is the main source of mental health care provision for the Saudi population. Under its umbrella, the General Department for Mental and Social Health (GDMSH) plans, implements, coordinates, evaluates and screens mental health services, while also implementing the core themes defined by the World Health Organisation

(WHO) in the development of mental health care (Qureshi et al., 2013). Due to considerable increase in public demand for such services in KSA, the inability of current mental health care provision to respond effectively to the needs of service users, and the need to unify operating mechanisms across all mental health hospitals in the country, GDMSH has produced the *Policies and Procedures Manual for Mental Health Hospitals* (available in Arabic only). This Manual contains policies and procedures for all disciplines, including social, medical, nursing and other services, in order to ensure the delivery of high quality care to service users with mental disorders, as well as preserving their rights and dignity. For example, GDMSH has developed policies and guidelines for nursing departments; outlining the skills, knowledge and outcomes associated with mental health nursing practice. Nevertheless, there is a lack of standards for professional nursing practice in KSA (Tumulty, 2001). These GDMSH guidelines provide the minimum expected level of professional performance, through the application of holistic care to meet service users' physical, spiritual, psychological and social needs. They detail the process of delivering nursing skills along a continuum, commencing with access to services; the promotion of individual health and well-being amongst the individuals concerned and their visitors (for example, families and friends); a commitment to education and professional development, and ethical practice, with the integration of professional identity.

Despite the increasing emphasis on quality in mental health care, little is known about service user outcomes in Saudi mental health hospitals. Moreover, few attempts have been made to evaluate care quality. In light of this and due to the need to improve outcomes for users of mental health services, the findings of this study may be of interest to policy makers, health care providers, and the users whom they serve.

Although some evidence exists for the application of Donabedian's Framework to guide quality improvement efforts, there is a lack of literature questioning the factors associated with the quality of mental health care and their relationship to service user outcomes. Furthermore, there is limited knowledge about the perceptions of mentally ill service users regarding the QoC that they have received in Saudi mental health settings, given that there has been little research into these issues. Taking these two points into account, it was anticipated that investigating factors associated with the quality of mental health care using Donabedian's Framework (1966) (the structure, process, outcome approach) and exploring service users' perceptions of the quality of their care, would be useful in improving the quality of mental health care in KSA.

The remainder of this chapter is in two sections. The first presents a brief description of KSA's geographical location and size, followed by an overview of its national general and mental health care system. The second section then gives an overview of the significance of this study and selected service user outcomes, followed by a description of the conceptual framework used to guide it.

1.3 Saudi Arabia

KSA is located in the Middle East, bordered by Jordan, Iraq and Kuwait to the north, and the Arabian Gulf to the east. To the south lies the Indian Ocean and to the west, the Red Sea. The surface area of KSA is approximately 2.15 million square kilometres (km=1.33595 square miles), characterised as excessively dry desert and various types of highland (WHO, 2006). As of 2014, the population of Saudi Arabia is estimated at around 30,770,375, of which Saudi citizens represent 67.28%, while expatriates from various nations make up the rest (MoH, 2014). Arabic is KSA's official language and Islam is the official religion.

1.4 Health Care Services in Saudi Arabia

1.4.1 General Health Services

Health services in KSA are provided by its MoH, in collaboration with other state sector entities, such as referral hospitals (King Faisal Specialist Hospital and Research Centre); medical services for security and army forces; National Guard health affairs; teaching hospitals; ARAMCO hospitals; Royal Commission for Jubail and Yanbu health services; the Red Crescent Society, and private service providers. The MoH directly provides health services to the majority of the Saudi population (MoH, 2016a) and its budget represents approximately 7.0% of total governmental expenditure (MoH, 2014). In concrete terms, the MoH operates 270 general hospitals (40,300 beds) and 2,281 PHCs, while other government sectors offer 12,032 beds, and private sector health facilities consist of approximately 141 hospitals (15,664 beds) (MoH, 2014).

The MoH provides health services at three levels, including PHCs supported by secondary and tertiary referral hospitals (Almalki et al., 2011). PHCs deliver preventive health programmes and first-level curative care; starting at village level, where primary health care is administered by individual physicians in cooperation with laboratory, dental and radiology facilities. Service users who cannot be offered appropriate treatment at PHC level are referred to public hospitals (the secondary level of care) for

further diagnosis and treatment. Finally, tertiary hospitals provide specialised care for more complex cases (i.e. tertiary-level care). These often serve as teaching hospitals.

1.4.2 Mental Health Services

Mental health is currently one of the main health problems of concern to the Saudi government and in the 1980s, the MoH established a network of mental health care services in small hospitals across the country (WHO, 2006). The GDMSH was established at the Saudi MoH in Riyadh in 1983; it aims to promote high quality mental and social health services for people diagnosed with mental disorders or substance misuse (MoH, 2016b). To meet this aim, the GDMSH adopted the First National Strategic Plan for improving and developing psychiatric services in KSA. This Plan is focused on the development of both modern infrastructure and competent staff, as well as improving the quality and quantity of mental health services available in the nation (Al-Habeeb and Qureshi, 2010).

In 1989, a national mental health programme was developed in Saudi Arabia, making essential mental health services available in PHCs (WHO, 2006). One of the main activities was to provide in-service training for the enhancement of primary health care physicians' skills in diagnosing and managing mental disorders, so that they could also serve as a source of referral for complex cases (Atlas, 2011). Mental health legislation in KSA is well established (Atlas, 2011), and the relationship between health care providers and mentally ill service users is legally regulated. The Constitution of Saudi Arabia declares Sharia (Islamic law) as the national law. In practice, health laws and regulations align with both Sharia and international standards. As a result, the Saudi MoH has a documented Mental Health Act (MHA), most recently revised in 2014 (GDMSH, 2014). Moreover, mental health services in KSA are organised on a regional basis; each region with its own mental health hospital, providing essential outpatient, inpatient and emergency care services.

In 2014, approximately 508,703 mental health service users consulted psychiatric clinics and over 22,064 service users received inpatient mental health care (MoH, 2016b). In Saudi Arabia, there are 21 psychiatric hospitals in the public sector, distributed widely across the country. These account for 3328 beds, including 92 outpatient psychiatric clinics in various specialist and general hospitals (MoH, 2016b), as well as three-day treatment facilities providing psychiatric services to those suffering from psychiatric comorbid disorders (Atlas, 2011). A psychiatric hospital in the

Western Region of KSA. This has a capacity of around 670 beds. Meanwhile, there are 14 other psychiatric hospitals with 30-120 beds each, and 61 psychiatric departments and clinics connected with general hospitals. Aside from this, there are three hospitals – in Riyadh, Jeddah and Dammam - providing integrated inpatient and outpatient services to service users with substance misuse disorders, each with a capacity of 280 beds. Additionally, there are military, National Guard and university hospitals, with a total of 165 psychiatric beds. Finally, private general hospitals contribute 146 beds for psychiatric care (WHO/Wonca Joint Report, 2008). However, rehabilitation services are mainly concentrated in the private mental health sector, while criminals with concomitant mental disorders are treated in secure units within inpatient psychiatric facilities, and paediatric psychiatric services are mainly delivered in outpatient clinics (WHO/Wonca Joint Report, 2008).

With regard to staffing the above-mentioned institutions, the most recent data (MoH, 2016b) indicate that Saudi mental health institutions deploy 718 psychiatrists, of whom 237 (33%) are Saudi nationals. The total number of nurses in the mental health sector is 3346, of whom 2675 (79.9%) are Saudis. Meanwhile, out of the 424 psychologists working in this sector, 333 are Saudis (78.5%). To complement these services, 909 social workers are employed across KSA, 899 of these being Saudi (98.9%).

Overall, the continued attention and support of the Saudi MoH has driven significant improvement in mental health service delivery over recent years, but the mental health system still faces many challenges (Qureshi et al., 2013). These include the development of community mental health facilities across the entire nation (such as outpatient and inpatient services, plus residential units); the integration of mental health services into PHC settings; mental health training for professionals in all disciplines; the encouragement of research into mental health care services across the country, with the allocation of a research budget, and improvement to the overall quality of mental health care services and service user outcomes.

1.5 Significance of the Study

On a global scale, QoC and the improvement of service user outcomes has received considerable attention in recent years. To gain some insight into the QoC provided for service users, an individual can take measurements using indicators (Lora, 2013). In the mental health care context, indicators are measures that summarise data relating to mental health care services and the relevant population. They can be used to evaluate

service user outcomes (WHO, 2005). There is even evidence to suggest that in order to evaluate QoC, indicators (factors) must be identified according to evidence-based practice, which can in turn be used to achieve improvements in service user outcomes (Mainz, 2003). Quality indicators have multiple applications, rendering it possible to document QoC; make longitudinal comparisons between mental health hospital services; set priorities, and support accountability, regulation, accreditation and improvements to care quality for service users (Mainz, 2003, Mainz, 2003).

As such, the most efficacious approach to evaluating QoC involves investigating the characteristics of the setting where care is being provided (structure); the attributes of the process through which care is delivered (process), and the effects of care on the health and well-being of the individual service user (outcome) (Donabedian, 1988b). However, there is limited evidence of the effect of such services on service user outcomes in mental health settings, using the structure, process and outcome triad. A better understanding of the structure, process and outcome domains of service could thus help identify any necessary changes and improvements within the mental health field (Brown, 2005). In addition, service users' perceptions of QoC are considered to be an important element of service quality improvement at hospitals, which could also impact service user outcomes (Danielsen et al., 2007, Abrahamsen Grøndahl et al., 2013). This study is therefore pioneering in its attempt to give service users with mental disorders a voice regarding the quality of their care in KSA. Hence, it may provide a basis for the development of strategies for improving the QoC delivered in mental health settings, subsequently enhancing outcomes for every service user.

1.6 Service User Outcomes

Evaluating QoC has become increasingly important for achieving better service user outcomes. In this regard, multiple outcome indicators can be utilised to evaluate QoC. Mainz (2003) states that it is necessary to select outcomes supported by evidence, in order to obtain quantitative data on QoC aimed at optimal health care. Furthermore, Lehman (1995) proposes that the specified outcomes should reflect the respective institution's mission and the outcomes anticipated to predict change. Service user quality outcomes were consequently applied in the present study. These were operationalised into five categories, in accordance with Lohr (1988) - described as the 'five Ds' or '5Ds', namely death, disability, disease, discomfort and dissatisfaction. Outcome measures, other than those used in this study, were also found in the literature, where they had been applied to evaluate the quality of health care systems in terms of

their desired outcomes. These included the Health-related Quality of Life Conceptual Model (Wilson and Cleary, 1995) and the Quality Health Outcomes Model (Mitchell et al., 1998). However, the 5D categories of outcome were applied for several reasons. Firstly, these measures are relevant to the service user in terms of constructing comprehensive health indexes (including clinical and biological endpoints, and health status and functional outcomes), regarded as crucial to conceptualising and measuring the effects of care on an individual's health and well-being (Donabedian, 1988b). Secondly, these measures are cited as standard in numerous studies; enabling a range of outcomes to be captured, which an individual might consider in any attempt to evaluate and/or investigate QoC in a specific domain (Attree, 1993, Mitchell et al., 1998, Mainz, 2003). Finally, the 5Ds are regarded as an international framework, where each health care system chooses the variant of measures that can be assessed at the level of the individual, in order to capture the 5Ds.

With this in mind, the 5Ds Framework was adopted for the current study, as it was deemed to be applicable (i.e. these five categories are useful for identifying and investigating relationships between the three dimensions of QoC, which address the current research questions). The following sections describe each outcome in more detail.

1.6.1 Death

Death or mortality rates have always been acknowledged as crucial outcome measures in the health care context, ever since Florence Nightingale (1858) first used mortality rate as a health outcome measure (Marek, 1997). Lohr (1988) considered that death, particularly when unexpected or untimely (or avoidable), is an indicator that QoC may have been compromised. Moreover, Donabedian (1966) cited death as an outcome that is unmistakeable and easy to measure, compared to other outcomes, such as attitude and satisfaction. Therefore, although there are limitations to the use of mortality for this purpose, particularly in intensive care settings, it remains a general yardstick for QoC (Bostick et al., 2003). For example, mortality rate represents a relatively rare event, which in turn restricts its use in reviewing care under certain diagnoses. Furthermore, mortality rates are considered to be a proxy outcome measure, because they are dependent on data obtained directly from service users' hospital records, rather than being estimated from individual service user or self-reported measures (Lohr, 1988). Donabedian (1969) argues that hospital databases are essential tools in obtaining data

for service user management and they are legitimate for assessing the quality of recording.

1.6.2 Disability

Another outcome domain for evaluating QoC is the assessment of disability (Gaebel et al., 2012). Mental disorders are the leading causes of disability among psychiatric service users worldwide, accounting for 37% of all healthy years of life lost along the disease pathway (Wang et al., 2007). Poor social functioning is considered as one of the defining characteristics of mentally ill service users, particularly those diagnosed with schizophrenia. This is then exacerbated by disease relapse (Couture et al., 2006, Addington et al., 2008). It has been argued that minimising disability among psychiatric service users has produced positive QoC outcomes, in terms of improved health status and social functioning (Lohr, 1988).

1.6.3 Disease

Disease symptoms have been classified as one of the most commonly accessed domains for assessing service user outcomes (Sederer et al., 1996, Montgomery et al., 2009). A comprehensive literature review by Gerolamo (2004) on 47 studies of adult psychiatric service user outcomes concluded that measuring changes in the severity of psychopathology symptoms was a valid measure of QoC. Similarly, it has been argued that the severity of illness amongst service users with chronic diseases, who seek acute care in emergency departments or who are hospitalised, can be used as an indicator of QoC (Lohr, 1988).

1.6.4 Discomfort

Reducing discomfort is an important outcome measure that falls into the domain of functional measurements (Lohr, 1988). Research has demonstrated the importance of atypical antipsychotic medication in the reduction of psychiatric symptoms (Swanson et al., 2004), prolonging the duration of successful treatment and lowering the rate of hospitalisation amongst mental health service users (Swanson et al., 2004, Lieberman et al., 2005). Conversely, antipsychotic medication can also yield a range of side-effects that may impact negatively on service users' quality of life (QoL) (Keks, 1996, Ritsner et al., 2002, Hofer et al., 2004). Interestingly, it has been argued by Morrison et al. (2000) that the effective management of the side-effects of antipsychotic medication could serve as an important indicator of QoC and proper case management.

1.6.5 Dissatisfaction

Service user satisfaction with care as an outcome domain has begun to receive closer attention in the literature (Donabedian, 1980, Donabedian, 1988a, Lohr, 1988, Davies and Ware, 1988, Ruggeri et al., 1994, Hogston, 1995, Qatari and Haran, 1999, Sawyer et al., 2002, Tasso et al., 2002, Lageson, 2004, Yakimo et al., 2004). Research indicates that evaluating service user satisfaction as an indicator of QoC depends primarily on how QoC itself is perceived (Tasso et al., 2002). Thompson and Sunol (1995) acknowledge that the evaluation of quality improvement programmes should not simply be based on staff opinions, stressing that no improvement in QoC can take place, unless service users' opinions are also voiced. In addition, other authors have emphasised the importance of service users' perceptions of satisfactory health care as a predictor of the service quality (QoS) delivered (Lang et al., 2005, Kuosmanen et al., 2006, Brown, 2007). Mullen (2000) similarly points out that "Service user satisfaction data is becoming… an indicator of service users' perception of quality" (p.12). Furthermore, a number of authors have identified a positive relationship between the service users' satisfaction and the quality of health care provided (Loan et al., 2003, Mrayyan, 2006, Awara and Fasey, 2008). For example, Awara and Fasey (2008) conducted a study to assess the QoC received by 103 psychiatric service users, all accessing an outpatient psychiatric service for three consecutive months at the Victoria Centre, North East London Mental Health Trust (NELMHT). For the above study, the Psychiatric Care Satisfaction Questionnaire (PCSQ) was implemented, whereby the authors found that 85% of the participants were satisfied with the quality of health care services received. Another study, conducted by Mrayyan (2006) and investigating the relationship between the service user satisfaction and the quality of nursing care found a statistically significant correlation between the total score for each of these factors. This finding supports a previous study by Loan et al. (2003), who found that service user satisfaction was an important indicator of nursing care quality, as it can be a key source of information on whether or not the needs of service users are being met.

1.7 Conceptual Framework

As already specified, this current study is informed by Donabedian's Framework (1966), which has been widely deployed to assess QoC. The Framework hypothesises that quality is a function in three domains: structure, process and outcome. This Framework thereby permits a multidimensional assessment of quality, because some indicators (factors) may be more applicable to particular aspects of QoC than others.

Multiple dimensions can also pinpoint weak areas and reasons for poor quality, thus leading to appropriate changes in structure and process, while concomitant agreement across a wide range of indicators can enhance confidence in judgments about quality (Donabedian, 1992, Yakimo et al., 2004).

Donabedian's Framework is considered to be the best established model for assessing quality of health care delivery in general, and specialist health and social care services in particular (Grabowski et al., 2010). It is recognised as an effective tool for explaining the impact of care structure and processes on service user outcomes (Sawyer et al., 2002). The three dimensions of Donabedian's Health Model can therefore generate evidence, from which inferences can be drawn regarding predictors of quality in mental health care (Yakimo et al., 2004). In the literature reviewed (Lee et al., 1999), structural domains, such as staff characteristics, may be categorised as basic components of QoC, as they facilitate the provision of health care services. However, they are only deemed as important to changes in clinical outcomes, where these change are due to the way in which care is provided for service users. To clarify this further, given the expected health care provider characteristics, such as high-level qualifications, good provision of care should follow. Therefore, the link between the care process and QoC remains important for facilitating improvement in service users' clinical outcomes.

Donabedian (1992) argues that a three-part approach to quality measurement is possible, because there is a strong relationship between the three dimensions. The structural characteristics of the settings in which care is provided have been hypothesised to influence care processes, which in turn influence care outcomes. In other words, each of these dimensions of health care quality is a necessary condition of the one that follows (Mitchell et al., 1998, Hall and Doran, 2007). Kunkel et al. (2007) examined whether the above-mentioned components of QoC (i.e. structure, process and outcome) relate to each other when describing and evaluating quality systems. The above authors found that structure correlates strongly with process and outcome, while structure and process are also correlated with outcome. The potential benefits of combining the three-part approach to quality improvement have also been illustrated by Kobayashi et al. (2011) in another study conducted to evaluate service users' experiences of nursing care quality, using Donabedian's structure-process-outcome approach. Kobayashi et al. (2011) concluded that Donabedian's method enabled them to classify and confirm service users' experiences of nursing care. Therefore the Framework can be applied to enhance QoC.

To be more precise, Donabedian's Framework is used to investigate the relationship between the present study variables. The variables of the structure to be incorporated into the study's conceptual framework include the characteristics of staff, service users and hospitals. Data collection in the area of care processes included staff attitudes, staff competency and staff-service user interaction. Meanwhile, the outcome variables of interest comprised the five Ds (Lohr, 1988). Figure 1.1, below, presents the study variables and their classification into structure, process and outcome, guided by Donabedian's QoC Framework.

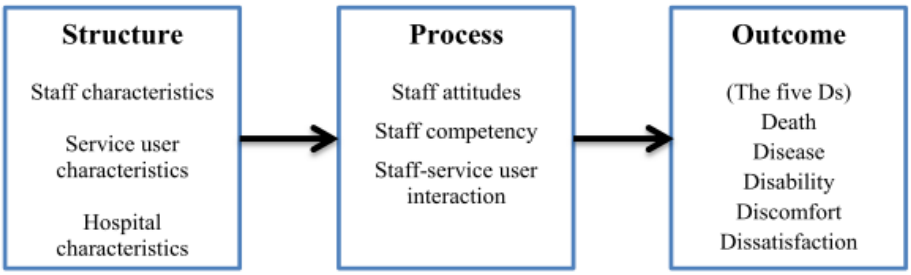


Figure 1.1: Framework for investigating factors associated with the quality of mental health care (adapted from Donabedian, 1966)

1.8 Structure of the Thesis

This thesis investigates the factors related to the quality of mental health care in the improvement of service user outcomes in Saudi Arabia. This chapter therefore gives an overview of QoC and serves to place the study in its context by describing general and mental health care services in KSA, while at the same time explaining the significance of the study and its guiding conceptual framework.

Chapter Two follows by reviewing the existing research literature on QoC, with specific reference to the mental health sector. It concludes by identifying gaps in the available evidence and presenting a rationale for conducting the study. The study objectives are consequently formulated and listed here, together with the research questions underpinning the thesis.

Chapter Three then reports on the methods used to answer the research questions outlined at the end of Chapter Two. It gives a description and justification for the study design and underpinning methodology. Finally, ethical considerations associated with the study are examined.

The results of this study are subsequently presented in Chapters Four and Five. Chapter Four presents the results of the study's quantitative strand (surveys and observations), beginning by describing the participants (health care professionals and service users) and recruitment for the survey, as well as giving an overview of the participants' characteristics, with the results of each research question being reported separately. Meanwhile, Chapter Five presents the emergent themes and sub-themes arising from the qualitative data, which explore the participants' experience of mental health care quality in KSA.

Finally, Chapter Six discusses both the quantitative and qualitative results in relation to the available literature and interprets them according to the adopted conceptual framework (Donabedian's QoC Framework). The Chapter concludes by reviewing the study's strengths and limitations; highlighting some of the implications for practice and future research.

1.9 Summary

Providing QoC to enhance service user outcomes is a matter of great significance throughout all health care systems worldwide and this has particular urgency in the case of developing countries, such as KSA. Donabedian's QoC Model provides the conceptual framework for this study, whereby the structure variables include staff, service user and hospital characteristics; the process variables include staff attitudes, staff competency and staff-service user interaction, and the outcomes comprise the so-called 'five Ds'. Chapter Two will now present a review of pertinent mental health literature, concentrating on applications of Donabedian's Framework and previous study methodologies.

2 Literature Review: Quality of Care

2.1 Introduction

This chapter presents a detailed review of the existing literature, using a systematic approach to research studies published on the topic of QoC in mental health care systems. Since QoC is a broad multidimensional concept, this review specifically (although not exclusively) explores research studies that have addressed quality in mental health care, using Donabedian's Framework. As explained in the previous chapter, Donabedian distinguished three dimensions of quality: structure, process and outcome. Each of these impacts the others, leading to improved QoC.

The above three dimensions provide a broad quantitative basis for researchers, organisations and health care planners aiming to make improvements to the care of service users. However, Donabedian did not specify how to measure quality in terms of structure, process and outcomes, but rather detailed appropriate measures for a valid relationship between them, based on validated data for quality improvement (Donabedian, 1988b). It could be argued that because this is not limited to a specific dimensional framework, it may be used in any research design template. Thus, this Framework is universally accepted and is widely adopted in the literature, particularly in the development of quality standards (Rais, 2013). It is applied extensively in assessing the quality of health care delivery: both in the general medical context and in more specialist health, such as mental health, health maintenance organisations and social care services (for example, nursing homes) (Grabowski et al., 2010).

In a general medical context, where it is considered to be a qualifying tool for assessing QoC, Donabedian's Framework has helped health care facilities to improve health care quality in terms of satisfying service users and improving their performance (Rais, 2013). It is therefore worth giving an overview of the general literature on the adoption of Donabedian's Framework to evaluate QoC. A search through existing studies related to more general medical research and using Donabedian's Framework as a basic tool for guiding quality enhancement efforts yielded a limited amount of material. A total of seven studies (Qatari and Haran, 1999, Chang et al., 2002, Tasso et al., 2002, Lageson, 2004, Sochalsk, 2004, Hearld et al., 2008, Pallis et al., 2009) were found, reporting the concepts of structure, process and outcome as evidence of QoC applied to general health care facilities (for example, surgical and medical units and PHCs). Table 2.1, below, presents a summarised description of general medical studies that have been identified

as applying Donabedian's Framework. The next section examines what these studies show thematically, before reviewing the specific mental health literature of interest.

Table 2.1: Identified general medical studies applying Donabedian's Framework

<table>
<tr><td colspan="2">Qatari and Haran (1999), KSA
Service users (heads of households) (n=789), representing 838 families chosen randomly from a housing list of 25 working PHCs</td></tr>
<tr><td>Purpose
To examine the relationship between service users' satisfaction, PHCs and services.</td><td>Design/Methods
Quantitative: questionnaire survey using a 5-point Likert-type scale ranging from 'Very satisfied' to 'Very dissatisfied'.</td></tr>
<tr><td colspan="2">Main Findings
A significant decrease in rates of service users' satisfaction with the structure of the waiting area (57.7%), confidentiality measures (62.4%), and environmental structure (63.8%) of PHC centres; significant association between the respondents' educational status and four out of six quality components of PHC services, including time spent with physicians (p <.001), the structure of the environment (p <.001), the structure of the waiting area (p <.001), and explanations of multiple activities. However, no relationship was found between service users' characteristics (including age, gender, area of residence or literacy status), and satisfaction with the attitudes of staff.</td></tr>
<tr><td colspan="2">Chang et al. (2002), US
Expert nurse peer reviewers (n=10)</td></tr>
<tr><td>Purpose
To examine the relationship between the quality of nursing practice and hospital characteristics, in terms of hospital size (number of beds), type and location.</td><td>Design/Methods
Quantitative: data collected from hospital medical records for service users admitted to acute hospitals with heart failure (n=291) and cerebrovascular disease (n=283), using specific RN-Structured Implicit Review Scales.</td></tr>
<tr><td colspan="2">Main Findings
Significant results: hospitals with ≤ 100 beds delivered low overall quality of nursing care to service users with heart failure (compared to service users admitted to larger hospitals ≥ 400 beds (p < .01 for univariate analysis; p < .001 for multivariate analysis). A rural hospital location was negatively correlated with the overall QoC provided (compared to urban hospitals).</td></tr>
<tr><td colspan="2">Tasso et al. (2002), US
Observations of staff-service user interaction (n=133) and interviews (n-=49)</td></tr>
<tr><td>Purpose
To assess service users' perceptions of the QoC provided to them.</td><td>Design/Methods
Service user interviews and participant-observations between service users, family members and medical staff in a large teaching hospital.</td></tr>
</table>

Main Findings

Observation data were categorised into technical care, interpersonal care and amenities of care. Technical interactions (92.5%, or n=123) were the most common, followed by interpersonal interactions (5%, or n=7) and interactions related to amenities of care (2%, or n=3).

89% of the participants interviewed (n=40) were satisfied with the medication and QoC received.

Lageson (2004), US

Nurse managers (n=53), RNs (n =221) and others: including licensed practical nurses and nursing assistants (n=146), and physicians (n=8), all recruited from 23 hospitals

Purpose	**Design/Methods**
To examine the relationship between the quality focus of the nurse manager and service user satisfaction.	Quantitative: cross-sectional survey design.

Main Findings

47% response rate.

The nurse manager's focus on quality was not a significant predictor of service user satisfaction in terms of medical outcomes (R^2=0.020, f value=1.038, df=1, 51), physician care (R^2 =0.003, f value=0.152, df=1, 51) or nursing care (R^2 =0.031, f value =1.633, df=1, 51).

Sochalsk (2004), US

Data were derived from a 1999 state-wide survey of 8670 nursing staff working in general hospitals

Purpose	**Design/Methods**
To examine the influence of nurse staffing (service user workload), the nursing care process, including service user safety problems (e.g. medication errors and service user falls) and incomplete care, upon the quality of nursing care.	Quantitative: questionnaire survey of a 50% random sample of licensed RNs.

Main Findings

Significant association between the quality of nursing care and service user workload (r= .317, *p* <0.001), the number of tasks left uncompleted (r= .634, *p* <0.001), and the frequency of service user safety problems (r= .348, *p* <0.001).

Hearld et al. (2008), US

Review of 92 articles

Purpose	**Design/Methods**
To review the literature on the relationship between hospitals' structural characteristics (including size, level and type of staffing and ownership), organisational process (interpersonal interaction) and QoC.	Review and synthesis.

Main Findings

Structure and outcome relationships were mostly driven by hospital level studies (66.7%). Of these, 89% reported a positive association between organisational processes and quality outcomes. The structural variables, including hospital size, level and type of staffing had a positive impact on the

hospital's organisational process (interpersonal interaction).	
Pallis et al. (2007), Greece Service users with inflammatory bowel disease (IBD) (n=95)	
Purpose To assess IBD service users` satisfaction with the QoC received.	**Design/Methods** Quantitative: service user satisfaction with care was measured using a validated instrument (GR-QUOTE-IBD).
Main Findings Reduced scores for service users` satisfaction with the quality of their care, regarding accommodation, accessibility and information. Service users with a higher level of education had significantly higher scores relating to the importance of information. Older service users (> 50 years) considered competence to be of lower importance (p=0.042) and cost as having greater importance (p=0.001). The duration of the disease produced contradictory results between service users suffering from the illness for ≥5 years (compared with those suffering with it for <5 years).	

2.1.1 Application of the Quality of Care (QoC) Framework to General Health Care

2.1.1.1 Service User Characteristics and Satisfaction with QoC

Two studies reported an association between service users' characteristics and satisfaction with the QoC received (Qatari and Haran, 1999, Pallis et al., 2009). In a study carried out to assess Greek service users' satisfaction as an indicator of health care quality, service users' characteristics in terms of age, educational status and duration of the disease predicted significant differences among the study participants (Pallis et al., 2009). For example, older service users (>50 years) considered staff competence to be less important (p=0.042), while cost was considered more significant, compared to the responses of younger service users (p=0.001) (<50 years). Likewise, Qatari and Haran (1999) conducted a study in Qatif in eastern Saudi Arabia to identify socio-demographic characteristics and related factors associated with satisfaction among service users of PHCs. The above authors found a strong association between the educational status of service users (educated or illiterate) and satisfaction with PHC services, specifically in terms of consultation time spent with physicians, the structure of the environment, structure of the waiting area and explanations of various activities. However, the research also showed that there was no association between service users' characteristics, such as age, gender, area of residence and educational status, and satisfaction with the attitudes of various health personnel at PHCs. Taken together, the findings from these studies suggest that individual characteristics with regard to socio-

demographic factors may represent service quality within a structured approach, which can influence service users' satisfaction as a QoC outcome.

2.1.1.2 Hospital Characteristics and Satisfaction with Quality of Care (QoC)

Two studies have reported a relationship between structural variables in terms of the hospital's geographical location and service users' satisfaction as an outcome (Chang et al., 2002, Hearld et al., 2008). In this regard, Chang et al. (2002) evaluated nursing care quality, as judged by 10 expert nurse peer reviewers, in order to discover whether nursing practice varied by type (for example, hospital size) or according to the hospital's location. The findings from the above study reflected that an urban hospital location was positively correlated with the overall QoC provided, compared to rural hospitals. It was also found that the smaller the hospital in terms of the number of beds (≤100 beds), the lower the overall quality of nursing care delivered to service users, compared to hospitals with ≥400 beds. These findings could be due to the greater availability of technology, presence of subspecialties, and availability of expert or well-trained staff in larger hospitals. Therefore, it may be concluded that hospital type and geographical location (urban/rural) can have an impact on QoC.

Correspondingly, a comprehensive literature review of 92 articles was conducted by Hearld et al. (2008) to assess the relationship between hospitals' structural characteristics (including hospital size, level, and type of staffing and ownership), organisational processes (interpersonal interactions), and QoC outcomes (mortality). It was subsequently reported that the majority of the studies were carried out at hospital level and they analysed the relationship between organisational structure and the quality of outcomes. The authors concluded that structural variables, including hospital size, level and type of staffing, had a positive impact on organisational processes (interpersonal interaction), which in turn affected the quality of service user outcomes. This means that structural variables do not directly predict QoC, but rather have an influence through intervening variables, such as interpersonal interactions. Taken together, it may be concluded that variables for health care organisations (for example, hospital size and mix of staff) and process variables (such as interpersonal interaction) play a vital role in predicting service user outcomes.

2.1.1.3 Structure, the Care Process and Their Relationship to QoC

Two studies reported a variety of factors relating to structure and the care processes that influence service user satisfaction with QoC (Qatari and Haran, 1999, Pallis et al.,

2009). Qatari and Haran (1999) examined the relationship between Saudi service users' satisfaction with PHC settings and services (including the structure of the environment, structure of the waiting area, waiting times, communication, explanation and staff-service user interaction, confidentiality measures, attitude, and care outcomes) in the Qatif area of KSA. A total of 789 service users were selected to participate. The authors found a significant decrease in satisfaction with the structure of the waiting areas, confidentiality measures and environmental structure of PHCs. Similarly, a study carried out by Pallis et al. (2009) to assess service users' perceptions of the QoC received by 95 Greek service users found that the latter expressed dissatisfaction with the quality of their care in terms of accommodation, accessibility and information. Taking these two studies together, the results highlight the importance of structural and care process factors in predicting the QoS utilised.

Interestingly, of the studies included in the review, only one quantitative study (Sochalsk, 2004) examined the influence of nurse staffing (service user workload) and the process of nursing care, including service user safety problems (medication errors and service user falls resulting in injuries) and incomplete care, bearing upon the quality of nursing care delivered. Data were derived from a 1999 state-wide survey of 8670 nursing staff at general acute care hospitals in Pennsylvania (US), using a questionnaire with reflective measures of structure, process and outcomes (a four-category outcome response survey, with ratings from poor, fair and good to excellent). The results showed a significant correlation between the quality of nursing care and service user workload ($r= .317$, $p <0.001$), the number of tasks left uncompleted ($r= .634$, $p <0.001$), and the frequency of safety problems encountered by service users ($r= .348$, $p <0.001$).

2.1.1.4 Service User Satisfaction and QoC

A qualitative study focusing on service users' satisfaction (49 participants) with the QoC provided on a medical-surgical unit in a large teaching hospital in Florida (US) involved 133 observations of staff-service user interaction, with a focus on technical care, interpersonal care and amenities of care, and interviews with 49 service users (Tasso et al., 2002). The observation findings were categorised according to Donabedian's QoC model: technical care, interpersonal care and amenities of care. It was found that 89% (n=40) of the servicer users interviewed were satisfied with their medication and QoC. The most frequent staff-service user interaction observed was technical care (such as administering medication) (92.5%, or n=123 observations), followed by interpersonal interaction (such as communication with staff) (5%, or n=7),

and interaction related to amenities of care (such as food services) (2%, or n=3). These results highlight the importance of interviewing service users qualitatively to explore their perceptions and experiences of the care that they have received, rather than asking them merely to rate their satisfaction on Likert-type scales. It could also be concluded from this study that staff-service user interaction, especially (the lack of) communication, needs to be addressed; not only according to the perceptions of service users, but also in terms of any negative effects that they may have on service user outcomes.

2.1.2 Conclusion

A limited number of studies have specifically used Donabedian's Health Care Framework in the general medical field. However, the studies included in this current review of the literature were focused on a limited number of variables, such as service users' age, level of education and disease duration; hospital location, size and staffing; medication errors; service user falls, and incomplete care. However, these variables failed to capture the multiple structural characteristics related to health care providers, service users and processes of care, and the relationship of these to service user outcomes (such as the 5Ds). However, these studies were not assessed for their methodological quality, because they do not represent key literature, specific to mental health.

The following sections are devoted to describing the process implemented in the search for studies related to mental health across a range of databases, followed by a subsequent section presenting the results of the literature review and an assessment of the methodological quality of the studies included. Finally, this chapter concludes by identifying gaps in the available literature that evaluates QoC.

2.2 Aim of the Review

This review was aimed at identifying and evaluating all available studies investigating the factors associated with the quality of mental health care (structure and process) and their relationship to service user outcomes (the 5Ds). In addition, it attempts to determine the quality of research studies that have explored issues surrounding the QoC provided in mental health care settings and to identify any gaps in the literature.

2.3 Search Strategy

Electronic databases, including MEDLINE, PsychINFO, EMBASE, CINAHL, ASSIA, Web of Science and Google Scholar were searched using the key word, 'Mental health'

as a subject heading, in combination with: *quality care*, *quality of health care*, *quality of care*, *quality indicators*, *predictors*, *Donabedian's Framework*, *Donabedian's Model*, *Donabedian's Approach* and *Donabedian's Theory.* A second search strategy used the key words, 'mental health services' as a subject heading, in combination with *quality indicators*, *health care*, *quality predictors*, *service user care*, *health care delivery*, *service user outcomes* and *evaluation.* Table 2.2, below, shows the comprehensive list of terms used to search the MEDLINE, PsychINFO and EMBASE databases. A third strategy involved a manual search of the reference lists of relevant papers and books, in order to identify further studies. Finally, an attempt was also made to identify any unpublished material (papers/studies) reporting on the quality of mental health care in KSA, including those potentially archived by the General Department for Mental and Social Health (GDMSH), and the General Directorate of Research and Studies – Ministry of Health (GDRS-MoH) with no intention to publish. The search was last updated in May 2016. No date restrictions were applied.

Table 2.2: Search strategy

***MEDLINE* search strategy (1st search)**			***MEDLINE* search strategy (2nd search)**		
#	**Searches**	**Results**	**#**	**Searches**	**Results**
1	Mental Health/	17874	1	Mental Health Services/	19560
2	"Quality of Health Care"/	43518	2	Quality Indicators, Health Care/	11802
3	quality care.mp.	4914	3	Patient Care/	6050
4	quality of care.mp.	26549	4	"Delivery of Health Care"/	45237
5	Quality Indicators, Health Care/	11779	5	quality predictors.mp.	23
6	Donabedian's Framework.mp.	17	6	patient outcomes.mp.	16604
7	Donabedian's Model.mp.	17	7	"evaluation".mp.	838430
8	Donabedian's Teory.mp.	1	8	2 or 5	11825
9	Donabedian's Approach.mp.	3	9	3 or 4 or 6 or 7	898918
10	2 and 3 and 4	1338	10	1 and 8	176
11	6 or 7 or 8 or 9	37	11	1 and 9	2566
12	1 or 10 or 11	19243	12	10 and 11	38
13	1 and 5	28	-	-	-
14	12 and 13	28	-	-	-
***PsychINFO* search strategy (1st search)**			***PsychINFO* search strategy (2nd search)**		
#	**Searches**	**Results**	**#**	**Searches**	**Results**
1	exp Mental Health/	50188	1	Mental Health Services/	29588
2	exp "Quality of Care"/	10661	2	Quality Indicators, Health Care.mp.	2
3	quality care.mp.	2148	3	Patient Care.mp.	8105
4	quality of health care.mp.	1311	4	Health Care Delivery/	18472
5	quality indicators.mp.	998	5	quality predictors.mp.	17
6	predictors.mp.	71218	6	patient outcomes.mp.	3196
7	Donabedian's Framework.mp.	6	7	EVALUATION/	17136
8	Donabedian's Approach.mp.	1	8	2 or 5	19
9	Donabedian's Model.mp.	7	9	3 or 4 or 6 or 7	45700
10	Donabedian's Theory.mp.	0	10	1 or 8	29607
11	2 or 3 or 4	12670	11	1 and 9	4065
12	5 and 6	36	12	10 and 11	4065
13	7 or 8 or 9 or 10	13	13	"Quality of Care"/	10673

14	1 and 11	385	14	12 and 13	217
15	12 or 14	420	-	-	-
16	13 or 15	433	-	-	-
17	1 and 16	385	-	-	-
***EMBASE* search strategy (1st search)**			***EMBASE* search strategy (2nd search)**		
#	**Searches**	**Results**	**#**	**Searches**	**Results**
1	mental health/	90252	1	mental health service/	47406
2	health care quality/	204810	2	Quality Indicators, Health Care.mp.	77
3	quality care.mp.	8812	3	patient care/	224277
4	quality of care.mp.	47920	4	health care delivery/	142962
5	quality indicators.mp.	6885	5	quality predictors.mp.	39
6	health care/	100213	6	patient outcome.mp.	16446
7	Donabedian's Framework.mp.	22	7	evaluation.mp.	1476612
8	Donabedian's Approach.mp.	7	8	2 or 5	116
9	Donabedian's Model.mp.	21	9	3 and 4 and 6 and 7	6
10	Donabedian's Theory.mp.	1	10	1 and 8	2
11	2 or 3 or 4 or 5 or 6	326026	11	1 and 9	1
12	7 or 8 or 9 or 10	49	12	10 or 11	3
13	1 and 11	4627	-	-	-
14	1 and 12	2	-	-	-
15	13 or 14	4627	-	-	-
16	predictors.mp.	226101	-	-	-
17	15 and 16	128	-	-	-

2.4 Search Criteria

In order to obtain a comprehensive overview of the literature, all study designs were considered eligible for consideration in the present research, subject to the following criteria:

Inclusion criteria:

- Studies that have addressed the quality of mental health care using Donabedian's QoC Framework.
- Studies that have evaluated and/or investigated the quality of mental health care using any of the following designs:
    - Quantitative studies: gathering empirical information that specifically addresses the concepts of structure, process and outcome in the context of health care delivery.
    - Qualitative studies: eliciting service users' perceptions or experiences of the QoC received, or complementing quantitative studies (explaining findings).
    - Mixed methods studies: including multiple methods of data collection (i.e. surveys, interviews and observation).

- Review papers: locating, appraising and summarising evidence from existing literature that is pertinent to a specific research question addressing mental health care needs for future studies.

Exclusion criteria:

- Studies that do not use Donabedian's QoC Framework.
- Studies not written in English or Arabic.

2.5 Results of the Literature Review

The search yielded 1,143 articles on mental health, of which 897 were excluded following a review of their titles, or if found to be duplicated from other databases (n=63). This search identified 183 potentially relevant papers. Abstracts were then reviewed and further studies excluded (n=175), due to the inclusion criteria not being met (n=172), or if published in a language other than English or Arabic (n=3). The full texts of eight studies were reviewed in depth using the inclusion and exclusion criteria, after which one more study was excluded, because it solely targeted quality assurance in mental health rather than QoC (n=1). Consequently, seven studies met the inclusion criteria. Figure 2.1 presents the flow diagram of the search strategy and shows the reasons for excluding studies at each stage of the selection process.

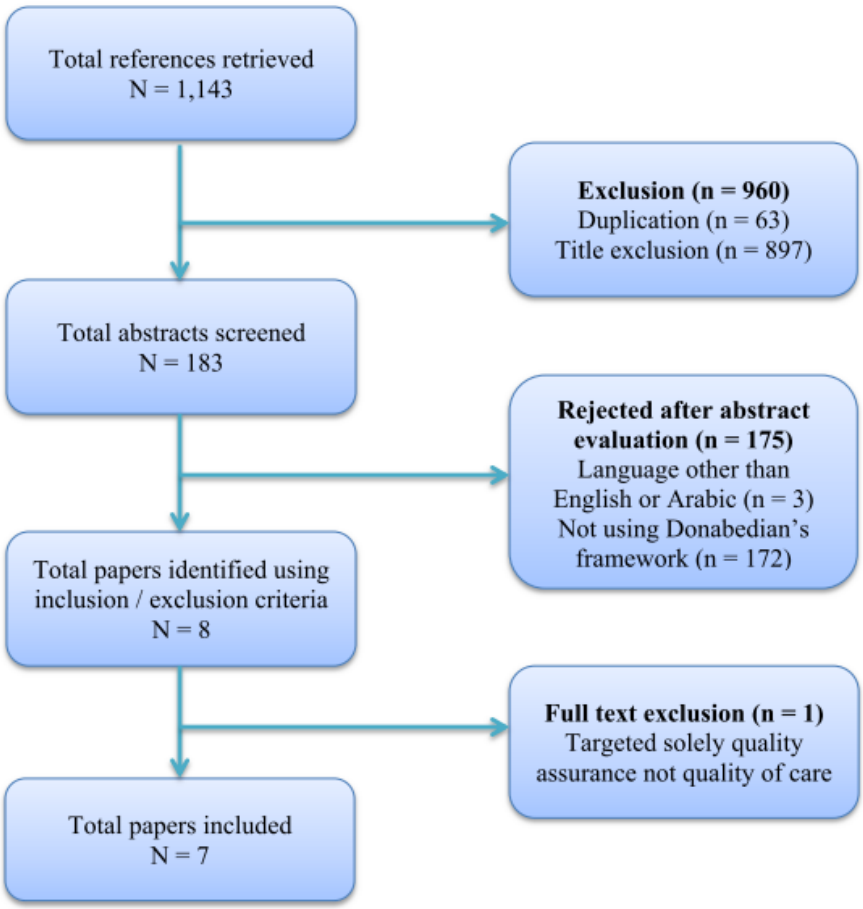


Figure 2.1: Search flow diagram

2.6 Description of Included Studies

2.6.1 Description of Study Design

The included studies were published between 2003 and 2010 and were all presented in English. Four of these studies were from the US (Brown, 2005, Swanson et al., 2007, Hong et al., 2008, Grabowski et al., 2010), while one was from the UK (Reilly et al., 2006), one from the Netherlands (Ravelli et al., 2003) and one from Sweden (Schroder and Ahlstrom, 2004). Of the seven studies included and reviewed, four reported using a questionnaire survey approach. However, the level of detail provided in the description of the survey technique varied between the studies (Ravelli et al., 2003, Reilly et al., 2006, Swanson et al., 2007, Hong et al., 2008). Here, one study utilised a qualitative design, using semi-structured interviews (Schroder and Ahlstrom, 2004), while two were review papers (Brown, 2005, Grabowski et al., 2010).

2.6.2 Description of the Study Participants

In the studies reviewed in this section, two (Swanson et al., 2007, Hong et al., 2008) included sample sizes of between 110 and 1,317 participants, diagnosed according to

the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). One study included participants from 31 Dutch mental health care organisations (MHOs), providing care for psychiatric service users (Ravelli et al., 2003). Another study included participants from 287 long-term care homes for individuals diagnosed with dementia (known familiarly as *EMI homes*) (Reilly et al., 2006); while one qualitative study explored 20 participants' perceptions of QoC in relation to psychiatric care (Schroder and Ahlstrom, 2004). However, three of the studies overlooked gender (Schroder and Ahlstrom, 2004, Swanson et al., 2007, Hong et al., 2008). The mean age of the participants in two of the studies ranged from 44.9 to 76.9 years of age (Swanson et al., 2007, Hong et al., 2008), but one study did not state the mean age of the sample (Schroder and Ahlstrom, 2004). Moreover, two of the studies failed to state either the gender or the age of the participants, since these variables were unimportant to the study aims (Ravelli et al., 2003, Reilly et al., 2006).

2.6.3 Description of the Study Outcome Measures

Survey questionnaires were used as the data collection method in all the quantitative studies included. One study (Swanson et al., 2007) used an outcome measure that measured service users' satisfaction with general and mental health care at baseline and six months. The above study measured a wide range of outcomes, including satisfaction, mental health care received for depression, shared decision-making, social support, health status, depression symptomatology and alcohol usage. Meanwhile, one study used outcome measures that included medical service fit and medical provider contact. The medical service fit was calculated as the proportion of indicators of care documented in the service user's record to the total number of recommended indicators of care, ranging from 0 to 100. Medical provider contact was calculated as the percentage of medical conditions for which the participant saw a medical service provider (Hong et al., 2008).

Aside from the above, one study used an outcome measure that focused solely on the quality of the process of schizophrenia care, using a survey questionnaire consisting of six subscales of questions based on the six Tugwell items for evaluating health care (Ravelli et al., 2003). Another study then used an outcome measure to describe care home residents and services, using four questions to ascertain: whether or not their care home defined itself as an EMI home; the percentage of residents with dementia (over or under 20%); whether beds were designated for dementia sufferers, and whether the home used publicity material to advertise residential care for dementia sufferers (Reilly

et al., 2006). Table 2.3, below, presents a summary of the characteristics of the quantitative studies included.

Table 2.3: Characteristics of the quantitative studies included

<table>
<tr><td colspan="2">Swanson et al. (2007), US
Depressed service users (n=1,317)</td></tr>
<tr><td>Design
Survey: exploring the relationship between QoC (mental health care and shared decision-making) and satisfaction; examining whether gender is a moderator of these relationships.</td><td>Data Collection
Questionnaire (service users' health status, satisfaction with and receipt of depression-rated care) via mail or telephone interview.</td></tr>
<tr><td colspan="2">Main Findings
75% response rate.
Mental health care (OR=1.61, $p < .01$) and shared decision-making (OR= 2.93, $p < .001$) were both positively associated with service user satisfaction.
Gender interaction with mental health care (OR=0.95, $p < .89$) and shared decision-making (OR= .92, $p < .72$) was not significant (i.e. not a moderator of this relationship).</td></tr>
<tr><td colspan="2">Ravelli et al. (2003), Netherlands
Leading psychiatrists (n=31) in Dutch mental health care organisations (MHOs)</td></tr>
<tr><td>Design
Survey: focused on the quality of the structure (age of the merged organisation and catchment area size) in a process quality questionnaire (6 subscales and 21 items, based on Tugwell's evaluation criteria).</td><td>Data Collection
Questionnaire via telephone interviews with respondents + analysis of MHO programme documents, the yearly report, production reports and other relevant documents.</td></tr>
<tr><td colspan="2">Main Findings
97% response rate.
No significant correlation between the year since the merger and the total score for process quality (r=0.331, p=0.068 two-tailed). Significant correlation with the year since the merger and the sub-scores for the availability of interventions (r=0.391, p=0.029 two-tailed) and treatment (r=0.380, p=0.035 two-tailed).
No significant correlation between the size of catchment area and total score for process quality (r=0.167, p=0.368 two-tailed) or any of the sub-scores used.</td></tr>
</table>

<table>
<tr><td colspan="2">Hong et al. (2008), US
Depressed older adults with comorbid conditions (n=110)</td></tr>
<tr><td>Design
Survey: focused on factors related to two outcome quality measures (medical service fit and medical provider contact).</td><td>Data Collection
Self-reported data from service users/family proxies (during hospitalisation, at 6 weeks and at 6 months following discharge), and discharge planners + analysis of service users' hospital records.</td></tr>
<tr><td colspan="2">Main Findings
40.5% response rate.
15% of the service users had received all the required medical services. 22% of the service users had received half of the required medical services. 89% of the service users saw a medical care provider for at least half their medical conditions. Medigap insurance was significantly associated with the service fit of the quality measures (b=0.128, p <0.05) and provider contact (b=2.229, p <0.05). Married service users were more likely to visit a health care provider (b=1.968, p <0.05), as were service users on a lower income (b= -0.350, p <0.01). Service users who were rated more highly in their cooperation with treatment providers were less likely to have seen a medical provider (b= -0176, p <0.05). Service users with better cognitive function were more likely to have seen a provider (b=0.005, p <0.01), while service users with poorer functional ability had a higher level of service fit (b= -0.009, p <0.05). The number of medical visits was significantly associated with better service fit (b=0.071, p <0.05), but ER visits were negatively related to service fit (b= -0.097, p <0.05). The adequacy of informal care anticipated by a discharge planner was negatively associated with service fit (b= -0.029, p <0.05).</td></tr>
<tr><td colspan="2">Reilly et al. (2006), UK
287 homes (EMI, n=162 facilities; non-EMI, n=125 facilities)</td></tr>
<tr><td>Design
Survey; evaluation of the nature and QoC in long-term facilities for people with dementia.</td><td>Data Collection
Postal questionnaire involving a description of the home's residents and services.</td></tr>
<tr><td colspan="2">Main Findings
73% response rate.
EMI homes were found to be significantly better in terms of some standards of care (rehabilitation, person-centred care and independence through building design), compared to non-EMI facilities (p=0.05, p=0.01, p=0.001, respectively). Non-EMI homes achieved a significantly higher score than EMI facilities for social factors in a resident's life (p=0.02). Both types of home received mixed (good and poor) results for some standards of care, although both homes delivered a similar service overall.</td></tr>
</table>

2.7 Data Extraction and Quality Assessment of Retrieved Studies

There is no consensus on a gold standard quality assessment tool to evaluate the quality of published studies. Multiple assessment tools have been identified for this purpose in the literature. In this review, the quality of the quantitative studies included was critically assessed using the *Quality Assessment Tool for Quantitative Studies,*

developed by the Effective Public Health Practice Project (EPHPP) (1998). This standardised appraisal tool was designed to assess study quality and develop recommendations for study findings. Its final results yield an overall methodological rating of 'strong', 'moderate' or 'weak' in eight sections: selection bias; study design; confounders; blinding; data collection methods; withdrawals and dropouts; intervention integrity, and analysis.

In addition, the *Consolidated Criteria for Reporting Qualitative Research* (COREQ) tool was used to assess the quality of the qualitative study included (Tong et al., 2007). COREQ is a 32-item checklist focused on three domains: research team and reflexivity (8 items), study design (15 items) and analysis and findings (9 items). A score was given, once the researcher had explicitly addressed the specified items, ranging from 0 (poor quality) to 32 (rigorous).

2.7.1 Data Extraction and Quality Analysis in the Quantitative Studies

The study by Swanson et al. (2007) attempted to explore the relationship between QoC (mental health care and shared decision-making) and satisfaction, as well as examining whether gender is a moderator of these relationships. The study is descriptive in nature, using a questionnaire survey approach to conceptualise satisfaction with care from the point of view of the depressed service user. A total of 1,317 purposively selected service users, at 11 community-based health care organisations from seven States in the US participated in the study, with the authors reporting a response rate of 75%. However, the results of the study may not be generalisable to all depressed service users, due to the specific criteria for the sample, whereby non-English speakers, service users with mental disorders other than depression, and service users who were not reached by the study's sampling frame (i.e. service users not receiving care from the managed care organisation) being excluded. Minimising these exclusion criteria could have yielded different findings.

The above study had two further limitations that needed to be considered when evaluating the results. Firstly, it was reported that since service users who had refused to accept the depression screeners (18% of service users reached) were excluded from the study, there could be bias in the study findings, whereby a positive association between receiving appropriate care and service user satisfaction was found. The second problem inherent in the above study was that even though more minority participants from geographically diverse sites were recruited, the findings may not be generalisable to

those predominantly serving minorities or groups with low socio-economic status, or to rural settings, or even to those with more male service users.

Ravelli et al. (2003) investigated structural quality in terms of the age of the merged organisation and catchment area size, related to a process quality questionnaire based on Tugwell's criteria for health care evaluation. This comprised 6 subscales and 21 items, as mentioned earlier. However, the resulting study contains numerous weaknesses, thus limiting the validity and generalisability of the findings. Firstly, the authors reported that all long-stay care institutions were excluded from the study, which means that the findings can only be generalised to a limited extent and consequently need to be interpreted with this in mind. Secondly, it has also been reported that the conceptual framework used in the above study created a problem, as it was assumed that process quality would have an effect on outcome quality. This assumption is a potential problem, since in practice, the improvement of process quality is insufficient to guarantee or introduce change into outcome quality. A third limitation relates to the subjectivity of the methods applied to the data gathered from the respondents. This is in fact a general limitation common to questionnaire-based research. However, the authors used techniques to reduce bias by deploying experienced researchers and triangulating the data from the questionnaires and document analysis (i.e. they used a variety of sources).

The fourth weakness relates to the absence of service users' perceptions, since all the information gathered from the questionnaires, interviews and documents were collected from the point of view of the health care providers and not from that of the service users or their families. Finally, the main weakness of the above study perhaps relates to the methodological choice of questionnaire scales, based on Tugwell, and the values for the different items in the rating scale. It was reported that the 'case management' subscale item (under the 'availability of intervention' subscale) would not be used, if knowledge of the Cochrane study on this subject was available prior to data collection. The authors deliberately avoided allocating any weight to the various items and subscales, which could have led to unavoidable subjectivity in the findings. However, the choice of questionnaire scales brought with it a high degree of arbitrary weight, relevant to the items or subscales.

Hong et al. (2008) focused on factors related to the outcome quality measures, *medical service fit* and *medical provider contact*. Self-reported data were collected from the

participants and their family proxies during hospitalisation at six weeks and at six months post-discharge. This study reported the research setting and participants very clearly, but methodological issues concerning the setting and sampling were also reported, including the non-representative setting (i.e. one geropsychiatric unit). The sampling strategy adopted also meant that this study had weaknesses limiting the generalisability of its findings to other settings. The sample size was small (n-110), recruited from a single hospital. Moreover, the convenience sampling of the participants inhibited the generalisability of the findings to geropsychiatric services in the US. Additionally, the findings should be interpreted with caution, since the service users' medical records from their service provider, gathered during the data collection, may have missed some potential providers through the snowballing procedure used.

Reilly et al. (2006) focused on evaluating the nature and provision of QoC in long-term facilities for dementia sufferers. One of the most significant limitations of this outcome study, however, was the use of a postal survey approach to collect qualitative data. This is an impractical approach, because it enabled a large number of home care facilities to be surveyed properly, which may have distorted the findings. Another important drawback of this study is that the authors failed to take into account the size of the sample in each facility (EMI, n=162 facilities versus non-EMI, n=125 facilities) when interpreting the findings (investigating whether the distribution of categorical variables differed from one facility to another). Consequently, the size of the comparative facilities differed dramatically, potentially affecting the interpretation of significance in the differences. The findings therefore need to be interpreted with this in mind. The quality assessment of the included quantitative studies is provided in Table 2.4, below.

Table 2.4: Quality assessment of the quantitative studies included based on EPHPP

Items	Swanson et al. (2007)	Ravelli et al. (2003)	Hong et al. (2008)	Reilly et al. (2006)
Selection bias	2	3	3	2
Study design	3	3	3	3
Confounders	3	3	3	3
Blinding	3	3	3	3
Data collection methods	1	1	2	3
Withdrawals and dropouts	N/A	N/A	1	N/A
Intervention integrity	N/A	N/A	N/A	N/A
Analysis	N/A	N/A	N/A	N/A
Overall quality	Weak	Weak	Weak	Weak

Note: 1=strong (no weak rating); 2=moderate (one weak rating); 3=weak (two or more weak ratings); N/A=Not applicable.

2.7.2 Data Extraction and Quality Analysis in the Qualitative Study

One qualitative study was identified within the timeline of this review; Schroder and Ahlstrom (2004) aimed to describe how staff and care associates perceived the concept of QoC in the context of psychiatric care, using a phenomenographic approach to analyse the findings (see Table 2.5). The data were obtained using semi-structured interviews with an interview guide. The participants were selected purposively, based on age, education and years in the profession (experience), in order to ensure variation in the interview responses. However, the authors did not provide detailed information about the recruitment strategy used to recruit the interview participants. The most serious weakness of the above study was that the participants were selected by supervisors in their workplace, which may mean that selection bias could have distorted results. However, despite the fact that the sample size was relatively small (n=20), it still falls within the recommended number of interviews (20-30) for obtaining a reliable sense of thematic exhaustion and variability within the data set (Bryman, 2016). In fact, data saturation was reported after 18-19 interviews.

The above authors clearly described the research setting in terms of general psychiatric care, but the findings require a degree of caution, regarding their external validity to other specialised psychiatric settings, such as forensic psychiatric hospitals. This is because of the contrasting environments, in terms of their cultural and legal aspects. Moreover, although the staff and care associates reported their perceptions of the concept of QoC in psychiatric care, the authors cited issues related to the absence of service user voice in the study. This may mean that the study findings cannot be transferred to mental health service users, as they may have different perspectives of the QoC concept. Additionally, there was no information on the tools used by the researchers to analyse the qualitative data. Implementing the COREQ checklist to assess the methodological quality of the included qualitative study revealed that the study was of relatively moderate quality. Its quality assessment and total quality score is provided in Table 2.6, below.

Table 2.5: Description of the quantitative study included

Schroder and Ahlstrom (2004), Sweden	Staff (n=10) & care associates concerned with psychiatric service users (n=10)
Design Phenomenographic method: focused on how staff and care associates perceive the concept of QoC in psychiatric care.	**Data Collection** Semi-structured interviews
Main Findings Participant themes: (a) the service user's dignity is respected; (b) the service user's participation in the care; (c) the service user's recovery, and (d) the service user's care environment plays an important role. The participants perceived QoC as a positive concept, of great importance for service user health, well-being and living conditions.	

Table 2.6: Quality assessment of the qualitative study included, using COREQ criteria

Items	Response/Location in Text	Score
Domain 1: Research Team and Reflexivity		
Interviewer	Yes, (AS) page 205	1
Credentials	On cover page	1
Occupation	Not in text	0
Gender	Both genders	1
Experience/training	No, not in text	0
Relationship to participants prior to study commencement	Not mentioned in text	0
Participants' knowledge of interviewer	Yes, information provided prior to the interviews, p.205	1
Interviewer characteristics	Descriptions of interviewers, experience of different types of work and approaches in the study, p.210	1

Table 2.6 *(continued)*

Domain 2: Study Design		
Methodological orientation & theory	Yes, a phenomenographic approach, p.205	1
Sampling	Yes, p.205	1
Approach/method	Face-to-face, p.205	1
Sample size	20 in total (10 staff and 10 care associates)	1
Non-participation	One invitation to participate rejected	1
Setting of data collection	In the vicinity of the interviewee's office	1
Presence of non-participants	No, not mentioned in text	0
Description of sample	Age, education and number of years in the profession were reported in Table 1	1
Interview guide	Interview guide and prompts were described in the data collection section. The guide was tested in a pilot interview	1
Repeat interviews	No, not mentioned in text	0
Audio/visual recording	Data were audio=recorded and transcribed verbatim	1
Field notes	No, not mentioned in text	0
Duration	Average 1 hour, 15 minutes	1
Data saturation	Yes, after 18-19 interviews, p.206	1
Transcripts returned	N/A	0
Domain 3: Analysis and Findings		
Number of data coders	Two researchers (AS, GA) and (AE) used to validate the data	1
Description of the coding tree	No	0
Derivation of themes	Derived from the data, p.206	1
Software	No, not mentioned in text	0
Participant checking	N/A	0
Quotations presented	Yes, using interviewee numbers	1
Data and findings consistent	Yes	1
Clarity of major themes	Yes	1
Clarity of minor themes	Yes	1
Overall quality	-	22

Note: <18 (low quality), 18-25 (moderate quality) and >25 (high quality).

2.8 Critique of the Review Findings

2.8.1 Review Papers

Two papers were included under this category (Brown, 2005, Grabowski et al., 2010). Brown (2005) focused on articles published between 1983 and 2003, concentrated on an overview of the empirical literature addressing variation in the psychiatric emergency system (PES), in terms of service arrangement and effectiveness. While the above author used systematic principles to detect studies of interest in his research, all the studies reviewed were retrieved from just one database (MEDLINE), which could have attenuated the opportunity to detect all such PES studies. As a result, the findings and basis for their conclusions may have been limited. Brown (2005) also used Donabedian's Framework to evaluate these PES studies, in order to identify and address any information gaps and contradictions within the existing literature. However, some of the studies reviewed lacked clarity, whether their reported results stemmed from quantitative, qualitative or mixed methods findings. Overall, while Brown (2005) reviewed numerous studies related to PES, he paid little attention to how these had influenced QoC, having only considered the design and measures for identifying outcomes that conform to service user outcomes.

To be more precise, (Brown, 2005) classified studies into three categories: structure, process and outcome studies. Structure studies were subsequently found to be largely focused on aspects of PES structure variables, including service features, health care providers and service users. The findings showed that service variations exist in terms of academic and public, versus private settings, but no research addressed structural aspects of crisis residences or disaster response rate. Neither were there any studies on the use of a separate psychiatric emergency department, as opposed to a medical emergency department for screening mental service users' complaints, aimed at reducing safety risks and improving efficiency. Moreover, other variations existed in the rate of referrals and types of intervention implemented for mental health service users, presented to different emergency departments.

Providers: clinical decisions differed according to years of experience, perceived professional risk and responsibility; inaccurate recognition of symptoms associated with poor medication outcomes, and prolonged hospitalisation.

Service users: older adult service users experienced different issues related to psychiatric service uptake and access, with a unique clinical presentation. For example,

the studies on service users' psychiatric history suggested the potential benefits of early detection and intervention strategies, as well as increased prevalence of substance abuse amongst service users receiving PES. Meanwhile, the process studies were focused on some of the issues surrounding care processes related to PES, such as service utilisation, evaluation, treatment, and continuity of care. The service utilisation findings showed that resistance to treatment, non-compliance with treatment, and seeking emergency services were common amongst persistently ill service users and amongst those who only sought emergency services when accompanied by caregivers. Meanwhile, service users with less severe illness were more likely to seek treatment earlier and less likely to require significant intervention. However, the examination of service users in emergency departments was found to be delayed, and a significant number were discharged from these departments without proper evaluation, referral or treatment, Additionally, mental service users appeared to wait longer for treatment than medical service users, while it was revealed that average contact time with service users had increased by 35.6% from 1995 to 1999 as a result of increased service user acuity and time management.

Evaluation and treatment: service users' socio-demographic factors, such as distance from the hospital influenced treatment decisions, while objective instruments increased diagnostic reliability. However, 91.9% of service users with a primary psychiatric diagnosis were never approached or treated by psychiatrists.

Continuity of care: difficulties in communication and in the coordination of care were noted among outpatient providers, emergency departments, and inpatients. Moreover, the inaccessibility of previous service user records led to inappropriate treatment and referral decisions. Outcome studies were fewer and the area of interest included service user satisfaction, inpatient admission, outpatient referral rates, and the level of improvement in service user symptomatology and daily functioning. The findings showed that the most commonly investigated outcome measures involved a general evaluation of QoS, cost-effectiveness, service user satisfaction, recidivism, emergency department consultation, mobile and outreach services, and day hospitalisation. Nevertheless, no comparisons were drawn with outcomes for different types of PES or PES providers, with no significant conclusions being reached regarding the most effective types of PES.

In contrast, Grabowski et al. (2010) reviewed studies on the quality of mental health care for nursing home residents with mental disorders other than dementia, conducted in the US between 1980 and 2008. They identified 35 studies assessing QoC for nursing home residents with a mental disorder, according to specified eligibility criteria. A focused review of this research literature revealed evidence of its success in detecting unique care needs, unique indicators of quality and unique predictors of this quality, relevant to residents in nursing homes. However, although the outcomes and conclusions of the reviewed studies varied, the above researchers agreed that individuals with mental disorders were repeatedly admitted to nursing homes and their care was often of low quality. Despite the limitations noted by Grabowski et al. (2010), including assessment measures, conventional consultation–liaison services, and the accommodation of individuals with mental illness alongside other chronically disabled nursing home residents (such as those suffering from cognitive impairment disorders), this study expanded on the literature dedicated to significant service user outcome measures, such as of psychiatric symptoms, cognitive performance and social functioning.

The above study (Grabowski et al., 2010) was guided by Donabedian's QoC Framework to support the research design. Grabowski et al. (2010) classified the Framework's components into three mental health quality measures: (a) structure-based quality measures involving mental health providers; (b) process-based quality measures involving pre-admission screening and assessment – the MDS (a federally mandated assessment tool) and other routine assessment tools, psychiatric medication, the use of psychotherapy and mental health consultation, and (c) outcome-based quality measures related to residents' welfare, provider norms and financial incentives.

The studies on structure-based quality measures showed that staff had no training in psychiatric care or treatment: 80% of the residents did not receive visits from their physicians, 58% had unmet needs, two thirds of depressed residents had not received any medication, care was mainly provided by physicians who were not full-time members of the nursing home staff, and nursing training was focused mainly on medical care, rather than on mental and behavioural health care.

The process-based quality studies showed that pre-admission screening and assessment using the Pre-Admission Screening and Annual Resident Review (PASRR) was not appropriate for the pre-admission screening of mental service users. The MDS lacked

adequate reliability and validity to accurately inform and evaluate treatment, but 90% of the psychiatrists found the Geriatric Depression Scale to be a robust instrument. The following were further salient findings from the study:

Psychiatric medication: increased use of antipsychotic medication in nursing homes and inappropriate prescriptions were reported, including a failure to differentiate prescriptions for mental health disorders other than dementia.

Use of psychotherapy: psychotherapeutic intervention was found to reduce depression scores as measured by GDS and BDI scales, while other interventions, such as control-relevant intervention, problem-solving and cognitive behavioural therapy were found to decrease depression symptoms and improve QoL.

Mental health consultations: only 10% of depressed residents received treatment and 20% of nursing home residents received mental health treatment within a one-month period following OBRA 87 implementation.

Outcome-based quality studies: these showed that in terms of welfare, older residents were more likely to undergo psychiatric hospitalisation and there was a strong inverse association between age and treatment, with each year reducing the odds for treatment by 6%. Meanwhile, achievement in higher education was associated with higher odds of receiving antidepressant medication, but black residents were significantly less likely to receive antidepressant medication. Aside from this, the fact of staff spending sufficient time with residents (counselling and caring) was identified as a potential predictor of quality in mental health care, whereby higher nursing staff numbers were associated with decreased use of antipsychotic medication and facilities were 6% less likely to receive a deficiency citation in the context of a 10% increase in registered nurse staffing levels.

Furthermore, residents' provider norms (locality) in an urban area increased the likelihood of receiving mental care fivefold; residents in rural areas were less likely than urban residents to receive medication and psychiatric consultation (12% and 22%, respectively). In terms of financial incentives and facility ownership, no significant difference in psychiatric hospitalisation was found, and no significant difference in specialist mental health services was detected across non-profit and for-profit nursing homes. In fact, nursing homes with a majority of residents on Medicaid revealed increased hospitalisation and a higher rate of consumption of antipsychotic medication. Table 2.7, below, provides a description of the included review papers.

Table 2.7: Description of the included review papers

<table>
<tr><th colspan="2">Grabowski et al. (2010), US</th></tr>
<tr><td>Aim
To review literature on the quality of mental health care for nursing home residents with dementia.</td><td rowspan="2">Main Findings

Structure-based quality measures
Staff had no training in the psychiatric field or in psychiatric medication: 80% of the residents did not receive visits from their general medical practitioner, 58% had unmet needs, two-thirds of depressed residents had not received any medication, care was mainly provided by physicians who were not full-time members of the nursing home staff, and nursing training was mainly focused on medical care, rather than mental and behavioural health care.

Process-based quality measures
Pre-admission screening and assessment: the Pre-Admission Screening and Annual Resident Review (PASRR) was not appropriate for the pre-admission screening of mental health service users.
The MDS and another routine assessment tool: the MDS tool lacked adequate reliability and validity, while 90% of physicians found the Geriatric Depression Scale to be a robust instrument.
Psychiatric medication: increased use of antipsychotic medication in nursing homes and inappropriate prescriptions.
Use of psychotherapy: psychotherapeutic intervention was found to reduce depression scores, as measured by GDS and BDI scales. Meanwhile, other interventions, such as control-relevant intervention, problem-solving and cognitive behavioural therapy appeared to decrease symptoms of depression and improve QoL.
Mental health consultations: only 10% of depressed residents received treatment, while 20% of nursing home residents received mental health medication within one month of OBRA 87 implementation.
Residents' welfare: older residents were more likely to undergo psychiatric hospitalisation, while a strong inverse relationship was found between age and medication, with each year reducing the odds of receiving medication by 6%. Higher educational attainment was correlated with greater odds of receiving antidepressant medication. However, black residents were significantly less likely to receive antidepressant medication.</td></tr>
<tr><td>Focus
Classifying studies into three mental health quality measures: structure-based quality measures involving mental health providers; process-based quality measures involving pre-admission screening and assessment using the MDS (a federally mandated assessment tool), as well as other routine assessment tools, psychiatric medication, psychotherapy, and mental health consultation, and outcome-based quality measures involving residents' welfare, provider norms and financial incentives.</td></tr>
<tr><td colspan="2">Outcome-based quality measures
Staffing: spending enough time with residents (counselling and caring) is a potential predictor of quality mental health care; an increase in the number of nursing staff was associated with decreased use of antipsychotic medication, and facilities were 6% less likely to receive a deficiency citation in the context of a 10% increase in registered nurse staffing levels.
Provider norms: residents living in urban areas were five times more likely to receive mental health care; whereas residents in rural areas were less likely to receive medication or psychiatric consultation (12% and 22%, respectively).
Financial incentives and facility ownership: no significant difference was identified in the rate of psychiatric hospitalisation in relation to facility ownership, with no significant difference being found in specialist mental health service use across non-profit and for-profit nursing homes.
Payer mix: nursing homes with a majority of residents on Medicaid facilities registered increased hospitalisation and a higher rate of antipsychotic medication use.</td></tr>
</table>

Table 2.7 (*continued*)

<table>
<tr><th colspan="2">Brown (2005), US</th></tr>
<tr><td>Aim
To review the literature on psychiatric emergency service systems (PES) between 1983 and 2003.</td><td rowspan="2">Main Findings
Structure studies
Service: service variations exist in relation to academic and public vs. private settings. Meanwhile, no research has addressed the structural aspects of crisis residences or disaster response rate; the use of a separate psychiatric emergency department vs. a medical emergency department for screening mental service users' complaints, in order to decrease safety risks and improve efficiency, or the variations that exist in referral rates and types of intervention for users of mental health services presenting to different emergency departments.
Providers: clinical decisions differ according to the number of years of experience, perceived professional risk and responsibility, as well as inaccurate recognition of symptoms, associated with poor medication outcomes and prolonged hospitalisation.
Service users: older adult service users have different issues related to psychiatric service utilisation and access and a unique clinical presentation. Studies on service users' psychiatric history suggest the potential benefits of early detection and intervention strategies. There is also increased prevalence of substance abuse amongst service users receiving PES.

Process studies
Service utilisation: resistance to and non-compliance with medication, as well as seeking emergency services, are common amongst persistently ill service users; they tend to only seek emergency services when accompanied by caregivers. Service users with less severe illness are more likely to seek treatment earlier and less likely to require a significant intervention. Meanwhile, there are delays in examining service users in emergency departments and a significant number of service users are discharged without proper evaluation, referral or treatment. Mental health service users wait longer for treatment than medical service users. Moreover, increased average contact time with service users increased by 35.6% from 1995 to 1999, due to increased service user acuity and time management.
Evaluation and treatment: socio-demographic factors influence treatment decisions. Furthermore, 91.9% of service users with a primary psychiatric diagnosis were never approached or treated by psychiatrists.
Continuity of care: difficulties in communicating and coordinating care exist among outpatient providers, emergency departments and inpatients. Additionally, the inaccessibility of previous service user records can lead to inappropriate treatment and referral decisions.</td></tr>
<tr><td>Focus
Classifying PES studies into three groups:
<u>structure</u> – including accessibility, quantity and arrangement of services; provider training and speciality mix; service user diagnosis, severity and comorbidity.
<u>Process</u> - including the analysis of emergency service utilisation rates; a comparison of appropriateness and frequency of use of various crisis management techniques, and investigation into provider response time and duration from initiation to termination of service use.
<u>Outcome</u> - including the level of service user satisfaction; in-service user admission and out-service user referral rates, and level of improvement in service user symptomatology and daily functioning.</td></tr>
<tr><td colspan="2">Outcome studies
Most of the investigated outcome measures included a general evaluation of QoS, cost-effectiveness, service user satisfaction, recidivism, emergency department consultation, mobile and outreach services and day hospitalisation. However, no comparisons were drawn between the outcomes of different types of PES or PES provider and no significant conclusions about the most effective type of PES were identified. Overall, most of the studies were descriptive in nature and lacked empirical analysis.</td></tr>
</table>

2.8.2 Critique of the Review Findings from the Qualitative Study

Schroder and Ahlstrom (2004) explored staff and care associates' perceptions of the concept of QoC in the case of psychiatric care. A phenomenographic approach was adopted for the data analysis. Four main themes emerged from the data to reflect the participants' perceptions of the concept of QoC: (a) respect for service user dignity; (b) service users' participation in their care; (c) service users' recovery, and (d) service users' care environment. In the above-mentioned study, the participants perceived QoC

as a positive concept and an important element in service users' health, well-being and living conditions. Although this study identified the service users' needs, it did not include their perspectives, as their perceptions were not recorded. Moreover, it would appear to be of moderate methodological quality. Therefore, these findings need to be interpreted with caution, especially when attempting to generalise or transfer the findings to other settings.

2.8.3 Critique of the Review Findings for the Quantitative Studies

2.8.3.1 Effect of Shared Decision-making and Mental Health Care on Service User Satisfaction

At baseline and six months, Swanson et al. (2007) investigated the relationship between QoC (mental health care and shared decision-making) and the satisfaction of service users suffering from depression. The participant response rate was relatively high (75%), while mental health care (OR=1.61, $p < .01$) and shared decision-making (OR=2.93, $p < .001$) were both positively associated with service user satisfaction, reflecting that service users who were actively involved in the treatment plan for their own care over a period of six months were more satisfied with their care. The validity of this finding was enhanced after controlling for the effect of mental health care as a potential confounding factor on service user satisfaction. However, the findings also showed that the gender variable did not play any role in interacting with one's own mental health care (OR=0.95, $p < .89$) or shared decision-making (OR= .92, $p < .72$). Although the study examined the relationship between QoC (mental health care and shared decision-making) and service user satisfaction, all participants in this study were recruited using a purposive sampling approach. This is not generally relevant in quantitative studies, given that the generalisation of findings becomes problematic. Therefore, this study was considered to be of poor methodological quality and the findings consequently need to be interpreted and generalised with caution, especially with regard to facilities serving minorities, populations of low socio-economic status, predominantly male service users and rural practices.

2.8.3.2 Effect of Structural Quality on the Quality of Care (QoC) Process

Ravelli et al. (2003) investigated the effect of structural quality (age of the merged organisation and catchment area size), using the process quality questionnaire (6 subscales and 21 items, based on Tugwell's evaluation criteria) amongst service users with schizophrenia or related psychoses. The study had a high response rate (97%) and showed that there was no significant correlation between the age of the merged

organisation and the total score for process quality (r=0.331, *p*=0.068 two-tailed). However, it was noted that there was a significant correlation between the age of the merged organisation and the sub-scores for the availability of interventions (r=0.391, *p*=0.029 two-tailed) and treatment (r=0.380, *p*=0.035 two-tailed). However, no significant correlations were found between the size of the catchment area and the total process quality score (r=0.167, *p*=0.368 two-tailed), or any of the other subscale scores used. The above study lacked the involvement of long-stay care institutions and was rated as having poor methodological quality. Therefore, these outcomes may limit the validity and generalisability of the findings to other care facilities. As such, they need to be interpreted with this limitation in mind. Additionally, while Ravelli et al. (2003) indicated in this research study that mergers (the integration and concentration of mental health care facilities) had a positive effect on service user outcomes, there were no data on the effect of mergers in the area of mental health presented, so that their findings could be compared with those of other studies. Future research is therefore necessary to clarify this issue.

2.8.3.3 Effects of Structure and Process Factors on Outcomes of Quality of Care (QoC)

Hong et al. (2008) examined the influence of structural factors (system factors, service user characteristics and clinical factors) and process factors (visits from medical providers, emergency room (ER) visits and the adequacy of informal care) upon quality of outcomes of medical care (medical service fit and medical provider contact). The above study had a low response rate (40.5%), but there was a significant correlation found between Medigap insurance and quality measures, service fit (b=0.128, $p < 0.05$) and provider contact (b=2.229, $p < 0.05$). Married service users were more likely to visit a health care provider (b=1.968, $p < 0.05$), as were service users on a lower income (b=0.350, $p < 0.01$). Service users rated more highly for their cooperation with treatment providers were less likely to have seen a medical provider (b=0176, $p < 0.05$). Meanwhile, service users with better cognitive function were more likely to have seen a provider (b=0.005, $p < 0.01$), although service users with poorer functional ability had a higher level of service fit (b=0.009, $p < 0.05$) and the number of medical visits was significantly associated with better service fit (b=0.071, $p < 0.05$). In contrast, visits to the Emergency room (ER) were negatively related to service fit (b=0.097, $p < 0.05$). The adequacy of informal care expected by a discharge planner was also negatively associated with service fit (b=0.029, $p < 0.05$). Aside from this, a pseudo-measure of

explained variance revealed that both medical service fit and medical provider contact explained a considerable 28% and 34% of variance, respectively.

This study emphasised accuracy in quality measures that identified the needs of depressed service users. However, the authors used a small sample size, selected through a convenience sampling technique, with the participants being recruited from a single hospital. These limitations contributed to this study being rated as one of poor methodological quality. Consequently, it limits the generalisability of the findings to other health care settings. Moreover, the results must be interpreted cautiously, since the service users' medical records from health care providers, collected for the study, may have missed some potential providers through the snowballing procedure utilised during data collection. Neither did the study give any information on ethical approval, whereas the inclusion of such information would have maintained the study's methodological quality.

2.8.3.4 Quality Evaluation of Long-term Nursing Care Homes

Reilly et al. (2006) evaluated the nature of QoC provision in long-term facilities for dementia sufferers, in a study with a relatively high response rate (73%). Here, it was demonstrated that EMI nursing home facilities offered significantly higher standards of certain types of care, such as rehabilitation, than non-EMI facilities (p=0.05), person-centred care (p=0.01), and independence through building design (p=0.001). However, non-EMI nursing home facilities achieved a significantly higher score than EMI facilities for the social factors of residents' lives (p=0.02). Nevertheless, although both EMI and non-EMI facilities achieved both good and poor results for specific standards of care, both types of nursing home were found to present a similar service overall. Nevertheless, the overall assessment of methodological quality for this study was rated as poor (as described previously). This is due to methodological issues, such as the use of a postal survey to collect qualitative data. Such an approach is considered unsuitable, because it may not be helpful for studying a large number of home care facilities properly. As a result, the findings could have been distorted. Additionally, the size of the EMI and non-EMI nursing homes being compared differed dramatically (EMI, n=162 facilities versus non-EMI, n=125 facilities), which could have affected interpretations of the significance of the differences between them; such findings need to be interpreted cautiously when generalising them to other settings.

2.9 Conclusion and Gaps in the Literature

A review of the relevant literature for the present study demonstrated that a mixed methods approach has not hitherto been utilised to investigate issues surrounding QoC, using Donabedian's Framework in the mental health context. Moreover, very few quantitative studies were included in this review and these were limited to a focus on just a small number of variables, such as shared decision-making, the age of the merged organisation, the size of the catchment area, visits from the medical provider, visits to ER, and the adequacy of informal care, rehabilitation, person-centred care and independence through building design (Ravelli et al., 2003, Reilly et al., 2006, Swanson et al., 2007, Hong et al., 2008). However, these variables failed to capture the multiple structural characteristics related to health care providers, service users, hospital settings, and care processes, or their relationships with service user outcomes (such as the 5Ds). Additionally, all the quantitative studies included were assessed for their methodological quality using the 'Quality Assessment Tool for Quantitative Studies' developed by EPHPP (1998). The assessment findings showed that some of the studies reported issues related to the generalisability of their findings, including small sample sizes (Hong et al., 2008), low response rates (Hong et al., 2008), and non-representative sampling (Ravelli et al., 2003, Swanson et al., 2007, Hong et al., 2008). Moreover, all the studies included were carried out in developed countries. Overall, the quality of mental health care literature appears to lack detailed methodology and research design information, where Donabedian's Framework is applied.

2.10 Rationale for Conducting the Study

It is essential to study the quality of mental health care, in order to improve health outcomes. However, few studies were included in this review and they were in any case solely focused on a limited number of variables (for example, participants' age, level of education and disease duration, as well hospital location, hospital size and staffing, medication errors, and service user falls). However, these variables failed to capture the various structural factors relating to professionals, service users, hospital settings and care processes, and their relationships with service user outcomes (such as the 5Ds). Additionally, this review revealed that mixed methods research has not previously been implemented to investigate QoC issues, employing Donabedian's Framework in the mental health context. Furthermore, the literature on the quality of mental health care lacks detailed methodology and research design information presented according to Donabedian's Framework. This current study therefore endeavours to fill a gap in the

literature surrounding QoC in mental health care settings. It investigates the matter quantitatively, in terms of the factors associated with mental health care quality and their relationship with service user outcomes, from the perspective of service users admitted to Saudi mental health care institutions. QoC also appears on the health care service agenda in KSA and has been given high priority by the Saudi MoH, so as to be able to meet the challenges of the Saudi health care system and improve the quality of health care services in that context. However, to date, there has been a lack of studies on the quality of mental health care in KSA and other Arab countries (for example, Jordan, Egypt, Iraq and Kuwait). This study is considered to be the first of its kind in an Arabic-speaking country, such as KSA.

2.11 Research Questions

This study uses Donabedian's Framework to investigate the factors related to the quality of mental health care in KSA, as well as their relationship with service user outcomes. This will be achieved by addressing the following research questions:

1. Do service user characteristics (i.e. age, gender, marital status, employment status, educational level, area of residence and diagnosis) predict service user outcomes (death, disability, disease, discomfort and dissatisfaction)?

2. Do staff characteristics (i.e. age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers) predict service user outcomes (death, disability, disease, discomfort and dissatisfaction)?

3. Do hospital characteristics (i.e. hospital profile, availability of essential infrastructure and drugs for psychiatric service users) predict service user outcomes (death, disability, disease, discomfort and dissatisfaction)?

4. Do staff attitudes toward the mentally ill/mental illness predict service user outcomes (death, disability, disease, discomfort and dissatisfaction)?

5. Do staff competency levels in the delivery of mental health care predict service user outcomes (death, disability, disease, discomfort and dissatisfaction)?

6. Do the frequency, nature and characteristics of staff-service user interactions predict service user outcomes (death, disability, disease, discomfort and dissatisfaction)?

7. What are the service users' perceptions of the quality of their mental health care provision?

2.12 Rationale for Formulating the Research Questions

The first three questions were formulated out of a need to identify predictive relationships between a range of potential structural health care system and service user outcome measures (the 5Ds), in order to fill the gaps in the literature on QoC in mental health. These were answered through the primary research conducted using three questionnaires, relating to the three main categories for consideration in mental health care: service users, staff and hospital features. In addition, structural measures were constructed from a number of sources relevant to previously published studies, guideline statements, and health indicators associated with KSA's mental health care system (Al-Swailem, 1990, Qureshi et al., 2004, WHO, 2006, Al-Habeeb and Qureshi, 2010, Almalki et al., 2011, Qureshi et al., 2013). Moreover, the *Policies and Procedures Manual for Mental Health Hospitals* issued by GDMSH was reviewed to identify aspects of care applicable to hospital features (and therefore, indicators) and considered important from the researcher's perspective.

In this study, the structural measures were limited to service users already admitted to hospital, hospital staff (including psychiatrists, nurses, psychologists, social workers and occupational therapists) and hospital characteristics. These were selected in accordance with other mental health studies that had found them to be potential predictive variables of outcome (Priebe et al., 2004, Oltedal et al., 2007, Awara and Fasey, 2008). However, despite the large number of studies showing a correlation between these structural measures, the contribution of hospital staff, hospital features and service user characteristics has not been explored in the context of a comprehensive system of quality measurement. Therefore, an increased understanding of these aspects of health care delivery, which are associated with health outcomes, could help stakeholders (for example, staff and administrators) to enhance QoC.

Regarding service users' characteristics, these are most commonly applied in health research and are particularly useful for situations where the measurement of participants' characteristics is targeted. Moreover, service users' characteristics can influence the relationship between the structural and process variables for staff and outcomes. For example, age, level of education and medical diagnosis can determine a service user's capacity for recovery (Doran et al., 2002). In addition, it may be gleaned

from the literature that service users' characteristics have taken on a central role in the care of the mentally ill (Priebe et al., 2009). However, little is known about the most important characteristics of service users in mental health services or their predictive relationship with QoC. Therefore, it was anticipated here that service users' characteristics would be associated with a higher probability of receiving high quality care.

The structural measures applied in the present case also include staff characteristics, such as those of nursing staff. These were selected, because in youth mental health, previous studies have identified that nurses are more likely to spend the bulk of their time with service users and provide them with direct care (Wahl and Aroesty-Cohen, 2010). Therefore, the clear evidence of this is that general QoC is affected by the quality of nursing care received. For example, nursing care quality may be superior on units/wards where nurses have higher levels of educational preparation and this in turn can have a beneficial impact on service user outcomes (Doran et al., 2002).

Furthermore, the consideration of hospital characteristics in the current study enables the relationship between factors of interest to be predicted and empirically tested, thus facilitating health service delivery. In fact, previous studies emphasise that their presence enables the provision of quality health care services, whereas their absence reduces the probability of quality outcomes (Hearld et al., 2008). Accordingly, hospital characteristics are regarded as proxies for the quality of the organisation in which care is being delivered; assuming that the more favourable the hospital's characteristics, such as hospital size (bed capacity), level and type of staffing, and presence of technology, the better the outcome for the service user.

The fourth question was also answered through data gathered in primary research, conducted by administering a questionnaire amongst staff to measure their perceptions of the mentally ill/mental illness. One of the most widely used instruments is the ATAMH-30. This fourth question was formulated to develop an understanding of staff attitudes and how these statistically predict service user outcomes (the 5Ds) in mental health settings. It was intended to fill a gap in the literature, particularly in KSA, as no prior studies conducted in this context have examined this issue (attitudes) among mental health workers. In addition, the need to investigate the attitudes of mental health workers toward the mentally ill/mental illness and the importance of these for QoC was

highlighted during the review of the Saudi literature (Qureshi et al., 2004, Al-Habeeb and Qureshi, 2010, Qureshi et al., 2013).

The fifth question was also answered through primary research, conducted by implementing a questionnaire to assess the level of staff competency in the delivery of mental health care, using the CAT-MH scale. This question was formulated based on previously reviewed studies in mental health care in KSA, which have examined the importance of investigating individual competency, as this has been found to be crucial for care quality (Qureshi et al., 2004, Al-Habeeb and Qureshi, 2010).

The sixth question was answered through primary research conducted by collecting observation data, in order to assess the nature (quality) and characteristics of staff-service user interaction using an IOC instrument. This question was formulated based on previously reviewed studies in KSA, which have focussed on discussions about the importance of interpersonal care in terms of interaction between staff and service users, together with the influence of these on QoC (Al Neami et al., 2014, Abolfotouh et al., 2017).

The seventh research question was designed to explore Saudi service users' perceptions and experiences of the quality of their care. Service users' perceptions can be a valuable source of understanding for stakeholders, as they appraise the QoC provided by their area of service (Tasso et al., 2002). On reviewing a considerable proportion of the literature in this field (mental health), it was clear that the majority of the studies had been carried out in Western countries. However, no studies had attempted to integrate qualitative approaches into quantitative inquiry in KSA, or any other Arab countries (for example, Jordan, Egypt, Iraq and Kuwait), as a means of capturing and exploring factors related to quality in mental health care, via a qualitative strand - such as analysing perspectives and experiences of QoC delivered in mental health care settings.

2.13 Summary

This review of the literature suggests that Donabedian's QoC Framework can be used to evaluate mental health services for improving service user outcomes. The literature review presented in this chapter highlights the importance of investigating factors that may predict quality in mental health care, including measures, of structural, process and outcome quality. In addition, the review highlights the limitations of previous studies and emphasises the need for rigorous methodologies and a comprehensive range of variables in future studies. A consideration of previous studies involving health care

structure, process and outcome variables and QoC in mental health validated the selection of variables in the current study and reinforced its importance. This review demonstrates that studies in the area of mental health are overlooked, especially in developing countries. Therefore, there is a need to investigate factors associated with quality in mental health care and their relationship with service user outcomes. The next chapter provides details of the study design, methodology, and methods of data analysis utilised.

3 Methods

3.1 Introduction

This chapter describes the methods used to answer the research questions listed at the end of Chapter Two. The study objectives are presented below, followed by a description and discussion of the study design and methodology. This chapter also describes and justifies the methods employed in the study. Finally, the ethical considerations arising from the research are examined.

3.2 Study Objectives

The objectives of this study were twofold:

1. To investigate factors associated with the quality of mental health care for service users in KSA.

2. To explore service users' perceptions of the quality of their mental health care.

3.3 Study Design

An embedded mixed methods design has been applied in this study, whereby a qualitative strand was embedded within a quantitative study (Creswell and Clark, 2011). In the quantitative strand, a survey was distributed to hospital staff (including psychiatrists, nurses, psychologists, social workers and occupational therapists) and to service users with mental disorders admitted to inpatient psychiatric wards (11 male/3 female). Also conducted was participant observation of staff-service user interaction across six different admission wards (4 male/2 female) at the study site. For the qualitative component, semi-structured interviews were conducted with 30 service users (24 males/6 females), using a purposive sampling technique to explore their perceptions of the quality of their care. Figure 3.1, below, provides a general overview of the study design.

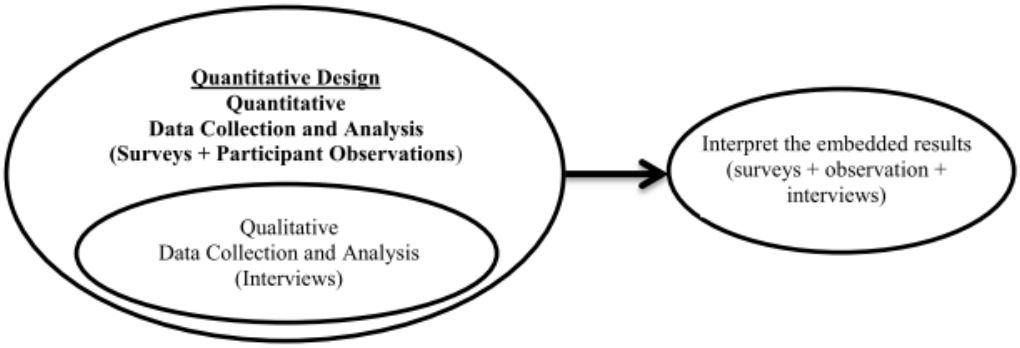


Figure 3.1: Study design (adapted from Curry et al., 2013; based on Creswell & Clark, 2011)

3.3.1 Mixed Methods

Mixed methods research refers to a mixture of quantitative and qualitative methods in a single study, in order to obtain a fuller picture of the topic of interest (Creswell and Clark, 2011, Creswell, 2014). This approach does not replace either of these approaches, but rather it makes it possible to draw from the strengths and minimise the weaknesses of each within a single study, thereby providing the best opportunity to answer specific research questions (Johnson and Onwuegbuzie, 2004). Although there are a range of mixed methods research designs (see the typologies of Teddlie and Yu, 2007, Creswell and Clark, 2011, Creswell, 2014), an embedded mixed methods design, as described by Creswell and Clark's typology (2011), was deemed to be the most appropriate for the present study. In this approach, qualitative interviews are embedded within a survey design and both types of data can be collected simultaneously. This is also a useful approach for explaining quantitative results, where interviews provide insights on how the participants perceive the quality of their care provision.

An embedded design is typically utilised when the researcher has research questions that require different kinds of data, in order to enhance the use of a quantitative or qualitative methodology, consequently addressing the primary purpose of the study (Creswell and Clark, 2011). Therefore, combining quantitative and qualitative methods can provide strong evidence for a conclusion on the primary purpose of a study. In the present case, this involved an investigation of factors associated with the quality of mental health care (Creswell and Clark, 2011). It is recognised that when exploring service users' outcomes and perceptions, it is more valuable to use multiple methods of data collection as a means of gathering a variety of information about the same issue. The consequences can then build on the strength of each approach; reducing the

limitations inherent within each, as well as enhancing the validity of the findings (Patton, 2002).

Equal weight is attached to both quantitative and qualitative approaches here, and the study begins with the quantitative testing of an established framework (Donabedian's Framework). However, without privileging either of these approaches, the study tests this well-established international Framework to see if it applies to the Saudi context. As identified in the Literature Review for the present study, the bulk of evidence shows that the standardised Donabedian's Framework has been widely implemented across the world to evaluate quality in health care. It is posited that an investigation of the mechanisms relating to the relevant factors and outcome variables are likely to benefit significantly from the use of mixed research methods, as they are generally multi-faceted and therefore, best explored individually using a combination of data collection instruments.

In addition, the present study emerged from the researcher's desire to investigate two different aspects, namely theory-testing (implying a quantitative approach) and theory-generation (implying a qualitative approach) (Braun and Clarke, 2013). Regarding theory-testing, this study tests measures (process and outcome surveys) that have been widely used within the Donabedian Framework for individuals who have not previously been tested, in order to investigate factors associated with the quality of mental health care for service users. However, this could have yielded results that do not apply to the Saudi context. Moreover, the approach (a survey) cannot offer an understanding of why particular responses are given. Conversely, the qualitative approach (theory-generation) used in the data collection was a potential source of newer theoretical concepts, through inductive reasoning regarding the research topic/methods and from the service users' perspective.

In this study, the decision to conduct qualitative interviews enabled insights to be gained into how service users perceived the quality of their mental health care provision. Therefore, an embedded design was applied, as the researcher believed that the qualitative element would reveal service users' perceptions and experiences as indicators (factors) of quality in mental health care. As a result, this mixed method study (theory-testing and theory-generation) enhanced the design and reduced the weaknesses inherent in each approach. It has been argued that mixed methods involving

the use of qualitative inquiry alongside quantitative surveys are increasingly recognised as being able to add value to research studies (Creswell and Clark, 2011).

The choice of research design will also depend on the research questions, which determine the essential and fundamental characteristics of research practice, as well as underpinning the research project. In other words, the type of research question will determine the research methodology used to answer that question. Moreover, different research questions require different data to answer them. For example, an embedded design is useful, if the researcher needs to embed a qualitative component within a quantitative design. Here, interviews can help explain and interpret the perceived quality of mental health care from the perspective of the service user.

Therefore, adopting a mixed methods design is particularly important where there is a lack of studies in an area, particularly with regard to KSA. Furthermore, another justification for adopting a mixed methods design is that investigating the factors associated with QoC and its impact on service user outcomes fundamentally calls for numerous sources of data, in order to gain a comprehensive understanding of the phenomena, complement the strengths of each dataset, and minimise the weaknesses inherent in single methods, thus enhancing data validation and the results through triangulation (Johnson and Onwuegbuzie, 2004, Patton, 2015). In accordance with these assertions, Green and Thorogood (2013) propose that there are several purposes of mixed method research: data triangulation, where the researcher converges (integrates) findings from different methods; development, where the researcher wishes the findings from one method to inform another; complementary, where the researcher aims to enhance the findings; expansion, when the researcher seeks to expand the findings in terms of their breadth and/or range of inquiry through different data collection methods, and initiation, where the researcher aims to explore contradictions that lead to the research questions being reframed.

In summary, despite the unipolarity of these approaches in terms of addressing different types of data, this study combined both in an examination of the same issue. The quantitative survey evaluated Donabedian's QoC Framework as a means of conducting a deeper investigation of factors of quality in (mental) health care and their relationship with service user outcomes. Conversely, qualitative data were embedded during the data collection, such as when the researcher wished to qualitatively explore service users' perceptions of the quality of their care provision, in addition to the quantitative

outcomes. The philosophical assumption guiding the current research study was critical realism, leading to the adoption of both quantitative and qualitative methods.

3.3.2 Philosophical Underpinnings of the Study

Research inquiry in health sciences is mainly conducted within two broad paradigms, with underlying assumptions about the nature of reality (ontology). The first is the positivist paradigm (leading to a quantitative approach), in which the data are collected and analysed numerically. This paradigm assumes that reality exists in the world and can be observed, measured and understood (Ponterotto, 2005, Lather, 2006). Secondly, the interpretivist paradigm (leading to a qualitative approach) place an emphasis on understanding individual experience, as it is lived (in reality), largely through the collection and analysis of observational and interview data (Racher and Robinson, 2002, Ponterotto, 2005). The philosophical debate surrounding these two approaches ultimately relates to epistemology and ontology, and to methodological purists, this dichotomy can render it inappropriate to mix the approaches within a single study (Johnson and Onwuegbuzie, 2004). However, it has also been claimed that this is a false dichotomy and that both approaches lie on a continuum, within which mixed methods provide the best solution for bridging different aspects in response to the research questions (Johnson and Onwuegbuzie, 2004). Hence, mixed methods were used in the study reported in this thesis.

In addition, pragmatic and critical realist approaches have emerged as a result of the paradigm debate and their adoption is typically associated with mixed methods research (Tashakkori and Teddlie, 2010, Creswell and Clark, 2011). After considering these two approaches, critical realism was chosen for the current study, as it enhances a holistic exploration of phenomena. In other words, it helps to discover different aspects of the same reality and to investigate reality from different perspectives (McEvoy and Richards, 2006). Critical realism asserts that reality exists ‘out there’, meaning that there is a real world that is separate from our perception or description of it (Stickley, 2006). However, McEvoy and Richards (2006) have acknowledged that absolute reality cannot be fully understood, because our perceptions are formed by our conceptual background and investigative interests. Critical realism also gives rise to different interpretations of the world, as it is necessary to see things from different angles (Sayer, 2000). For instance, the researcher may conduct an exploratory study to discover what is going on in a particular situation (empirical), in order to arrive at an understanding of how other people assign meaning to it (experience), and finally to identify the

underlying causative mechanisms (best causal explanations) giving rise to the event in the world.

The critical realist approach is based on holistically investigating phenomena and the importance of the research questions being asked, rather than the methods of data collection used (McEvoy and Richards, 2006). This is not to say that data collection methods are not important, but rather that realists emphasise how quantitative and qualitative methods are used, which means that the methodology applied will be focused on the most appropriate methods and procedures for efficiently answering the research questions. Therefore, the realist method depends on multiple research questions that require multiple methods of data collection (Walsh and Evans, 2014).

In the present case, quantitative data were gathered from questionnaires distributed to hospital staff and service users with mental disorders, in order to investigate factors associated with the quality of mental health care. Also applied was the observation of staff-service user interaction, conducted across six different admission wards (4 male/2 female). The qualitative component then involved interviews with service users to explore their perceptions of the quality of their care, since it was felt that the most appropriate way to discover this was to ask the service users themselves, without predetermining their responses.

3.3.3 The Quantitative Design: Self-administered Survey

A survey is generally considered to be the most frequently used data collection method in health research (Nieswiadomy, 1993). A survey design generates a quantitative or numeric description of the beliefs or opinions of a particular population by studying a sample of that population, with the aim of obtaining information that can be generalised to the whole population (Creswell, 2014). In contrast to other methods of data collection, the survey design is generally considered to be a quick and inexpensive method of gathering data from a larger sample of the population of interest, with less time being consumed and at lower cost. Moreover, the use of surveys allows respondents to remain anonymous, whereby the respondents are more likely to provide honest answers (Nieswiadomy, 1993).

Surveys can be administered to respondents directly (for example, in face-to-face interviews) or mailed to respondents (for example, in a postal or online survey), whereby the respondents read the instructions, answer the questions and return the survey on completion (Bryman, 2016). After considering both approaches, it seemed

that self-administered face-to-face interviews would be more appropriate for this study and this was due to several reasons. On a practical level, the researcher contacted the manager of each department directly and had face-to-face meetings to explain the purpose of the study, negotiate access to the sites, and encourage participation from staff and service users. It is generally considered more professional in Middle Eastern cultures to approach people face-to-face, while the more impersonal methods of communication used as research methods in similar studies in other contexts (such as postal surveys) may not be appropriate or indeed feasible for exploring the numerous measures of outcomes and perspectives of service users with a broad set of symptoms. The presence of the researcher also enabled any unclear items in the questionnaire to be clarified for the respondents (when required). It also enabled more detailed screening of participants to avoid including any who were ineligible for inclusion. Administering the questionnaire face-to-face additionally enabled the researcher to probe any emergent areas of interest raised by the participants, which might not have been anticipated or discovered using alternative methods.

A survey approach allows researchers to manipulate, measure and specify relationships between key variables, in order to investigate research questions or hypotheses on specific phenomena of interest (Bryman, 2016). The quantitative survey in this study was designed to investigate relationship patterns between factors or explanatory variables of mental health care quality (conceptualised as structural properties and processes of care) and service user outcomes (response variables) in KSA. The survey consisted of self-reported questionnaires distributed to staff and mental health service users. With regard to structural variables, socio-demographic data were gathered from these staff and service users. The items included questions about staff age, gender, nationality and qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers. The items related to the service users included their age, gender, marital status, employment status, education level, area of residence, and diagnosis.

With regard to process of care variables, staff attitudes towards the mentally ill/mental illness were measured using the Attitudes Towards Acute Mental Health scale (ATAMHS-33; Baker et al., 2005), while levels of staff competence in the delivery of mental health care were measured using (CAT-MH; Clasen et al., 2003) and the nature, frequency and characteristics of staff-service user interactions were measured with the Interaction-Observation Checklist (IOC; Sanson-Fisher et al., 1979, Sandford et al.,

1990, Tyson et al., 1995). Staff-service user interactions were included in this study, because they have the potential to determine and predict service users' adherence behaviours, which in turn affect their health outcomes (Zrinyi, 2001). The structural and process measures were classified as independent variables (see section 3.6.1 for a full description of the measures).

In addition to these two principal independent dimensions (structure and process) applied in this study were the dependent measures, which were categorised as service user outcomes under five dimensions (the 5Ds): death, disability, disease, discomfort and dissatisfaction (Lohr, 1988). This model is commonly used to obtain measures, within which domains can capture a range of more precise outcomes that an individual might consider when evaluating QoC in any study (Mainz, 2003) (see section 1.6 for more details on outcomes).

These outcomes were operationalised as follows for the quantitative data collection from service users: death (mortality rate obtained from hospital records) (Lohr, 1988), disability, measured using the Social Functioning Scale (SFS; Birchwood et al., 1990), disease symptoms, measured using the Brief Psychiatric Rating Scale (BPRS; Overall and Gorham, 1962), discomfort, measured using the Glasgow Antipsychotic Side-effect Scale (GASS; Waddell and Taylor, 2008), and dissatisfaction, measured using the Client Satisfaction Questionnaire (CSQ-8; Larsen et al., 1979). The choice of these instruments was based on their reported ability to measure the variables under investigation and their high index of reliability reported in the literature.

3.3.4 The Qualitative Strand: Interviews

Service users' perspectives and experiences are important indicators of good quality mental health care (Skelly et al., 2013). Being aware of service users' experiences and views of their QoC can help create the best possible environment to encourage health care providers, stakeholders, policy-makers and facility administrators to design and implement a sustained programme leading to effective change, whereby high quality service user care could be developed. Moreover, the discovery of service users' perspectives is based upon a philosophy that puts service users at the centre of care by listening and responding to their experiences, preferences and needs, as a means of gaining insights into the ways in which standards of quality and policy formulation can advance in the hope of improving service users' QoC (Al-Zaru et al., 2011).

Although a range of different methodologies have been used in the literature to examine QoC from the perspectives of service users (Schröder et al., 2006, Gilburt et al., 2008, Skelly et al., 2013), semi-structured interviews were considered in the present study as the most pragmatic way of exploring real world experiences. The interviews were embedded within a larger survey design, using participant observation of staff-service user interaction and questionnaires distributed to staff, and to service users with mental disorders.

3.4 Research Setting

The current study was conducted in a mental health hospital operated by the MoH in KSA, with a 670-bed capacity and comprising 18 wards: three forensic psychiatric; four acute; three for chronic schizophrenia; three for chronic psycho-medical conditions; three chronic geriatric, and two for intellectual difficulties and epilepsy, as well as outpatient clinics. Each ward contained 25-40 beds and deployed 297 nurses (of all positions and level of qualification). Current staffing at this hospital includes 70 psychiatrists, 12 psychologists, 27 social workers, 453 nurses, 6 occupational therapists, and administrative staff. It provides treatment and care to service users with a variety of mental health problems, such as schizophrenia, epilepsy, intellectual difficulties, affective disorders, personality disorders and drug addiction (Al-Zahrani et al., 2013). The reasons for choosing this hospital as a study site included:

- This is one of the largest mental health hospitals in KSA.
- The hospital provides care for service users from nearby cites, in addition to service users from all over the country.
- Mentally ill service users from all over the country, presenting a wide array of major psychiatric issues (for example, penal cases of convicted murderers, who are immediately referred to this hospital to benefit from the integrated inpatient and outpatient psychiatric services, including forensic medicine).
- The bed capacity in this hospital is very high, compared to other hospitals in the country. The hospital therefore employs a large number of staff, thereby enabling a larger sample to be drawn.

Taken together, these reasons make a strong case for this hospital being regarded as one of the foremost in the country, in relation to the quality of service user care. It represents an ideal model of mental health care practice and service user management in KSA and

is expected to best reflect MoH standards of service user care, rights, policies and objectives. Furthermore, service users come to the hospital from all over KSA. It was therefore anticipated to provide a rich source of data, perceptions and experiences of QoC, representative of mental health hospitals in the Kingdom.

The resulting study was conducted in 14 wards (11 male/3 female). The remaining four psychiatric wards were not considered suitable for data collection, due to the difficulty of communicating with long-stay inpatient users with more severe cognitive impairment, or service users who were physically unwell and had more profound intellectual difficulties than the service users in other wards.

3.5 Sampling and Recruitment

Sampling is the process of selecting a subset of elements from the general population, which meets the eligibility criteria of interest to the researcher (Nieswiadomy, 1993). In health research, elements are usually human beings (Polit and Beck, 2012). Typically, this process is an important part of the research design in both quantitative and qualitative studies (Polit and Beck, 2012). However, the sampling techniques and rationale for adopting them in quantitative and qualitative studies are usually dissimilar. The aim of all quantitative sampling approaches is typically to draw a representative sample of adequate size from the population, so that the results can be generalised to the population being studied. In contrast, sampling within qualitative studies aims to provide a rich and thorough understanding of specific phenomena of interest (Marshall, 1996).

There are two types of sampling procedure: random (probability) and non-random (non-probability) sampling. Within these approaches, there are a variety of sampling methods that can be utilised to recruit a study population (Nieswiadomy, 1993, Patton, 2002, Bryman, 2016). The selection of an appropriate sampling scheme (random versus non-random) is based on the study aim (i.e. external validity) (Marshall, 1996, Onwuegbuzie and Collins, 2007). In this sense, there are four possible approaches to selecting a sample for quantitative research. These are rooted in a random (probability) sampling procedure, including simple random, stratified, cluster and systematic. In non-probability sampling, however, three categories are specified to select a sample for a qualitative study: convenience, quota and purposive, each of which has advantages and disadvantages (Nieswiadomy, 1993, Bryman, 2016).

With this in mind, total population sampling was chosen to select potential participants. This type of sampling allows all participants within the population of interest to be involved and investigated, where they possess a particular set of characteristics or attributes (for example, age, gender, occupation, diagnosis, experience and knowledge). The justification for adopting this sampling technique, as opposed to other probability or non-probability sampling, is that it permits the inclusion of all potential participants with a particular set of characteristics in the sample – in this case, the sample size was restricted to staff and service users admitted to the 14 wards at the study site. Moreover, the effect size was considered to ensure the validity of the results.

The sample used in the current research study included all health professionals working in the 14 wards under study and providing direct care to service users. The sample also included all service users diagnosed with mental disorders on these wards (see 'eligibility criteria'). In the pre-defined setting, at the time of data collection, there were 70 psychiatrists, 12 psychologists, 27 social workers, 6 occupational therapists and 230 nurses directly involved in the care of 517 service users.

For the qualitative strand of the study, purposive sampling was undertaken to recruit participants based on gender, age and educational background, so that their perceptions of the quality of their care could be explored. This type of sampling is appropriate for the study, because in research involving interviews, it is important for the researcher to select respondents who are strategically located in a situation, in order to be able to shed light on the subject of the study (Nieswiadomy, 1993, Marshall, 1996, Gerson and Horowitz, 2002).

3.5.1 Survey Sample

3.5.1.1 Sample Size Calculation

The choice of sample size in a research study is important, because it determines the number of participants who need to be surveyed. In turn, it enables the researcher to make statistical and/or analytical generalisations (Onwuegbuzie and Collins, 2007). The required sample size for the current study was 300 participants in each category (staff and service users), based on the following assumptions:

- The outcome measures of interest consisted of: disability, as measured by the SFS; disease symptoms, as measured by the BPRS; discomfort, as measured by GASS, and dissatisfaction, measured using the CSQ-8.

- To detect a medium effect size of 0.01 with a statistical power of 80% using six predictor variables for each sample (staff and service users), a sample size of 134 participants for each category was required. This allowed for an estimated 50% response rate amongst a minimum of 300 participants in each category (Cohen, 1992).

- The level of significance for detecting a significant effect on the outcome measures was set at $\alpha = 0.01$, as this study tests several variables, thus ensuring that any significant difference in outcomes detected actually exists. In studies testing several hypotheses (H_os), the choice of a smaller alpha, such as 0.01 is preferable (per hypothesis), in order to reduce false positive results from the testing procedure for multilevel modelling, which result in Type I errors (Cohen, 1992).

- The response rate of 50% was estimated according to the sample size of the populations involved (staff and service users) at the study site. It ensured that in the event of participants refusing to take part, there remained a minimum of 300 participants recruited, so that the external validity of the study findings could be retained.

3.5.1.2 Participants

This study employed a targeted sample of staff (including psychiatrists, nurses, psychologists, social workers and occupational therapists) and service users, based on the following inclusion and exclusion criteria:

Inclusion criteria:

- All staff employed at the study site for more than one year, working in inpatient settings and providing direct care to service users.

- Service users aged 18 years or over, diagnosed with any form of mental disorder conforming to the *Diagnostic and Statistical Manual of Mental Disorders,* 5th Edition (DSM-V; American Psychiatric Association, 2013) and admitted to inpatient psychiatric wards, able to speak Arabic, and able to give informed consent.

Exclusion criteria:

- Staff who had been caring for mentally ill service users for less than one year.

- Service users with known organic brain damage, or who were unable to consent, due to the incapacitating effects of their disorder, thus rendering them unable to participate.

3.5.2 Participant Observation

Observational research is concerned with gathering information through visual observation (Nieswiadomy, 1993) of staff behaviour and their interaction with service users. Observation involves a number of important methodological considerations for the researcher, which include the site of the observation (sample), the behaviours to be observed, the reliability of the observer, and the sampling schedule, as clarified in this section.

3.5.2.1 Location of Observation Sites (Sample)

Prior to any action being performed, the location of the sites to be observed must be determined. As with any other concerns, the selection of sites in structured observation, using a random sampling procedure, can help reduce any worries that might arise spontaneously during the data collection process (Bryman, 2016). This will in turn enable the researcher to generalise the study findings. In this current study, participant observation of staff-service user interaction was conducted across six different mental health admission wards (4 male/2 female), with a ward capacity ranging from 25-40 beds. These wards were randomly selected by drawing numbered slips of paper generated by the researcher to ensure representativeness. Random selection was achieved by numbering the wards (n=14) consecutively from 1 to 14, whereby an independent research professional, not connected to the study, drew correspondingly numbered slips of paper at random from a bowl containing equal numbers for each ward. This process was repeated until the required number of slips of paper had been drawn.

3.5.2.2 Determining the Behaviours to Observe

The choice of observed behaviours depends on the research question (Nieswiadomy, 1993). In the present case, this question investigated the frequency, nature (quality) and characteristics of staff-service user interaction. The observational categories for the present study were adapted from previous studies addressing the issue of staff-service user interaction (Sanson-Fisher et al., 1979, Sandford et al., 1990, Sandford and Elzinga, 1990, Tyson et al., 1995, Bowers et al., 2003, Bowers et al., 2006). Full details of the observational categories are given in subsection 3.6.1.2 # 3.

3.5.2.3 Observer Reliability

Nieswiadomy (1993) suggests that when appointing more than one observer to help collect data, these observers should be trained beforehand to a critical level of reliability and this should be continually checked throughout the study, so that estimates of data reliability can be assured. Here, every effort was made to enhance inter-rater reliability, with training sessions being carried out prior to the observations, in order to explain the data recording sheet (IOC) (including mastery of the observation procedures and category definitions) and to rehearse scenarios (see subsection 3.7.2.1 for further details of this). Observation training sessions not only help ensure that instructions for the training session are applied, but also allow the observer to discuss any concerns or difficulties encountered in the process.

3.5.2.4 Sampling Schedule

Developing a sampling schedule for conducting observations represents a vital step in structured observation. The observation setting, who and/or what is to be observed, and when to carry out the observation are all factors to be considered when designing a study that integrates direct observation as a method of data collection (Bryman, 2016). In the current study, the researcher coordinated with head nurses on sampling schedules (created by the researcher), for the purpose of specifying the wards, times and target staff members to be observed (this is described in more detail in subsection 3.7.2.2).

3.5.3 Interview Sample

Thirty interviews (with 24 males/6 females) were conducted to explore service users' perceptions of the quality of their care. The logic and power of purposive sampling helped the researcher to obtain an appropriate number of participants, so that rich information could be gathered to address the research question that explored service users' perceptions of the quality of their mental health care provision (Kemper et al., 2003). While the sampling strategy in qualitative research is less rigid than in quantitative research, the size of the sample should be adequate for answering the research question (Marshall, 1996). However, Onwuegbuzie and Leech (2007) point out that sample size in qualitative research should not be so large that it is difficult to extract rich data, but neither should it be so small that it is difficult to obtain data saturation or informational redundancy. Accordingly, there are no definite guidelines for estimating the necessary sample size for qualitative interviews, in order to reach data saturation. Braun and Clarke (2013) claim that a sample size of 15-30 individual interviews tends to be common in qualitative research aimed at exploring themes or

patterns across data. In contrast, more than 50 interviews would constitute a larger sample in purposive participant research, with a high probability of producing less depth and richness – bearing in mind that qualitative researchers are concerned with the quality rather than the quantity of data (Braun and Clarke, 2013).

It was decided to select participants based on the need to shed light on the topic under study. Participants were consequently selected based on various socio-demographic characteristics to help answer the corresponding research question, in the awareness that the purpose of the interview was to gain insights into how service users perceived the quality of their mental health care provision, so that the quantitative results could be explained in greater depth. The service users participating in the survey were also invited to take part in the interview, but their inclusion depended on them being:

- Aged 18 years or over and diagnosed with a mental disorder according to the *Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition (DSM-V; American Psychiatric Association, 2013)
- Able to give informed consent
- Able to speak Arabic.

3.5.4 Rationale for Sampling

Sampling is an important part of any research design and it is where the researcher decides which sample of the study population is appropriate for providing the information that is pertinent to the research question (Polit and Beck, 2012). However, sampling procedures and the rationale for adopting them generally differ between quantitative and qualitative studies. For example the aim of quantitative sampling is to select participants who are representative of the whole population, so that the results can be generalised (Marshall, 1996, Coyne, 1997). In contrast, sampling in qualitative studies is typically more focussed on providing a rich and thorough understanding of the specific phenomena of interest (Marshall, 1996).

In the quantitative strand of this study, total sampling was chosen as a means of selecting potential participants. This type of sampling allows all participants within the population of interest to be recruited and investigated, where they possess a particular set of characteristics (for example, age, gender, occupation, experience and knowledge). The rationale for adopting this sampling technique, as opposed to other probability or

non-probability sampling methods, was that it would permit the inclusion of all potential participants with a particular set of characteristics in the sample.

The target population for the survey sample was restricted to all professionals and the service users at the study site, who had been diagnosed with mental disorders. Therefore, in this study. questionnaires were distributed to all staff (including psychiatrists, nurses, psychologists, social workers and occupational therapists), working in the 14 wards under study and providing direct care to service users, as well as all mental health service users admitted to these wards, based on specific eligibility criteria. All staff and service users presented at the study site were given the opportunity to complete the questionnaires, including those measuring socio-demographic characteristics, processes and outcomes.

However, for the participant observations undertaken in this study, there were a number of important methodological considerations. First, a random sampling procedure (using slips of paper) was implemented to select the ward to be observed. The rationale for adopting this sampling method was that it would assist the researcher in mitigating any of the worries that might arise spontaneously during the data collection process (Bryman, 2016). This would in turn enable the researcher to generalise the results beyond the setting in which they were generated. In this present study, participant observation of staff-service user interaction was conducted across six different admission wards at the study site (see subsection 3.5.2.1 for more information).

Second, total sampling was implemented to recruit potential participants. This type of sampling allows all participants within the population of interest (in the present case, all service users and their health care providers in the study wards) to be selected and observed. The rationale behind the adoption of this sampling method, as opposed to any other type of probability or non-probability sampling, was that it would permit the inclusion of all potential participants with a particular set of characteristics in the sample (for example, age, gender, occupation, experience and knowledge), in order to determine and predict service users' adherence behaviours, thus affecting their health outcomes (Zrinyi, 2001).

Finally, in order to determine the stability of the data obtained, which would provide a basis for the content of interactions regarding the frequency, nature and characteristics of the observed staff behaviour, time sampling was selected to observe the interactions occurring between service users and their health care providers. This type of sampling

involves observing behaviours of interest during a specific period (Nieswiadomy, 1993). In this current study, staff-service user interaction was consequently observed for a four-week period, with each participating ward being observed at five-minute intervals for one hour per day on three days a week, using the IOC.

For the qualitative strand of the study, a purposive sampling method was implemented. Purposive sampling ensures that certain participants are identified and selected based on a specific research objective (Onwuegbuzie and Collins, 2007). A purposive sampling technique therefore involves intentionally choosing participants who have experience with the phenomena under investigation or with the key topic being explored (Coyne, 1997). All service users with mental disorders, based on the relevant eligibility criteria, were consequently invited to participate in semi-structured interviews. This permitted the selected service users' perceptions and experiences to be captured and maximum variation in responses to be gathered.

In this study, a total of 30 semi-structured interviews were conducted to explore service users' perceptions of the quality of their mental health care provision. The participants were selected according to age, gender and educational background, so that their perceptions of the quality of their care could be explored. Moreover, the selected service users were spread as fairly as possible across the admission wards. The sampling procedure was guided by the objective of obtaining a mix of perspectives, in order to provide breadth of information; for example, a mix of gender, age and educational level.

3.6 Methods of Data Collection

Data collection methods are approaches to gathering data from study participants and the way in which these data are analysed by researchers for the purpose of answering research questions (Polit and Beck, 2006). In this current study, a combination of questionnaires, participant observation of staff-service user interaction, and semi-structured interviews were implemented to collect data. The inclusion of multiple methods of data collection within a study can increase the richness of the data and improve the validity of the findings (Bolster and Manias, 2010).

In the quantitative strand of the study, the structural measures included a multi-purpose questionnaire. This was developed to capture the participants' socio-demographic characteristics (staff and service users) and the hospital's features. The process instruments included the ATAMH-33 Scale, used to assess staff's perceptions of the mentally ill/mental illness; CAT-MH, assessing the level of staff competency in the

delivery of mental health care, and the IOC, which assessed staff-service user interaction. Meanwhile, the outcome instruments included the SFS, assessing the ability of psychiatric service users to engage in specified social activities; GASS, which assessed service users' experience of the side-effects of psychiatric medication; CSQ-8, assessing service users' satisfaction with the mental health care services received, and the BPRS, which assessed certain symptoms of psychiatric service users in a service user self-report.

However, other instruments were also found in the literature, investigating issues surrounding the quality of health care other than those implemented in this study (Licht, 1979, Dean et al., 1993, Ruggeri and Dall'Agnola, 1993, Olusina et al., 2003), but specific instruments were selected for the current study based on the following reasons: first, they are robust questionnaires with a high level of reliability and validity (as described below). Therefore, they would form an excellent basis for the soundness of this study. Second, these instruments have previously been used worldwide to assess care components of relevant interest, which influence service user outcomes (for example, attitudes, competency, interpersonal interaction, social functioning, disease symptoms, experience of side-effects, and satisfaction with care). The use of these instruments would therefore provide opportunities to compare the current research findings with the international literature. Third, these instruments are regarded as standard measures, fit within Donabedian's Framework, and may be reasonably linked with outcomes. Finally, after a careful review of the various instruments and following a discussion with the relevant academic supervisors, it was anticipated that these questionnaires would be effective in answering the current research questions, as they capture the most important issues surrounding QoC in mental health settings. Moreover, they are also feasible to distribute and easy to complete.

The selected survey instruments were originally developed in Western countries, but have not been analysed for use in other cultures, except for the ATAMH-33 scale (Hamdan-Mansour and Wardam, 2009, Ahmead et al., 2010). To diminish the risks arising through the use of these instruments in a different cultural context, the following procedures were adapted to the Saudi cultural climate. Firstly, in order to facilitate understanding of the phenomenon of interest from a cross-cultural perspective, the instruments were translated into Arabic by a professional Arabic-English language translator and then back-translated into English by an independent professional Arabic-English language translator, so that they could be linguistically adapted in terms of their

meaning, semantic equivalence, accuracy and comprehensibility; thereby rendering them capable of measuring the phenomenon of interest in a different culture (Yu et al., 2004). Secondly, a convenience sample of 10 participants for each category (staff and service users) was recruited from the target population, based on the study's criteria for eligibility and in order to check the comprehensibility and clarity of the translated instruments (ATAMH-33, CAT-MH, BPRS, GASS, SFS and CSQ-8), as well as to gather feedback on the ease or difficulty of completing these instruments. The response rate was 100%, with no changes or amendments being made to any items in the translated instruments during the review.

Finally, even where instruments are considered valid and reliable, they might not be consistent or applicable as measures across different cultures and environments (Lloyd-Evans et al., 2007). Therefore, the psychometric reliability of the survey instruments was thoroughly examined in relation to the Saudi population. Each instrument was consequently evaluated using Cronbach's alpha (α), implemented once the data collection was complete. The overall quality of the psychometric properties of the instruments included in this study proved to be very good (see Table 3.2). These study instruments/measures, together with the qualitative interviews are discussed separately in the following sections.

3.6.1 Quantitative Measures

3.6.1.1 Structural Measures

A multi-purpose questionnaire, covering a range of potential structural variables of health care quality, was employed by the present researcher. This questionnaire comprised three parts, namely the Staff Characteristics Sheet (SCS), a Service User Characteristics Sheet (SUCS) and a Hospital Characteristics Sheet (HCS).

- The SCS was used to elicit information about staff age, gender, nationality, qualifications and job-related variables (years of experience in the hospital and attendance of psychiatric training courses). It was distributed to all staff who met the inclusion criteria (Appendix 1).

- The SUCS was used to collect information about service users' age, gender, marital status, employment status, education level, area of residence, and disease diagnosis. The service users' medical records were reviewed by the researcher to extract demographic and medical data (disease diagnosis) relating to the participating service users (Appendix 2).

- The HCS questionnaire consisted of three sections, including the hospital profile, the availability of essential infrastructure in the hospital and the availability of essential drugs for psychiatric service users (Appendix 3). This questionnaire was completed by the researcher.

  Hospital profile: this included the hospital location, total population served, total number of psychiatric service users served, bed capacity, staff numbers (including psychiatrists, nurses, psychologists, social workers and occupational therapists), and ratio of staff to service users; measured as the ratio of the number of staff nurses to the service users admitted to the ward, in order to create an ordinal measure of small (1:2), medium (1:3-7) and large (1:>7).

  Infrastructure of the hospital variables: this referred to the availability of essential infrastructure in the hospital. It included the availability of the appropriate hospital organisational structure; appropriate staff job descriptions; the registration system; the outpatient appointment system; the outpatient appointment reminder system; the referral system; coordination between the study site and referred PHCs; a health education coordinator; a safety and risk prevention plan; health education materials; an appropriate outpatient clinic waiting area, and the building being maintained in an appropriate condition. A further indicator of hospital quality was investigated in terms of the usual waiting times for service users in an outpatient clinic area or emergency department. This section was assessed using 2-point scales, where the presence of an item of information scored 1 and its absence scored 0 (1=available, 0=not available).

  Essential drugs for psychiatric service users: variables concerned with the availability of essential drugs for psychiatric service users were categorised according to the frequency with which the hospital administered the medication known to lead to the best health outcomes for service users. These included Aripiprazole, Olanzapine, Risperidone, Citalopram and Mirtazapine, amongst others. This section was assessed using a 4-point Likert-type scale, with (4) indicating ‘Always available, and (1) indicating ‘Never available’. Therefore, the higher the score, the more favourable the opinion.

3.6.1.2 Process Measures

Staff attitudes towards the mentally ill/mental illness were measured using (ATAMH-33; Baker et al., 2005); levels of staff competency in the delivery of mental health care were measured using (CAT-MH; Clasen et al., 2003), and the frequency, nature and characteristics of staff-service user interactions were measured using the (IOC; Sanson-Fisher et al., 1979, Sandford et al., 1990, Tyson et al., 1995).

1. Attitudes toward Acute Mental Health (ATAMH-33; Baker et al., 2005)

ATAMH-33 is a self-reported questionnaire developed by Baker et al. (2005). It contains 64 questions measuring the attitudes and knowledge of health professionals in acute mental health care settings. The original authors modified this scale to produce a final scale, consisting of 33 items that address five different factors: care or control, semantic differentials, therapeutic perspectives, 'hard to help', and positive attitudes. The items consist of Likert scales (n=25) and semantic differentials (n=8). The Likert-type questions are scored from 1 to 7, with possible answers ranging from (1) 'Strongly agree' to (7) 'Strongly disagree', with (7) representing the best attitude. Meanwhile, scoring is reversed for four negatively worded statements (12, 23, 24 and 25). The semantic differentials are scored from 0-10 on the scale, with a score of 5 indicating the midpoint and a score of <5 representing a more negative attitude (see Appendix 4).

The ATAMH-33 has been widely used in Arabic countries (Hamdan-Mansour and Wardam, 2009, Ahmead et al., 2010) and has therefore already been translated into Arabic and tested by the original authors, who reported a Cronbach's α of 0.72 (Baker et al., 2005). Permission to utilise the ATAMH-33 was obtained from the original author, who provided the Arabic version of the scale (see Appendix 5 for the letter of permission to use the ATAMH-33 in this study).

2. The Competency Assessment Tool-Mental Health (CAT-MH; Clasen et al., 2003)

The CAT-MH was developed by Clasen et al. (2003) and consists of 26 items that measure the core competencies of health professionals working in inpatient mental health facilities. In accordance with this Tool, two questions were asked for each competency. The first question concerned the Knowledge Sub-scale: "How important do you think it is for a direct care mental health worker to have the following skills and/or knowledge?" and the second question concerned the Benefit Sub-scale: "How much would you (or the workers you supervise) benefit from additional education in the following?" The responses were recorded on a five-point Likert-type scale, ranging

from (1) ('Not important' or 'Definitely not beneficial') to (5) ('Extremely important' or 'Would definitely benefit'). The instrument also includes questions relating to participants' demographic information and closed-ended questions about preferences for education in any of the competencies: best time, best place, number of sessions and how to receive credit for education. The instrument has high internal consistency and high reliability scores for each of the sub-scales, with a Cronbach's α of 0.93 and 0.95 for the Knowledge and Benefit Sub-scales, respectively (Clasen et al., 2003).

In pursuit of the general aim of this study, the Likert scale responses (anchors) were amended to assess levels of staff competency in the delivery of mental health care, since these responses were originally designed to focus primarily on determining whether mental health workers considered a particular skill or knowledge to be important. This would indicate that they implicitly believed training in such areas to be beneficial. The questionnaire items were retained in the same form, as they were following the amendment of the anchors (see Appendix 6 for the amended CAT-MH Scale). For the amended competency scale, the following question was posed: "How competent are the workers whom you supervise in providing direct mental health care?" The new anchors were scored on a five-point Likert-type scale, with possible answers ranging from 1=not competent, to 2=somewhat competent, 3=uncertain, 4=competent and 5=highly competent. For instance, with regard to item (5), which assessed whether the participants were aware of the uses and side-effects of various psychiatric medication, the answer essentially depended on the degree to which the object(s) in question corresponded to the participant's competence in providing psychiatric care. The present researcher was responsible for amending the anchors in the instrument, which was then revised by the research team (two supervisors).

For the purpose of testing the reliability of the amended version of the CAT-MH scale, inter-rater reliability analysis was run to determine whether the scale was still a reliable tool after making the amendments. The reliability of the amended scale was calculated using Cohen's kappa (κ) statistic, where the inter-rater agreement was examined and compared between two raters (two departmental managers), individually instructed to assess the inter-rater reliability of their subordinates. The kappa (κ) coefficient was 0.81 (p= .000), suggesting that the amended version of the CAT-MH scale had good inter-rater reliability. This demonstrated that the scale used still worked in the same way as it did previously, even after being amended. Permission to utilise the CAT-MH scale (as

well as in its translated and amended form) was obtained from the original author (see Appendix 7 for the letter of permission to use the CAT-MH for this study).

3. Participant observation using the Interaction-Observation Checklist (IOC; Sanson-Fisher et al., 1979, Sandford et al., 1990, Tyson et al., 1995)

The IOC was originally designed to assess the frequency and characteristics of staff-service user interaction. A category system (IOC) for classifying observed phenomena is the most common approach to conducting structured observations, where operational definition of the behaviours and characteristics are clearly demonstrated (Polit and Beck, 2006). The IOC comprises four (observational) categories of interactional behaviour: individual verbal (IV), individual non-verbal (INV), group verbal (GV), and group non-verbal (GNV). Each of these has positive, neutral and negative sub-categories for all staff-service user interactions and two categories of non-interactive behaviour: ignoring the service user (IG), and solitary task-oriented (SOL) or other activities (Appendix 8). To determine the presence or absence of positive, neutral or negative behaviour interactions, the researcher used observation criteria (see Table 3.1, below) that were similar to those employed in previous studies on staff-service user interaction (Sandford and Elzinga, 1990, Tyson et al., 1995). It was felt that basing these criteria on those used in previous studies would allow comparisons to be made with the behaviour of professionals in other health organisations. Using the IOC, data are generated to indicate the frequency of each category and overall rates of staff-service user interaction. The IOC has been employed in several studies on psychiatric residential environments and has been reported as having high inter-observer reliability checks, ranging from 88.7% to 96.9% (Sanson-Fisher et al., 1979, Sandford and Elzinga, 1990, Sandford et al., 1990, Tyson et al., 1995, Bowers et al., 2003, Bowers et al., 2006).

Table 3.1: Criteria for the observation of staff behaviour, marked as positive, neutral or negative

Interactive behaviour 1. ***Individual verbal (IV)***: audible word(s) uttered to another service user. 1.1 Service user 1.1.1 Positive: praise, compliments, positive feedback, laughter 1.1.2 Negative: reprimands, derogatory remarks, discouragement, negative feedback 1.1.3 Neutral: neither positive nor negative 1.2 Staff 2. ***Individual non-verbal (INV)***: staff attending to another service user and displaying

any of the following: eye contact, posture facing the other speaker, head movements, gestures (for example, pointing or waving), physical contact, including administering an injection, restraining the service user, dressing or bathing the service user.

2.1 Service user
- 2.1.1 Positive: smiles, friendly gestures, positive physical contact
- 2.1.2 Negative: frowns, grimaces, negative gestures, negative physical contact
- 2.1.3 Neutral: neither positive or negative

2.2 Staff

3. ***Group verbal (GV)***: audible words(s) uttered to more than one service user, with the staff member shifting his/her gaze from one person to another within a 5-s period.
   - 3.1 Service user
     - 3.1.1 Positive: praise, compliments, positive feedback, laughter
     - 3.1.2 Negative: reprimands, derogatory remarks, discouragement, negative feedback
     - 3.1.3 Neutral: neither positive nor negative
   - 3.2 Staff
4. ***Group non-verbal (GNV)***: the attending behaviours described above directed towards more than one service user within a 5-s period.
   - 4.1 Service users
     - 4.1.1 Positive: smiles, friendly gestures, positive physical contact
     - 4.1.2 Negative: frowns, grimaces, negative gestures, negative physical contact
     - 4.1.3 Neutral: neither positive nor negative
   - 4.2 Staff

Non-interactive behaviour

5. ***Ignoring the service user (IG)***: no response to a service user's behaviour, despite being within 1 metre of the service user. Includes missing an opportunity to respond and deliberately ignoring it.
   - 5.1 Inappropriate service user behaviour
   - 5.2 Appropriate service user behaviour
   - 5.3 Neutral: appropriateness or inappropriateness cannot be judged
6. ***Solitary task-oriented (SOL)***: monitoring all purposeful activity or any on-task behaviour carried out independently of others, e.g. eating, reading, writing, talking on the phone, cleaning, counting linen, walking across the ward, etc.
7. ***Other (OTH)***: includes all behaviours that do not fall into the above categories, e.g. absence from the ward.

3.6.1.3 Outcome Measures

To assess service users' outcomes, the present study employed 'the five D' outcome measures, which include death (mortality rate obtained from hospital records) (Lohr, 1988); disability, measured using the (SFS; Birchwood et al., 1990); disease symptoms, measured using the (BPRS; Overall and Gorham, 1962); discomfort, measured using

(GASS; Waddell and Taylor, 2008), and dissatisfaction, measured with the (CSQ-8; Larsen et al., 1979).

1. Brief Psychiatric Rating Scale (BPRS; Overall and Gorham, 1962)

The BPRS is a brief interviewer-administered instrument used to assess clinical symptoms across a broad range of psychiatric service users (including service users with schizophrenia, mania, depression, schizoaffective disorder, and dementia service users with psychiatric symptoms), admitted to inpatient psychiatric units (Overall and Gorham, 1962, Michael Kahn and Swett, 1995, Faustman and Overall, 1998). It consists of 18 items that represent psychiatric symptoms with specific operational definitions (Miller and Faustman, 1996). Each item is assessed along a seven-point continuum ranging from 1=not present to 7=extremely severe. The scale measures five categories of psychiatric symptoms: Thought disorder (TD), Withdrawal (W), Anxiety/Depression (AD), Hostility (H) and Activity (A) (Hedlund and Vieweg, 1980).

TD is related to positive symptoms of schizophrenia (grandiosity, hallucinations, unusual thought content and conceptual disorganisation), while W indicates negative symptoms (disorientation, blunted affect, emotional withdrawal and motor retardation). The AD factor represents somatic concerns, anxiety, guilt and depression and H indicates hostility, suspicion and uncooperativeness. Finally A stands for tension, excitement mannerisms and posturing (Lykke et al., 2008) (see Appendix 9).

The total scores were categorised into four groups: service users with schizophrenia, scoring 32 or more and considered ‘mildly ill’; service users scoring 44 or more and considered ‘moderately ill’; service users scoring 52, considered ‘markedly ill’, and service users scoring over 68, considered ‘severely ill’ (Leucht et al., 2005). The BPRS has been used extensively, proving to be a suitable utility for outcomes research (Miller and Faustman, 1996). The scale generates Cronbach’s alpha values ranging from 0.70 to 0.95 (Tandon et al., 1990). Moreover, it is available in the public domain and can be used without formal permission.

2. The Glasgow Antipsychotic Side-effect Scale (GASS; Waddell and Taylor, 2008)

GASS is a self-reported rating scale developed by Waddell and Taylor (2008). It assesses the degree to which service users experience side-effects from (second generation) antipsychotic medication. Statements 1-20 relate to how the service user has felt over the previous week, while statements 21-22 cover how the service user has felt

over the last three months. For GASS statements 1-20, zero points are scored for the response ‘never’, one for the answer ‘once’, two for ‘a few times’ and three for ‘everyday’, with total scores ranging from 0-63. These scores are categorised into three groups, as follows: 0-21, absent/mild side-effects; 22-42, moderate side-effects, and 43 or over, severe side-effects. For statements 21 and 22, three points are awarded for a ‘Yes’ answer and zero for a ‘No’ (see Appendix 10).

The scale is reported to have good discriminatory power and construct validity, along with good re-test reliability. It is also reported to be a helpful and valid clinical instrument (Waddell and Taylor, 2008). A recent systematic review by Stomski et al. (2016) provides strong support for the validity and reliability of GASS. In considering 23 studies assessing the psychometric properties of 16 assessment tools for the side effects of antipsychotic medication, used in a mental health care population, the above authors demonstrated that content validity was appropriately established for only one of the tools (GASS). Its construct validity was also evaluated, revealing that the correlation coefficients were adequate and confirming the predefined hypotheses. The GASS tool consequently received a positive rating for construct validity. This statistical approach to establishing reliability has only been used for the GASS tool and so it is the only tool that has received a positive reliability rating. Moreover, this scale is available in the public domain and can be used without formal permission.

3. The Social Functioning Scale (SFS; Birchwood et al., 1990)

The SFS was developed by (Birchwood et al., 1990) to assess social functioning, relevant to the needs and impairment of service users diagnosed with schizophrenia. It is extensively used as an outcome measure of social functioning in quantitative studies of schizophrenia (Addington and Addington, 1999, Addington et al., 2008, Chudleigh et al., 2011). It consists of seven subscales/sections: withdrawal/social engagement, interpersonal communication, independence-performance, independence-competence, recreation, pro-social activities and employment/occupation (see Appendix 11). Raw scores on each section are totalled to obtain the overall social functioning score. The scale has Cronbach’s alpha measures ranging from 0.69 to 0.87. Permission was granted by the author of the questionnaire to translate and use it, on condition that a copy of the translated (Arabic) scale was sent to him (see Appendix 12 for the letter of permission to use the SFS in this study).

4. Client Satisfaction Questionnaire (CSQ-8; Larsen et al., 1979)

The CSQ-8 was developed by Attkisson (Larsen et al., 1979) and assesses service users' satisfaction with the health care services that they have received. It consists of eight items designed to measure satisfaction with services, each with four response options. These options have associated scores from 1-4, with total scores ranging from 8-32; the highest score indicating greater satisfaction (see Appendix 13). The CSQ-8 has established very high levels of internal consistency, with a coefficient alpha ranging from 0.83-0.93 (Larsen et al., 1979, Attkisson and Greenfield, 1996). Moreover, it has been validated for use worldwide with people diagnosed with mental disorders (Larsen et al., 1979, Attkisson and Greenfield, 1996, O'Regan and Ryan, 2009, Ward et al., 2013). Permission to translate and use the CSQ-8 scale was obtained from the original author (see Appendix 14 for the letter of permission to use the CSQ-8 in this study).

3.6.2 Relationship between the choice of instruments and Deployment of Donabedian's Framework

As already specified, this present study was informed by Donabedian's Framework (1966), which has been widely deployed to evaluate QoC. The Framework posits that quality is a function in three domains: structure, process and outcome. Each of these domains influences the others, leading to improved QoC. 'Structure' refers to such components as the hospital setting, and the resources available to the service users and health professionals. These create the system through which health care is received and delivered (Donabedian, 1966, Hong et al., 2008). Meanwhile, 'process' refers to the way in which care is provided to service users, thus affecting their health outcomes (Ravelli et al., 2003). These outcomes are in fact the result of actions arising from processes of care (Mainz, 2003).

The Donabedian Model was considered to be the most useful tool for the current study, as it provides a clear framework for investigating the relationship between structure and process factors and health care outcomes. The structural factors to be incorporated into Donabedian's Framework, as deployed in this study, involved the characteristics of staff, service users and hospitals. Meanwhile, the data collection in the area of care processes included staff attitudes, staff competency and staff-service user interaction. Finally, the outcome variables of interest comprised the five Ds: death, disability, disease, discomfort and dissatisfaction (Lohr, 1988).

While several other instruments were found in the literature; investigating QoC issues other than those implemented in this study (Licht, 1979, Dean et al., 1993, Ruggeri and Dall'Agnola, 1993, Olusina et al., 2003), it was important in the present case to relate the choice of instruments to the framework for health care quality deployed (i.e. Donabedian's Framework), in order to inform this important decision over the choice of instruments. A reasonable strategy for selecting the instruments, as adopted in this current study, was based on their logical and clinical suitability (face validity), linked to desirable health outcomes, from which inferences can be made about the QoC. (Wobrock et al., 2009). These instruments have already been widely used to assess care components of relevant interest that influence service user outcomes (such as attitudes, competency, staff-service user interaction, social functioning, disease symptoms, experience of side-effects, and satisfaction with care). The use of these instruments would therefore provide opportunities to compare the current research findings with international or other reporting activities.

A further strategy for selecting instruments was based on the instruments' compatibility with Donabedian's Framework in terms of their content validity for capturing meaningful aspects of QoC (Wobrock et al., 2009). In this sense, instruments were selected that would capture the relationship between the structure and process elements of the mental health care delivery system and the resulting health outcomes. Therefore, it was decided that such instruments would be useful for identifying and investigating relationships between the three domains of Donabedian's Framework, which address the research questions.

In addition to strategies for selecting the instruments, Donabedian's Framework was recognised as a heuristic guide for the choice of the research structure, research process and outcome variables (Donabedian, 1966). This involved choosing instruments to assess elements of QoC dimensions according to the structure-process-outcome approach. For example, a review would be likely to deal with attitude measured as a care process variable, which should serve as input into the technical care with which QoC is ensured. Donabedian (1988a) notes that technical care depends on staff knowledge, judgment and skills in performing proper interventions, which in turn influence care outcomes. With this in mind, considering the choice of Baker's measure, it is proposed here that staff attitudes may be cited as a contributory factor for improving care outcomes (Baker et al., 2005). They also potentially explain the factors associated with the quality of mental health care delivered.

Finally, after a careful review of various instruments, including structural, process and outcome measures, and following a discussion with the academic supervisors, it was determined that these instruments would be effective in answering the current research questions. This is because they would capture the most important variables to evaluate the quality of mental health care, as classified under Donabedian's Framework for QoC. They were also feasible to distribute and easy to complete.

3.6.3 Qualitative Interviews

Semi-structured interviews were conducted to explore service users' perceptions of the quality of their care. An interview guide was implemented to obtain similar types of data from all potential participants and generate a sense of order (Bridges et al., 2008, Doody and Noonan, 2013). The interview guide used in this study was originally developed by the researcher, based on the relevant literature and expertise, in order to elicit indicators (factors) of the quality of mental health care from the perspective of service users in the study setting. The interview guide was revised by the research team in consideration of and including the participants' ideas. It consisted of open-ended questions that defined the area to be explored, such as: "What aspects of the care do you find most helpful?" This requires participants to express their opinions and experiences. Furthermore, additional probes were used to clarify and amplify service users' views. The participant interview guide is presented in Figure 3.2, below.

1. How did you find the nursing care, doctors, social workers, etc...?
2. What about other aspects of your care?
3. What aspects of the care do you find most helpful?
4. What aspects of care do you find the least helpful?
5. What would improve the quality of your care?
6. How do you think this quality can be achieved?
7. How does the care here compare with other places?
8. What makes it better/worse?
9. If you described your experience here to a family member, what would you say?
10. What other things would like to say about your care?

Figure 3.2: Service users' interview guide - key questions

Semi-structured interviews were carried out with the help of an interview guide. This meant that questions could be asked in different ways and in a different order, appropriate to the individual participant. The participants had the opportunity to share their experiences or any comments on the topic under study. Their responses were then used as prompts to explore any issues raised in more detail. One of the challenges encountered during the interviews with the service users related to questions not being understood in the same way by all participants, since their educational backgrounds and general experience differed. Therefore, as far as possible, the questions in the current interviews were worded at a level that would be amenable to the service users' understanding. Moreover, it was perceived that asking the questions in a fixed order would not always be appropriate for everyone. Therefore, the use of a semi-structured approach meant that unexpected answers could be followed up properly (Murphy et al., 1998). These interviews were conducted in Arabic, the mother tongue of both the researcher and the interviewees.

3.7 Data Collection Procedure

Prior to data collection, ethical approval was sought and gained from the Saudi MoH and the Institutional Review Board (IRB) at King Fahad Specialist Hospital-Dammam (KFSH-D), as well as from the administration of the study site (see section 3.10.1 for further details). The data collection took place between June and December 2014. All the participants undertook a consent procedure, in which they read a *Research Informed Consent Form* (information sheet) and had it read out to them (Appendix 15). The following procedures were then undertaken by the researcher for the purpose of data collection.

3.7.1 Survey

3.7.1.1 Translation Process

None of the study measures, except for the ATAMH-33, had previously been used in an Arabic-speaking country. Therefore, they were translated into Arabic by a translator bilingual in Arabic and English, before being back-translated into English by another translator, also fluent in English and Arabic. One translator worked professionally as a translator for the Saudi MoH and held a Master's degree in translation, while the other was a professional with a doctoral degree and worked at the University of Nottingham. Once the measures had been back-translated, the researcher and the two translators checked and agreed on the final version of each measure. This process (forward and back translation) was carried out to ensure semantic equivalence, so that the meaning of

each item remained the same following translation (Touw-Otten and Meadows, 1996, Polit and Beck, 2004), and to ensure the relevance of each item to the new culture in its translated form (Yu et al., 2004). However, during the review, there were no changes or amendments made to the translated items (measures). Meanwhile, the English version of all measures, where applicable, was used for those staff who did not speak Arabic.

3.7.1.2 Pilot Study

Prior to the administration of the survey, the Arabic versions of all measures (including the ATAMH-33, CAT-MH, BPRS, GASS, SFS and CSQ-8) were piloted with 10 participants from each category (staff and service users) taking part in the main survey. The researcher explained to the participants that this was a pilot test. They were then asked to forward any comments about the comprehensibility and clarity of the instruments, as well as providing feedback on the ease or difficulty of the instruments to complete. Based on the pilot survey, the participants experienced no difficulties and understood the measures to a satisfactory extent. The estimated time for completing the questionnaires was 20-30 minutes for staff and 30-45 minutes for service users.

3.7.1.3 Procedure

During the data collection, the managers of each ward (14 wards) and other departments (medical services, social services, psychological services and occupational therapy) were approached individually. They were then provided with information about the research project in terms of its purpose and data collection procedures, as well as to facilitate access to and identify potential participants (including staff and service users) meeting the study criteria. Following this, the researcher approached each ward/department at different times, introduced himself to the potential participants, explained the purpose of the study, and responded to their queries and concerns. Once potential participants had been identified by the researcher using the inclusion and exclusion criteria, they were asked face-to-face about their willingness to take part in the study, in order to prevent or eliminate any element of coercion (given that service users are habituated to personal contact, but may be uneasy with written interaction). The study was then explained and the *Research Informed Consent Form* (information sheet) was administered to potential participants. The latter were subsequently given 24 hours to consider the information, before being asked for their written informed consent to participate. If they agreed to participate, each participant was requested to sign three copies of the *Signature Block for Capable Adults* (one copy for the principal investigator, one for the participant, and one for the IRB), as per the Good Clinical

Practice (GCP) guidelines (IRB-GCP, 2014). Following consent, the study questionnaires were administered to the staff and service users, preserving their anonymity by placing the completed questionnaires in special numbered envelopes. For service users who were willing to participate, but unable to complete the questionnaires, due to a low level of literacy, the researcher gave assistance, where appropriate, by reading the items and scoring them on the basis of the participants' responses. In addition, since the work shifts of nursing staff and physicians (GPs) differed according to hospital policy, they were approached individually or in groups at different times.

3.7.2 Participant Observation

As specified earlier, observations were carried out across six different mental health admission wards (4 male/2 female wards) at the study site. Staff-service user interaction was thus observed for a four-week period, during the daytime shift from 07.00 am to 03.00 pm. Each participating ward was observed for one hour per day on three days a week, using the IOC. The daytime period was selected in accordance with other mental health studies, which found that this time period corresponds to the therapeutic day. It is therefore the time when most interaction is likely to occur between professionals and inpatients (Dean et al., 1993, Tyson et al., 1995, Olusina et al., 2003). Such a consideration is based on the assumption that the level of activities and interactions during this daytime period is representative of the entire institutional day. In psychiatric hospitals in KSA, the majority of active care takes place between 07.00 am and 03.00 pm (the morning shift). After 03.00 pm (i.e. the evening or night shift), however, there is limited formal structural care. Therefore, the daytime period was chosen. Beyond that, there is atypical care provided. The researcher not only wished to conduct a representative observation, but also to be representative in the sense of capturing the typical care occurring in the daytime, rather than atypical care. Furthermore, the time period chosen does not skew any consideration of QoC, because the researcher sought to observe typical care, when the bulk of the structured care/programme was being implemented, while anything observed after 03.00 pm may have distorted the actual study findings.

3.7.2.1 Observer Training and Reliability

Prior to conducting the observation, the researcher familiarised himself with the data collection tool and trained two female nurse researchers from different wards at the named hospital (including mastery of the observation procedures and category definitions). This was for the purpose of collecting observation data on behalf of the

researcher in the female wards, as the researcher (being male) was not allowed direct access to female wards, according to Saudi policy. It is essential to train observers, so that each behaves in the same way when collecting information through observation. These training sessions lasted for two weeks at a frequency of three hours a day in two male admission wards (M4 and M5)[1], where all nursing staff were female. During the sessions, the researcher and nurse researchers conducted observations independently on the same ward, observing the same activities and behaviours with the same staff at the same time. To ensure that these observations were contemporaneous, a verbal cue was given by one selected observer at the beginning of each five-minute interval for one hour each day. After this, inter-observer reliability checks were carried out to assess the reliability of the observations, before the actual observations took place, with each observer operating independently. The reliability of these observations was established by calculating Cohen's kappa (κ), whereby inter-rater agreement was examined and compared between the three observers. High agreement between the three observers ($\kappa=0.83$, $p < .001$) was subsequently found. In addition, reliability was achieved for the observations in the two male admission wards (M4 and M5), calculated using the percentage level of agreement between the three observers. These reliability values were calculated using the following formula: (no. of agreements/no. of agreements + no. of disagreements × 100). Overall, inter-rater reliability totalled 82.8% in one ward, but this increased to 87.8% for observation conducted on the second day in another ward.

3.7.2.2 Observational Procedures

The ward managers provided the researcher with a list of all staff members to be observed and then informed both staff and residents that the researcher would be present; describing the purpose of the research and specifying the individuals with whom interaction was not permissible, so that there would be no interference with on-going activities. This ensured that the observational recordings reflected typical behaviours occurring throughout the day, as well as increasing their level of acceptance. The researcher liaised with the head nurses on sampling schedules (created by the researcher), for the purpose of specifying the ward, times and target staff members to be observed (see Appendix 16). The staff and residents subsequently welcomed the researcher and were happy to meet him and participate in the study.

The sampling schedule determined the exact time at which an individual observation would begin. The observed time period was selected in accordance with other studies

[1] (M4)=Male chronic psycho-medical ward; (M5)=male chronic psycho-medical ward.

and corresponded to the therapeutic day. It was also the time when the greatest number of interactions was likely to occur (Sanson-Fisher et al., 1979, Tyson et al., 1995). It has been argued that when the events of interest are relatively frequent, time sampling can enhance the representativeness of the observed behaviours (Polit and Beck, 2006). During the data collection, the researcher entered the wards, identified the target staff members and recorded their behaviour with each service user encountered, encompassing the ward every five minutes. At each interval, observation began by observing the first nurse encountered and continued until all nurses had been observed. Nurses' behaviour with service users at the observed time was recorded on a clipboard using predefined categories in the IOC.

3.7.3 Qualitative Interviews

In contrast, the qualitative data collection lasted for three months. The participants were recruited via purposive sampling from multiple inpatient wards, while the survey was ongoing. This was undertaken by checking the participants' willingness to take part in individual, face-to-face semi-structured interviews. The potential participants were then added to a volunteer list created by the researcher for this purpose. Following this, the volunteers' eligibility criteria for participating in the interviews were assessed by the researcher on the basis of gender, age and educational background. Decisions were made in consultation with head nurses and/or the treating physicians to make judgements about each service user's capacity to give consent to participate in the interviews. This approach enabled the researcher to make more informed decisions for the participants (as vulnerable people) over their participation in the interviews, relating to their right to give consent and to protect them from avoidable harm (as discussed in detail in section 3.10). The appointments for the interviews were then planned with eligible participants at a time of their choosing.

One to two semi-structured interviews were planned per day and these were conducted at the assigned office in the ward setting, in an area that was safe and free from interruptions. The participants were encouraged to bring hot or cold drinks and were asked if they were ready to start the interview. They were initially welcomed and thanked for agreeing to take part in the study. They were then informed that the interview was being undertaken by the researcher as part of a PhD project, which would not affect their statutory rights or the care that they received. They were also reassured that all their contributions would remain anonymous. However, it was clarified that they would not receive any payment or incentives for their participation.

For female participants (n=6), the head nurses were instructed not to have any third parties present while interviewing the participants and as a result, they needed to keep the door of the office open during the interviews, due to the absence of a chaperone (this is the modus operandi in Arab-Islamic cultures to avoid social stigma). All the participants (male and female) showed a keen interest in the research topic and were generally cooperative and informative. The semi-structured interviews lasted approximately 45-60 minutes.

Prior to the interviews, all the interviewees were reassured that their participation was voluntary and that they retained the right to ask questions, refuse to give information, and withdraw from the interview at any time. In addition, all the participants were informed that the interview would be audio-recorded (with their permission and subject to the right to pause or terminate the interview or withdraw from the study). This would ensure that maximum attention could be given to the participants, while at the same time guaranteeing the accuracy of the data collection. In turn, this would enhance the flow of data and allow the researcher to return to the raw data for verification when necessary (Clarke, 1992, Bolster and Manias, 2010). Unlike video-recording, audio-recording is the most common approach used in qualitative interview research (Braun and Clarke, 2013). However, one of the disadvantages of using a tape recorder is that an interviewee may experience fear or discomfort. Therefore, the participants were assured that the recordable material would be carefully managed and stored for seven years after the completion of the study, before being safely destroyed. The *Research Informed Consent Form* explicitly covered the implications of audio-recording for the participants, giving them the opportunity to consider and then ask about the research before agreeing to participate in the interview. If they agreed to participate, they would be requested to sign three copies of the *Signature Block for Capable Adults* (one copy each for the principal investigator, participant and IRB).

As mentioned previously, the interviews were conducted and recorded in Arabic, the mother tongue of both the researcher and interviewees. This approach helped the participants to grasp the context of the data collection. It also allowed the researcher to capture non-verbal responses or dialect, thus ensuring a comprehensive appreciation of the data, as well as avoiding the methodological issues associated with translation during data collection. A total of 30 interviewees (24 male/6 female) agreed to participate in the qualitative phase, with no participants withdrawing their consent or from their participation in the interviews.

3.8 Quantitative Data Analysis

This section sets out the measures applied to psychometric properties in terms of the reliability and validity of the translated instruments, and the statistical analysis of the quantitative data (including the survey and participant observation), for the purpose of investigating the factors associated with the quality of mental health care and its relationship with service user outcomes.

3.8.1 Validity and Reliability of the Survey Instruments

Following the translation of the instruments, as described earlier, the validity and reliability of the translated versions was established, as described below (Esposito, 2001).

3.8.1.1 Validity Testing

The content validity of the translated instruments used in this study was enhanced in three ways. First, the content validity of the instruments was established, before starting the main study. This took place through a rigorous translation process (see subsection 3.7.1.1). Second, the content validity of the Arabic version of all the survey instruments used (including ATAMH-33, CAT-MH, BPRS, GASS, SFS and CSQ-8) was assured by an expert panel of health professionals, each of whom is recognised as a specialist in the mental health sector in KSA. These experts were recruited from different health settings and included three psychiatrists and one mental health nurse holding a PhD. Moreover, the content validity of the instruments was checked by an independent specialist psychiatrist at the study site.

The expert panel was asked to judge the translated instruments and whether they measured what they were designed to measure with regard to item content, comprehensibility and readability, using the content validity index (CVI). For example, the content clarity and content adequacy of each item was rated on a four-point scale: 1=not relevant, 2=somewhat relevant, 3=quite relevant, and 4=highly relevant. The CVI value was calculated as the number of experts rating each item on the instrument (from 1-4), divided by the number of experts. This yielded the proportion of experts in agreement over relevance, with higher scores indicating that the criteria for the translated instruments were met. In the case of lower scores (1 or 2), the experts where asked to offer suggestions for improving the items. The CVI proportion of items was rated 3 or 4 by a panel expert, which showed an acceptable level of content validity, determined as more than .80 (Polit et al., 2007).

Finally, the content validity of the translated instruments was evaluated prior to the administration of the surveys by conducting a pilot study at the study site, in order to check the comprehensibility and clarity of the instruments (see subsection 3.7.1.2).

3.8.1.2 Reliability Testing

The internal consistency of the instruments' reliability was assessed using Cronbach's α (Nieswiadomy, 1993, Polit and Beck, 2006). The reliability of the survey instruments used in this study was enhanced in three ways. Firstly, the instruments selected to measure the study variables were already well-established, with reliability that had been demonstrated in previous research studies (see section 3.6.1). Secondly, the reliability of the internal consistency of the Arabic version of all the survey instruments used (including ATAMH-33, CAT-MH, BPRS, GASS, SFS and CSQ-8) was assessed using Cronbach's α (see Table 3.2). All the instruments were considered acceptable as a consistent measure, if Cronbach's $\alpha \geq 0.70$ (Pallant, 2013, Kline, 2016). Finally, the reliability of the observations was established using Cohen's kappa (κ), where inter-rater agreement between three observers was examined and compared. These observers had been individually trained to carry out inter-observer reliability checks. The kappa (κ) coefficient was 0.83, $p < .001$, suggesting that the IOC had very good inter-rater reliability. The survey's reliability findings suggested that the Arabic instruments used worked in the same way as their previous English versions. Therefore, the extent of measurement error was considered as minimal and the validity of the statistical conclusions was enhanced.

Table 3.2: Psychometric properties of the Arabic survey instruments

Instrument	Cronbach's alpha (α)	Kappa value
ATAMH-33	.739	-
CAT-MH*	.949	-
BPRS	.828	-
GASS	.852	-
SFS	.724	-
CSQ-8	.847	-
IOC	-	0.83

* Amended version

3.8.2 Descriptive and Inferential Statistical Analysis

In this study, the quantitative data analysis investigated factors associated with the quality of mental health care and with service user outcomes (the 5Ds). Summary data from descriptive statistics, including number (sample size), mean, range of scores, standard deviation, frequency and percentage of the sample were presented in tables for

each group (staff and service users) and annotated with the total participant size relevant to the respective table, including any excluded participants, if applicable. In addition, frequencies and measures of central tendency and dispersion were computed for all variables related to process and outcome measures among the study participants, using IBM SPSS Statistics, Version 22.

Following the above, the MLwiN multilevel modelling software package (Version 2.35) was used to undertake the inferential analysis of the quantitative data (including the questionnaires and observations). The researcher received training in quantitative data analysis in a three-day workshop entitled 'Introduction to Multilevel Modelling Using MLwiN Software', conducted by the University of Bristol (see Appendix 17). This analysis investigated (via data-modelling) the factors related to the quality of mental health care (structure and process measures) and their impact on service user outcomes.

3.8.3 Complete Elimination of the Death Variable from the Data Analysis

One of the service user outcomes concerned a potentially sensitive matter, namely the mortality variable, or mortality rate of hospitalised psychiatric service users, to be collected from hospital medical records. However, this outcome (variable) was removed entirely from the present statistical analysis, since no mortality data were documented in the hospital medical records, as the mortality rate was recorded within each ward.

3.8.4 Complete Removal of All Staff (Except Nurses) and Hospital Data from the Final Data Analysis

Although the researcher had collected data from all health care professionals (including psychiatrists, psychologists, nurses, social workers and occupational therapists) and hospital sources (including the hospital profile, the availability of essential infrastructure in the hospital and the availability of essential drugs for psychiatric service users), the statistical advisors believed that data gathered from other professionals could not be reasonably matched in a direct way to participant outcomes. This is because, unlike nurses, other professionals did not have 24 hour involvement in patient care. As a result, there was the possibility of making spurious associations, especially when using SPSS software. The removal of these data and use of MLwiN software considerably reduced the possibility of such bias and minimised the likelihood of detecting spurious associations/predictors. Moreover, the value of limiting the above-mentioned problem is acknowledged in the limitations section (see section 6.11.2).

More details on the data gathered from nursing staff and service users, and the way in which both sets of data were nested for the purpose of statistical analysis, are described in the next section.

3.8.5 Data Description

In this study, data were collected from nursing staff and service users across 14 wards for the quantitative strand of the research. The data consequently had a two-level hierarchical structure, with service users represented at level 1, nested within wards at level 2. Multilevel modelling analysis was used, because the data were collected at different levels or in different units of analysis, with one level being nested in the other (Bristol, 2016). The levels of analysis represented in this study were: 1) service user level, with data obtained from service users admitted to various psychiatric wards, and 2) ward level, with data representing ward characteristics. All these data were obtained from the nursing staff assigned to various hospital wards. Thus, individual service users were nested within the hospital wards.

Accordingly, the dataset was sorted in the MLwiN spreadsheet, so that all records for the same highest-level unit were grouped together. Within this group, all records for a particular lower-level unit were linked. In addition, the data on nursing staff were arranged in the MLwiN data sheet, based on the number of service users in each ward (as a flat file). At each level of the hierarchy, there were two main types of variable: level 1 variables (service user-level), which included socio-demographic variables (service user characteristics) and dependent variables (i.e. disability, disease, discomfort and dissatisfaction), and level 2 variables (ward-level), which included the socio-demographic variables and process variables for the nursing staff. The variables for the study analysis are presented and described in the following subsections.

3.8.5.1 Level 1 Variables (Service User Level)

- Service user characteristics: socio-demographic variables, including age, gender, marital status, employment status, educational level, area of residence, and diagnosis. Each parameter has a measure of possible values: age was used as a continuous variable (in years); gender was categorised as male or female; marital status was categorised into single, married, divorced and widowed; employment status was categorised as retired, employed or unemployed, and educational level was categorised into illiterate, primary school, intermediate school, secondary school, college (diploma), graduate and postgraduate.

Consistent with other analyses of area of residence (Al-Zahrani et al., 2013), service users were categorised into Western Region, Eastern Region, Central Region, North Region and South Region. Finally, individual diagnosis was allocated to diagnostic categories of schizophrenia, personality disorder, bipolar disorder, substance-related disorder, and depression.

- Dependent variables: service user outcomes were operationalised as cited in the literature. Disability was therefore defined as a total score, calculated as the psychiatric service user's ability to engage in necessary social activities (measured using SFS); disease was defined as the total score calculated for specific symptoms of psychiatric service users, based on service users' self-reporting (measured using BPRS); discomfort was defined as the total score calculated for service users' experience of the side-effects of psychiatric medication (measured using GASS), and dissatisfaction was defined as the total score calculated for service users' feelings of satisfaction with the mental health care services that they received (measured using CSQ-8).

3.8.5.2 Level 2 Variables (Ward Level)

- Nurse characteristics: socio-demographic variables, including age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses, and staff numbers. Each parameter was treated as an aggregated group value by deriving a new variable that summarised the information as the average (mean) of a continuous variable (i.e. age and staff numbers), and percentage summarising information on the categorical variables, including gender, nationality, qualifications, years of experience in the hospital, and attendance of psychiatric training courses.

- The process variables included nurses' attitudes towards the mentally ill/mental illness, nurses' levels of competency in the delivery of mental health care and the frequency, nature and characteristics of staff-service user interactions; treated as independent continuous variables, in the form of aggregated group values by deriving a new variable that summarised the information as the average (mean). Thus, the mean score for attitude was calculated from nurses' perceptions of the mentally ill/mental illness in each ward (measured using ATAMH-33), while the mean competency score was calculated from nurses' levels of competency in the delivery of mental health care on each ward

(measured using CAT-MH), and the mean score for staff-service user interaction was calculated as the number of times that staff interacted with patients in each ward (measured using IOC).

Table 3.3 gives a detailed view of the dataset analysis, containing service user-level variables with a ward identifier and 11 ward-level variables.

Table 3.3: Description and coding of variables

Name of Variable	Description and Codes
NURSEAGE	Mean age of nurses (in years)
NURSEMALE	Proportion of male nurses, summarised as gender
NURSESAUDI	Percentage of Saudi nurses, summarised as nationality
NURSEDIPLOMA	Percentage of nurses who hold a diploma, summarised as qualifications
NURSEEXPER	Proportion of nurses with over four years' experience, summarised as years of experience in the hospital
NURSETRAIN	Percentage of nurses receiving training, summarised as attendance of psychiatric training courses
NURSENO	Staff numbers on the wards (M1=15, M2=11, M4=13, M5=12, M6=12, M8=10, M13=15, M14=15, M15=12, M16=14, M17=10, F2=12, F3=14 and F5=11)
NURSEATTIT	Mean attitude score calculated from nurses' perceptions of the mentally ill/mental illness in each ward, as measured by the ATAMH-33
NURSECOMPET	Mean competency score calculated from nurses' levels of competency in the delivery of mental health care in each ward, as measured by the amended CAT-MH
NURSEINTERAC	Mean staff-service user interaction score calculated as the number of times that staff interacted with service users on each ward, as measured by IOC
WARDID	Anonymised ward identifier (coded from 1-14)
PTNO	Number of service users on the ward (M1=24, M2=28, M4=4, M5=3, M6=17, M8=9, M13=74, M14=54, M15=39, M16=14, M17=9, F2=32, F3=4 and F5=2).
PTAGE	Age of service user (in years)
PTGEN	Gender of service user (1=male*, 2=female)
PTMSTATUS	Marital status of service user (coded 1 for single,* 2 for married, 3 for divorced and 4 for widowed)
PTESTATUS	Employment status of service user (coded 1 for retired, 2 for employed* and 3 for unemployed)
PTEDUC	Educational level of service user (coded 1 for illiterate,* 2 for Primary School, 3 for Intermediate School, 4 for Secondary School, 5 for College (Diploma), 6 for Graduate and 7 for Postgraduate)
PTAREA	Area of residence, defined as geographical accessibility of the hospital to the service users (coded 1 for Western Region, 2 for Eastern Region, 3 for Central Region, 4 for Northern Region* and 5 for Southern Region)
PTDX	Service user's disease diagnosis (coded 1 for schizophrenia, 2 for personality disorder,* 3 for bipolar disorder, 4 for substance-related disorder and 5 for depression)
TOTALSFS	Total score calculated as the psychiatric service user's ability to perform necessary social activities, as measured using the SFS, with a higher score indicating a higher level of social functioning
TOTALBPRS	Total score calculated from specific symptoms of psychiatric service users, based on service user self-reporting, as measured by the BPRS. Scores range from 0-126, with a score of over 68 indicating severe illness
TOTALGASS	Total score calculated as service users' experience of the side-effects of psychiatric medication, as measured by GASS. Scores range from 0-66, with scores over 26 indicating severe side-effects
TOTALCSQ	Total score calculated as service users' feelings of satisfaction with the mental health care services received, as measured by CSQ-8. Scores range from 8-32, with the highest score indicating greater satisfaction

* Was set as the reference category in all the analysis models; each category of predictors was contrasted with the reference category (M=Male ward; F=Female ward).

3.9 Qualitative Data Analysis

Thematic analysis was carried out to analyse the qualitative data. This approach is inductive to ensure that the analysis is grounded in the data and that no pre-defined categories or themes are applied, i.e. the themes are derived from the data themselves (Braun and Clarke, 2006). The intended purpose of the thematic analysis is to identify, organise and interpret patterns of meaning, in order to produce knowledge that will contribute to a more general understanding (Braun and Clarke, 2013). Thematic analysis was chosen as a suitable approach for analysing the interview data, as it enables the key features of a large dataset to be summarised. Thematic analysis also helps explore perceptions, meanings and understanding of reality by comparing data across many cases, and is a useful approach for producing qualitative analyses suitable for informing the formulation of policy (Braun and Clarke, 2006). Moreover, it is in keeping with the realist perspective adopted, whereby the meanings of participants' perceptions are explored in more detail. NVivo Version 11 qualitative analysis software was subsequently employed to help manage and code the data (Bazeley and Jackson, 2013).

3.9.1 Data Analysis and Generation of Themes

For the purpose of implementing an effective and consistent analysis of the data, the following six phases of inductive thematic analysis, as described by Braun and Clarke (2013), were explicitly applied in this study: familiarisation with the data, the generation of initial codes, the search for themes, review of the themes, defining and naming the themes, and producing a final report. Detailed descriptions of these steps, as applied in this study, are described below.

3.9.1.1 Familiarisation with the Data

Familiarisation with the interview data began immediately following completion of each interview by listening to the audio files and becoming attuned to the service users' experiences and perceptions of their care. The interviews were then transcribed verbatim by the researcher. Since the interviews were conducted and recorded in Arabic - the native language of the researcher and interviewees - the transcribed interviews were then translated from Arabic to English. In order to enhance the confirmability of the data and findings, a professional bilingual translator was deployed to translate all the interviews from Arabic to English. These were then back-translated into Arabic by another independent bilingual translator (Squires, 2009), following which the two Arabic transcriptions (the original and transcribed interviews) were checked by the researcher for any discrepancies. This was intended to enhance the study's rigour. The

use of two different professional translators helped to validate the translation of the content (Squires, 2009, Esposito, 2001). The process of transcription and translation, along with detailed multiple readings of the transcripts to determine their accuracy enabled the researcher to immerse himself in the data, thus identifying common and repeated themes related to the participants' perceptions of the quality of their care. This process of familiarisation was completed by taking notes and ideas from each interview and recording them directly in the NVivo notes (Memo files).

3.9.1.2 The Generation of Initial Codes

As explained above, the data were re-read on multiple occasions and initial codes were devised using a comprehensive coding approach - line-by-line coding - to detect aspects of the data that would allow key points of potential relevance to the research question, to be pinpointed: "What are the service users' perceptions of the quality of their mental health care?" For this study, all codes were data-derived (semantic codes). At this stage, the researcher coded as many potential themes as possible to ensure that the coding captured both the patterns and diversity of the data.

3.9.1.3 The Search for Themes

This stage of analysis started by collating the coded data, in order to generate themes in relation to the research question. It involved reviewing the coded data arising across the dataset; paying particular attention to overlaps and differences in the accounts given by the participants and using a thematic map to explore the relationships between codes and themes, and themes and subthemes. The codes were then grouped into similar descriptive categories, allowing more in-depth analysis and thus forming the basis of a central organising concept for each theme. By the end of this stage, all relevant items were marked, with the emerging themes being noted and then ordered into preliminary lists.

3.9.1.4 Reviewing the Themes

At this stage, the analysis was developed further by reviewing candidates' themes in relation to the coded data and the whole data set. This ensured that the themes captured the meaning of the dataset in relation to the relevant research question. The candidates' themes were revised by returning to the dataset as a whole and to the overall codes, in order to assess whether they were distinctive, coherent and worked together to answer the research question.

3.9.1.5 The Defining and Naming of Themes

In this phase, the themes were grouped and compared. Further revision of the themes was undertaken by examining data extracts to ensure that the essence of the themes was captured. Following this, a critical review was conducted to verify that the themes, along with their associated sub-themes, effectively captured all aspects of the data extracts, and that the data extracts adequately supported the themes. Both the themes and sub-themes were refined during this phase.

3.9.1.6 Producing a Final Report

Finally, the themes and sub-themes were presented and interpreted with sufficient thoroughness to provide a concise, coherent, meaningful, non-repetitive and interesting account of the story, in a way that would persuade the reader of the merit and validity of the data analysis. The interpretation of the themes and sub-themes was based on the participants' own voices. Each theme emerging from the service users' perceptions contributed to the section presenting the qualitative results in this thesis. A summary of the process of qualitative data analysis is illustrated in Figure 3.3, below.

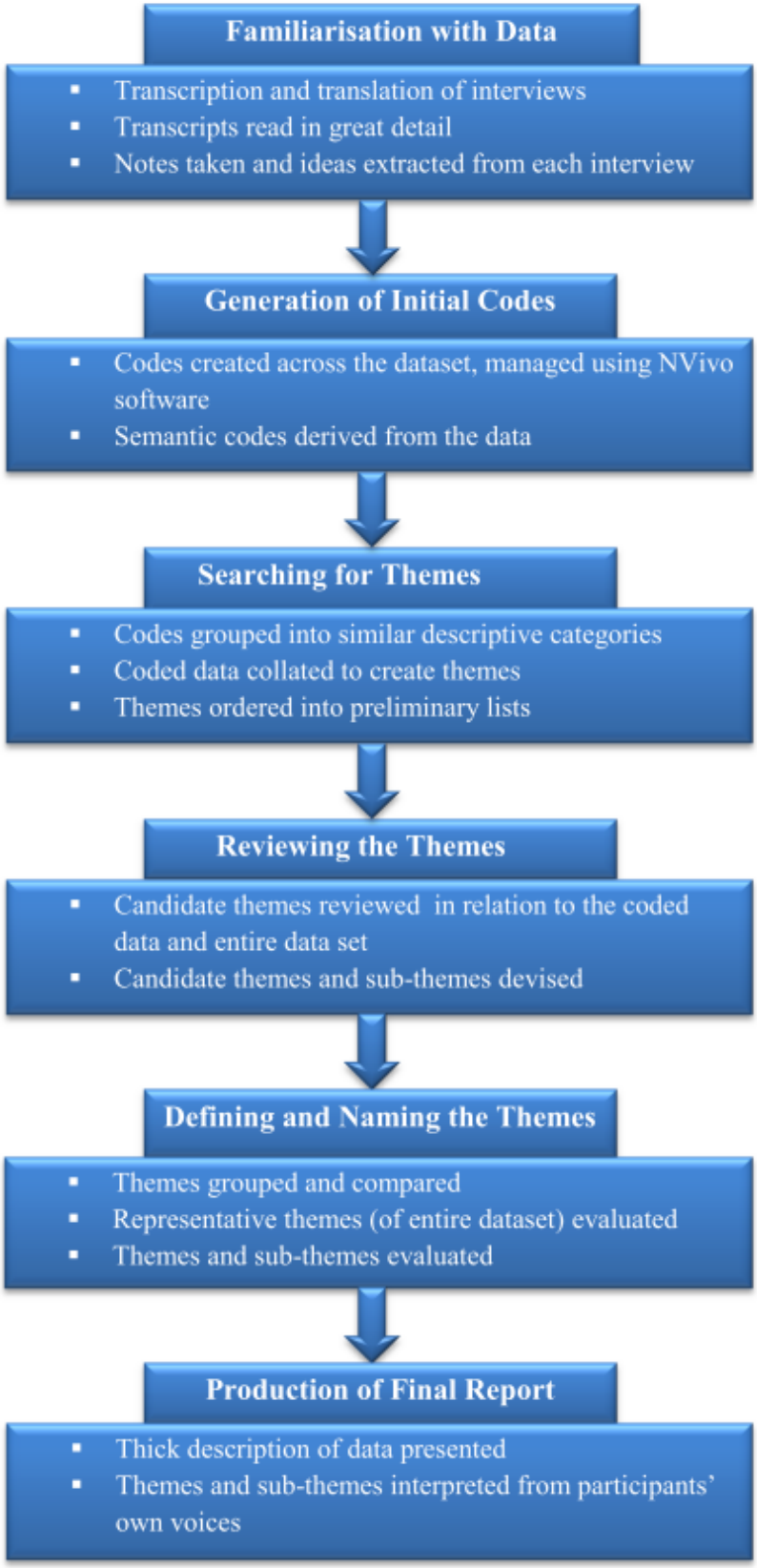


Figure 3.3: The process of qualitative data analysis (the scheme designed for the process by the researcher, based on Braun and Clarke, 2013)

3.9.2 Rigour and Trustworthiness of the Data

Reliability, validity and generalisability are the main criteria used to assess the quality and rigour of quantitative research (Bryman, 2016). Lincoln and Guba (1985) redefined these criteria, so that they could be applied in assessing the quality of qualitative research; hypothesising four criteria to evaluate rigour: credibility, transferability, dependability and confirmability (Bryman, 2016). The forthcoming sections describe the features of these criteria and how they were addressed in this study.

Credibility in qualitative research refers to whether the study findings faithfully interpret participants' perceptions, experiences and comments (Sandelowski, 1986). Credibility was strengthened in this study through the purposive selection of participants based on various demographic data, such as age, gender and educational background, in order to ensure the richness of the data. Moreover, practical pilot interviews were conducted with three of the participants to enable the researcher to develop the relevant personal skills for the interviews in the main study. This further increased the richness of the interview data (these pilot interviews were not included in the final data analysis). The researcher also used the answers received as a cue for exploring issues raised by the interviewees in more detail and rephrased questions to enhance his understanding of the participants' points of view.

Transferability refers to the possible transferability of the qualitative research findings to settings other than the one in which the original study was conducted (Mays and Pope, 2000, Bryman, 2016). In this study, the participants were selected purposively from eight different wards in a hospital, so as to shed light on the topic of interest. They were additionally considered to be representative of the larger population in all mental health settings in KSA. Moreover, the qualitative findings were enhanced by providing full details of the study methodology and methods chosen. This would enable the reader to compare principles, settings, methods and other research findings (Curtin and Fossey, 2007).

Dependability is equivalent to reliability in the evaluation of quantitative research (Bryman, 2016). Holloway and Wheeler (2010) define dependability as the consistency and accuracy of qualitative research findings, which enable the reader to assess the process of analysis undertaken by the researcher. This involves a full and detailed description of the methods of data collection and analysis, in order to assess whether the data were enhanced by these mechanisms of collection and analyses. In this thesis, the

researcher has provided a clear and detailed account of the data collection methods used, including accessibility, the selection of the participants, the interview methods adopted, and ethical and methodological concerns.

In addition, an audit trail was tracked to increase the dependability of the qualitative findings (Bryman, 2016). This was employed by involving the researcher's supervisors, who acted as the auditors to ensure that appropriate decisions were made during the research process, including sampling, data collection, data analysis and the interpretation of the findings (Reed and Fitzgerald, 2005). Furthermore, an external (not involved in the research process) and experienced qualitative researcher was consulted to examine both the process and product of the research study; evaluating the accuracy of the findings and verifying whether its interpretations and conclusions were supported by the data (Lincoln and Guba, 1985). The COREQ (32-item) checklist was then consulted to improve the rigour of the qualitative strand of the current study. This addressed the key criteria for well-designed qualitative research, in terms of the research team and reflexivity, study design, data analysis and findings (Tong et al., 2007).

Confirmability refers to the neutrality of the qualitative findings and whether they are shaped by the participants, as opposed to the researcher's bias, personal motives, or interest (Lincoln and Guba, 1985). In the current study, the research team (supervisors) examined the data analysis process to verify that the findings, interpretation, recommendations and conclusion were all based on the data and not unduly affected by the researcher's assumptions or bias.

3.9.3 Reflexivity

Reflexivity is a common concept in qualitative research. It refers to the need for researchers to acknowledge that they are active participants in the research process and thus play an important role in the development of the research and participant engagement (Finlay, 2003). Curtin and Fossey (2007) report that researchers need to be explicit about their biases, assumptions and personal values, which can all influence the research findings. Moreover, being explicit means that researchers need to ensure that the findings are genuinely reflective of the participants' perspectives, rather than filtered through their own subjective experiences. Several strategies reported in the literature show evidence of reflexivity (Finlay, 2003, Arvay, 2003, Watts and Teitelman, 2005, Ortlipp, 2008).

In the present study, the researcher attempted to identify his role in collecting data on the participants' narrative accounts. This was achieved by presenting the realities reported by the participants; setting aside any professional background or clinical experience, as well as any assumptions about the topic being investigated. Nevertheless, the researcher occasionally referred to his own clinical experience, in order to ensure the comprehensiveness of the data being collected and reflexivity of the data analysis. Reflexivity was also addressed by writing memos (Hall and Callery, 2001), which created a space for recording personal reflections and feelings arising at the time of collecting the data, thus conveying the authenticity of such feelings. The inclusion of memos helped develop theory by drawing upon the researcher's wider knowledge and experience, accumulated through working as a registered mental health nurse and as an advanced nursing student.

In addition, as a male researcher collecting data from both male and female participants, the researcher was aware of the influence of gender on the interviews, particularly in the context of gender-segregated societies, such as KSA. Arrangements were consequently made to ensure that the participants felt as comfortable as possible. For example, the participants were interviewed in their respective wards and the interviews were initiated by breaking the ice in different ways, especially in the case of female participants, who were likely to feel a little diffident about answering questions posed by a stranger. Therefore, the researcher sat quietly at a distance from each interviewee to ensure that they felt more at ease. During the interviews, the interviewer endeavoured to remain pleasant and courteous; beginning by introducing the study and explaining the interview technique, as well as reminding the interviewees that their participation was voluntary in nature and that they could withdraw at any time.

Although it was important to acknowledge that the impact of gender on the interviews could be intimidating to female participants, full use of interactive opportunities was made to help to break down respondent barriers, reduce tensions and maintain rapport (Barriball and While, 1994). All the female participants consequently exhibited interest and agreed to take part in the interviews. It was noted that after 15-20 minutes of being interviewed, they started feeling more relaxed, making frequent eye contact and appearing to be more comfortable about openly describing their experiences in the hospital. Barriball and While (1994) point out that the self-presentation of the interviewer in terms of dress, etiquette and manner can also help put an interviewee at ease, as well as diminishing any effect of gender differences.

Further to the above, it is important to take into consideration the researcher's background and experience as a registered mental health nurse, when collecting and interpreting the participants' responses (Watts and Teitelman, 2005). In the researcher's professional experience, careful attention and understanding of the specific needs of mental health service users is vital to the provision of an effective care service. He also believes that this study is important, because it will help provide information for health planning and policies to address the needs of mental health hospitals in terms of human resource management, recruitment and hospital design, as well as clinical practice in mental health settings. Taken together, the researcher's background in this field enabled an in-depth exploration of the phenomenon under investigation. In the interviews, however, the interviewer was introduced as a researcher, rather than as a mental health professional and so the participants were not aware of his qualifications or experience in the field, which meant that their responses were not affected. Moreover, the researcher took pains to minimise the effect of his personal experiences and assumptions, allowing the participants to describe their perceptions of the care provision, without any outside interference. This approach enabled the researcher to reflect on and build a picture of the participants' responses, thus contributing to an interpretation of the findings.

3.10 Ethical Considerations

3.10.1 Ethical Approval

The present study was approved by the University of Nottingham's Faculty of Medicine and Health Sciences Research Ethics Committee (Ref. OVS13022014 SoHS). In addition, the research received ethical approval from the Saudi GDRS-MoH, the IRB at KFSH-D, KSA (Ref. MoH0170) and the administration of the research setting, where the study participants were identified and recruited. Copies of all ethical approval letters are attached in Appendix 18.

3.10.2 Ethical Principles of Participation

The Declaration of Helsinki for Health Research (WMA, 2013) makes a number of recommendations for studies involving human participants. Firstly, the general principles indicate that while the primary purpose of medical research is to generate new knowledge and safeguard health and well-being, the rights and interests of individual research participants must be the main priority of the researcher (i.e. there is no 'end justifies the means' dispensation for violating the rights of participants). Research should also be carried out in a manner that minimises any possible harm to the research participants or the environment. Furthermore, it is the duty of the researcher to

safeguard the life, health, dignity, integrity, right to self-determination, and privacy and confidentiality of research participants' personal information.

Secondly, researchers should be rigorously and constantly thorough in their research, assessing the predictable risks and burdens for the individuals involved in relation to their potential benefits. Thirdly, vulnerable individuals should receive special consideration, in addition to the general safeguards that are the inherent right of all human beings, thus ensuring that their rights are protected. Fourthly, the study protocol should be submitted for consideration, comment, guidance and ethical approval to the relevant research ethics committee, before the field work commences. Finally, this study protocol should encompass a statement of the ethical considerations and indicate how the standard ethical principles have been addressed. To address these principles, the study protocol for the present research was reviewed by the Research Ethics Committee at the University of Nottingham and IRB at KFSH-D in KSA (as described earlier in sub-section 3.10.1).

Standard ethical issues are vital during any research involving human participants and particularly so when the target sample involves participants who are regarded as vulnerable (in this case, service users with mental disorders). It is therefore important that the researcher addresses any issues that may arise when undertaking such research and understands his or her responsibilities to participants. While general ethical principles can be applied to all types of participant, additional measures or considerations are necessary when studying vulnerable service users, in order to ensure that their rights are protected at all times (Keogh and Daly, 2009). The standard ethical principles guiding this study included informed consent, data management and confidentiality, justice and beneficence, non-maleficence, the right to fair treatment, the right to privacy, and the rights of service users, as explained in the following sections.

3.10.2.1 Informed Consent

The participants were assured that they had the right to voluntarily decide whether to participate in the study, without risk of penalty; to ask questions about the study and request further information, and to withdraw at any time without giving any explanation (Wood and Ross-Kerr, 2011, Polit and Beck, 2012). No fieldwork was conducted without obtaining verbal and written informed consent from the participants. In order to ensure that the informed consent was genuine and appropriate, the following steps were undertaken:

- Assuring participants (staff and service users) that they had the right to voluntarily decide whether to participate in the study and the freedom to withdraw from it at any time, without this affecting them either professionally (as staff), or in terms of the QoC that they received or would receive in future (as service users).

- Providing verbal and written information about the study.

- Allowing participants 24 hours to consider their participation, whereby they could read and understand the project information sheet and decide whether to participate in the study.

- Encouraging participants to ask questions about the research or seek clarification.

In addition, studying vulnerable people poses additional challenges with regard to their capacity to make decisions about participation (Keogh and Daly, 2009). The following additional measures were undertaken to facilitate informed consent, in order to attain the benefits of the research, while maintaining the subjects' well-being and preserving their rights:

- Referring to the judgement of head nurses/treating physicians about each service user's capacity to give consent.

- Asking service users to verbalise their understanding of the study and their role, should they decide to take part.

- Performing on-going assessment of service users' understanding, continuously providing information, repeatedly seeking permission, and assessing service users' willingness to continue their involvement.

3.10.2.2 Data Management and Confidentiality

All participants were assured of the confidentiality of any information gathered during the data collection. Therefore, all efforts were made to ensure the protection of their right to the privacy and confidentiality of their data. That the IRB at KFSH-D in KSA may inspect and copy participants' information is stated in the *Research Informed Consent Form*. This point was clearly explained to the participants and explicitly covered in the *Research Informed Consent Form*, enabling them to think and ask about

the study before agreeing to participate (see Appendix 15). The following measures were taken to maintain confidentiality:

- Assuring the participants of the confidentiality of their data, before they signed the consent form
- Assigning a code to each participant, which was then attached to all their study information and material, rather than using their names.
- Anonymising all survey and interview data at the point of collection, with data being reported in an aggregated form to maintain anonymity.
- All information supplied by the participants, including the questionnaires, was exclusively accessed by the research team (the researcher and two supervisors) and safely stored in a locked filing cabinet, housed in an office at the university or on a password-protected computer, which only the researcher could access.
- Assuring the participants that any data gathered, including the interview tapes, would be managed in accordance with the University of Nottingham's own guidelines (subject to the UK Data Protection Act, 1998), and stored for seven years after the completion of the study, before being safely destroyed.

3.10.2.3 Justice and Beneficence

It was ensured that all staff and service users had the same chance to take part in the study (based on eligibility criteria). The research participants were advised that their participation would assist in providing information for health planning and policies to address the needs of mentally ill service users. In addition, one aspect of justice is that being regarded as a potentially vulnerable person does not mean exclusion from research. It is therefore a matter of justice that people with mental disorders are involved in research examining the care provided for people in their situation.

3.10.2.4 Non-maleficence

It was ensured that the potential risks were minimised in the study and its potential benefits maximised (Polit and Beck, 2012). Although there were no direct risks associated with the study, it was anticipated that some participants might experience distress or discomfort, due to the novelty of taking part, in which case the researcher would be prepared to terminate the corresponding interview (Keogh and Daly, 2009). However, no such instances arose during the fieldwork. Furthermore, the researcher

ensured that the social risks to the research participants were minimised (for example, their reputation and social standing) by protecting their confidential data.

3.10.2.5 Right to Fair Treatment

The participants were selected based on the study's inclusion and exclusion criteria. Those who declined to participate were treated in a non-prejudicial manner (Polit and Beck, 2012).

3.10.2.6 Right to Privacy

The interviews took place in a quiet room on the wards to avoid any interruptions that could have disrupted the flow of the interviews. The participants' data were handled in confidence and only seen by the researcher and authorised individuals (two supervisors and a qualitative researcher) from the University of Nottingham. The participants were also informed that the study formed part of a thesis project, but their identities would not be disclosed, either in the thesis or in any associated publications.

3.10.2.7 Service Users' Rights

Human rights abuses were another ethical concern emerging in the context of this study's professional ethical dilemmas, despite the existence of clear national laws aimed at protecting the rights and dignity of mentally ill service users, as well as their families and the wider community (this was reported to the University of Nottingham Ethics Committee, the IRB at KFSH-D in KSA, and the hospital where the data collection took place, see section 6.14). Addressing matters of this nature, which face service users with mental disorders, is fraught with ethical problems. These consequently needed to be taken into consideration, if any benefits were to be gained from the research, while at the same time maintaining participants' well-being and upholding their rights (please see Discussion Chapter, p.242 for further discussion on this point).

3.11 Summary

The general objectives of this study were to investigate factors associated with the quality of mental health care and their relationship with service user outcomes, as well as to explore participants' perceptions and experiences of care quality. This chapter has provided a detailed overview of the methodological approach adopted; It has also addressed the concerns and challenges encountered in its implementation. An embedded mixed methods design was consequently adopted, with a questionnaire survey being distributed to nursing staff and service users, and participant observation of staff-service

user interaction being conducted across six admission wards (4 male/2 female) at the study site.

In the qualitative element of the study, 30 semi-structured interviews were carried out with service users to explore their perceptions and experiences of the quality of mental health care provided. This enabled the researcher to gain deeper insights into the way in which their care provision was perceived. It also allowed otherwise unknown factors/predictors to be identified, so as to improve QoC in mental health settings. The results of the quantitative strand and qualitative interviews are presented separately in the next two chapters.

4 Quantitative Results

4.1 Introduction

This chapter presents the quantitative results of the study, using descriptive and inferential statistics. It begins by showing how the data were cleansed to ensure that they were appropriate for analysis, followed by descriptive statistics explaining the participants' characteristics, with a presentation of their responses to outcome measures and factors/predictors. The analysis and results addressing each research question are subsequently provided, together with the results of the outcomes of the secondary analysis.

4.2 The Screening and Cleaning of Data

4.2.1 Missing Data

Screening the data gathered from the participating nurses and service users revealed that the number of items left blank (non-responses) ranged from 1-3 items for three nurses and six service users, except for one nurse participant on the ATAMH-33 scale, who had extensive missing data, i.e. more than half of all items (17). This participant was therefore excluded entirely from the ATAMH-33 analysis, as she did not follow the instructions on the questionnaire. However, she was included (coded) for the statistical analysis of the CAT-MH scale and the staff socio-demographic questionnaire.

Various methods are proposed in the literature for dealing with missing data, of which mean substitution has been found to be efficacious when multiple items are left blank. The missing items were therefore substituted with the mean of the same items across all the study participants (Munro, 2005). The justification for adopting this strategy was that it allows mean scores to be calculated based on the real mean of that item (variable), since the distribution mean as a whole does not change and the researcher is not obliged to estimate missing values. This allowed reasonable confidence in the accuracy of the findings.

4.2.2 Outliers

Data were checked for any possible outlier values (values that lie outside the normal range of values). In this study, any participant with a standardised residual value greater than ±3 standard deviation was considered to be an absolute outlier (±3 is a common cut-off criteria for assessing deviation from the mean) (Munro, 2005, Laerd Statistics, 2016). In terms of screening, out of the 321 participating service users to whom the

questionnaire was initially administered, data from 313 fell within three standard deviations from the mean score; except for three service users with substantial outlying GASS scores and five with substantial outlying BPRS scores. Various suggestions have been made in the literature for handling outliers (Munro, 2005), including the trimming method, where the participant with substantial outliers is removed from the study entirely; the 'winsorized' mean method, whereby the researcher replaces the outlier value with the mean of other values, and by considering the outliers as missing data, so that they are excluded from the data analysis (Hoaglin and Iglewicz, 1987, Munro, 2005).

In this study, and for the purpose of cleaning the data, the eight service users mentioned above were removed from the analysis for several reasons. Firstly, this prevented any outliers from introducing bias into the estimation of the mean and any bias that could affect the sum of the squared errors. This was important to compute the standard deviation, which was in turn used to estimate the standard error, which plays an important role in inference and multilevel modelling (Field, 2013). Secondly, these values (BPRS and GASS) were for the outcome variables, so they do not affect the main part of the quantitative data analysis in this study. Thirdly, removal of these service users did not have a substantial impact on the number of subjects recruited in their respective wards, since the sample size of the wards where the service users were nested ranged from 18-56.

4.2.3 Skewness and Kurtosis of the Data

The main statistics used for assessing the normality of the data distribution included skewness and kurtosis values. Skewness refers to the shape of the data distribution and indicates whether this is skewed to the left (positive skewness) or right (negative skewness). Meanwhile, kurtosis refers to how flat or peaked the data distribution is (Munro, 2005). Moreover, skewness and kurtosis can be quite conservative, with acceptance of a statistically significant level of .01, equating to a z-score of ±2.58. Thus, if the z-score is within ±2.58, data are considered as normally distributed (Laerd Statistics, 2016). In this case, the skewness and kurtosis were calculated by dividing the value by its respective standard error for the service users' data (BPRS, GASS, SFS and CSQ-8). It was subsequently revealed that they were not normally distributed, as the z-scores for skewness and kurtosis fell outside ±2.58, except for the Social Functioning Scale (SFS), which demonstrated no skewness or kurtosis issues.

Another effective method for assessing the normality of data distribution involves the inspection of histograms (Field, 2013). This method has the advantage of allowing individuals to use their own judgement in determining the normality of data distribution. In this study, the normality of the dependent outcome measures was checked using a histogram. The results showed that except for the SFS (which showed an approximately normal distribution, without any obvious outliers), none of the outcome measures (including BPRS, GASS and CSQ-8) were normally distributed, as assessed through a visual inspection of their histograms. Subsequently, the skewed data indicated that the mean was not a good measure of scores in the distribution (Munro, 2005). To solve this problem, the skewed data were transformed, so that the new scores displayed the normality and equality of variances in the results.

4.2.4 Data Transformation

Several methods are proposed in the literature for transforming skewed data to obtain valid results through parametric tests (Munro, 2005). For skewed outcome measures, including BPRS, GASS and CSQ-8, these were initially transformed using SPSS software Version 22, with the variables subsequently being transferred using the MLwiN function. Based on the approach presented in Munro (2005), analysis began with a square root transformation to check whether the data were more normally distributed. Otherwise, log transformation was applied for the original variable. If not, an inverse transformation was used. Furthermore, the direction of the skewness of the data was taken into account when making the transformation.

In this study, the BPRS histogram indicated that the data were strongly, positively skewed, while the GASS histogram illustrated that the data were moderately, positively skewed. Logarithmic and square root transformation was applied for both outcome measures, respectively; whereas reflect and square root transformation was applied to the CSQ-8 scores, since the data showed moderately negative skewness. The transformation produced data that were more normally distributed, as assessed through visual inspection of their histograms. Furthermore, the literature suggests that the skewness for transformed variables produces newly formed variables with skewness close to zero, and/or the fewest outliers being more normally distributed (Munro, 2005). The skewness and kurtosis statistics were calculated for all transformed variables and exhibited neither skewness nor kurtosis problems.

4.3 Participants' Characteristics

Data collection took place over a six-month period from June to December 2014. The study participants were recruited from 14 admission wards at the study site, as explained earlier. Out of a potential 230 nursing staff working on these wards (11 male/3 female wards), 176 met the inclusion criteria and agreed to participate, with an overall response rate of 76.5%. Of the remaining 54 participants, 53 were unwilling to participate in the study for personal reasons and one participant was excluded, due to incomplete data. Of a potential 517 service users admitted to inpatient wards, 321 met the inclusion criteria and agreed to participate, with an overall response rate of 62.1%. Of the remaining service users, 177 were excluded, either because it was difficult to communicate with them, due to their intellectual disability, or because they lacked the capacity to consent, given the incapacitating effects of their disorder, rendering them unable to take part in the study. An additional two service users refused to participate, explaining that they were unwilling to devote the necessary time to completing the questionnaire. Finally, 17 service users were excluded, due to incomplete data (see Figure 4.1, below, for a flowchart of participant recruitment).

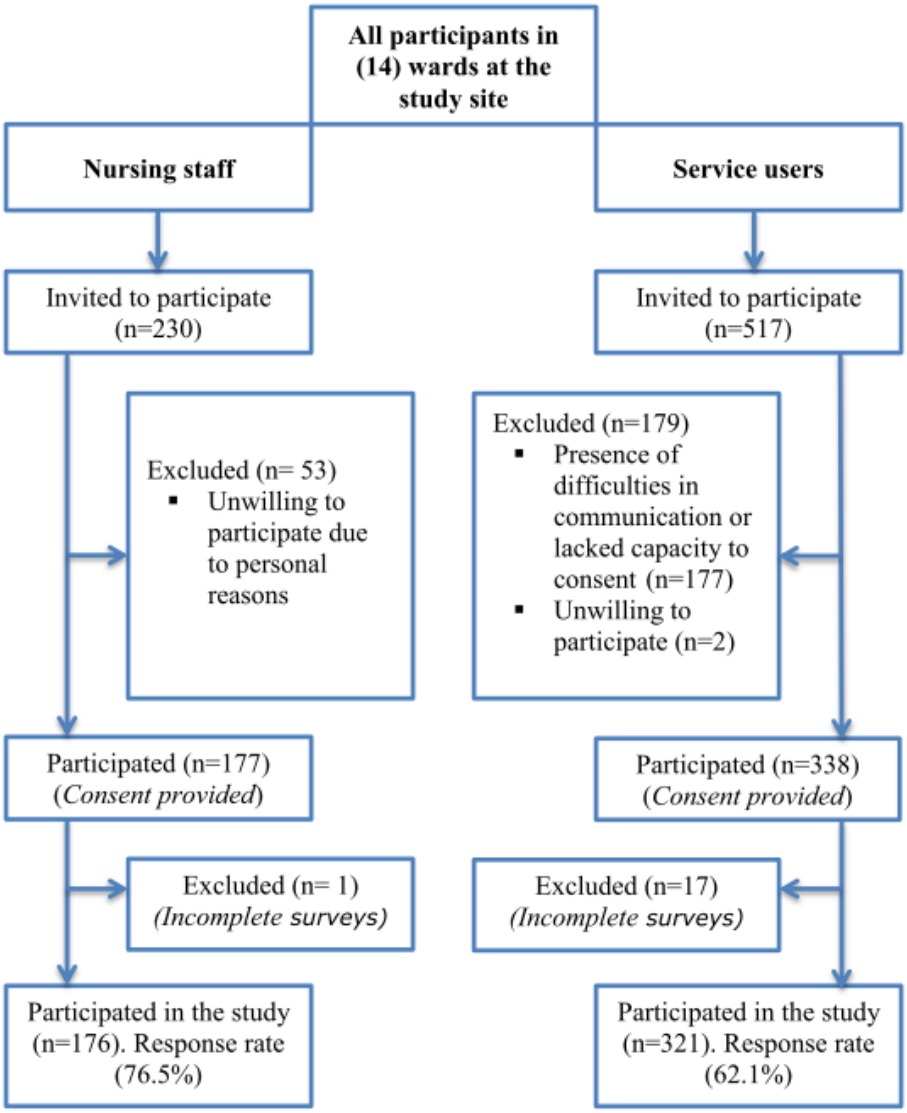


Figure 4.1: Flowchart of participant recruitment

4.3.1 Nurses' Socio-demographic Characteristics

Table 4.1 (below) shows the socio-demographic characteristics of the participating nurses. The sample consisted of 176 nurses, aged between 23 and 60 years (Mean=31.49, SD=6.094). Among these, 64.8% (n=114) were male and 35.2% (n=62) were female. Over two-thirds of the nurses (n=135, 76.7%) were Saudi, while 23.3% (n=41) were non-Saudi. The majority of the sample held a diploma (n=146) 83%. The findings also showed that more than half of the participants had over four years' experience (68.2%) in the field of psychiatry or mental health. Out of all the participants, 88.6% (n=156) had attended specialised training and educational courses in mental health care provision.

Table 4.1: Nurses' socio-demographic characteristics (N=176)

Characteristic	Number	Percentage (%)
Age (years)		
23-30	96	54.5
31-40	70	39.8
41-50	5	2.8
>50	5	2.8
Range	23-60	
Mean (SD)	31.49 (6.094)	
Gender		
Male	114	64.8
Female	62	35.2
Nationality		
Saudi	135	76.7
Non-Saudi	41	23.3
Educational qualification		
Diploma	146	83
Graduate	27	15.3
Postgraduate	3	1.7
Years of experience		
< 4 yeas	56	31.8
> 4 years	120	68.2
Attendance of psychiatric training courses		
Attended	156	88.6
Not attended	20	11.4

SD=Standard deviation

4.3.2 Service Users' Socio-demographic Characteristics

Table 4.2 (below) shows the socio-demographic characteristics of the participating service users. The sample consisted of 321 service users aged between 18 and 69 years, with a mean of 39.02 (SD=11.33) years: 283 being male (88.2%) and 38, female (11.8%). Over half the sample were single (64.8%) and most were educated (93.8%) and living in the Western Region of KSA (81.9%). The majority were unemployed (71%) and 75.7% were diagnosed with schizophrenia.

Table 4.2: Service users' socio-demographic characteristics (N=321)

Characteristic	Number	Percentage (%)
Age (years)		
18-30	90	28
31-40	103	32.1
41-50	71	22.1
>50	57	17.8
Range	18-69	
Mean (SD)	39.02 (11.33)	
Gender		
Male	283	88.2
Female	38	11.8
Marital status		
Single	208	64.8
Married	61	19
Divorced	45	14
Widowed	7	2.2
Educational level		
Illiterate	20	6.2
Primary School	75	23.4
Intermediate School	93	29
Secondary School	85	26.5
College (diploma)	19	5.9
Graduate	26	8.1
Postgraduate	3	.9
Residence		
Western Region	263	81.9
Eastern Region	4	1.2
Central Region	35	11
North Region	4	1.2
South Region	15	4.7
Employment status		
Retired	40	12.5
Employed	53	16.5
Unemployed	228	71
Diagnosis		
Schizophrenia	243	75.7
Personality disorder	12	3.7
Bipolar disorder	23	7.2
Substance-related disorder	34	10.6
Depression	9	2.8

SD=Standard deviation

4.4 Participants' Responses to Outcome Measures and Predictors

4.4.1 Nurses' Responses to Process Measures

4.4.1.1 Nurses' Responses to the ATAMH-33

The data in Table 4.3 (below) shows the means, standard deviations and range of nurses' ATAMH-33 responses. ATAMH-33 contains 33 items, for which participants' scores ranged from 94-187, with a mean of 138.42 (SD=17.606). The possible range of scores is 25-255.

Table 4.3: Means, standard deviations and range of participating nurses' scores for each item of the ATAMH-33*

Item	ATAMH-33	Mean	SD	Actual range	Possible range
1	Alcohol abusers have no self-control	2.51	1.208	1-6	1-7
2	Service users with chronic schizophrenia are incapable of looking after themselves	2.78	1.419	1-7	1-7
3	Members of society are at risk from the mentally ill	2.83	1.365	1-7	1-7
4	Mentally ill service users have no control over their emotions	2.69	1.317	1-7	1-7
5	Staff should not talk to service users about their delusions	2.83	1.915	1-7	1-7
6	Deliberate self-harm more often happens when other people are around	3.93	1.705	1-7	1-7
7	Depression occurs in people with a weak personality	3.39	1.806	1-7	1-7
8	The cause of many psychological problems is bad nerves	3.90	1.670	1-7	1-7
9	Service users with mental illnesses are more likely to harm someone else than themselves	3.22	1.430	1-7	1-7
10	Acute wards are little more than prisons	3.60	1.797	1-7	1-7
11	Mental illness is the result of adverse social circumstances	2.86	1.511	1-7	1-7
12	Many normal people would become mentally ill if they had to live in a very stressful situation	5.44	1.371	1-7	1-7
13	Those with a psychiatric history should never be given a job with responsibility	4.02	1.830	1-7	1-7
14	Those who attempt suicide, leaving them with serious liver damage, should not be given treatment	3.91	1.813	1-7	1-7
15	Violence mostly results from mental illness	3.33	1.544	1-7	1-7
16	Psychiatric service users are generally difficult to like	5.22	1.626	1-7	1-7
17	Service users who abuse substances should not be admitted to acute wards	3.10	1.777	1-7	1-7
18	Psychiatric treatments cause service users to worry too much about their symptoms	3.24	1.650	1-7	1-7
19	It is difficult to negotiate care plans with service users in acute environments	2.66	1.460	1-7	1-7
20	It is hard to help service users who are emotionally disturbed	4.63	1.720	1-7	1-7
21	Psychiatric drugs are used to control disruptive behaviour	2.41	1.242	1-7	1-7
22	Mental illnesses are genetic in origin	3.86	1.555	1-7	1-7
23	Psychiatric illness deserves as much attention as physical illness	6.25	1.257	1-7	1-7
24	The manner in which you talk to service users affects their mental state	5.97	1.020	2-7	1-7
25	People are born vulnerable to mental illness	4.89	1.707	1-7	1-7
26	Safe – dangerous	5.60	2.048	0-10	0-10
27	Adult – child	6.50	2.444	1-10	0-10
28	Mature – immature	5.79	2.116	0-10	0-10
29	Optimistic – pessimistic	4.85	2.013	1-10	0-10
30	Cold hearted – caring	5.56	1.886	1-10	0-10
31	Polite – rude	5.82	2.046	2-10	0-10
32	Harmful – beneficial	5.39	2.144	0-9	0-10
33	Clean – dirty	5.42	2.265	1-10	0-10
Overall total score		138.42	17.606	94-187	25-255

*ATAMH-33=Arabic version of the Attitude Toward Acute Mental Health-33 Scale (ATAMH-33); SD=Standard deviation

As shown in Table 4.4 (below) the results were grouped into three categories: positive attitudes, negative attitudes and divided responses. Evidence of both positive and negative attitudes was revealed in 11 of the 25 items, which received more than 70% endorsement in one direction (agreement); while two items received over 60% endorsement in the direction of disagreement. The remaining 12 items elicited were

divided responses: either a high number of neutral responses, or little difference between the overall number of positive and negative responses. The highest number of negative responses were found for nurses' agreement (85.7%) with Item 1, and the highest number of positive responses were for nurses' agreement (92.0%) with Item 24. Negative attitudes could be seen in the nurses' responses to 19 of the Likert questions (Items 1-10, 13-15, 17-19, 21-22 and 25), with evidence of positive attitudes in only six Items (Items 11, 12, 16, 20, 23-24). These results indicate that a high proportion of the participants held more negative than positive attitudes to mental illness and the mentally ill.

Table 4.4: Nurses' attitudes toward the mentally ill/mental illness, as measured using ATAMH-33*

Item	ATAMH-33	Agree N (%)	Neutral N (%)	Disagree N (%)	Indication for attitude
1	Alcohol abusers have no self-control	150 (85.7)	7 (4.0)	18 (10.3)	Negative
2	Service users with chronic schizophrenia are incapable of looking after themselves	138 (78.9)	14 (8.0)	23 (13.1)	Negative
3	Members of society are at risk from the mentally ill	130 (74.3)	23 (13.1)	22 (12.6)	Negative
4	Mentally ill service users have no control over their emotions	138 (78.9)	15 (8.6)	22 (12.6)	Negative
5	Staff should not talk to service users about their delusions	123 (70.3)	11 (6.3)	41 (23.4)	Negative
6	Deliberate self-harm more often happens when other people are around	83 (47.4)	20 (11.5)	72 (41.1)	Negative
7	Depression occurs in people with a weak personality	105 (60.0)	22 (12.6)	48 (27.4)	Negative
8	The cause of many psychological problems is bad nerves	79 (45.1)	40 (22.9)	56 (32.0)	Negative
9	Service users with mental illnesses are more likely to harm someone else than themselves	113 (64.6)	29 (16.5)	33 (18.9)	Negative
10	Acute wards are little more than prisons	94 (53.7)	26 (14.9)	55 (31.4)	Negative
11	Mental illness is the result of adverse social circumstances	133 (76.0)	17 (9.7)	25 (14.3)	Positive
12	Many normal people would become mentally ill if they had to live in a very stressful situation	146 (83.4)	8 (4.6)	21 (12.0)	Positive
13	Those with a psychiatric history should never be given a job with responsibility	74 (42.3)	35 (20.0)	66 (37.7)	Negative
14	Those who attempt suicide leaving them with serious liver damage should not be given treatment	70 (40.0)	43 (24.6)	62 (35.4)	Negative
15	Violence mostly results from mental illness	109 (62.3)	30 (17.1)	36 (20.6)	Negative
16	Psychiatric service users are generally difficult to like	29 (16.6)	31 (17.7)	115 (65.7)	Positive
17	Service users who abuse substances should not be admitted to acute wards	111 (63.4)	25 (14.3)	39 (22.3)	Negative
18	Psychiatric treatments cause service users to worry too much about their symptoms	116 (66.3)	16 (9.1)	43 (24.6)	Negative
19	It is difficult to negotiate care plans with service users in acute environments	139 (79.4)	17 (9.7)	19 (10.9)	Negative
20	It is hard to help service users who are emotionally disturbed	54 (30.9)	12 (6.8)	109 (62.3)	Positive
21	Psychiatric drugs are used to control disruptive behaviour	148 (84.6)	16 (9.1)	11 (6.3)	Negative
22	Mental illnesses are genetic in origin	84 (48.0)	36 (20.6)	55 (31.4)	Negative
23	Psychiatric illness deserves as much attention as physical illness	160 (91.4)	6 (3.5)	9 (5.1)	Positive
24	The manner in which you talk to service users affects their mental state	161 (92.0)	11 (6.3)	3 (1.7)	Positive
25	People are born vulnerable to mental illness	118 (67.4)	24 (13.7)	33 (18.9)	Negative

*ATAMH-33=Arabic Version of the Attitude Toward Acute Mental Health-33 Scale

For the semantic differentials, Items 26-33 were scored on a scale of 0-10, with a score of five (5) indicating the midpoint and a score of less than five (5) indicating a negative perception. As shown in Table 4.5, below, the results revealed more positive than negative attitudes for the safe-dangerous, adult-child, mature-immature and polite-rude Items, as over half of the nurses selected scores greater than five (5). In contrast, 45-47% of the nurses exhibited more positive than negative attitudes for the cold hearted-caring, harmful-beneficial and clean-dirty Items. The optimistic-pessimistic Item

elicited the only response indicative of a negative attitude towards service users with mental disorders.

Table 4.5: Percentage of nurses' responses for the semantic differentials of ATAMH-33* (scoring 0-10)

Item	ATAMH-33	Positive score (6-10) %	Neutral score (5) %	Negative score (0-4) %
26	Safe – dangerous	58.9	13.1	28.0
27	Adult – child	63.4	13.7	22.9
28	Mature – immature	54.9	16.5	28.6
29	Optimistic – pessimistic	30.9	24.0	45.1
30	Cold hearted – caring	46.9	28.0	25.1
31	Polite – rude	50.3	22.8	26.9
32	Harmful – beneficial	46.9	23.4	29.7
33	Clean – dirty	44.6	21.7	33.7

*ATAMH-33=Arabic version of the Attitude toward Acute Mental Health-33 Scale

4.4.1.2 Nurses' CAT-MH Responses

The data in Table 4.6 (below) show the means, standard deviations and range of nurses' responses to CAT-MH. CAT-MH contains 26 items, for which the participants' scores ranged from 42-123, with a mean score of 86.40 (SD=16.487). The possible range of scores is from 26-130, with higher scores indicating greater competency.

Table 4.6: Means, standard deviations and range of nurses' scores for each CAT-MH* Item

Item	CAT-MH	Mean	SD	Actual range	Possible range
1	Treating clients with respect, dignity, and as equal partners in their treatment	4.03	.803	2-5	1-5
2	Including family members and other supportive people/groups in the client's treatment	3.19	1.062	1-5	1-5
3	Knowing the symptoms/ characteristics of mental illness	3.35	1.026	1-5	1-5
4	Responding to cultural, racial and gender issues that affect clients	3.49	.980	1-5	1-5
5	Knowing the uses and side-effects of psychiatric medication	3.26	1.095	1-5	1-5
6	Knowing the biological nature of mental illness	2.94	.957	1-5	1-5
7	Knowing and using the best types of therapy for general mental illnesses	3.10	.984	1-5	1-5
8	Knowing and using the best types of therapy for people with a forensic status	2.74	.848	1-5	1-5
9	Knowing and using the best types of therapy for people with a substance abuse/mental illness (SA/MI) diagnosis	2.96	.903	1-5	1-5
10	Knowing and using the best types of therapy for people with a mental illness/mentally retarded (MI/MR) diagnosis	2.74	.950	1-5	1-5
11	Knowing and using the best types of therapy for children/adolescents affected by severe emotional disorders (SED)	2.48	.985	1-5	1-5
12	Knowing and using crisis interventions	3.10	1.009	1-5	1-5
13	Knowing and using recovery principles	3.28	.995	1-5	1-5
14	Developing and putting into practice Individual Service Plans (ISP) and Individual Treatment Plans (ITP)	3.34	.983	1-5	1-5
15	Using community resources effectively	3.39	.950	2-5	1-5
16	Being a client advocate	3.59	1.004	1-5	1-5
17	Knowing about legal issues, client rights and ethical issues	3.64	.970	2-5	1-5
18	Working well as a member of an interdisciplinary team	3.68	.908	2-5	1-5
19	Working in a professional way	3.55	.990	1-5	1-5
20	Evaluating one's own work performance	3.19	1.073	1-5	1-5
21	Keeping accurate work records	3.74	1.110	2-5	1-5
22	Knowing and being able to use first aid, CPR, and other ways to keep clients and workers safe	3.70	1.071	2-5	1-5
23	Providing basic nursing care, including taking vital signs and helping clients use the bathroom	4.04	.858	2-5	1-5
24	Using different ways to reduce worker stress	3.32	1.059	1-5	1-5
25	Knowing basic facts of good nutrition	3.19	1.005	1-5	1-5
26	Using computer technology	3.37	.954	1-5	1-5
Overall total score		86.40	16.487	42-123	26-130

*CAT-MH=Arabic version of the Competency Assessment Tool-Mental Health; SD=Standard deviation

4.4.1.3 Staff-Service User Interaction

Staff-service user interactions were presented as either verbal or non-verbal, and individual or group-oriented. As shown in Table 4.7 (below) the results revealed that more time was spent on non-verbal interaction with individual service users across all admission wards. Individual non-verbal interaction predominated to the extent that it was almost the same as the percentage of time spent by nursing staff on interacting with service users on all types of ward. However, in terms of the frequency of staff-service user interaction, the admission wards where female nurses worked (including M5, F2

and F3) elicited more interaction with service users than the admission wards operated by male nurses (M1, M14 and M16).

Table 4.7: Frequency and percentage of staff interaction with service users by type of ward, as measured using the IOC*

Type of Ward	Individual Verbal F (%)	Individual Non-verbal F (%)	Group Verbal F (%)	Group Non-verbal F (%)
Forensic (M1)	293 (28.4)	478 (46.3)	27 (2.6)	235 (22.7)
Chronic psycho-medical (M5)	513 (25.8)	923 (46.5)	18 (0.9)	532 (26.8)
Acute (M14)	336 (27.2)	527 (42.6)	47 (3.8)	327 (26.4)
Chronic geriatric (M16)	163 (26.3)	257 (41.6)	11 (1.8)	187 (30.3)
Acute (F2)	667 (29.2)	939 (41.1)	65 (2.9)	613 (26.8)
Chronic schizophrenia (F3)	552 (29.9)	730 (39.6)	51 (2.8)	510 (27.7)

*IOC=Interaction Observation Checklist; M=Male ward; F=Female ward

The percentage of total interactions that were positive, neutral or negative were calculated by type of ward. As shown in Table 4.8 (below), the results revealed that almost all interactions with service users were either positive or neutral across all wards, with negative behaviour being very low on all wards (whether male or female).

Table 4.8: Quality of staff interaction with service users by type of ward, as measured using the IOC*

Type of Ward	Positive F (%)	Neutral F (%)	Negative F (%)
Forensic (M1)	442 (42.8)	582 (56.3)	9 (0.9)
Chronic psycho-medical (M5)	509 (25.6)	1443 (72.7)	34 (1.7)
Acute (M14)	530 (42.9)	692 (55.9)	15 (1.2)
Chronic geriatric (M16)	254 (41.1)	352 (57.0)	12 (1.9)
Acute (F2)	626 (27.4)	1630 (71.4)	28 (1.2)
Chronic schizophrenia (F3)	414 (22.5)	1389 (75.4)	40 (2.1)

*IOC=Interaction Observation Checklist; M=Male ward; F=Female ward

4.4.2 Service Users' Responses to Outcome Measures

4.4.2.1 Service Users' Responses to the Social Functioning Scale (SFS)

The data in Table 4.9 (below) show the means, standard deviations and range of service users' responses to the SFS, divided into seven sections. The service users' scores ranged from 25-193, with a mean score of 106.632 (SD=32.010). The possible range of scores was from 0-223, with higher scores indicating a higher social functioning status.

Table 4.9: Means, standard deviations and range of service users' scores for each section of the SFS*

Section	SFS	Mean	SD	Actual range	Possible range
1	Social Engagement/Withdrawal	10.33	2.389	1-15	0-15
2	Interpersonal communication	6.09	2.111	0-9	0-9
3	Independence-performance	18.95	9.486	1-39	0-39
4	Independence-competence	31.23	7.516	8-39	0-39
5	Recreation	15.83	8.847	0-36	0-45
6	Prosocial	20.04	12.112	0-50	0-66
7	Occupation/Employment	4.17	3.016	0-10	0-10
Overall total score		106.632	32.010	25-193	0-223

*SFS=Arabic version of the Social Functioning Scale; SD=Standard deviation

4.4.2.2 Service Users' Responses to the Brief Psychiatric Rating Scale (BPRS)

The data in Table 4.10 (below) show the means, standard deviations and range of service users' responses to the BPRS. The BPRS contains 18 items, with service users' scores ranging from 20-79, with a mean score of 41.032 (SD=12.535). The possible range of scores was from 0-126, with higher scores indicating higher symptomatology.

Table 4.10: Means, standard deviations and range of service users' scores for each item of the BPRS*

Item	BPRS	Mean	SD	Actual range	Possible range
1	Somatic concern	3.88	1.431	0-7	0-7
2	Anxiety	2.76	1.701	0-7	0-7
3	Emotional withdrawal	2.82	1.693	0-7	0-7
4	Conceptual disorganisation	2.28	1.542	0-7	0-7
5	Guilt feelings	2.28	1.581	0-7	0-7
6	Tension	2.04	1.405	0-7	0-7
7	Mannerisms and posturing	1.50	1.098	0-6	0-7
8	Grandiosity	1.97	1.439	0-7	0-7
9	Depressive mood	2.60	1.501	0-7	0-7
10	Hostility	2.05	1.436	0-6	0-7
11	Suspiciousness	2.59	1.660	0-7	0-7
12	Hallucinatory behaviour	2.07	1.546	0-7	0-7
13	Motor retardation	1.89	1.282	0-6	0-7
14	Uncooperativeness	2.04	1.333	0-6	0-7
15	Unusual thought content	2.26	1.658	0-7	0-7
16	Blunted affect	2.27	1.429	0-6	0-7
17	Excitement	2.12	1.414	0-6	0-7
18	Disorientation	1.62	1.193	0-6	0-7
Overall total score		41.032	12.535	20-79	0-126

*BPRS=Arabic version of Brief Psychiatric Rating Scale; SD=Standard deviation

As shown in Table 4.11 (below), the results revealed that around 91.4% of the service users considered themselves to be 'mildly ill', while 7.3% considered themselves to be 'moderately ill' and 1.3%, 'markedly ill'.

Table 4.11: Frequencies and percentages for service users' total scores related to each item of the BPRS*

Item	BPRS	Responses			
		Mildly ill (≥ 32)	Moderately ill (≥ 44)	Markedly ill (≥ 52)	Severely ill (≥ 68)
		F (%)	F (%)	F (%)	F (%)
1	Somatic concern	59 (18.8)	50 (16.0)	88 (28.1)	116 (37.1)
2	Anxiety	162 (51.8)	48 (15.3)	41 (13.1)	62 (19.8)
3	Emotional withdrawal	152 (48.6)	54 (17.2)	40 (12.8)	67 (21.4)
4	Conceptual disorganisation	207 (66.1)	37 (11.9)	27 (8.6)	42 (13.4)
5	Guilt feelings	205 (65.5)	38 (12.1)	35 (11.2)	35 (11.2)
6	Tension	220 (70.3)	38 (12.1)	30 (9.6)	25 (8.0)
7	Mannerisms and posturing	265 (84.7)	22 (7.0)	14 (4.5)	12 (3.8)
8	Grandiosity	225 (71.9)	37 (11.8)	23 (7.4)	28 (8.9)
9	Depressive mood	170 (54.3)	56 (17.9)	52 (16.6)	35 (11.2)
10	Hostility	215 (68.7)	38 (12.1)	35 (11.2)	25 (8.0)
11	Suspiciousness	172 (55.0)	46 (14.7)	48 (15.3)	47 (15.0)
12	Hallucinatory behaviour	213 (68.1)	41 (13.1)	24 (7.6)	35 (11.2)
13	Motor retardation	237 (75.7)	32 (10.2)	29 (9.3)	15 (4.8)
14	Uncooperativeness	219 (70.0)	44 (14.0)	30 (9.6)	20 (6.4)
15	Unusual thought content	202 (64.5)	39 (12.5)	27 (8.6)	45 (14.4)
16	Blunted affect	189 (60.4)	59 (18.8)	40 (12.8)	25 (8.0)
17	Excitement	206 (65.8)	49 (15.7)	30 (9.6)	28 (8.9)
18	Disorientation	259 (82.7)	18 (5.8)	21 (6.7)	15 (4.8)
Total participants scores		286 (91.4)	23 (7.3)	4 (1.3)	-

*BPRS=Arabic version of the Brief Psychiatric Rating Scale

4.4.2.3 Service Users' Responses to the Glasgow Anti-psychotic Side-effect Scale (GASS)

The data in Table 4.12 (below) show the means, standard deviations and range of the participating service users' responses to the GASS, which contains 22 items. The participants' scores ranged from 0-40, with a mean score of 11.80 (SD=9.740). The possible range of scores was from 0-63, with high scores indicating significant side-effects of antipsychotic medication.

Table 4.12: Means, standard deviations and range of service users' scores for each GASS* Item

Item	GASS	Mean	SD	Actual range	Possible range
1	I felt sleepy during the day	1.27	1.200	0-3	0-3
2	I felt drugged or like a zombie	.59	1.025	0-3	0-3
3	I felt dizzy when I stood up and/or have fainted	.70	1.024	0-3	0-3
4	I have felt my heart beating irregularly or unusually fast	.51	.888	0-3	0-3
5	My muscles have been tense or jerky	.67	1.039	0-3	0-3
6	My hands or arms have been shaky	.54	.960	0-3	0-3
7	My legs have felt restless and/or I couldn't sit still	.59	1.044	0-3	0-3
8	I have been drooling	.47	.930	0-3	0-3
9	My movements or walking have been slower than usual	.64	1.068	0-3	0-3
10	I have had, or people have noticed uncontrollable movements of my face or body	.51	.951	0-3	0-3
11	My vision has been blurry	.73	1.140	0-3	0-3
12	My mouth has been dry	.74	1.091	0-3	0-3
13	I have had difficulty passing urine	.41	.884	0-3	0-3
14	I have felt like I am going to be sick or have vomited	.54	.947	0-3	0-3
15	I have wet the bed	.25	.685	0-3	0-3
16	I have been very thirsty and/or passing urine frequently	.88	1.180	0-3	0-3
17	The areas around my nipples have been sore and swollen	.16	.537	0-3	0-3
18	I have noticed fluid coming from my nipples	.09	.417	0-3	0-3
19	I have had problems enjoying sex	.42	.920	0-3	0-3
20	Men only: I have had problems getting an erection	.43	.927	0-3	0-3
21	Women only: I have noticed a change in my periods	1.42	1.518	0-3	0-3
22	Men and women: I have been gaining weight	1.06	1.438	0-3	0-3
Overall total score		11.80	9.740	0-40	0-63

*GASS=Arabic version of the Glasgow Antipsychotic Side-effect Scale; SD=Standard deviation

As shown in Table 4.13 (below), the results revealed that around 79.6% of the service users' scores were at the level of 'absent' or 'mild' side-effects of antipsychotic medication (0-21), while 20.4% of the service users' scores were at the level of 'moderate' side-effects (22-42).

Table 4.13: Frequencies and percentages for service users' total scores relating to each GASS* Item

Item	GASS	Responses		
		Absent/mild side-effects (0-21)	Moderate side-effects (22-42)	Severe side-effects (≥ 43)
		F (%)	F (%)	F (%)
1	I felt sleepy during the day	165 (52.7)	83 (26.5)	65 (20.8)
2	I felt drugged or like a zombie	247(78.9)	36 (11.5)	30 (9.6)
3	I felt dizzy when I stood up and/or have fainted	238 (76.0)	47 (15.1)	28 (8.9)
4	I have felt my heart beating irregularly or unusually fast	255 (81.5)	45 (14.3)	13 (4.2)
5	My muscles have tense or jerky	235 (75.1)	50 (16.0)	28 (8.9)
6	My hands or arms have been shaky	250 (79.9)	42 (13.4)	21 (6.7)
7	My legs have felt restless and/or I couldn't sit still	245 (78.3)	36 (11.5)	32 (10.2)
8	I have been drooling	255 (81.5)	39 (12.4)	19 (6.1)
9	My movements or walking have been slower than usual	239 (76.4)	40 (12.7)	34 (10.9)
10	I have had, or people have noticed uncontrollable movements of my face or body	251 (80.2)	42 (13.4)	20 (6.4)
11	My vision has been blurry	229 (73.2)	40 (12.7)	44 (14.1)
12	My mouth has been dry	229 (73.2)	48 (15.3)	36 (11.5)
13	I have had difficulty passing urine	263 (84.0)	33 (10.6)	17 (5.4)
14	I have felt like I am going to be sick or have vomited	248 (79.2)	47 (15)	18 (5.8)
15	I have wet the bed	285 (91.1)	20 (6.3)	8 (2.6)
16	I have been very thirsty and/or passing urine frequently	212 (67.7)	51 (16.3)	50 (16.0)
17	The areas around my nipples have been sore and swollen	297 (94.9)	12 (3.8)	4 (1.3)
18	I have noticed fluid coming from my nipples	303 (96.8)	8 (2.6)	2 (.6)
19	I have had problems enjoying sex	265 (84.7)	25 (8.0)	23 (7.3)
20	Men only: I have had problems getting an erection	233 (84.7)	21 (7.7)	21 (7.6)
21	Women only: I have noticed a change in my periods	20 (52.6)	-	18 (47.4)
22	Men and women: I have been gaining weight	202 (64.5)	-	111 (35.5)
Total participants		249 (79.6)	64 (20.4)	-

*GASS=Arabic version of the Glasgow Antipsychotic Side-effect Scale

4.4.2.4 Service Users' Responses to the CSQ-8

The data in Table 4.14 (below) show the means, standard deviations and range of service users' responses to the CSQ-8. The CSQ-8 contains eight items, with the service users' scores ranging from 8-32 and a mean score of 22.85 (SD=5.914). The possible range of scores was from 8-32, with higher scores indicating greater satisfaction.

Table 4.14: Means, standard deviations and range of service users' scores for each CSQ-8* Item

Item	CSQ-8	Mean	SD	Actual range	Possible range
1	How would you rate the quality of service you received?	3.11	1.043	1-4	1-4
2	Did you get the kind of service you wanted?	2.63	1.108	1-4	1-4
3	To what extent has our service met your needs?	2.81	1.019	1-4	1-4
4	If a friend were in need of similar help, would you recommend our service to him or her?	2.53	1.182	1-4	1-4
5	How satisfied are you with the amount of help you received?	2.95	1.055	1-4	1-4
6	Have the services you received helped you to deal more effectively with your problems?	3.03	.957	1-4	1-4
7	In an overall, general sense, how satisfied are you with the service you have received?	3.04	.994	1-4	1-4
8	If you were to seek help again, would you come back to our service?	2.75	1.156	1-4	1-4
Overall total score		22.85	5.914	8 - 32	8 - 32

*CSQ-8=Arabic version of Client Satisfaction Questionnaire; SD=Standard deviation

4.5 Research Questions

For the sake of clarity, accuracy and better understanding, the results addressing each research question are reported separately below.

4.5.1 Research Question 1

Do service user characteristics (i.e. age, gender, marital status, employment status, educational level, area of residence and diagnosis) predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

Service Users' Characteristics and Disability (SFS)

A multilevel modelling (regression model) was run to predict the total SFS score for service users' age, gender, marital status, employment status, educational level, area of residence and diagnosis. As shown in Table 4.15 (below), the results revealed that the age of the service user was a significant predictor of SFS and explained 2.3% of variance (Coef=0.500, p=0.003). There was a decrease in SFS, because the regression coefficient was negative; thus, the older the service user, the lower the social functioning status. However, gender did not significantly predict SFS (Coef=1.243, p=0.926). In terms of marital status, being married was a significant predictor of the SFS score and explained 4.2% of variance (Coef=12.417, p=0.003). Of the employment status variables, unemployment was a significant predictor of SFS and explained 4.2% of variance (Coef=17.267, p=0.000). There was a decrease in SFS, because the regression coefficient was negative, suggesting that unemployed service users had lower levels of SFS. Nevertheless, service users' level of education was a significant predictor

of SFS (p=0.005, p=0.003, p=0.001 and p=0.008, respectively), explaining 5.4% of variance. Moreover, the area of the service user's residence was a significant predictor of the total SFS score and explained 3.7% of variance. There was a decrease in SFS, because the regression coefficient was negative, suggesting that when service users have to travel for long distances to reach the hospital, the need for extra social resources increases. Finally, the diagnosis of schizophrenia or depression was another significant predictor of the total SFS score (Coef=23.188, p=0.008; Coef=26.242, p=0.044, respectively), explaining 3.4% of variance.

Table 4.15: Results of multilevel modelling investigating predictors of service users' social functioning status, as measured by the SFS

Variables	Coefficient	SE	*p-value*	R^2
(Constant)	97.565	5.076	0.000	
Age	-0.500	0.170	0.003**	2.3%
Gender				0.001%
Male (Reference)				
Female	1.243	13.333	0.926	
Marital status				4.2%
Single (Reference)				
Married	12.417	4.158	0.003**	
Divorced	-3.583	4.837	0.459	
Widowed	-20.628	10.910	0.059	
Employment status				4.2%
Employed (Reference)				
Retired	-11.575	6.126	0.059	
unemployed	-17.267	4.480	0.000**	
Educational level				5.4%
Illiterate (Reference)				
Primary School	12.926	7.236	0.074	
Intermediate School	20.507	7.250	0.005**	
Secondary level	21.922	7.291	0.003**	
College	17.039	9.190	0.064	
Graduate	29.822	8.582	0.001**	
Post-graduate	46.399	17.452	0.008**	
Area of residence				3.7%
North Region (Reference)				
Western Region	-23.302	14.247	0.102	
Eastern Region	-53.442	20.147	0.008**	
Central Region	-30.149	14.941	0.044*	
South Region	-39.301	15.985	0.014*	
Diagnosis				3.4%
Personality disorder (Reference)				
Schizophrenia	-23.188	8.762	0.008**	
Bipolar disorder	-18.643	10.587	0.078	
Substance-related disorder	-10.139	10.011	0.311	
Depression	-26.242	13.033	0.044*	

Note. *p < .05, **p < .01; SE=Standard error of the estimated coefficient; R^2 =Coefficient of determination or variance explained

Service Users' Characteristics and Disease (BPRS)

Multilevel modelling was run to predict the total BPRS score from service users' age, gender, marital status, employment status, educational level, area of residence and diagnosis. As shown in Table 4.16 (below), unemployment was a significant predictor of BPRS amongst the service users, explaining 5.6% of variance (Coef=0.051, *p*=0.014). However, none of the other variables for service users' characteristics were found to be statistically significant predictors of BPRS scores.

Table 4.16: Results of multilevel modelling investigating predictors of service users' symptoms and as measured by the BPRS

Variables	Coefficient	SE	*p-value*	R^2
(Constant)	1.592	0.010	0.000	
Age	0.000	0.001	0.670	0.0%
Gender				0.0%
Male (Reference)				
Female	0.010	0.028	0.717	
Marital status				5.6%
Single (Reference)				
Married	0.002	0.019	0.921	
Divorced	0.042	0.022	0.057	
Widowed	0.025	0.051	0.623	
Employment status				5.6%
Employed (Reference)				
Retired	0.027	0.028	0.339	
unemployed	0.051	0.021	0.014*	
Educational level				5.6%
Illiterate (Reference)				
Primary School	-0.016	0.034	0.636	
Intermediate School	-0.028	0.033	0.401	
Secondary level	-0.004	0.034	0.908	
College	-0.026	0.043	0.549	
Graduate	-0.028	0.040	0.477	
Post-graduate	-0.030	0.082	0.713	
Area of residence				5.6%
North Region (Reference)				
Western Region	0.023	0.067	0.727	
Eastern Region	0.117	0.094	0.211	
Central Region	0.004	0.070	0.950	
South Region	-0.001	0.075	0.985	
Diagnosis				5.6%
Personality disorder (Reference)				
Schizophrenia	0.068	0.041	0.096	
Bipolar disorder	0.024	0.049	0.619	
Substance-related disorder	0.026	0.046	0.573	
Depression	0.089	0.060	0.136	

Note. *p < .05; SE=Standard error of the estimated coefficient; R^2=Coefficient of determination or variance explained

Service Users' Characteristics and Discomfort (GASS)

Multilevel modelling was run to predict GASS scores from service users' age, gender, marital status, employment status, educational level, area of residence and diagnosis. As shown in Table 4.17 (below), the level of service users' education was a significant predictor of the total GASS score (p=0.015, p=0.017 and p=0.041, respectively), although the percentage variance explained by this variable was small (3%). The results showed that educated service users were more likely to report fewer side-effects. However, none of the other service user characteristics proved to be statistically significant predictors of GASS scores.

Table 4.17: Results of multilevel modelling investigating predictors of service users' side-effects, as measured by the GASS

Variables	Coefficient	SE	*p-value*	R^2
(Constant)	3.007	0.141	0.000	
Age	-0.006	0.009	0.524	0.1%
Gender				0.1%
Male (Reference)				
Female	0.362	0.390	0.353	
Marital status				0.9%
Single (Reference)				
Married	0.189	0.236	0.423	
Divorced	0.341	0.270	0.208	
Widowed	0.681	0.617	0.270	
Employment status				0.3%
Employed (Reference)				
Retired	-0.114	0.345	0.741	
unemployed	-0.202	0.253	0.425	
Educational level				3.0%
Illiterate (Reference)				
Primary School	0.667	0.405	0.100	
Intermediate School	0.981	0.402	0.015*	
Secondary level	0.683	0.406	0.092	
College	1.233	0.515	0.017*	
Graduate	0.983	0.480	0.041*	
Post-graduate	0.417	0.987	0.673	
Area of residence				3.5%
North Region (Reference)				
Western Region	1.541	0.798	0.054	
Eastern Region	1.595	1.123	0.155	
Central Region	0.885	0.836	0.290	
South Region	0.894	0.894	0.317	
Diagnosis				0.5%
Personality disorder (Reference)				
Schizophrenia	0.139	0.497	0.779	
Bipolar disorder	0.479	0.600	0.425	
Substance-related disorder	-0.136	0.567	0.811	
Depression	0.121	0.733	0.869	

Note. *p < .05; SE= Standard error of the estimated coefficient; R^2 =Coefficient of determination or variance explained

Service Users' Characteristics and Dissatisfaction (CSQ-8)

Multilevel modelling was run to predict CSQ-8 scores from service users' age, gender, marital status, employment status, educational level, area of residence and diagnosis. As shown in Table 4.18 (below), education was a significant predictor of the total CSQ-8 score (Coef=0.958, *p*=0.001), explaining 8.9% of variance. Thus, graduates were more likely to report satisfaction with the care that they received, although the percentage variance explained was small. However, none of the other service user characteristics were statistically significant predictors of CSQ-8 scores.

Table 4.18: Results of multilevel modelling, investigating predictors of service users' satisfaction with health care services and as measured by the CSQ-8

Variables	Coefficient	SE	*p-value*	R^2
(Constant)	3.035	0.070	0.000	
Age	-0.006	0.005	0.230	0.9%
Gender				0.2%
Male (Reference)				
Female	-0.269	0.193	0.162	
Marital status				0.4%
Single (Reference)				
Married	-0.161	0.141	0.253	
Divorced	0.067	0.160	0.676	
Widowed	-0.223	0.370	0.547	
Employment status				0.3%
Employed (Reference)				
Retired	-0.133	0.205	0.517	
unemployed	-0.005	0.150	0.972	
Educational level				8.9%
Illiterate (Reference)				
Primary School	-0.070	0.234	0.765	
Intermediate School	0.221	0.232	0.341	
Secondary level	0.278	0.234	0.236	
College	0.584	0.298	0.050	
Graduate	0.958	0.277	0.001*	
Post-graduate	0.689	0.572	0.228	
Area of residence				0.5%
North Region (Reference)				
Western Region	-0.272	0.484	0.574	
Eastern Region	0.291	0.680	0.669	
Central Region	-0.231	0.507	0.649	
South Region	-0.301	0.542	0.578	
Diagnosis				1.2%
Personality disorder (Reference)				
Schizophrenia	-0.326	0.296	0.271	
Bipolar disorder	-0.684	0.356	0.055	
Substance-related disorder	-0.231	0.337	0.493	
Depression	-0.494	0.434	0.254	

Note. *p < .01; SE=Standard error of the estimated coefficient; R^2 =Coefficient of determination or variance explained

4.5.2 Research Question 2

Do staff characteristics (i.e. age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers) predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

The above research question contained seven ward-level variables, which were potential predictors of outcomes. Each variable was added to the multilevel modelling in a sequential manner, one variable at a time.

Nurses' Characteristics and Disability (SFS)

Multilevel modelling was run to predict the total SFS score from nurses' age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers. As shown in Table 4.19 (below), nurses' age,

measured at ward-level as a mean age score, was found to be a significant predictor of the SFS score (Coef=5.024, *p*=0.002), explaining 47.9% of variance. Meanwhile, there was a decrease in SFS, because the regression coefficient was negative. Thus, service users who were cared for by younger nurses were less likely to show signs of disability, as measured using the SFS. The number of years of experience in the hospital was a further significant predictor of the SFS score (Coef=0.887, *p*=0.004), explaining 44.3% of variance. There was a decrease in SFS, because the regression coefficient was negative. Therefore, nurses with fewer years of experience of working in a mental hospital were less skilled in coping with the users of these services. However, none of the other nurse characteristics were found to be statistically significant predictors of SFS scores.

Table 4.19: Results of multilevel modelling, investigating predictors of SFS from nurses' characteristics

Variables	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	97.565	5.076	0.000		
Age	-5.024	1.653	0.002*	47.9%	0.3%
Gender	-14.469	10.996	0.188	8.6%	0.2%
Nationality	0.231	0.144	0.109	11.8%	0.4%
Qualifications	0.268	0.197	0.173	7.6%	0.3%
Years of experience in the hospital	-0.887	0.306	0.004*	44.3%	0.4%
Attendance of psychiatric training courses	-0.052	0.458	0.910	0.6%	0.0%
Staff numbers	2.008	2.796	0.473	6.8%	0.0%

Note. *p < .01; SE=Standard error of the estimated coefficient; R^2=Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

Nurses' Characteristics and Disease (BPRS)

Multilevel modelling was run to predict total BPRS scores from nurses' age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers. As shown in Table 4.20 (below), none of the nurses' characteristics were found to be statistically significant predictors of BPRS scores.

Table 4.20: Results of multilevel modelling, investigating predictors of BPRS scores from nurses' characteristics

Variables	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	1.592	0.010	0.000		
Age	-0.004	0.005	0.464	0.0%	5.6%
Gender	-0.005	0.026	0.834	0.0%	0.0%
Nationality	0.000	0.000	0.677	0.0%	0.0%
Qualifications	0.000	0.000	0.925	0.0%	0.0%
Years of experience in the hospital	0.000	0.001	0.642	0.0%	0.0%
Attendance of psychiatric training courses	-0.001	0.001	0.105	0.0%	0.0%
Staff numbers	-0.007	0.005	0.156	0.0%	0.0%

Note. SE=Standard error of the estimated coefficient; R^2=Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

Nurses' Characteristics and Discomfort (GASS)

Multilevel modelling was run to predict total GASS scores from nurses' age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers. As shown in Table 4.21 (below), none of the nurses' characteristics were found to be statistically significant predictors of GASS scores.

Table 4.21: Results of multilevel modelling, investigating predictors of GASS scores in nurses' characteristics

Variables	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	3.007	0.141	0.000		
Age	0.025	0.071	0.725	0.0%	0.1%
Gender	0.339	0.350	0.332	10%	0.1%
Nationality	-0.005	0.005	0.347	10%	0.1%
Qualifications	-0.004	0.006	0.534	4.6%	0.04%
Years of experience in the hospital	0.005	0.011	0.639	0.9%	0.04%
Attendance of psychiatric training courses	0.006	0.013	0.664	3.6%	0.0%
Staff numbers	-0.029	0.079	0.714	1.8%	0.0%

Note. SE=Standard error of the estimated coefficient; R^2=Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

Nurses' Characteristics and Dissatisfaction (CSQ-8)

Multilevel modelling was run to predict total CSQ-8 scores from nurses' age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers. As shown in Table 4.22 (below), nurses' years of experience in the hospital were the only significant predictors of the CSQ-8 score (Coef=0.009, p=0.028), explaining 100% of variance. None of the other variables for nurses' characteristics were found to be statistically significant predictors of CSQ-8 scores.

Table 4.22: Results of multilevel modelling, investigating predictors of CSQ-8 scores for nurses' characteristics

Variables	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	3.035	0.070	0.000		
Age	-0.005	0.038	0.889	0.0%	0.1%
Gender	-0.306	0.176	0.083	35.3%	0.5%
Nationality	0.004	0.002	0.091	35.3%	0.5%
Qualifications	0.005	0.003	0.076	52.9%	0.3%
Years of experience in the hospital	0.009	0.004	0.028*	100%	0.0%
Attendance of psychiatric training courses	0.010	0.006	0.071	76.5%	0.0%
Staff numbers	-0.042	0.035	0.233	58.8%	0.0%

Note. *p < .05; SE=Standard error of the estimated coefficient; R^2 =Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

4.5.3 Research Question 3

Do staff attitudes toward the mentally ill/mental illness predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

Nurses' Attitudes and Service User Outcomes

Multilevel modelling was run to predict service user outcomes (i.e. disability, disease, discomfort and dissatisfaction) from nurses' attitudes toward the mentally ill/mental illness. The outcome variables were added separately to the multilevel modelling. As shown in Table 4.23 (below), nurses' attitudes toward the mentally ill/mental illness, measured at ward-level as a mean of the attitude score, were not found to be statistically significant predictors of service user outcomes, disability, disease, discomfort or dissatisfaction (p=0.057, p=0.220, p=0.082 and p=0.397, respectively).

Table 4.23: Results of multilevel modelling, investigating predictors of service user outcomes from nurses' attitudes

Variable / Outcomes	Nurses' Attitudes (ATAMH-33)				
	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	97.565	5.076	0.000		
Disability (SFS)	-1.451	0.761	0.057	21.7%	0.3%
(Constant)	1.592	0.010	0.000		
Disease (BPRS)	0.002	0.002	0.220	0.0%	0.0%
(Constant)	3.007	0.141	0.000		
Discomfort (GASS)	-0.039	0.023	0.082	37.3%	0.1%
(Constant)	3.035	0.070	0.000		
Dissatisfaction (CSQ-8)	-0.011	0.013	0.397	5.9%	0.2%

Note. SE=Standard error of the estimated coefficient; R^2=Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

4.5.4 Research Question 4

Do staff competency levels in the delivery of mental health care predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

Nurses' Competence and Service User Outcomes

Multilevel modelling was run to predict service user outcomes (i.e. disability, disease, discomfort and dissatisfaction) from nurses' competence in the delivery of mental health care. The outcome variables were added separately to the multilevel modelling. As shown in Table 4.24 (below), nurses' competence, measured at ward-level as a mean competence score, was a statistically significant predictor of SFS scores (Coef=1.501, p=0.000) and explained 56.5% of variance. There was a decrease in SFS, because the regression coefficient was negative. Thus, lower levels of competence in the delivery of mental health care and a lack of experience among staff was associated with poorer social relationships with service users and poorer performance of daily activities. However, no other variables of service user outcomes (disease, discomfort and dissatisfaction) were predicted by nurses' competency in the delivery of mental health care (p=0.860, p=0.644 and p=0.787, respectively).

Table 4.24: Results of multilevel modelling, investigating predictors of service user outcomes from nurses' competence

Variable / Outcomes	Nurses' Competence (CAT-MH)				
	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	97.565	5.076	0.000		
Disability (SFS)	-1.501	0.412	0.000*	56.5%	0.72%
(Constant)	1.592	0.010	0.000		
Disease (BPRS)	0.000	0.001	0.860	0.0%	0.0%
(Constant)	3.007	0.141	0.000		
Discomfort (GASS)	-0.008	0.016	0.644	0.91%	0.04%
(Constant)	3.035	0.070	0.000		
Dissatisfaction (CSQ-8)	-0.002	0.009	0.787	0.0%	0.11%

Note. *p < .01; SE=Standard error of the estimated coefficient; R^2 =Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

4.5.5 Research Question 5

Do the frequency, nature and characteristics of staff-service user interactions predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

Staff-service User Interaction and Service User Outcomes

Multilevel modelling was run to predict service user outcomes (i.e. disability, disease, discomfort and dissatisfaction) from staff-service user interactions. The outcome variables were added separately to the multilevel modelling. As shown in Table 4.25 (below), the frequency and nature of staff-service user interactions was not a statistically significant predictor of service user outcomes, disability, disease, discomfort or dissatisfaction (p=0.631, p=0.396, p=0.748 and p=0.201, respectively).

Table 4.25: Results of multilevel modelling, investigating predictors of service user outcomes from staff-service user interaction

Variable / Outcomes	Staff-Service User Interaction				
	Coefficient	SE	*p-value*	R^2	
				L2	L1
(Constant)	97.565	5.076	0.000		
Disability (SFS)	-0.075	0.157	0.631	0.4%	0.0%
(Constant)	1.592	0.010	0.000		
Disease (BPRS)	0.000	0.000	0.396	0.0%	0.0%
(Constant)	3.007	0.141	0.000		
Discomfort (GASS)	0.001	0.005	0.748	0.0%	0.4%
(Constant)	3.035	0.070	0.000		
Dissatisfaction (CSQ-8)	-0.002	0.002	0.201	1.0%	4.8%

Note. SE=Standard error of the estimated coefficient; R^2=Coefficient of determination or variance explained; L2=Level 2 (between-ward variance); L1=Level 1 (within-ward variance)

4.6 Results of Secondary Outcomes

The secondary outcomes of the study gave a more holistic view of the emerging data. This consisted of information on ward sample size, the wards for the dependent variable with higher or lower mean scores, and on whether the difference of the dependent

variable was similar in each dependent variable ward. A one-way ANOVA[2] with post hoc tests was conducted to determine specific differences between wards.

4.6.1 Comparison between Wards and Service User Outcomes

4.6.1.1 Ward Differences in Terms of Disability (SFS)

One-way ANOVA with post hoc tests was run to determine whether the inability of psychiatric service users to perform required social activities (SFS) varied across participants from different wards. The participants were classified into 14 wards, with a different number of cases in each (the independent variable). There was homogeneity of variance, as assessed by Levene's Test (p= .211). In Table 4.26 (below), data are presented as mean ± standard deviation. The SFS score was thus found to be significantly different across the wards: F (13, 299) =7.422[3], p < .0005. For example, the SFS score increased from ward M5 (43.67 ± 6.658), to M6 (77.12 ± 26.144), M8 (77.78 ± 18.760), F3 (84.00 ± 34.438), M4 (86.75 ± 8.617), M1 (87.42 ± 28.716), M2 (93.93 ± 30.336), 16 (98.71 ± 34.287), F5 (99.00 ± 5.657), F2 (107.63 ± 24.447), M15 (113.23 ± 27.056), M14 (116.20 ± 31.730), M13 (121.47 ± 29.130) and M17 (124.33 ± 20.329), in that order.

Table 4.26: Results of ward differences in the SFS outcome

Type of Ward	No. of Cases	Mean	SD	95% Confidence Interval	
				Lower Bound	Upper Bound
Forensic (M1)	24	87.42	28.716	75.291	99.542
Forensic (M2)	28	93.93	30.336	82.165	105.692
Chronic psycho-medical (M4)	4	86.75	8.617	73.039	100.461
Chronic psycho-medical (M5)	3	43.67	6.658	27.127	60.207
Chronic schizophrenia (M6)	17	77.12	26.144	63.676	90.559
Chronic schizophrenia (M8)	9	77.78	18.760	63.357	92.198
Acute (M13)	74	121.47	29.130	114.724	128.222
Acute (M14)	54	116.20	31.730	107.543	124.864
Settled (M15)	39	113.23	27.056	104.460	122.001
Chronic geriatric (M16)	14	98.71	34.287	78.918	118.511
Chronic geriatric (M17)	9	124.33	20.329	108.707	139.959
Acute (F2)	32	107.63	24.447	98.811	116.439
Chronic schizophrenia (F3)	4	84.00	34.438	29.201	138.799
Chronic geriatric (F5)	2	99.00	5.657	48.175	149.825

SD=Standard deviation; M=Male ward; F=Female ward

The Tukey post hoc analysis (the Tukey-Kramer Test[4]), as shown in Table 4.27 (below), revealed that the following increases were all statistically significant:

[2]A one-way ANOVA procedure in SPSS statistics was carried out, in order to run the post hoc tests (i.e. this is a technical requirement).
[3]*F* value of ANOVA.
[4]The Tukey-Kramer Test was used, because the sample sizes varied between wards (referred to as the 'Tukey Test' in SPSS Statistics, but the 'Tukey-Kramer Test' in Laerd Statistics, 2016).

M1 to M13 (34.06, 95% CI 11.471 to 56.641, $p < .0005$); M2 to M13 (27.54, 95% CI 6.212 to 48.877, $p = .001$); M5 to M13 (77.81, 95% CI 21.183 to 134.430, $p < .0005$); M6 to M13 (44.36, 95% CI 18.496 to 70.214, $p < .0005$); M8 to M13 (43.70, 95% CI 9.754 to 77.637, $p = .001$); M1 to M14 (28.79, 95% CI 5.200 to 52.374, $p = .004$); M5 to M14 (72.54, 95% CI 15.506 to 129.568, $p = .002$); M6 to M14 (39.09, 95% CI 12.348 to 65.825, $p < .0005$); M8 to M14 (38.43, 95% CI 3.810 to 73.042, $p = .015$); M1 to M15 (25.81, 95% CI .870 to 50.758, $p = .035$); M5 to M15 (69.56, 95% CI 11.959 to 127.169, $p = .004$); M6 to M15 (36.11, 95% CI 8.171 to 64.056, $p = .001$); M5 to M17 (80.67, 95% CI 16.570 to 144.764, $p = .002$); M6 to M17 (7.582, 95% CI 16.570 to 86.850, $p = .005$);

M8 to M17 (46.56, 95% CI 1.232 to 91.879, $p = .038$); M5 to F2 (63.96, 95% CI 5.905 to 122.012, $p = .016$), and M6 to F2 (30.51, 95% CI 1.652 to 59.363, $p = .027$).

Table 4.27: Results of Tukey post hoc pairwise comparisons of SFS outcomes for the wards

Type of Ward		Mean Difference (I-J)	*P*-value	95% Confidence Interval	
(I) Ward	(J) Ward			Lower Bound	Upper Bound
Forensic (M1)	Chronic psycho-medical (M4)	.67	1.000	-51.258	52.591
	Chronic psycho-medical (M5)	43.75	.403	-15.127	102.627
	Chronic schizophrenia (M6)	10.30	.997	-20.179	40.777
	Chronic schizophrenia (M8)	9.64	1.000	-27.941	47.219
	Chronic schizophrenia (F3)	3.42	1.000	-48.508	55.341
Forensic (M2)	Forensic (M1)	6.51	1.000	-20.233	33.257
	Chronic psycho-medical (M4)	7.18	1.000	-44.213	58.571
	Chronic psycho-medical (M5)	50.26	.179	-8.146	108.670
	Chronic schizophrenia (M6)	16.811	.812	-12.751	46.373
	Chronic schizophrenia (M8)	16.15	.970	-20.690	52.992
	Chronic schizophrenia (F3)	9.93	1.000	-41.463	61.321
Chronic psycho-medical (M4)	Chronic psycho-medical (M5)	43.08	.777	-30.349	116.516
	Chronic schizophrenia (M6)	9.63	1.000	-43.798	63.062
	Chronic schizophrenia (M8)	8.97	1.000	-48.804	66.749
	Chronic schizophrenia (F3)	2.75	1.000	-65.235	70.735
Chronic schizophrenia (M6)	Chronic psycho-medical (M5)	33.45	.836	-26.758	93.660
Chronic schizophrenia (M8)	Chronic psycho-medical (M5)	34.11	.875	-29.986	98.208
	Chronic schizophrenia (M6)	.66	1.000	-38.974	40.294

Acute (M13)	Forensic (M1)	34.06	.000*	11.471	56.641
	Forensic (M2)	27.54	.001*	6.212	48.877
	Chronic psycho-medical (M4)	34.72	.498	-14.632	84.078
	Chronic psycho-medical (M5)	77.81	.000*	21.183	134.430
	Chronic schizophrenia (M6)	44.36	.000*	18.496	70.214
	Chronic schizophrenia (M8)	43.70	.001*	9.754	77.637
	Acute (M14)	5.27	.999	-11.938	22.477
	Settled (M15)	8.24	.973	-10.783	27.267
	Chronic geriatric (M16)	22.76	.258	-5.263	50.780
	Acute (F2)	13.85	.555	-6.494	34.190
	Chronic schizophrenia (F3)	37.47	.366	-11.882	86.828
	Chronic geriatric (F5)	22.47	.998	-46.425	91.371
Acute (M14)	Forensic (M1)	28.79	.004*	5.200	52.374
	Forensic (M2)	22.28	.053	-.115	44.666
	Chronic psycho-medical (M4)	29.45	.767	-20.368	79.275
	Chronic psycho-medical (M5)	72.54	.002*	15.506	129.568
	Chronic schizophrenia (M6)	39.09	.000*	12.348	65.825
	Chronic schizophrenia (M8)	38.43	.015*	3.810	73.042
	Settled (M15)	2.97	1.000	-17.231	23.177
	Chronic geriatric (M16)	17.49	.734	-11.346	46.325
	Acute (F2)	8.58	.986	-12.870	30.028
	Chronic schizophrenia (F3)	32.20	.640	-17.618	82.025
	Chronic geriatric (F5)	17.20	1.000	-52.029	86.437
Settled (M15)	Forensic (M1)	25.81	.035*	.870	50.758
	Forensic (M2)	19.30	.261	-4.513	43.118
	Chronic psycho-medical (M4)	26.48	.886	-23.997	76.959
	Chronic psycho-medical (M5)	69.56	.004*	11.959	127.169
	Chronic schizophrenia (M6)	36.11	.001*	8.171	64.056
	Chronic schizophrenia (M8)	35.45	.051	-.1017	71.008
	Chronic geriatric (M16)	14.52	.934	-15.439	44.472
	Acute (F2)	5.61	1.000	-17.327	28.538
	Chronic schizophrenia (F3)	29.23	.792	-21.247	79.709
	Chronic geriatric (F5)	14.23	1.000	-55.476	83.937
Chronic geriatric (M16)	Forensic (M1)	11.30	.996	-21.036	43.631
	Forensic (M2)	4.79	1.000	-26.685	36.257
	Chronic psycho-medical (M4)	11.96	1.000	-42.545	66.474
	Chronic psycho-medical (M5)	55.05	.129	-6.121	116.216
	Chronic schizophrenia (M6)	21.60	.698	-13.103	56.296
	Chronic schizophrenia (M8)	20.94	.906	-20.141	62.014
	Chronic schizophrenia (F3)	14.71	1.000	-39.795	69.224

Chronic geriatric (M17)	Forensic (M1)	36.92	.060	-.664	74.497
	Forensic (M2)	30.41	.235	-6.436	67.246
	Chronic psycho-medical (M4)	37.58	.630	-20.193	95.360
	Chronic psycho-medical (M5)	80.67	.002*	16.570	144.764
	Chronic schizophrenia (M6)	47.22	.005*	7.582	86.850
	Chronic schizophrenia (M8)	46.56	.038*	1.232	91.879
	Acute (M13)	2.86	1.000	-31.081	36.802
	Acute (M14)	8.130	1.000	-26.487	42.746
	Settled (M15)	11.10	.999	-24.452	46.657
	Chronic geriatric (M16)	25.62	.695	-15.459	66.697
	Acute (F2)	16.71	.955	-19.568	52.985
	Chronic schizophrenia (F3)	40.33	.511	-17.443	98.1098
	Chronic geriatric (F5)	25.33	.997	-49.827	100.494
Acute (F2)	Forensic (M1)	20.21	.325	-5.754	46.171
	Forensic (M2)	13.70	.845	-11.184	38.577
	Chronic psycho-medical (M4)	20.88	.983	-30.114	71.864
	Chronic psycho-medical (M5)	63.96	.016*	5.905	122.012
	Chronic schizophrenia (M6)	30.51	.027*	1.652	59.363
	Chronic schizophrenia (M8)	29.85	.239	-6.429	66.124
	Chronic geriatric (M16)	8.91	.999	-21.898	39.719
	Chronic schizophrenia (F3)	23.63	.953	-27.364	74.614
	Chronic geriatric (F5)	8.63	1.000	-61.453	78.703
Chronic schizophrenia (F3)	Chronic psycho-medical (M5)	40.33	.847	-33.099	113.766
	Chronic schizophrenia (M6)	6.88	1.000	-46.548	60.312
	Chronic schizophrenia (M8)	6.22	1.000	-51.554	63.999
Chronic geriatric (F5)	Forensic (M1)	11.58	1.000	-59.178	82.345
	Forensic (M2)	5.07	1.000	-65.300	75.443
	Chronic psycho-medical (M4)	12.25	1.000	-71.015	95.515
	Chronic psycho-medical (M5)	55.33	.679	-32.435	143.102
	Chronic schizophrenia (M6)	21.88	.999	-49.991	93.756
	Chronic schizophrenia (M8)	21.22	1.000	-53.938	96.383
	Chronic geriatric (M16)	.29	1.000	-72.394	72.965
	Chronic schizophrenia (F3)	15.00	1.000	-68.265	98.265

*The mean difference is significant at the 0.05 level; M=Male ward; F=Female ward

4.6.1.2 Ward Differences in Terms of Disease (BPRS)

A one-way ANOVA was run to determine whether certain symptoms of the psychiatric service users (the BPRS score) varied across participants from different wards. As shown in Table 4.28 (below), the participants were classified into 14 wards with a different number of cases in each. Data are presented here as mean ± standard deviation. There was homogeneity of variance, as assessed using Levene's Test (p= .074). Differences were subsequently found in the mean BPRS score for all the wards, but these differences were not statistically significant, F (13, 299) =1.737, p= .053.

Table 4.28: Results of ward differences in the BPRS outcome

Type of Ward	No. of Cases	Mean	SD	95% Confidence Interval	
				Lower Bound	Upper Bound
Forensic (M1)	24	1.56	.135	1.506	1.620
Forensic (M2)	28	1.62	.114	1.575	1.663
Chronic psycho-medical (M4)	4	1.64	.042	1.576	1.708
Chronic psycho-medical (M5)	3	1.40	.081	1.197	1.600
Chronic schizophrenia (M6)	17	1.64	.125	1.572	1.701
Chronic schizophrenia (M8)	9	1.61	.077	1.547	1.666
Acute (M13)	74	1.57	.138	1.536	1.600
Acute (M14)	54	1.61	.126	1.576	1.645
Settled (M15)	39	1.63	.146	1.581	1.675
Chronic geriatric (M16)	14	1.53	.127	1.453	1.599
Chronic geriatric (M17)	9	1.55	.117	1.458	1.637
Acute (F2)	32	1.61	.138	1.555	1.655
Chronic schizophrenia (F3)	4	1.58	.185	1.285	1.874
Chronic geriatric (F5)	2	1.61	.245	-.598	3.808

M=Male ward; F=Female ward

4.6.1.3 Ward Differences in Terms of Discomfort (GASS)

A one-way ANOVA with post hoc tests was run to determine whether the service users' experience of the side-effects of psychiatric medication (GASS) differed according to ward. The participants were classified into 14 wards, with a different number of cases in each, as mentioned earlier. There was homogeneity of variance, as assessed by Levene's Test (p= .232). In Table 4.29 (below), the data are presented as mean ± standard deviation. The GASS score was found to be significantly statistically different between the wards: F (13, 299) =2.025, p= .019, increasing from ward M6 (2.25 ± 1.767) to M8 (2.39 ± 1.142) and M14 (2.39 ± 1.566) (with the same mean) and then to M1 (2.64 ± 1.821), F3 (2.78 ± 1.178), M15 (2.96 ± 1.616), M4 (2.98 ± 1.211), M17 (3.31 ± 2.256), M2 (3.32 ± 1.691), F2 (3.33 ± 1.632), M5 (3.41 ± .167), M13 (3.43 ± 1.513), M16 (3.72 ± 1.492) and F5 (4.21 ± 1.260), in that order.

Table 4.29: Results of ward differences in the GASS outcome

Type of Ward	No. of Cases	Mean	SD	95% Confidence Interval	
				Lower Bound	Upper Bound
Forensic (M1)	24	2.64	1.821	1.867	3.405
Forensic (M2)	28	3.32	1.691	2.665	3.977
Chronic psycho-medical (M4)	4	2.98	1.211	1.056	4.911
Chronic psycho-medical (M5)	3	3.41	.167	2.999	3.827
Chronic schizophrenia (M6)	17	2.25	1.767	1.341	3.158
Chronic schizophrenia (M8)	9	2.39	1.142	1.516	3.272
Acute (M13)	74	3.43	1.513	3.082	3.783
Acute (M14)	54	2.39	1.566	1.965	2.820
Settled (M15)	39	2.96	1.616	2.437	3.484
Chronic geriatric (M16)	14	3.72	1.492	2.862	4.584
Chronic geriatric (M17)	9	3.31	2.256	1.571	5.039
Acute (F2)	32	3.33	1.632	2.745	3.921
Chronic schizophrenia (F3)	4	2.78	1.178	.902	4.651
Chronic geriatric (F5)	2	4.21	1.260	-7.116	15.532

M=Male ward; F=Female ward

The Tukey post hoc analysis (the Tukey-Kramer Test), as shown in Table 4.30 (below), revealed that the increase from ward M14 to ward M13 (1.04, 95% CI, .093 to 1.987) was statistically significant (p= .018), unlike any of the other ward differences.

Table 4.30: Results of the Tukey post hoc pairwise comparisons of the GASS outcome for wards

Type of Ward		Mean Difference (I-J)	*P*-value	95% Confidence Interval	
(I) Ward	(J) Ward			Lower Bound	Upper Bound
Forensic (M1)	Chronic schizophrenia (M6)	.39	1.000	-1.337	2.109
	Chronic schizophrenia (M8)	.24	1.000	-1.883	2.367
	Acute (M14)	.24	1.000	-1.090	1.577
	Chronic geriatric (F5)	-1.57	.988	-5.573	2.428
Forensic (M2)	Forensic (M1)	.69	.961	-.827	2.197
	Chronic psycho-medical (M4)	.34	1.000	-2.568	3.243
	Chronic schizophrenia (M6)	1.07	.653	-.600	2.742
	Chronic schizophrenia (M8)	.93	.966	-1.156	3.010
	Acute (M14)	.93	.426	-.338	2.194
	Settled (M15)	.36	1.000	-.986	1.707
	Chronic geriatric (M17)	.02	1.000	-2.067	2.099
	Chronic schizophrenia (F3)	.54	1.000	-2.361	3.450
Chronic psycho-medical (M4)	Forensic (M1)	.35	1.000	-2.588	3.283
	Chronic schizophrenia (M6)	.73	1.000	-2.287	3.754
	Chronic schizophrenia (M8)	.59	1.000	-2.677	3.856
	Acute (M14)	.59	1.000	-2.226	3.407
	Settled (M15)	.02	1.000	-2.831	2.877
	Chronic schizophrenia (F3)	.21	1.000	-3.637	4.050
Chronic psycho-medical (M5)	Forensic (M1)	.78	1.000	-2.551	4.106
	Forensic (M2)	.09	1.000	-3.210	3.394
	Chronic psycho-medical (M4)	.43	1.000	-3.722	4.581
	Chronic schizophrenia (M6)	1.16	.997	-2.241	4.567
	Chronic schizophrenia (M8)	1.02	1.000	-2.604	4.643
	Acute (M14)	1.02	.999	-2.204	4.245
	Settled (M15)	.45	1.000	-2.804	3.709
	Chronic geriatric (M17)	.11	1.000	-3.515	3.732
	Acute (F2)	.08	1.000	-3.202	3.362
	Chronic schizophrenia (F3)	.64	1.000	-3.515	4.788
Chronic schizophrenia (M8)	Chronic schizophrenia (M6)	.14	1.000	-2.097	2.385
	Acute (M14)	.001	1.000	-1.956	1.958

Acute (M13)	Forensic (M1)	.80	.792	-.686	2.280
	Forensic (M2)	.11	1.000	-1.182	1.405
	Chronic psycho-medical (M4)	.45	.999	-3.659	4.558
	Chronic psycho-medical (M5)	.02	1.000	-.713	.752
	Chronic schizophrenia (M6)	1.18	.419	-.556	2.92
	Chronic schizophrenia (M8)	1.04	.486	-.688	2.766
	Acute (M14)	1.04	.018*	.093	1.987
	Settled (M15)	.47	.962	-.613	1.557
	Chronic geriatric (M17)	.13	1.000	-3.260	3.516
	Acute (F2)	.09	1.000	-1.085	1.285
	Chronic schizophrenia (F3)	.66	.986	-3.325	4.637
Acute (M14)	Chronic schizophrenia (M6)	.14	1.000	-1.369	1.655
Settled (M15)	Forensic (M1)	.33	1.000	-1.085	1.735
	Chronic schizophrenia (M6)	.71	.963	-.869	2.291
	Chronic schizophrenia (M8)	.57	1.000	-1.443	2.577
	Acute (M14)	.57	.921	-.574	1.710
	Chronic schizophrenia (F3)	.18	1.000	-2.670	3.038
Chronic geriatric (M16)	Forensic (M1)	1.09	.759	-.740	2.916
	Forensic (M2)	.40	1.000	-1.377	2.182
	Chronic psycho-medical (M4)	.74	1.000	-2.3415	3.822
	Chronic psycho-medical (M5)	.31	1.000	-3.148	3.768
	Chronic schizophrenia (M6)	1.47	.384	-.488	3.435
	Chronic schizophrenia (M8)	1.33	.805	-.993	3.652
	Acute (M13)	.29	1.000	-1.293	1.875
	Acute (M14)	1.33	.251	-.299	2.961
	Settled (M15)	.76	.962	-.931	2.456
	Chronic geriatric (M17)	.42	1.000	-1.904	2.741
	Acute (F2)	.39	1.000	-1.351	2.132
	Chronic schizophrenia (F3)	.95	.999	-2.135	4.028
Chronic geriatric (M17)	Forensic (M1)	.67	.999	-1.456	2.794
	Chronic psycho-medical (M4)	.32	1.000	-2.945	3.588
	Chronic schizophrenia (M6)	1.06	.947	-1.186	3.296
	Chronic schizophrenia (M8)	.91	.995	-1.651	3.473
	Acute (M14)	.91	.951	-1.045	2.869
	Settled (M15)	.34	1.000	-1.666	2.354
	Chronic schizophrenia (F3)	.53	1.000	-2.738	3.794

Acute (F2)	Forensic (M1)	.70	.943	-.771	2.165
	Forensic (M2)	.01	1.000	-1.395	1.419
	Chronic psycho-medical (M4)	.35	1.000	-2.533	3.232
	Chronic schizophrenia (M6)	1.08	.597	-.548	2.714
	Chronic schizophrenia (M8)	.94	.957	-1.112	2.990
	Acute (M14)	.94	.331	-.272	2.153
	Settled (M15)	.37	.999	-.924	1.669
	Chronic geriatric (M17)	.03	1.000	-2.023	2.079
	Chronic schizophrenia (F3)	.56	1.000	-2.326	3.439
Chronic schizophrenia (F3)	Forensic (M1)	.14	1.000	-2.795	3.076
	Chronic schizophrenia (M6)	.53	1.000	-2.494	3.548
	Chronic schizophrenia (M8)	.38	1.000	-2.883	3.649
	Acute (M14)	.38	1.000	-2.433	3.201
Chronic geriatric (F5)	Forensic (M1)	1.57	.988	-2.428	5.573
	Forensic (M2)	.89	1.000	-3.091	4.865
	Chronic psycho-medical (M4)	1.23	1.000	-3.483	5.932
	Chronic psycho-medical (M5)	.80	1.000	-4.167	5.757
	Chronic schizophrenia (M6)	1.96	.937	-2.105	6.021
	Chronic schizophrenia (M8)	1.81	.976	-2.435	6.063
	Acute (M13)	.78	1.000	-3.120	4.670
	Acute (M14)	1.82	.953	-2.099	5.729
	Settled (M15)	1.25	.999	-2.693	5.188
	Chronic geriatric (M16)	.49	1.000	-3.624	4.593
	Chronic geriatric (M17)	.90	1.000	-3.346	5.152
	Acute (F2)	.88	1.000	-3.087	4.837
	Chronic schizophrenia (F3)	1.4	.999	-3.276	6.138

*The mean difference is significant at the 0.05 level; M=Male ward; F=Female ward

4.6.1.4 Ward Differences in Terms of Dissatisfaction (CSQ-8)

A one-way ANOVA was run to determine whether service users' feelings of dissatisfaction with the mental health care services that they received (the CSQ-8 score) differed from those found amongst participants from other wards. As shown in Table 4.31 (below), the participants were classified into 14 wards, with a different number of cases in each. There was homogeneity of variance (assessed using Levene's Test, p= .848). The data are presented here as mean ± standard deviation. There were consequently differences found in the mean of the CSQ-8 score across all the wards, but the differences between these ward groups were not statistically significant: F (13, 299) =1.381, p= .167.

Table 4.31: Results of ward differences in the CSQ-8 outcome

Type of Ward	No. of Cases	Mean	SD	95% Confidence Interval	
				Lower Bound	Upper Bound
Forensic (M1)	24	2.92	.840	2.566	3.276
Forensic (M2)	28	3.48	.756	3.189	3.776
Chronic psycho-medical (M4)	4	2.90	1.332	.783	5.020
Chronic psycho-medical (M5)	3	2.40	1.372	-1.010	5.804
Chronic schizophrenia (M6)	17	2.80	.929	2.321	3.277
Chronic schizophrenia (M8)	9	2.96	.734	2.393	3.521
Acute (M13)	74	3.04	1.032	2.802	3.280
Acute (M14)	54	2.85	.900	2.606	3.097
Settled (M15)	39	3.28	.956	2.969	3.589
Chronic geriatric (M16)	14	3.36	.996	2.786	3.936
Chronic geriatric (M17)	9	3.21	1.246	2.250	4.165
Acute (F2)	32	2.84	1.012	2.470	3.200
Chronic schizophrenia (F3)	4	2.88	1.276	.847	4.907
Chronic geriatric (F5)	2	2.28	.775	-4.685	9.246

M=Male ward; F=Female ward

4.6.2 Comparison between Wards and Service User Characteristics

4.6.2.1 Ward Differences in Terms of Service User Age

A one-way ANOVA with post hoc tests was run to determine whether service user age differed across the participants from different wards. The participants were classified into 14 wards, with a different number of cases in each. There was homogeneity of variance, as assessed using Levene's Test (p= .131). Table 4.32 (below), presents the data as mean ± standard deviation. The scores for service user age were consequently found to be statistically significantly different between the wards, F (13, 299) =14.118, p= .000 and these scores increased from ward M13 (33.49 ± 7.375), to F5 (33.50 ± 16.263), M14 (34.30 ± 8.496), F2 (34.81± 10.505), M15 (35.74 ± 9.187), M5 (38.00 ± 12.124), M16 (43.93 ± 11.519), M8 (44.11 ± 7.849), M2 (44.93 ± 9.537), M6 (45.47 ± 9.315), M4 (51.00 ± 14.491), M1 (51.04 ± 11.004), F3 (56.75 ± 7.890) and M17 (58.33 ± 7.826), in that order.

Table 4.32: Results of ward differences in service user age

Type of Ward	N	Mean	SD	95% Confidence Interval	
				Lower Bound	Upper Bound
Forensic (M1)	24	51.04	11.004	46.40	55.69
Forensic (M2)	28	44.93	9.537	41.23	48.63
Chronic psycho-medical (M4)	4	51.00	14.491	27.94	74.06
Chronic psycho-medical (M5)	3	38.00	12.124	7.88	68.12
Chronic schizophrenia (M6)	17	45.47	9.315	40.68	50.26
Chronic schizophrenia (M8)	9	44.11	7.849	38.08	50.14
Acute (M13)	74	33.49	7.375	31.78	35.20
Acute (M14)	54	34.30	8.496	31.98	36.62
Settled (M15)	39	35.74	9.187	32.77	38.72
Chronic geriatric (M16)	14	43.93	11.519	37.28	50.58
Chronic geriatric (M17)	9	58.33	7.826	52.32	64.35
Acute (F2)	32	34.81	10.505	31.03	38.60
Chronic schizophrenia (F3)	4	56.75	7.890	44.20	69.30
Chronic geriatric (F5)	2	33.50	16.263	-112.62	179.62

N=number of service users; SD=Standard deviation; M=Male ward; F=Female ward

The Tukey post hoc analysis (the Tukey-Kramer Test), as shown in Table 4.33 (below), revealed that the increase from M13 to M1 (17.555, 95% CI 10.27 to 24.84) was statistically significant (p= .000); as was the increase from M14 to M1 (16.745, 95% CI 9.14 to 24.35, p= .000); M15 to M1 (15.298, 95% CI 7.25 to 23.34, p= .000), and F2 to M1 (16.229, 95% CI 7.86 to 24.60, p= .000). Also statistically significant was the increase from M13 to M2 (11.442, 95% CI 4.56 to 18.32, p= .000); M14 to M2 (10.632, 95% CI 3.41 to 17.85, p= .000); M15 to M2 (9.185, 95% CI 1.50 to 16.87, p= .005); F2 to M2 (10.116, 95% CI 2.09 to 18.14, p= .002); M13 to M4 (17.514, 95% CI 1.60 to 33.43, p= .017; M14 to M4 (16.704, 95% CI .64 to 32.77, p= .033); M13 to M6 (11.984, 95% CI 3.64 to 20.32, p= .000); M14 to M6 (11.174, 95% CI 2.55 to 19.80, p= .001); M15 to M6 (9.727, 95% CI .72 to 18.74, p= .021); F2 to M6 (10.658, 95% CI 1.35 to 19.96, p= .010); M13 to M16 (10.442, 95% CI 1.41 to 19.48, p= .009); M14 to M16 (9.632, 95% CI .33 to 18.93, p= .034); M2 to M17 (13.405, 95% CI 1.52 to 25.29, p= .012); M6 to M17 (12.863, 95% CI .08 to 25.64, p= .047); M13 to M17 (24.847, 95% CI 13.90 to 35.79, p= .000); M14 to M17 (24.037, 95% CI 12.87 to 35.20, p= .000); M15 to M17 (22.590, 95% CI 11.12 to 34.06, p= .000); M16 to M17 (14.405, 95% CI 1.16 to 27.65, p= .019); F2 to M17 (23.521, 95% CI 11.82 to 35.22, p= .000), and F5 to M17 (24.833, 95% CI .60 to 49.07, p= .039). Finally, the increase from M13 to F3 (23.264, 95% CI 7.35 to 39.18) was statistically significant (p= .000), as was the increase from M14 to F3 (22.454, 95% CI 6.39 to 38.52, p= .000); M15 to F3 (21.006, 95% CI 4.73 to 37.28, p= .001), and F2 to F3 (21.938, 95% CI 5.49 to 38.38, p= .001).

Table 4.33: Results of the Tukey post hoc pairwise comparisons of service user age on the wards

Type of Ward		Mean Difference (I-J)	*P*-value	95% Confidence Interval	
(I) Ward	(J) Ward			Lower Bound	Upper Bound
Forensic (M1)	Forensic (M2)	6.113	.485	-2.51	14.74
	Chronic psycho-medical (M4)	.042	1.000	-16.70	16.79
	Chronic psycho-medical (M5)	13.042	.539	-5.95	32.03
	Chronic schizophrenia (M6)	5.571	.816	-4.26	15.40
	Chronic schizophrenia (M8)	6.931	.806	-5.19	19.05
	Acute (M13)	17.555	.000*	10.27	24.84
	Acute (M14)	16.745	.000*	9.14	24.35
	Settled (M15)	15.298	.000*	7.25	23.34
	Chronic geriatric (M16)	7.113	.551	-3.31	17.54
	Acute (F2)	16.229	.000	7.86	24.60
	Chronic geriatric (F5)	17.542	.345	-5.28	40.36
Forensic (M2)	Chronic psycho-medical (M5)	6.929	.994	-11.91	25.76
	Chronic schizophrenia (M8)	.817	1.000	-11.06	12.70
	Acute (M13)	11.442	.000*	4.56	18.32
	Acute (M14)	10.632	.000*	3.41	17.85
	Settled (M15)	9.185	.005*	1.50	16.87
	Chronic geriatric (M16)	1.000	1.000	-9.15	11.15
	Acute (F2)	10.116	.002*	2.09	18.14
	Chronic geriatric (F5)	11.429	.914	-11.27	34.12
Chronic psycho-medical (M4)	Forensic (M2)	6.071	.994	-10.50	22.64
	Chronic psycho-medical (M5)	13.000	.848	-10.68	36.68
	Chronic schizophrenia (M6)	5.529	.998	-11.70	22.76
	Chronic schizophrenia (M8)	6.889	.993	-11.74	25.52
	Acute (M13)	17.514	.017*	1.60	33.43
	Acute (M14)	16.704	.033*	.64	32.77
	Settled (M15)	15.256	.092	-1.02	31.53
	Chronic geriatric (M16)	7.071	.986	-10.51	24.65
	Acute (F2)	16.188	.059	-.26	32.63
	Chronic geriatric (F5)	17.500	.627	-9.35	44.35
Chronic psycho-medical (M5)	Acute (M13)	4.514	1.000	-13.75	22.77
	Acute (M14)	3.704	1.000	-14.69	22.10
	Settled (M15)	2.256	1.000	-16.32	20.83
	Acute (F2)	3.188	1.000	-15.53	21.91
	Chronic geriatric (F5)	4.500	1.000	-23.80	32.80

Chronic schizophrenia (M6)	Forensic (M2)	.542	1.000	-8.99	10.08
	Chronic psycho-medical (M5)	7.471	.990	-11.95	26.89
	Chronic schizophrenia (M8)	1.359	1.000	-11.42	14.14
	Acute (M13)	11.984	.000*	3.64	20.32
	Acute (M14)	11.174	.001*	2.55	19.80
	Settled (M15)	9.727	.021*	.72	18.74
	Chronic geriatric (M16)	1.542	1.000	-9.65	12.73
	Acute (F2)	10.658	.010*	1.35	19.96
	Chronic geriatric (F5)	11.971	.897	-11.21	35.15
Chronic schizophrenia (M8)	Chronic psycho-medical (M5)	6.111	.999	-14.56	26.78
	Acute (M13)	10.625	.067	-.32	21.57
	Acute (M14)	9.815	.154	-1.35	20.98
	Settled (M15)	8.368	.434	-3.10	19.83
	Chronic geriatric (M16)	.183	1.000	-13.06	13.43
	Acute (F2)	9.299	.291	-2.40	21.00
	Chronic geriatric (F5)	10.611	.970	-13.63	34.85
Acute (M14)	Acute (M13)	.810	1.000	-4.74	6.36
Settled (M15)	Acute (M13)	2.257	.994	-3.88	8.39
	Acute (M14)	1.447	1.000	-5.07	7.96
	Acute (F2)	.931	1.000	-6.46	8.33
	Chronic geriatric (F5)	2.244	1.000	-20.24	24.72
Chronic geriatric (M16)	Chronic psycho-medical (M5)	5.929	.999	-13.80	25.65
	Acute (M13)	10.442	.009*	1.41	19.48
	Acute (M14)	9.632	.034*	.33	18.93
	Settled (M15)	8.185	.199	-1.48	17.85
	Acute (F2)	9.116	.111	-.82	19.05
	Chronic geriatric (F5)	10.429	.966	-13.01	33.87
Chronic geriatric (M17)	Forensic (M1)	7.292	.745	-4.83	19.41
	Forensic (M2)	13.405	.012*	1.52	25.29
	Chronic psycho-medical (M4)	7.333	.988	-11.30	25.97
	Chronic psycho-medical (M5)	20.333	.059	-.34	41.00
	Chronic schizophrenia (M6)	12.863	.047*	.08	25.64
	Chronic schizophrenia (M8)	14.222	.066	-.39	28.84
	Acute (M13)	24.847	.000*	13.90	35.79
	Acute (M14)	24.037	.000*	12.87	35.20
	Settled (M15)	22.590	.000*	11.12	34.06
	Chronic geriatric (M16)	14.405	.019*	1.16	27.65
	Acute (F2)	23.521	.000*	11.82	35.22
	Chronic schizophrenia (F3)	1.583	1.000	-17.05	20.22
	Chronic geriatric (F5)	24.833	.039*	.60	49.07
Acute (F2)	Acute (M13)	1.326	1.000	-5.23	7.89
	Acute (M14)	.516	1.000	-6.40	7.43
	Chronic geriatric (F5)	1.313	1.000	-21.29	23.91

Chronic schizophrenia (F3)	Forensic (M1)	5.708	.997	-11.04	22.45
	Forensic (M2)	11.821	.474	-4.75	28.39
	Chronic psycho-medical (M4)	5.750	1.000	-16.17	27.67
	Chronic psycho-medical (M5)	18.750	.297	-4.93	42.43
	Chronic schizophrenia (M6)	11.279	.620	-5.95	28.51
	Chronic schizophrenia (M8)	12.639	.561	-5.99	31.27
	Acute (M13)	23.264	.000*	7.35	39.18
	Acute (M14)	22.454	.000*	6.39	38.52
	Settled (M15)	21.006	.001*	4.73	37.28
	Chronic geriatric (M16)	12.821	.435	-4.76	30.40
	Acute (F2)	21.938	.001*	5.49	38.38
	Chronic geriatric (F5)	23.250	.172	-3.60	50.10
Chronic geriatric (F5)	Acute (M13)	.014	1.000	-22.21	22.23

*The mean difference is significant at the 0.05 level

4.6.2.2 Ward Differences in Terms of Service User Gender

A chi-square test (X^2) was conducted between the results for service users' gender on the wards, in order to identify any differences arising between the 14 wards. A statistically significant gender difference was subsequently found between the wards: X^2 (df 13) =313.000, p= .000. As shown in Table 4.34 (below), the comparison of percentages for service users' gender between the wards showed substantial differences. These differences are mainly explained by differences in service user gender, with male service users being admitted to exclusively male wards (11 wards) and female service users being admitted to exclusively female wards (3 wards).

Table 4.34: Percentage of ward differences in relation to service users' gender

Type of Ward	N	% on the Ward	
		Male	Female
Forensic (M1)	24	100	0.0
Forensic (M2)	28	100	0.0
Chronic psycho-medical (M4)	4	100	0.0
Chronic psycho-medical (M5)	3	100	0.0
Chronic schizophrenia (M6)	17	100	0.0
Chronic schizophrenia (M8)	9	100	0.0
Acute (M13)	74	100	0.0
Acute (M14)	54	100	0.0
Settled (M15)	39	100	0.0
Chronic geriatric (M16)	14	100	0.0
Chronic geriatric (M17)	9	100	0.0
Acute (F2)	32	0.0	100
Chronic schizophrenia (F3)	4	0.0	100
Chronic geriatric (F5)	2	0.0	100

N=number of service users; M=Male ward; F=Female ward

4.6.2.3 Ward Differences in Terms of Service Users' Marital Status

A chi-square test (X^2) was conducted on service users' marital status in relation to the wards that they were allocated to, in order to identify any differences arising between the 14 wards. A statistically significant difference was subsequently found between the wards: X^2 (df 39) =69.894, p= .002. As shown in Table 4.35 (below), the comparison of the data gathered concerning service users' marital status between the wards showed substantial differences in percentages. These differences are mainly explained by differences in service users' marital status (i.e. single, married, divorced or widowed) on each ward. For example, nearly 100% of the service users were single in Male Ward 5, whereas Female Ward 3 had no single females. Meanwhile, around 28.1% of the service users were married in Female Ward 2, whereas the service users in M5, F3 and F5 were unmarried. Moreover, around 75% of the service users in Female Ward 3 were divorced, while no one was divorced in wards M4 and M5. Finally, Female Ward 3 was found to contain more widows (25%) than the other wards.

Table 4.35: Percentage of ward differences in service users' marital status

Type of Ward	N	% on the Ward			
		Single	Married	Divorced	Widowed
Forensic (M1)	24	66.7	16.7	12.5	4.2
Forensic (M2)	28	57.1	7.1	32.1	3.6
Chronic psycho-medical (M4)	4	75.0	25.0	0.0	0.0
Chronic psycho-medical (M5)	3	100	0.0	0.0	0.0
Chronic schizophrenia (M6)	17	70.6	11.8	11.8	5.9
Chronic schizophrenia (M8)	9	77.8	11.1	11.1	0.0
Acute (M13)	74	67.6	27.0	4.1	1.4
Acute (M14)	54	61.1	27.8	11.1	0.0
Settled (M15)	39	76.9	10.3	7.7	5.1
Chronic geriatric (M16)	14	71.4	7.1	21.4	0.0
Chronic geriatric (M17)	9	66.7	22.2	11.1	0.0
Acute (F2)	32	40.6	28.1	31.3	0.0
Chronic schizophrenia (F3)	4	0.0	0.0	75.0	25.0
Chronic geriatric (F5)	2	50.0	0.0	50.0	0.0

N=number of service users; M=Male ward; F=Female ward

4.6.2.4 Ward Differences in Terms of Service Users' Employment Status

A chi-square test (X^2) was conducted on the service users' employment status in relation to their wards, in order to identify any differences arising between the 14 wards. There was consequently a statistically significant difference found between the wards: X^2 (df 26) =55.229, p= .001. As shown in Table 4.36 (below), the results revealed differences between the percentages for each category of the service users' employment status (retired, employed and unemployed) on each ward. For example, Male Ward 4 revealed the highest rate of retirement (50%), while there were other wards with no retired inpatients (M5, F2, F3 and F5). In terms of employment, the service users in Male Ward 14 showed the highest percentage (31.5%) out of all the admission wards studied; while the service users admitted to wards M4-M6, M8, M17, F3 and F5 were found to be out of work. Meanwhile, unemployed service users were more common on the women's wards (F3 and F5) and Male Ward 5, whereas percentages varied for the other wards.

Table 4.36: Percentage of ward differences in service users' employment status

Type of Ward	N	% on the Ward		
		Retired	Employed	Unemployed
Forensic (M1)	24	16.7	4.2	79.2
Forensic (M2)	28	10.7	7.1	82.1
Chronic psycho-medical (M4)	4	50.0	0.0	50.0
Chronic psycho-medical (M5)	3	0.0	0.0	100
Chronic schizophrenia (M6)	17	23.5	0.0	76.5
Chronic schizophrenia (M8)	9	33.3	0.0	66.7
Acute (M13)	74	9.5	23.0	67.6
Acute (M14)	54	9.3	31.5	59.3
Settled (M15)	39	12.8	25.6	61.5
Chronic geriatric (M16)	14	21.4	21.4	57.1
Chronic geriatric (M17)	9	44.4	0.0	55.6
Acute (F2)	32	0.0	6.3	93.8
Chronic schizophrenia (F3)	4	0.0	0.0	100
Chronic geriatric (F5)	2	0.0	0.0	100

N=number of service users; M=Male ward; F=Female ward

4.6.2.5 Ward Differences in Terms of Service Users' Educational Level

A chi-square test (X^2) was conducted on service users' educational level in relation to the wards, in order to identify any differences between the 14 wards. As shown in Table 4.37 (below), there were differences in the percentages for service users' educational level on the wards. However, the differences between these ward groups were not statistically significant: X^2 (df 78) =86.438, p= .240.

Table 4.37: Percentage of ward differences in service users' educational level

Type of Ward	N	% on the Ward						
		Illiter.	P	Interm.	S	C	G	PG
Forensic (M1)	24	16.7	29.2	8.3	33.3	12.5	0.0	0.0
Forensic (M2)	28	7.1	35.7	25.0	17.9	7.1	7.1	0.0
Chronic psycho-medical (M4)	4	25.0	25.0	0.0	25.0	0.0	25.0	0.0
Chronic psycho-medical (M5)	3	0.0	33.3	66.7	0.0	0.0	0.0	0.0
Chronic schizophrenia (M6)	17	0.0	29.4	35.3	17.6	5.9	11.8	0.0
Chronic schizophrenia (M8)	9	11.1	33.3	44.4	11.1	0.0	0.0	0.0
Acute (M13)	74	0.0	17.6	27.0	36.5	8.1	9.5	1.4
Acute (M14)	54	1.9	18.5	31.5	31.5	5.6	9.3	1.9
Settled (M15)	39	2.6	17.9	33.3	23.1	7.7	12.8	2.6
Chronic geriatric (M16)	14	7.1	21.4	50.0	21.4	0.0	0.0	0.0
Chronic geriatric (M17)	9	0.0	33.3	44.4	22.2	0.0	0.0	0.0
Acute (F2)	32	18.8	25.0	25.0	15.6	3.1	12.5	0.0
Chronic schizophrenia (F3)	4	50.0	25.0	0.0	25.0	0.0	0.0	0.0
Chronic geriatric (F5)	2	50.0	50.0	0.0	0.0	0.0	0.0	0.0

N=Number of service users; M=Male ward; F=Female ward; Illiter. =Illiterate; P=Primary school; Interm. =Intermediate school; S=Secondary school; C=College; G=Graduate, and PG=Postgraduate

4.6.2.6 Ward Differences in Terms of Service Users' Area of Residence

A chi-square test (X^2) was conducted on service users' area of residence in relation to the wards, in order to identify any differences arising between the 14 wards. A statistically significant difference was consequently found between the wards: X^2 (df 52)

=91.545, *p*= .001. As shown in Table 4.38 (below), a comparison between the percentages for service users' area of residence across the wards revealed substantial differences. These differences could partially be explained by ward size (number of service users), together with service users' characteristics in terms of area of residence, as these are expected to have a major impact on these ward rates. For example, the service users in wards M4 (four service users) and F5 (two service users), who were normally resident in the Western Region made up the highest proportion (100%), while the percentages of service users from other areas varied from 0.0% to 44.4%.

Table 4.38: Percentage of ward differences in terms of service users' area of residence

Type of Ward	N	% on the Ward				
		Western	Eastern	Central	North	South
Forensic (M1)	24	54.2	4.2	33.3	0.0	8.3
Forensic (M2)	28	57.1	3.6	28.6	3.6	7.1
Chronic psycho-medical (M4)	4	100	0.0	0.0	0.0	0.0
Chronic psycho-medical (M5)	3	66.7	0.0	0.0	0.0	33.3
Chronic schizophrenia (M6)	17	82.4	0.0	11.8	0.0	5.9
Chronic schizophrenia (M8)	9	77.8	0.0	22.2	0.0	0.0
Acute (M13)	74	90.5	0.0	5.4	1.4	2.7
Acute (M14)	54	90.7	1.9	1.9	0.0	5.6
Settled (M15)	39	84.6	0.0	5.1	0.0	10.3
Chronic geriatric (M16)	14	71.4	0.0	21.4	7.1	0.0
Chronic geriatric (M17)	9	55.6	0.0	44.4	0.0	0.0
Acute (F2)	32	93.8	0.0	3.1	3.1	0.0
Chronic schizophrenia (F3)	4	75.0	25.0	0.0	0.0	0.0
Chronic geriatric (F5)	2	100	0.0	0.0	0.0	0.0

N=Number of service users; M=Male ward; F=Female ward

4.6.2.7 Ward Differences in Terms of Service User Diagnoses

A chi-square test (X^2) was conducted on service users' diagnoses in relation to the wards, in order to identify any differences arising between the 14 wards. A statistically significant difference was consequently found between the wards: X^2 (df 52) =112.631, *p*= .000. As shown in Table 4.39 (below), the percentage of service users diagnosed with schizophrenia was higher than for other mental disorders. However, this percentage varied among the service users for all types of ward, ranging from 53.1-100%. The proportions of other mental disorders (including personality disorder, bipolar disorder, substance-related disorder and depression) among the service users varied across all other wards from 0.0-21.9%.

Table 4.39: Percentage of ward differences in terms of service users' diagnoses

Type of Ward	N	% on the Ward				
		Schizo.	Pers.	Bipol.	Subst.	Dep.
Forensic (M1)	24	91.7	4.2	0.0	4.2	0.0
Forensic (M2)	28	92.9	7.1	0.0	0.0	0.0
Chronic psycho-medical (M4)	4	100	0.0	0.0	0.0	0.0
Chronic psycho-medical (M5)	3	100	0.0	0.0	0.0	0.0
Chronic schizophrenia (M6)	17	100	0.0	0.0	0.0	0.0
Chronic schizophrenia (M8)	9	100	0.0	0.0	0.0	0.0
Acute (M13)	74	64.9	0.0	14.9	20.3	0.0
Acute (M14)	54	66.7	5.6	7.4	18.5	1.9
Settled (M15)	39	71.8	7.7	2.6	15.4	2.6
Chronic geriatric (M16)	14	100	0.0	0.0	0.0	0.0
Chronic geriatric (M17)	9	100	0.0	0.0	0.0	0.0
Acute (F2)	32	53.1	6.3	18.8	0.0	21.9
Chronic schizophrenia (F3)	4	100	0.0	0.0	0.0	0.0
Chronic geriatric (F5)	2	100	0.0	0.0	0.0	0.0

N=Number of service users; M=Male ward; F=Female ward; Schizo. =Schizophrenia; Pers. =Personality disorder; Bipol. =Bipolar disorder; Subst. =Substance-related disorder, and Dep. =Depression

4.6.3 Comparison between the Wards and Nurses' Characteristics

4.6.3.1 Ward Differences in Terms of Nurses' Ages

The result for this dimension showed that nurses' age scores were not normally distributed, as assessed through visual inspections of a histogram. This histogram indicated that the data were extremely, positively skewed. These skewed data were then transformed, so that the new scores displayed the normality and equality of variance in the results. Inverse transformation was applied for the nurses' age scores and the transformed variable yielded data that were nearly normally distributed, as assessed through inspection of the histogram.

Following this, one-way ANOVA was run to determine whether the nurses' age scores differed for participants on other wards. The participants were classified into 14 wards, which revealed that the number of nurses varied from ward to ward. The assumption of homogeneity of variance was violated, as assessed by Levene's Test for equality of variance (p= .001). Alternatively, the Welch ANOVA[5] was used, which showed that the nurses' age scores were significantly statistically different across the wards, with Welch's F (13, 60.499) =2.787, p= .004. In Table 4.40 (below), the data are presented as mean ± standard deviation. Nurses' age scores increased from ward M5 (.0272 ± .00604) to M5 (.0289 ± .00739); F3 (.0309 ± .00412); M4 (.0314 ± .00623); M2 (.0318± .00423); M8 (.0327 ± .00327); M15 (.0330 ± .00372); M16 (.0332± .00286); M14 (.0337± .00294); M1 (.0338 ± .00497); M17 (.0340 ± .00297); M6 (.0341 ± .00300), F2 (.0355 ± .00472), and M13 (.0358 ± .00278), in that order.

[5] A modified version of the ANOVA.

Table 4.40: Results of ward differences in terms of nurses' ages

Type of Ward	No. of Nurses	Mean	SD	95% Confidence Interval	
				Lower Bound	Upper Bound
Forensic (M1)	15	.0338	.00497	.0311	.0366
Forensic (M2)	11	.0318	.00423	.0289	.0346
Chronic psycho-medical (M4)	13	.0314	.00623	.0276	.0352
Chronic psycho-medical (M5)	12	.0272	.00604	.0233	.0310
Chronic schizophrenia (M6)	12	.0341	.00300	.0322	.0360
Chronic schizophrenia (M8)	10	.0327	.00327	.0303	.0350
Acute (M13)	15	.0358	.00278	.0343	.0374
Acute (M14)	15	.0337	.00294	.0320	.0353
Settled (M15)	12	.0330	.00372	.0306	.0354
Chronic geriatric (M16)	14	.0332	.00286	.0315	.0348
Chronic geriatric (M17)	10	.0340	.00297	.0319	.0362
Acute (F2)	12	.0355	.00472	.0325	.0385
Chronic schizophrenia (F3)	14	.0309	.00412	.0285	.0333
Chronic geriatric (F5)	11	.0289	.00739	.0239	.0338

SD=Standard deviation; M=Male ward; F=Female ward

A Games-Howell post hoc analysis, as shown in Table 4.41 (below), revealed that the mean increase from M5 to M13 (.00867, 95% CI [.0012, .0161]) was statistically significant (p= .016), as well as the increase from F3 to M13 (.00495, 95% CI [.0000, .0099], p= .047).

Table 4.41: Results of Games-Howell post hoc pairwise comparisons of nurses' ages on the wards

Type of Ward		Mean Difference (I-J)	*P*-value	95% Confidence Interval	
(I) Ward	(J) Ward			Lower Bound	Upper Bound
Forensic (M1)	Forensic (M2)	.00204	.995	-.0047	.0088
	Chronic psycho-medical (M4)	.00243	.995	-.0056	.0105
	Chronic psycho-medical (M5)	.00666	.186	-.0015	.0148
	Chronic schizophrenia (M8)	.00116	1.000	-.0050	.0073
	Acute (M14)	.00018	1.000	-.0054	.0057
	Settled (M15)	.00083	1.000	-.0054	.0070
	Chronic geriatric (M16)	.00066	1.000	-.0049	.0062
	Chronic schizophrenia (F3)	.00294	.884	-.0033	.0092
	Chronic geriatric (F5)	.00497	.785	-.0050	.0150
Forensic (M2)	Chronic psycho-medical (M4)	.00039	1.000	-.0077	.0085
	Chronic psycho-medical (M5)	.00462	.670	-.0036	.0128
	Chronic schizophrenia (F3)	.00090	1.000	-.0054	.0072
	Chronic geriatric (F5)	.00293	.994	-.0071	.0130
Chronic psycho-medical (M4)	Chronic psycho-medical (M5)	.00423	.886	-.0049	.0134
	Chronic schizophrenia (F3)	.00051	1.000	-.0072	.0082
	Chronic geriatric (F5)	.00254	.999	-.0082	.0132
Chronic schizophrenia (M6)	Forensic (M1)	.00030	1.000	-.0055	.0061
	Forensic (M2)	.00235	.945	-.0036	.0083
	Chronic psycho-medical (M4)	.00273	.967	-.0047	.0102
	Chronic psycho-medical (M5)	.00697	.089	-.0006	.0146
	Chronic schizophrenia (M8)	.00146	.996	-.0037	.0066
	Acute (M14)	.00048	1.000	-.0038	.0048
	Settled (M15)	.00113	1.000	-.0041	.0063
	Chronic geriatric (M16)	.00096	1.000	-.0033	.0053
	Chronic geriatric (M17)	.00011	1.000	-.0048	.0050
	Chronic schizophrenia (F3)	.00324	.562	-.0020	.0085
	Chronic geriatric (F5)	.00527	.632	-.0044	.0149
Chronic schizophrenia (M8)	Forensic (M2)	.00088	1.000	-.0054	.0072
	Chronic psycho-medical (M4)	.00127	1.000	-.0064	.0090
	Chronic psycho-medical (M5)	.00551	.344	-.0023	.0133
	Chronic schizophrenia (F3)	.00178	.993	-.0039	.0075
	Chronic geriatric (F5)	.00381	.933	-.0060	.0136

Acute (M13)	Forensic (M1)	.00201	.977	-.0035	.0075
	Forensic (M2)	.00405	.324	-.0016	.0098
	Chronic psycho-medical (M4)	.00444	.532	-.0029	.0117
	Chronic psycho-medical (M5)	.00867	.016*	.0012	.0161
	Chronic schizophrenia (M6)	.00170	.950	-.0025	.0059
	Chronic schizophrenia (M8)	.00317	.450	-.0017	.0080
	Acute (M14)	.00218	.700	-.0016	.0060
	Settled (M15)	.00283	.636	-.0021	.0077
	Chronic geriatric (M16)	.00266	.418	-.0012	.0065
	Chronic geriatric (M17)	.00181	.944	-.0027	.0063
	Acute (F2)	.00037	1.000	-.0056	.0063
	Chronic schizophrenia (F3)	.00495	.047*	.0000	.0099
	Chronic geriatric (F5)	.00698	.261	-.0026	.0166
Acute (M14)	Forensic (M2)	.00187	.986	-.0039	.0076
	Chronic psycho-medical (M4)	.00226	.991	-.0051	.0096
	Chronic psycho-medical (M5)	.00649	.123	-.0010	.0140
	Chronic schizophrenia (M8)	.00098	1.000	-.0039	.0059
	Settled (M15)	.00065	1.000	-.0043	.0056
	Chronic geriatric (M16)	.00048	1.000	-.0035	.0044
	Chronic schizophrenia (F3)	.00276	.716	-.0022	.0077
	Chronic geriatric (F5)	.00479	.726	-.0048	.0144
Settled (M15)	Forensic (M2)	.00122	1.000	-.0051	.0075
	Chronic psycho-medical (M4)	.00161	1.000	-.0061	.0093
	Chronic psycho-medical (M5)	.00584	.280	-.0020	.0137
	Chronic schizophrenia (M8)	.00033	1.000	-.0053	.0060
	Chronic schizophrenia (F3)	.00211	.977	-.0036	.0078
	Chronic geriatric (F5)	.00414	.895	-.0057	.0139
Chronic geriatric (M16)	Forensic (M2)	.00139	.999	-.0044	.0071
	Chronic psycho-medical (M4)	.00177	.999	-.0056	.0091
	Chronic psycho-medical (M5)	.00601	.186	-.0015	.0135
	Chronic schizophrenia (M8)	.00050	1.000	-.0044	.0054
	Settled (M15)	.00017	1.000	-.0048	.0051
	Chronic schizophrenia (F3)	.00228	.896	-.0027	.0073
	Chronic geriatric (F5)	.00431	.828	-.0053	.0139

Chronic geriatric (M17)	Forensic (M1)	.00020	1.000	-.0057	.0061
	Forensic (M2)	.00224	.967	-.0038	.0083
	Chronic psycho-medical (M4)	.00263	.979	-.0049	.0102
	Chronic psycho-medical (M5)	.00686	.106	-.0008	.0145
	Chronic schizophrenia (M8)	.00136	.999	-.0040	.0067
	Acute (M14)	.00037	-.0042	.0050	-.0042
	Settled (M15)	.00102	-.0044	.0064	-.0044
	Chronic geriatric (M16)	.00085	-.0038	.0055	-.0038
	Chronic schizophrenia (F3)	.00314	.655	-.0023	.0086
	Chronic geriatric (F5)	.00517	.671	-.0045	.0149
Acute (F2)	Forensic (M1)	.00164	1.000	-.0053	.0086
	Forensic (M2)	.00368	.767	-.0033	.0107
	Chronic psycho-medical (M4)	.00407	.831	-.0042	.0123
	Chronic psycho-medical (M5)	.00830	.052	.0000	.0167
	Chronic schizophrenia (M6)	.00134	1.000	-.0048	.0075
	Chronic schizophrenia (M8)	.00280	.915	-.0037	.0093
	Acute (M14)	.00182	.993	-.0042	.0078
	Settled (M15)	.00247	.968	-.0041	.0090
	Chronic geriatric (M16)	.00230	.957	-.0037	.0083
	Chronic geriatric (M17)	.00144	1.000	-.0049	.0078
	Chronic schizophrenia (F3)	.00458	.387	-.0020	.0111
	Chronic geriatric (F5)	.00661	.442	-.0035	.0167
Chronic schizophrenia (F3)	Chronic psycho-medical (M5)	.00373	.849	-.0041	.0116
	Chronic geriatric (F5)	.00203	1.000	-.0078	.0118
Chronic geriatric (F5)	Chronic psycho-medical (M5)	.00169	1.000	-.0091	.0125

*The mean difference is significant at the 0.05 level; M=Male ward; F=Female ward

4.6.3.2 Ward Differences in Terms of Nurses' Gender

A chi-square test (X^2) was conducted between nurses' gender and the wards to identify any differences arising between the 14 wards. There was consequently a statistically significant difference found between the wards: X^2 (df 13) =176.000, p= .000. As shown in Table 4.42 (below), the results revealed substantial differences in a comparison of percentages for nurses' gender across the wards. These differences were expected to generate significant figures on these ward rates. The male wards were operated by male nurses, except for the admission wards M4 and M5 (for elderly service users with multiple disabilities), which were operated by female nurses. However, the female wards were operated exclusively by female nurses, in accordance with Saudi culture.

Table 4.42: Percentage of ward differences in terms of nurses' gender

Type of Ward	No. of Nurses	% on the Ward	
		Male	Female
Forensic (M1)	15	100	0.0
Forensic (M2)	11	100	0.0
Chronic psycho-medical (M4)	13	0.0	100
Chronic psycho-medical (M5)	12	0.0	100
Chronic schizophrenia (M6)	12	100	0.0
Chronic schizophrenia (M8)	10	100	0.0
Acute (M13)	15	100	0.0
Acute (M14)	15	100	0.0
Settled (M15)	12	100	0.0
Chronic geriatric (M16)	14	100	0.0
Chronic geriatric (M17)	10	100	0.0
Acute (F2)	12	0.0	100
Chronic schizophrenia (F3)	14	0.0	100
Chronic geriatric (F5)	11	0.0	100

M=Male ward; F=Female ward

4.6.3.3 Ward Differences in Terms of Nurses' Nationality

A chi-square test (X^2) was conducted between nurses' nationality and the wards to identify any differences arising between the 14 wards. There was a subsequently a statistically significant difference found between the wards: X^2 (df 13) =132.622, p= .000. As shown in Table 4.43 (below), the results revealed that the male admission wards were operated by Saudi nurses (100%), except for M4 and M5, which were operated by non-Saudi female nurses (100%), while the female admission wards (F2, F3 and F5) were operated by both Saudi and non-Saudi nurses, generating percentages ranging from 21.4-78.6%.

Table 4.43: Percentage of ward differences in terms of nurses' nationality

Type of Ward	No. of Nurses	% on the Ward	
		Saudi	Non-Saudi
Forensic (M1)	15	100	0.0
Forensic (M2)	11	100	0.0
Chronic psycho-medical (M4)	13	0.0	100
Chronic psycho-medical (M5)	12	0.0	100
Chronic schizophrenia (M6)	12	100	0.0
Chronic schizophrenia (M8)	10	100	0.0
Acute (M13)	15	100	0.0
Acute (M14)	15	100	0.0
Settled (M15)	12	100	0.0
Chronic geriatric (M16)	14	100	0.0
Chronic geriatric (M17)	10	100	0.0
Acute (F2)	12	33.3	66.7
Chronic schizophrenia (F3)	14	78.6	21.4
Chronic geriatric (F5)	11	54.5	45.5

M=Male ward; F=Female ward

4.6.3.4 Ward Differences in Terms of Nurses' Qualifications

A chi-square test (X^2) was conducted on nurses' qualifications in relation to the wards, in order to identify any differences arising across the 14 wards. There was subsequently a statistically significant difference found between the wards: X^2 (df 26) =115.676, *p*= .000. As shown in Table 4.44 (below), a comparison of percentages for nurses' qualifications between the wards showed substantial differences. These may primarily be explained by differences in the type of nursing qualification concerned, as this would be expected to have a significant impact on these ward rates. On admission wards operated by male nurses, 90-100% of the nurses held a diploma qualification, whereas the qualifications held by female nurses operating the male admission wards varied (M4 and M5). Furthermore, the majority of the nurses on the all-female wards held diplomas, at 93% on the female admission wards, compared to 23% on M4 and M5.

Table 4.44: Percentage of ward differences in terms of nurses' qualifications

Type of Ward	No. of Nurses	% on the Ward		
		Diploma	Gradate	Postgraduate
Forensic (M1)	15	100	0.0	0.0
Forensic (M2)	11	100	0.0	0.0
Chronic psycho-medical (M4)	13	23.1	53.8	23.1
Chronic psycho-medical (M5)	12	33.3	66.7	0.0
Chronic schizophrenia (M6)	12	100	0.0	0.0
Chronic schizophrenia (M8)	10	90.0	10.0	0.0
Acute (M13)	15	100	0.0	0.0
Acute (M14)	15	93.3	6.7	0.0
Settled (M15)	12	100	0.0	0.0
Chronic geriatric (M16)	14	100	0.0	0.0
Chronic geriatric (M17)	10	100	0.0	0.0
Acute (F2)	12	41.7	58.3	0.0
Chronic schizophrenia (F3)	14	92.9	7.1	0.0
Chronic geriatric (F5)	11	81.8	18.2	0.0

M=Male ward; F=Female ward

4.6.3.5 Ward Differences in Terms of Nurses' Experience

A chi-square test (X^2) was conducted on the years of nurses' experience at the hospital in relation to the wards, in order to identify any differences arising between the 14 wards. As shown in Table 4.45 (below), there were differences in percentages for the level of experience (in years) of the nurses on the wards, but the differences between these ward groups were not statistically significant: X^2 (df 13) =14.202, *p*= .360.

Table 4.45: Percentage of ward differences in terms of nurses' experience

Type of Ward	No. of Nurses	% on the Ward	
		< 4 years	> 4 years
Forensic (M1)	15	46.7	53.3
Forensic (M2)	11	9.1	90.9
Chronic psycho-medical (M4)	13	23.1	76.9
Chronic psycho-medical (M5)	12	8.3	91.7
Chronic schizophrenia (M6)	12	25.0	75.0
Chronic schizophrenia (M8)	10	30.0	70.0
Acute (M13)	15	46.7	53.3
Acute (M14)	15	46.7	53.3
Settled (M15)	12	33.3	66.7
Chronic geriatric (M16)	14	28.6	71.4
Chronic geriatric (M17)	10	40.0	60.0
Acute (F2)	12	50.0	50.0
Chronic schizophrenia (F3)	14	28.6	71.4
Chronic geriatric (F5)	11	18.2	81.8

M=Male ward; F=Female ward

4.6.3.6 Ward Differences in the Number of Psychiatric Training Courses Attended by the Nurses

A chi-square test (X^2) was conducted on the number of nurses who had attended psychiatric training courses, in relation to the wards, in order to identify any differences arising between the 14 wards. As shown in Table 4.46 (below), there were differences between the wards in terms of the percentages for the number of nurses who had attended psychiatric training courses, but the differences between these ward groups were not statistically significant: X^2 (df 13) =20.858, p= .076.

Table 4.46: Percentage of ward differences in terms of nurses who had attended psychiatric training courses

Type of Ward	No. of Nurses	% on the Ward	
		Trained	Not trained
Forensic (M1)	15	100	0.0
Forensic (M2)	11	100	0.0
Chronic psycho-medical (M4)	13	69.2	30.8
Chronic psycho-medical (M5)	12	83.3	16.7
Chronic schizophrenia (M6)	12	83.3	16.7
Chronic schizophrenia (M8)	10	100	0.0
Acute (M13)	15	93.3	6.7
Acute (M14)	15	80.0	20.0
Settled (M15)	12	83.3	16.7
Chronic geriatric (M16)	14	92.9	7.1
Chronic geriatric (M17)	10	100	0.0
Acute (F2)	12	66.7	33.3
Chronic schizophrenia (F3)	14	92.9	7.1
Chronic geriatric (F5)	11	100	0.0

M=Male ward; F=Female ward

4.7 Summary of Quantitative Results

This chapter has presented the results of the quantitative strand of this study (surveys and observations), which investigated factors associated with the quality of mental health care and the relationship of these to service user outcomes. The results involved a summary of socio-demographic and descriptive characteristics of the data and the outcomes of statistical analyses in relation to the research questions, followed by the results of the secondary analysis.

The research questions were evaluated using regression models to predict service user outcomes. The results revealed that variables for service user characteristics, namely age, marital status, employment status, educational level, area of residence, and diagnosis significantly predicted disability (SFS), whilst gender did not. Meanwhile, with one exception (unemployment), none of the variables for service user characteristics were found to be a statistically significant predictor of disease (BPRS). Finally, only educational level was found to be a significant predictor of discomfort (GASS) and dissatisfaction (CSQ-8).

Nurses' age and years of experience of working in the hospital were only found to significantly predict SFS, with years of experience in the hospital being the only significant predictor of CSQ-8. Moreover, none of the nurses' characteristics were found to be statistically significant predictors of service user outcome variables, disease or discomfort. However, nurses' attitudes toward the mentally ill/mental illness were not found to be a statistically significant predictor of service user outcomes, disability, disease, discomfort or dissatisfaction, although nurses' competence was indicated as a statistically significant predictor of SFS scores. None of the other service user outcome variables (disease, discomfort and dissatisfaction) were predicted by nurses' competency in the delivery of mental health care. Finally, the frequency and nature (quality) of staff-service user interactions did not prove to be a statistically significant predictor of service user outcomes, disability, disease, discomfort or dissatisfaction.

The next chapter presents the results of the qualitative data interviews, as they relate to the thematic analysis presented in Chapter Three. The research objective (question) was intended to explore service users’ perceptions and experiences in relation to the quality of their mental health care provision.

5 Qualitative Findings

5.1 Introduction

This chapter presents the findings of the qualitative strand of the present study, based on an analysis of 30 semi-structured interviews conducted with participants at the study site. These interviews were intended to explore the service users' perceptions and experiences of the QoC that they received as mental health service users. Initially, an overview of the interview participants' characteristics will be presented here, followed by a summary of the key categories, themes and sub-themes, illustrated by quotes from the participants themselves.

5.2 Notes on Transcription and Data Extracts

{…} = long pause and/or any cues posted by the participants.

[…] = part of transcript removed.

[Text] = text added by the researcher for explanation.

(Text) = text added by the researcher to identify the source.

5.3 Characteristics of the Interview Participants

The sample consisted of 30 service users, aged between 23 and 59 years (Mean=40.60 years, 24 male/6 female). The majority of the sample had a secondary school level of education (n=18), while the remaining 11 were university graduates (see Table 5.1, below).

Table 5.1: Characteristics of the interview participants

Characteristic	Number
Age (years)	
23-30	4
31-40	10
41-50	13
>50	3
Range Mean	23-59 40.60
Gender	
Male	24
Female	6
Educational level	
Illiterate	1
Primary school	6
Intermediate school	8
Secondary school	4
College (diploma)	2
Graduate	8
Postgraduate	1

5.4 Essential Structure of the Themes and Sub-themes

The participants expressed varying perceptions of the health care services provided at the hospital, according to their individual experiences, as demonstrated by five themes and nine associated sub-themes emerging from the coding during the qualitative data analysis (presented in Table 5.2, below and discussed in the following sections). The explanation and description of each theme and sub-theme are supported by illustrative quotes from the interview participants. All quotes are anonymised and referenced with the interviewee's ID numbers, from Int.1 to Int.30, also identifying the male or female status of the participants' quotes.

Table 5.2: Themes and sub-themes emerging from the interviews

Themes	**Sub-themes**
Hospital like a prison	Delayed service user discharge
	Feeling of imprisonment
	Lack of activities
	Punishment
Quality of interaction	Communication
	Staff members' behaviour and ways of dealing with service users
Quality of services	Satisfactory services
	Unsatisfactory services
	Not being totally satisfied with the service
Qualities of the staff	-
Suggestions for achieving quality of care	-

5.5 Qualitative Data Findings

5.5.1 Hospital is Like a Prison

The participants described this theme in terms of their experience of the hospital and the care received, comparing it to a prison. A striking feature of the interviews was that the majority of the participants expressed a fundamentally negative perception of the hospital care, while only a few commented that it exceeded their reasonable expectations of such care. Here, 28 participants described it unequivocally as a prison, particularly with regard to the four sub-themes: *delayed service user discharge, feeling of imprisonment, lack of activities* and *punishment*.

5.5.1.1 Delayed Service User Discharge

The sub-theme of 'delayed service user discharge' captures the narrative perception of participants admitted to the hospital. Thirteen of the participants described experiences of delayed discharge from the hospital, resulting in them suffering for a wide range of reasons. Eight of the participants attributed delayed discharge to the refusal of their families to take them home and the failure of the hospital to address this; resulting in them languishing in hospital, even after being declared fit for discharge. One participant reported:

> *All patients are ready for discharge but their families refused to receive them, so they leave them here.* (Int.11, male participant)

A further nine of the participants expressed the belief that their delayed discharge from the hospital was due to the health system being unresponsive to them as service users (especially after them being cleared for discharge). For example, one participant reported that the hospital should reject the administrative barriers that prevent the discharge of service users, such as obtaining an official letter from a higher authority (for example, the local Province or even the Police Station). This indicates that service users' relatives often wish to keep them in hospital for prolonged periods, against medical advice, as service users cannot be discharged without the permission of their guardians:

> Int.22, male participant: *…The administrative barrier should not be accepted at all, because I have an administrative barrier for my whole life.*
>
> *YM (the researcher): Could you say a bit about your administrative barrier in terms of its source?*

> Int.22, male participant: *Its source is the Prince of [city name] through my father, he sent him a letter… and it was forwarded from [city name]. He [the Prince of ****] didn't see me and he didn't know me. I'll stay here for my whole life unless my father discharges me.*

Furthermore, the participants expressed the view that being confined to the hospital for prolonged periods was in itself a source of mental suffering. For example, one participant, who had spent some time in hospital reported:

> *You stay here for a year or two years without going out. This can place psychological pressure on the patient.* (Int.18, male participant)

Another service user stated that unnecessarily long hospital stays can exacerbate service users' mental condition through prolonged association with other service users:

> *It could be due to the doctor not writing for him [discharge]. I mean, whoever has improved [i.e. is cured] is not supposed to stay even one day. But the doctors ignore this and let you stay with other patients…* (Int.10, male participant)

This experience was echoed by other participants, when they were asked to describe their experiences as service users in other hospitals and the issue of their release from hospital. The participants expressed the opinion that other mental hospitals discharged service users whose conditions had improved and that their discharge from inpatient psychiatric facilities was obligatory. One participant commented:

> *With the care there, at [hospital name], if your condition has improved, you get compulsory discharge, while here, no, you will be neglected, forgotten.* (Int.12, male participant)

5.5.1.2 Feeling of Imprisonment

As may be noted from the previous quotes, 13 of the participants described how their negative perceptions dominated their state of mind, leading to their perception of being imprisoned and not being allowed to leave the hospital. Additionally, 18 of the participants raised issues associated with the ward area and ambience, with universally negative perceptions. Nine of the participants described the ward area as prison-like, citing specific instances, such as confinement in a locked ward. The following participant's comment summarised the general perception of a locked ward:

We don't see light, we don't see sun. All windows have been sealed with steel covers. (Int.17, female participant)

Keeping service users out of the bedrooms and denying them access to their own beds during the day as a way of preventing them from sleeping in the daytime was also mentioned in six of the interviews. This action was perceived by the service users as unacceptable, leading to many of them feeling restricted on the ward, with their freedom being limited. For example, one participant reported that closing off the bedrooms during the daytime was a mistake on the part of the hospital management:

…the room is closed and this [closing the room] is the fault of the Hospital […] they are supposed to open them for us, especially in the morning, because we receive psychiatric treatment that makes us sleep. (Int.24, male participant)

In fact, opening the bedrooms was viewed as therapeutic for reducing feelings of discomfort:

…they closed them. If they left them open, we would feel more comfortable… those who want to go bed instead of sleeping in the sitting room… no, open the bedrooms and we can go in them at any time. (Int.20, male participant)

Insufficient space on the ward was also reported by six of those interviewed. The participants gave different examples to illustrate the ways in which they felt that they had been confined in a small area and had no access to any space outside the ward, as they were generally not allowed out. For instance, one participant commented:

…they could create a small garden with a few trees to walk in, instead of us being cooped up in here in a 30 metre x 12 metre space. All the wards have the same surface area […] and our numbers are relatively high. (Int.19, male participant)

One participant was of the view that service users in other hospitals occupied larger spaces and consequently felt calmer, compared to this hospital. He believed that large rooms should be factored into the ward design for mentally ill service users:

The place in [hospital name] is larger than here; there is a big lounge. The bigger the place, the more you feel restful, which means that you feel psychologically comfortable; whereas the place where we are now is medium-

sized, which means it is normal and doesn't have that much effect [on the psyche of the service user]. (Int.27, male participant)

Of course, it was not necessarily be all those who realised the importance of larger areas and an absence of restrictions in the ward structure (for example, closed bedrooms) who viewed the setting as a prison. However, the data analysis revealed that 11 of the participants reported that they felt as if they were confined in a prison-like inpatient psychiatric ward. When asked to describe the QoC in the hospital, it was clear from the very beginning of the interviews that the hospital was like a prison:

In general, I don't acknowledge that this place, where we are now, is in fact a hospital. I say this place is a prison, not a hospital […] Here, the detainees are like Guantanamo detainees, I say this honestly. (Int.18, male participant)

A perceived lack of support following admission to the hospital was also a matter of concern that reinforced the participants' acute perception of the setting as a prison. For example, one participant commented that there was some degree of expectation of a cure when the service users were initially admitted, but their health status actually tended to worsen, due to the hospital conditions:

Here it is like a prison, how do you expect the patient to be cured? …they put him in such a place like confinement. You wish to treat him… You increase his illness by placing him in a prison […], I won't tell him to come to this hospital, because frankly this is confinement here. (Int.1, male participant)

The participants attributed their perception of the hospital as a prison to multiple reasons. Many simply wished to be discharged and allowed to go home:

…If you know that my condition has improved and I could have been discharged a week ago, then why imprison me here for two months? We are in a prison… […], we are in a prison, in the true meaning of the word. All the patients here suffer at this hospital. (Int.24, male participant)

Another common reason for feeling imprisoned consisted of being forbidden from leaving the ward, as well as a lack of available recreational facilities:

We need to have a TV and entertaining games, such as al-kerm *[a chess-like board game], games of snakes and ladders, something like this… we would feel comfortable psychologically if there was a garden, I mean to be able to*

leave the prison that we're in for a bit. We are inside the ward for 24 hours… just sitting, sleeping, eating and drinking. These things are important, to amuse oneself. We don't go out; even the visits take place inside the ward. We don't see daylight. (Int.17, female participant)

5.5.1.3 Lack of Activities

This section discusses the service users' perceptions of the availability of entertainment at the hospital. As mentioned previously, the participants commonly reported a negative perception of the hospital, which 17 out of the 30 participants related to a lack of recreation (activities and areas), resulting in boredom:

…most of my time here is boring. I talk to others, I mean, what is there to do? We don't have anything except patience. I have been here for two months. Nothing for entertainment, nothing at all. Even cards [games] are not allowed, so I just spend my time talking and smoking. (Int.24, male participant)

The presence of natural features in the hospital was felt to be desirable, as it would provide an opportunity for service users to enjoy some recreation and improve their use of leisure time, reducing their feeling of imprisonment during hospitalisation. This was in addition to the importance of natural features for personal well-being (yard therapy). According to one participant, there was a lack of such things in the hospital:

There are no leisure activities here [like playing] football, having a change of scene, going out to get some fresh air. Such things are lacking here. No entertainment, I've never seen it, and they don't take us to it. We just spend all our time in here. (Int.27, male participant)

Interestingly, one participant blamed the hospital for the deterioration of other service users' conditions, due to inadequate opportunities for recreation, stating that:

I know some people who came here and their illnesses have got worse, quite frankly, as a result of the lack of facilities, such as entertainment… (Int.1, male participant)

One participant noted that recreation in other hospitals was better (with sports and a TV in every room), but he clearly feared this being reported, admitting that he was afraid of saying anything that could be interpreted as disparaging of the nurses and hospital director:

> *The entertainment there is really better than here. They don't only have TV in the lounge, they have it in every room, but, as I told you before, we don't have a problem with the nursing and we don't want a representative to blame the hospital director.* (Int.11, male participant)

The participants also reported that they had never been in the hospital recreation room and even suggested that they were forbidden from going there:

> *We could create a real vocational institute [entertainment]. I have never been in the vocational institute, but I have heard about it. I heard patients say there is such and such. They go to it but I have never been there.* (Int.9, male participant)

> *…They even have a leisure club here, but they don't let us go there, I have heard about it, but I have never been in it, the whole six times of my admission.* (Int.2, male participant)

Similarly, five of the participants claimed that the lack of entertainment reflected neglect in terms of the importance of amenities in treating service users' conditions:

> *This is a mistake in the sense that there is no entertainment, so some patients complained to the nurses that they had come here to feel more comfortable, but nobody cared about them.* (Int.2, male participant)

> *…there is no effort made to provide entertainment, even inside the ward. The government offers everything [entertainment] but nobody cares about this. I think this is an important aspect for patients.* (Int.4, male participant)

Participants in need of care perceived that their physicians did not understand their conditions and merely prescribed them medication, whereas they wanted to have physicians who cared for them in a holistic way, incorporating entertainment and fitness:

> *The doctor should discuss other things with patients, not just "Did you sleep well? Are you ok, and how is your treatment?" He is not asking you about your physical fitness… whether you want to go downstairs to take part in some recreation.* (Int.8, male participant)

Access to complementary or special services, such as psychology and occupational therapies, relates to the need for multi-professional service provision for individuals

with mental illness. Consequently, the participants saw a great need for occupational and psychological therapies as a means of accessing complementary treatments. They perceived that they were not engaged in activities/therapies that could be beneficial for relieving their personal distress:

> *Here at [the study site], they help you to benefit yourself, which means that your doctor helps you by giving you a hint and then you complete. But there at [hospital name] they mostly have meetings.* (Int.19, male participant)

> *We don't have such things. I haven't seen anybody go since I have been here in this hospital. This is first time that I have heard from you that we have occupational therapy.* (Int.24, male participant)

5.5.1.4 Punishment

Another issue comparing the hospital to a prison, which emerged from the interview data, was that around 20 of the participants reported receiving punishment. However, many aspects of hospitalisation reinforced such feelings of imprisonment amongst the service users, including the authoritarianism (power) and punishment associated with some hospital admission experiences. Punishment was concurrent with the interaction between staff and service users. The participants who reported this perceived the consequences of particular staff behaviours and responses to their own activities, including the likelihood of being physically restrained or assaulted by staff; perceived by the participants as acts of punishment, whereby the nurse became the perpetrator of retributive action and was consequently feared by the service user as a disciplinarian. One of the participants was afraid to report deficiencies in the cleanliness of the ward for fear of being labelled problematic and therefore subject to retribution from staff members, including having his discharge from hospital obstructed:

> *…I'm worried about his reaction… many things prevent me from doing so… for example, he may create some blocks to prevent me from going home, you know, or he may say "it is not your business… you're a patient…" something like this.* (Int.4, male participant)

A common feeling reported by the participants was powerlessness in the face of the terror of being restrained and one service user was even afraid to complain about the hospital food. This contributed to the escalation of his situation and the realisation of his worst fear of being considered as a troublemaker, coming into conflict with staff, and

being restrained in the hospital. The following comment by one participant reflects this sense of powerlessness, shared by several of the participants:

> *...I haven't told anybody. I just eat silently […]. I'm afraid if I talk they'll tie me up.* (Int.23, male participant)

A different participant reported being afraid to follow official complaint procedures, indicating that the system's mechanism for service user complaints/feedback was disregarded:

> *...I was thinking of writing a complaint against him [the physician], but after lots of thought, I cancelled it, because I don't want to create problems with him or his colleagues, because all of them will take this subject personally…* (Int.18, male participant)

Drawing on the opinions of the above participants, it is apparent that the issue of punishment associated with the care provided at the hospital had a detrimental impact on the behaviour and psychological well-being of service users. In 11 of the interviews, the participants described their experiences of being punished by individual nurses, as they had been arbitrarily tied up for 'disobedience', but without authorisation from a doctor.

The arbitrary tying up of service users is a violent intervention was implemented without taking the service user's perspective into account. It indicates a lack of communication, at a time when service users are feeling at their most vulnerable. The following comment by one participant reflects the attitude of the nursing staff in this regard, as perceived by the service users. This participant expressed his disapproval of such an act, echoed by four other participants:

> *...If you clash with them, such as asking for a doctor or something like this, they immediately tie you down. Some nurses try to create a problem with you for no reason, but possibly because they don't like your style. I have no real idea what their intentions are, but what I want to say is that some of them have changeable moods.* (Int.2, male participant)

Punishments would also be meted out for disobedience, where the nurses appeared to believe that they were interacting with non-compliant or non-responsive service users. In the case of such 'punishment', the nurses used various types of threat, as described by one of the participants interviewed in the following quote:

> *There are some nurses who speak with a patient and if he doesn't listen to them, they tie him up, put him in isolation, give him an injection, or call a doctor. This happens if there is a misunderstanding with the patient.* (Int.9, male participant)

'No doctors' orders' refers to penalties imposed on service users, mainly by nurses, who assume full autonomy in their treatment of service users. Service users consequently feel powerless in these encounters, in the absence of or bypassing physicians' orders:

> *Some patients, for example, if they are found to be irritating, are tied up until they become calm. This intervention is applied to all cases. It is a procedure carried out without doctors' orders and it's their own action.* (Int.4, male participant)

> *…the first ward manager was very bad, he was giving injections at will, without consulting the doctor. He was threatening us that if we created any problems, he would give us injections himself, without telling the doctor.* (Int.21, male participant)

Interestingly, one of the participants interviewed, who had experienced previous admissions, reported that he was subjected to punishment by nursing staff, who restrained him by tying him to his bed without doctors' orders. He claimed that no care had been provided for him while he was tied to the bed, reflecting nursing negligence:

> *Last time when they tied me, it was without a doctor's order, so I stayed tied down for six hours. I told them that I wanted to go to the toilet, but nobody listened to me, so I urinated on myself. They were sitting and talking to each other and they left me shouting… They don't care about the patient while he is tied, this is what I see in the hospital. […] They also deal with other patients like this.* (Int.23, male participant)

A number of participants described being restrained. All were involuntarily detained when the restraint occurred and all reported it as a negative experience. All counts of restraint were dealt with by force. When asked to describe their experiences of being restrained, they narrated a form of assault. For example, one participant reported that being restrained was a bad experience leading to physical injury:

> *They tie us very tightly and sometimes they lift the bed up and tie a person from one shoulder. I cried and shouted "My shoulder, shoulder!" […] They*

> *really tried to break my hands and twisted them behind my back. I forgot about this, but I remember now that my hands could have been broken.* (Int.20, male participant)

In addition to experiences of being physically restrained, analysis of the narrated accounts highlighted the experience of being treated with great severity while being restrained in the hospital. For example, one participant reported being beaten and insulted by nurses and even by cleaning personnel, who were enlisted to help restrain service users:

> *Many people have been beaten until their legs were bleeding. Service staff [ancillary, non-nursing staff] beat horribly; these personnel have no relationship with patients, but they beat them […].* (Int.22, male participant)

5.5.2 Quality of Interaction

This theme refers to service users' perceptions of the quality of their interaction with staff. Such interaction is focused on the relationship between service users and staff as an aspect of the therapy milieu. The data generated by the interviews indicated that the most frequent type of interaction between health care providers and service users was interpersonal care. The sub-themes within this category are: *Communication* and *Staff members' behaviour and ways of dealing with service users.*

5.5.2.1 Communication

Interpersonal aspects of care include communication from health care providers involved in the treatment of service users and general interpersonal empathy and skills. These should be intrinsic to the nursing role and contribute to QoC, particularly in mental health contexts. Four of the participants perceived that a positive relationship related to the ability of health care providers to create an atmosphere where they could express themselves openly and where service users felt heard and accepted. This produced positive feelings, in contrast to the restriction of interaction in the provision of biomedical care:

> *He [the physician] never deals with you as a patient, like you just take your medication and go. Instead, he asks you things, I mean you feel as if he gives you confidence in yourself. It means, for example, you have the ability to change, to alter, to try, to talk.* (Int.11, male participant)

Similarly, other participants declared that their psychological health improved through reflection on interaction with their physicians. For example, one participant felt comfortable when asked (by a physician) what he wanted:

> *They ask me and I answer them; at the end, he asks me "What do you want?" which means, "Is there anything you want to say?" This makes me feel comfortable and I feel that they care about me.* (Int.27, male participant)

Nursing actions were identified as significantly beneficial when service users were kept informed about their care, or the reasons for their referral to specialists and other health professionals. Two of the participants expressed positive views of the nursing staff when receiving information, such as the following typical experience:

> *If you have any appointment or something like this, he tells you there will be an appointment for you on such a day and in such a place.* (Int.12, male participant)

An interesting finding was the preference expressed by two of the participants regarding being able to inquire about their condition or even receive health-related education. There was a general trend for physicians (not nurses) to assist participants in accessing the desired information, but this appeared to be due to the participants' limited understanding of the nursing role:

> *…there are barriers between patients and nurses, such as not wanting to discuss things with them. They are not psychiatric doctors that we should ask them.* (Int.8, male participant)

> *If I want to ask about the treatment, I will ask the doctor; for example about the benefit of this medicine, "What are its negative side-effects?" […].* (Int.10, male participant

However, four of the participants had concerns about the poor provision of information and some claimed that no explanation was given about their medication. The lack of communication between service users and staff was identified as particularly problematic by four of the participants, who reported that this had happened to them, for example:

> *He [the physician] asked me six questions and then he said, "You can go" and I left. He did not explain this. I got information about the treatments from patients.* (Int.5, male participant)

From the participants' interview accounts, three main issues were identified in relation to communication with staff. Firstly, six out of the 30 participants' accounts suggested some difficulties in communicating with their health care providers, which may have been due to a lack of training in communication skills and/or an insufficient understanding of the service user's situation. However, there was more evidence to suggest an endemic culture of obstruction and bullying for 'problem' service users who asked questions, as illustrated in the following comment:

> *She just tried to convince me to take medicine, but once, she found that I was not quite convinced by what she said about the medicine and I told her not to talk about it anymore. She said, "I won't respond to you" and then left. I tried to talk to her about another topic but she refused.* (Int.7, female participant)

Secondly, other participants highlighted a lack of care for the needs of service users; for example, not listening to the service user attentively, which should be an integral part of their work. This issue is reflected in the following participant interview:

> *…nurses don't listen to patients' problems. They just say "Go there" or they may say "*porjak ya hamam" *[lit. 'go to your perch [v.], pigeon']*. (Int.2, male participant)

Thirdly, the presence of foreign staff and a lack of indigenous health care providers tended to be implicated in the generally low QoC narrated by three of the participants and was instrumental in their struggles associated with cultural understanding:

> *I would prefer Saudi nurses, not foreigners, because the Saudis are kind and understand their patients' psychology. It is difficult for foreign nurses to understand and deal with the patients. It is also about their style of dealing with patients, something like this.* (Int.28, female participant)

Discussing care plans with service users was found to have a positive impact on service user care. Service user involvement in the formulation and delivery of their care is an interesting issue. Here, it was found to reveal service users' general desire to improve staff-service user interaction. Moreover, it put service users' perceptions and experience of the care received, as well as their complaints, in a new perspective. The participants

not only wanted to be involved in the decision-making, they also wanted staff to be responsive and engage with them regarding their health conditions and treatment:

> *I would like him to consider my opinion [in the treatment plan], because I want to know what my illness is. This will help me to explain to him what problems I have or what I feel about them [the problems].* (Int.10, male participant)

Perceptions of the need for staff to spend more time on providing direct care or communicating with service users was highlighted in the interviews. Overall, the participating service users felt that under the circumstances, health care providers did their best, but service users' needs were left unmet in many cases. They generally attributed this to health professionals being busy with paperwork:

> *Those who are on morning duty are busy with files, which means that there is no interaction with us… they just do their work and finish.* (Int.28, female participant)

5.5.2.2 Staff Members' Behaviour and Ways of Dealing with Service Users

Aspects of professional practice and behaviour with service users were highlighted as an integral part of service user care. Staff approaches to their work with service users may have exerted an important influence on the degree to which service users felt that they could comply with staff instructions and the openness with which they felt that they could talk with them. Participants' perceptions of the way in which staff dealt and behaved with them fell into three main categories, classified as 'good', 'bad' and 'mixed' (i.e. both good and bad). The first category of perceptions indicated a moderate or even high level of satisfaction with staff behaviour. A number of participants judged the QoC itself primarily in terms of the empathy and respect that staff members displayed toward them and thought that consideration and basic good manners were an important part of their care, as reflected in the following participant's view:

> *The ward manager, I mean when you ask him something, he usually says 'Okay'. This ['Okay'] is sufficient for me, even he if he does not do anything, because he treats you as a person ready for discharge. You feel that he treats you as a human being.* (Int.11, male participant)

The importance of basic interpersonal interaction was mentioned by most of the interviewees. Fundamentally, the participants appreciated the interaction between

themselves and staff members during their stay in hospital, and were complimentary about the attitudes of professionals and their ability to provide care. For instance, one participant reported:

> *…they have dealt with us on the basis that they are here for us and they are keen. They have dealt with us politely and respectfully*. (Int.24, male participant)

The opportunity to interact with physicians was also highlighted by the participants as a positive aspect of being cared for in the hospital. In response to a question about medical care and how he found the QoC that he had received, one participant said:

> *This is the most enjoyable thing for me, the sense of having competent doctors. Doctors here treat us in a very good manner. I love them and I can give them 100%*. (Int.4, male participant)

The second category of perceptions, however, encompassed what service users viewed as negative ways of staff dealing with and behaving towards them. On closer examination, this assessment of behaviour was found to be underpinned by two quite different experiences: verbal and non-verbal behaviour. Thirteen of the participating service users clearly experienced harsh treatment from nurses, including the use of impolite words (verbal abuse), implying poor or negative interaction and possibly worse outcomes. For example:

> *Their treatment is difficult and their manner is not so good, which means it is not understandable, or you would say it is very bad. They use bad words [verbal abuse]*. (Int.23, male participant)

In a similar way, the analysis of the interview data revealed that a few of the participants also reported deterioration in their care conditions, if they refused to accept (bad) behaviour from staff members:

> *Sometimes, the bad treatment can also irritate patients. I remember when I was admitted last time, I was a little bit irritated, because they hit me and tied me to the bed.* (Int.2, male participant)

Five out of the 30 participants elucidated the negative impact of staff behaviour on their care in a number of ways. Two described the social stigma associated with mental

disorder, whereby health care providers deal with them in an unprofessional way by labelling them as mentally ill:

> *They do not ask me these questions and if I ask them, they say, "Because you are crazy".* (Int.7, female participant)

> *...I talked with the doctor calmly, I told him that I'm oppressed, let me go to the Protection [Department], I'll tell them we've got violence at home, the doctor said "no, you're a patient, you're crazy".* (Int.16, female participant)

It may be noted from the above quotes that patients with mental illness are less likely to receive the same care as patients without, largely due to the stigmatised view of mental illness or service users with mental illness among health care providers. Consequently, mental illness is seen as a barrier to receiving appropriate care. Three of the participants in this study hinted at feeling stigmatised by health care providers. They experienced feelings of being treated differently in terms of having their needs met:

> *...they look at a psychiatric patient as if he is a mad person and they take him lightly [not seriously], saying to him, "Ok, ok, later".* (Int.2, male participant)

> *...they deal with us in a non-professional way, which means that they deal with us as though we're crazy, 100%; when we ask for something, they shout at us and sometimes they use bad words, like they call you "Donkey", "Dog"...* (Int.22, male participant)

Other data relating to various experiences of unprofessional behaviour included the use of excessive physical force to restrain service users (non-verbal behaviour). A number of participants reported that certain staff behaviour was unacceptable in the sense that it involved dealing with service users severely. The participants described receiving care provided in a non-professional manner and being treated as one of a group, rather than as an individual service user:

> *There are other people [nurses] who don't have any style; they give me treatment by force, [...] they have grabbed me by the hair and closed my mouth [after giving treatment per mouth] using force.* (Int.16, female participant)

Additionally, nurses' negative attitudes may have contributed to increasing ward disturbance, with corresponding need for restraint. One participant reported that:

It was a negative event that took place with a nurse, such as his words – "Go and go!" I raised my voice and then he said to me, "Don't raise your voice to me". I argued with him, he said: "Who are you that you raise your voice? I'll tie you!" and then he tied me up, with other nurses. (Int.19, male participant)

With regard to the third category of perceptions, 11 of the participating service users endorsed the view that staff members were 'mixed' (i.e. good and bad) in their treatment or them and behaviour towards them, in the sense that they displayed changeable moods. A number of the participants made broad comments about the nurses' diverse behaviours, such as:

Some of them have sweet morals, and some of them do not. Some of them have good manners and some of them do not. (Int.16, female participant)

Other participants reported inconsistent behaviour from the nurses, which could not always be predicted, as it changed according to the surrounding circumstances, such as shift work and/or the character of individual nurses – this could be due to a lack of policy and guidelines:

…it depends on the nurses and the shift, because they change during the shifts. I mean, on one occasion, a nurse may deal with you nicely and another time not, or maybe half-half [so-so], something like that, and sometimes it depends on the head of the ward. (Int.9, male participant)

5.5.3 Quality of Services

This theme refers to service users' perceptions of the QoS received. The participants' perceptions centred on aspects of the services that were likely to impact on their level of satisfaction, such as the medical and nursing services received; auxiliary services provided (for example, laundry, material supplies), physical environment and so on. The participants' comments were analysed according to their level of satisfaction (as an indicator of service users' perceptions of QoS), which resulted in labelling participants' experiences under three sub-themes: *satisfactory, unsatisfactory* and *not being totally satisfied.*

5.5.3.1 Satisfactory Services

This sub-theme encompassed the participants' positive responses regarding the QoS received. More specifically, it focused on their satisfactory experience of services within the health care facility. Twenty-nine of the participants interviewed overtly

expressed their satisfaction with the hospital's services, particularly when asked about these directly, even in cases where they otherwise cited a chronicle of abuse and neglect. However, it should be clarified that three of the participants understood 'services' primarily to mean biomedical treatment and referral to speciality care. Thus, they highlighted the importance of an available referral system to other hospitals (if required) and described this as prompt and very useful. For example:

> *…there is a quick intervention for emergency cases and referral to other hospitals. All these services are useful.* (Int.12, male participant)

Another participant praised the role and responsibility of the psychiatric hospital in providing psychiatric care to service users admitted to other hospitals, accompanied by nursing staff. This apparently helped them to feel more secure and encouraged them to follow up their medication:

> *They take the patient to the specialist hospital [hospital name], even though they have first aid as a medical doctor, but in case you need an operation or more, they transfer you to the [hospital name] and other hospitals. I mean, if the patient needs a referral, they refer him and they follow him. Moreover, during the follow-ups, a nurse and assistant [nursing aide] employed by the hospital will go with you and if you are admitted to another hospital, they stay with you. I mean, they are eager to help you in terms of follow-up and accessing psychiatric treatment.* (Int.14, male participant)

Ten participants reported that they were pleased with the services provided and felt that they were helpful in meeting their material needs and helping them to cope with daily life. The factors contributing to their comfort included the availability of basic materials and the complementary care provided to them. They suggested that this was because of the care that they had been given and the consideration that they were shown by the nursing staff. Generalisations were made, such as:

> *…nurses are interested in the cleanliness of the patients; they bathe patients every two days. Also, they check patients' nails and hair, and if a patient refuses, they say it is a must to take a bath.* (Int.6, male participant)

Nurses who made themselves available to help service users with issues in their lives in the community, such as official business, banking and lending money, etc. were perceived to demonstrate care and were valued. Helping service users with such

impromptu services and setting time aside to support them on a daily basis were nursing actions that were particularly appreciated by the service users, as were attempts made by nurses to understand service users' personal problems. One participant gave the following example to illustrate how staff were caring and helpful in this way:

> *…the nurses are cooperative with us, even over our issues from our lives outside [the hospital], they do stuff. I mean for something outside, we ask the doctor and he writes that he doesn't mind us going with a nurse, for example to court, a notary, government offices or to the bank to open accounts.* (Int.11, male participant)

It should be noted here that the participants particularly valued nurses or head nurses, who were able to provide them with support with their finances, such as their deposit money[6] (service user's storage). The way in which the deposit to cover patients' spending money was handled represented a recurrent example of good care, leading to improved service user outcomes, as exemplified in the following account:

> *…I have seen that there is an attempt made by nurses and head nurses. These important attempts aim to improve care for us. For example, regarding patients' storage, they give us 100 riyals every week, which is good to spend for the whole week.* (Int.8, male participant)

In addition, the service users perceived staff as caring and helpful in terms of encouraging service user self-care and self-reliance (with appropriate support and help), encouraging service users to take responsibility for their own welfare. The role of the health care professional becomes that of a facilitator and source of support, centred on issues of quality used to impute the satisfaction and well-being of recipients of services. When asked about the care found to be most helpful, four participants replied in terms of promoting self-efficacy, as in the following case:

> *…the main thing that they try to do is build up the patient, so that he becomes a beneficial member of the community, goes back to his family in an improved condition and participates in social life. Everyone is eager about this.* (Int.14, male participant)

[6] Money that is provided by service users' families for the use of their relatives during hospitalisation is kept in the social worker's office and distributed to service users in the form of pocket money by the head nurse or his representative. Therefore, when service users want things (e.g. cigarettes, food, etc.), they give money to a cleaner to go and buy them (in accordance with the hospital rules).

Another important dimension of the way in which the participants perceived QoC related to health care providers' responsiveness to unique needs. Ten of the participants were generally positive about the way in which health care providers addressed their biomedical needs (particularly their prompt response), as in the following narrative:

> *…they execute any request that we want, and if someone gets sick or tired or something happens to him - for example, influenza or a cold or anything - and he requests the doctor, they call the doctor and the [doctor] comes immediately. They do not delay.* (Int.13, male participant)

Teamwork was also seen to be an important indicator of QoC. One participant appreciated the immediate care provided by nursing staff and related the QoC (quick response) to the method of care delivery, rather than to individual nurses; highlighting teamwork as the main contributory factor:

> *It is a 100% quick response, and this is from all [nurses], quite frankly. At any time, in any case, what is going on in here is collective work.* (Int.14, male participant)

Other participants reported how the physicians responded to their individual needs with respect to the provision of appropriate medication. Attention to the service users' specific needs while in hospital can serve to enhance their satisfaction with the medical services provided, which in turn can have a positive impact on service user outcomes. Moreover, increased interaction with service users while in hospital and involvement in the corresponding treatment plan can help both service users and staff to negotiate the treatment plan, with less use of restrictive or disciplinary measures during the service user's stay in hospital. The data analysis revealed that the participants were generally positive about physicians' rapid response in addressing their medication needs, as is evident from the following statement, which was typical of many of the participants:

> *…when I was admitted here, they gave me treatment. I didn't adapt to it and then I asked them about a particular kind of treatment that I had used before; I liked it and felt comfortable with it. They [the doctors] said "Ok, we'll give it to you for one week and then we'll see if you feel fine with it". Since then, I have been using it.* (Int.19, male participant)

The promotion of service users' safety was also a matter raised by the participants as receiving considerable care from staff, which contributed to their satisfaction with the

services. For example, the removal of service users who fight and separating service users off into different rooms to restore peace on the wards were perceived as positive interventions to prevent or stop violence between service users. A number of the participants reported that the presence of a staff member was also beneficial, in that they frequently checked on the service users to ensure their safety, as illustrated by the following example:

> *They observe patients who have poor self-control or who are under observation. They put them in the observation room and those who are settled or fine, or who have minor [problems], they let them sleep in a different room.* (Int.12, male participant)

The satisfied participants reported that staff members were often keen to observe the service users. Three satisfied participants added that the nursing staff played a role in policing the service users, as they circulated the wards and attempted to break up fights between service users, if they occurred:

> *…nurses' care, I mean when someone is shouting something like this, nurses immediately run to prevent fights, or if someone is using bad words, they care about that and try to prevent them from relapsing or getting annoyed. I mean in the case of fights, they run immediately to see.* (Int.7, female participant)

Similarly, placing cameras inside the wards for the purpose of closer observation was reported by two of the participants, who perceived it as a positive measure to reduce conflict between service users:

> *…there are cameras for watching [patients]. The controller is in a private room outside the ward and in the case of a problem, the observer calls the ward directly.* (Int.19, male participant)

The interview data revealed that 12 of the participants had positive perceptions of the fact that staff monitored their medical conditions, as part of the psychiatric services received. In fact, monitoring the condition of the service users appeared to be an important factor in their sense of being valued and satisfied with their care. One service user in particular summarised the experiences of several other respondents, stating:

> *…they care for a person. They do periodical analysis [checking] and anyone who has a problem or anything in his analysis, they follow up from the start,*

and anyone who is fine, they give him his psychiatric treatment. (Int.13, male participant)

Fourteen of the participants interviewed reported satisfaction with their prescribed medication. The following narratives express the participants' typical experiences and feelings regarding the medication that they received and describe the effects of this medication on manifestations of their disease (reduced symptoms) as positive:

…the fundamental interest in here is the drug therapy. It is concentrated and really good… they are good and solve the problem, in particular sleep and other things, such as discomfort and disturbed thinking. (Int.10, male participant)

In the same vein, one participant felt that he had benefitted solely from the psychiatric medication administered, as opposed to any of the other services provided, when asked what aspects of care he had found very useful. He commented that:

It is convenient and I will continue on it to avoid readmission … But in terms of the service that I most benefitted from, it's only the treatment [medication]. (Int.2, male participant)

Another important perception of QoC amongst the service users, which emerged from the interviews, involved the auxiliary services (amenities) provided, including the cleanliness of the environment (wards) and food services. Many positive comments were made by nine of the participants as regards the cleanliness of the wards. These participants perceived that the staff were keen and showed an interest in keeping the environment neat and tidy, conveying the idea that a clean environment was a characteristic of good QoC. The following illustrative quote summarises the participants' general perceptions of the cleanliness of the wards:

The level of cleanliness is excellent. There are four to five cleaners on the morning shift, whereas in the evening and on the night shift, there are three cleaners. They work hard. They care about the cleanliness and care of the ward […]. (Int.19, male participant)

This positive perception of the cleanliness of the wards was echoed by one participant, when asked what made the care in this hospital better than in other mental hospitals. She stated that:

> *…there was no hygiene, while here it is clean 24 hours [a day].* (Int.30, female participant)

Another aspect of the hospital services mentioned was the quality of the food provided for the service users. A number of participants highlighted issues and ideas related to these food services, which were described in positive terms. Ten of the participants were positive about the food provided for inpatients, in terms of its quantity and quality. This reflected their satisfaction with service quality, as illustrated in the following account:

> *…food is very excellent. It means that some food that we eat is beneficial, they offer more, something like proteins, vegetables and its quantity is appropriate for the individual, and I don't have a comment on it.* (Int.1, male participant)

Moreover, food was considered to be a sign of good care, as one participant stated when asked about what other aspects of care were received on the ward:

> *…for example nutrition. It is excellent and their cook is good and their meals excellent.* (Int.15, male participant)

For two of the participants, the value of having someone to talk to indicated good QoC: the opportunity to share ideas about what could be improved, including the food provided for inpatients, as in the case of a dietician asking a participant about his food preferences and assisting him in expressing his opinion of the food. For example, one participant mentioned the dietician:

> *…he comes every month and asks us about the food; for example, "Do you like the way the rice, soup and meat are cooked?" and "What suits you?"* (Int.15, male participant)

5.5.3.2 Unsatisfactory Services

Unsatisfactory services were a challenging area of care for the participants and the interviews revealed a high level of concern. The service users' perceptions of unsatisfactory services (low-quality care) supported the value of actions to enhance service user satisfaction, indicating their necessity. As a result, service user outcomes were likely to be improved. The data analysis revealed that dissatisfaction with services referred to either the service itself or the employees' work-related actions in the ward environment. For three of the participants, washing facilities and the care of service users' clothing were problematic in the hospital. As a result, they were anxious about

losing their belongings and considered such things to be an indicator of poor service. For example: one participant stated that:

> *Their shortcoming is that they collect patients' clothes and throw them together with all the other clothes and distribute them to all the wards, so you cannot find your own clothes.* (Int.1, male participant)

Dissatisfaction with the way in which clothing was handled also a particular concern for one participant, who suggested that service users should be able to keep their own clothes, citing matters pertaining to hospital clothes:

> *…patients should wear their own clothes brought by their families, because hospital robes - look how they are cut and burned with cigarettes by other patients…* (Int.2, male participant)

The material accoutrements of holistic care, such as personal clothing, are nevertheless essential to service users' well-being. A few of the participants expressed dissatisfaction with the ward supplies and indicated a lack of material resources. For example:

> *…there are not enough carpets here, we have one that you see and another one in the balcony, they gave it to us after a thousand times of asking and its quality is bad […] I need socks for protection. I asked for some, but they didn't have any.* (Int.4, male participant)

Two participants expressed their displeasure with the lack of prayer facilities (related to holistic care in the Saudi context, as prayer is a core aspect of service users' spirituality):

> *…before there was a mosque here, they cancelled it and put another one in the lounge. That place [the lounge] is not suitable, because of the smoking and the TV. We need a private place for prayer.* (Int.25, male participant)

> *…Neither do we have a room for prayer inside the ward, I pray in the corridor.* (Int.29, female participant)

Included in this aspect were service users' perceptions of physical care; for example, cleaning and ablutions, which were considered important indices of care by the participants. One out of three reported being dissatisfied with the cleanliness of the toilets, as can be seen from the following statement:

> *…The cleanliness of the toilets is neglected, they don't care about it and they leave it. The cleaners are supposed to check the toilets - oh my God, patients defecate on the floor. The cleaners don't care and don't pass by on a regular basis.* (Int.20, male participant)

Others with a similar sense of dissatisfaction with the services felt less comfortable in the physical environment (for example, comfort levels) and this generally affected their physical and mental health. They supported their perceptions with experiences of life on the wards during the summer and winter seasons. Examples included stories of the (bad) physical environment, which caused them suffering, because it either upset them or did not satisfy their needs. Five of the participants talked about their stay in hospital. For example:

> *…a different issue that I suffer from is that there is no means of heating in this ward. The tiles are so cold and these days [winter] it's cold, you know. The temperature here… I feel like I'm in the North Pole. There is no means of heating and the air conditioners are just for cooling. The living room is too cold. I'm suffering from pain in my bones because of the cold,* (Int.4, male participant)

Thirteen of the participants also made negative comments about the food provided at the hospital. Food was one topic that was not revealed as having a high degree of impact on the participants' perceptions of the overall quality of services provided, but it was clear from their comments that it was still important to them and they thought that its quality should be improved. Four out of the 13 interviewees claimed that the food was very poor, due to the contractor, for example:

> *The food here is not the same as food outside the hospital. The food provided outside is much better, because the company responsible for the hospital provides food that is not good and sometimes we don't eat dinner. You can ask others and anyone about this food, frankly. Its quantity is ok, but it doesn't have a good smell or taste, and I don't know where they cook it. It is very bad… I say this frankly.* (Int.10, male participant)

The lack of appropriate meal choice was also a common complaint for two of the participants. For example, one stated that:

They [kitchen workers] offer food but they don't ask for the patient's opinion about the food. (Int.14, male participant)

In addition, matters related to psychiatric treatment appeared to play an important role in determining the participants' levels of satisfaction (for example, the side-effects of medication and spiritual therapy). These observations were expressed in different ways by all the participants interviewed. However, only five of the 30 participants reported negative perceptions of their antipsychotic medication, with experience of the side-effects of this medication causing them to feel dissatisfied with their care. For example, in the following incident, a participant exhibited disability, because of her psychiatric medication (maternal care):

…they give me psychiatric treatment. I refused to take it, because it causes tremors and a kind of coma, where I become unaware of my surroundings… I refused to carry my baby, because once I dropped my baby while I was carrying him, due to the strength of the treatment; it causes tiredness, I can't hold anything. If I try and hold something, it will fall. (Int.16, female participant)

Another participant on medication appeared to understand the side-effects that she experienced as a result and was subsequently afraid of gaining weight, due to the medication – reflecting the close link between body image and mental health among women (Gillen and Markey, 2016):

I tried their medications and they affected my mind a little; I mean the injections made my memory weak, made me feel slightly mad. They also made me put on weight and that increased my depression… I don't want to be obese. (Int.7, female participant)

In this study, four of the participants underlined the importance of cultural traditions in terms of spiritual needs. A lack of information about meeting spiritual needs in health service provision makes it difficult to evaluate QoS, because spirituality can play an important part in promoting a sense of well-being and enhancing service user outcomes. One participant was particularly interested in spiritual therapy and considered its absence as an impediment to his recovery, reflecting the general Muslim perspective of disease. When asked about entertainment, he mentioned the Quran, or rather the absence thereof and of spiritual resources in general:

> *…there is no Holy Quran. The religious awareness in this hospital is somewhat lacking in terms of providing religious books and health education booklets for patients.* (Int.2, male participant)

Another participant felt that reading the Quran would be a source of spiritual self-efficacy, but she was not given a copy on the ward, despite requesting one. However, spirituality was perceived as important in the normal course of the service users' lives. One participant even viewed spirituality as the antithesis of 'craziness':

> *They didn't do anything for me. I have been asking them to give me a Holy Quran since I came here, but nobody has done so.* (Int.30, female participant)

Two other participants perceived the importance of social and religious aspects of care, both of which were considered necessary. One of these participants suggested engaging a religious counsellor to talk to the service users about things that could be helpful to them:

> *…I don't need psychiatric treatment frankly. I treated myself with the Holy Quran and worship. There could be sessions of reciting the Holy Quran and encouraging memorisation [competitions]. A teacher [religious leader] could be employed to teach the Holy Quran, like they do in the Corporation [a different building not related to the Hospital], taking care of the girls; they have sessions of reciting the Holy Quran in the morning and evening.* (Int.16, female participant)

A further participant suggested initiating religious aspects of care at the hospital:

> *I need religious activities to be organised within and outside the hospital, because my brother is not free to advise me at all times… Religious services should be organised through the hospital's administration, because I think there is major lack of these services here.* (Int.5, male participant)

Matters related to staff were equally found to play an important role in determining levels of service user satisfaction, including their unavailability, inadequate staffing, high turnover, non-nursing staff performing nursing roles, and widespread malpractice. Negative comments were made by 23 of the participants about psychologists being unavailable, inaccessible or unapproachable; indeed, the psychologist's role seemed non-existent:

There is no psychologist. I have been here for 13 years and I haven't seen any psychologists. (Int.9, male participant)

Five of the participants perceived a lack of staff continuity. The functional instability brought about by frequently changing personnel had a negative impact on the service users' experience and their perceptions of the care provided. For example, one participant described how the turnover of social workers was problematic and undermined the efficacy of the services:

The social workers… I think four or five days ago, they removed one from here and got another one [a new social worker]. I mean our problem is with this change. Once you have discussed your issues with him, something like that, and discussed your situation, after seven or eight days… you start again from the beginning. After you have explained everything to someone, they replace him… Sometimes, I'm afraid to fully disclose personal things to them, because they are going to be removed and replaced with another one, and I start from the beginning. It's this constant change that affects the service. (Int.11, male participant)

Inadequate staffing was a further negative feature mentioned by four of the participants, who were dissatisfied with the hospital services. The example given was shared by three of these service users, regarding the inadequate hospital staffing, which was inappropriate for providing care of acceptable quality, or for protecting the safety of the service users, particularly during the evening shift:

…in the morning the numbers are sufficient, but in the evening, there are definitely not enough, because there are some patients who are agitated or suicidal, something like that. (Int.16, female participant)

Another factor associated with negative experiences of care included non-nursing staff members being deployed in the provision of service user care, including cleaners, general helpers and security personnel. This was attributed to the shortage of nurses. However, nursing care, particularly in acute mental health wards, requires health care providers with special skills, as one participant emphasised:

I think in order to deal with a psychiatric patient, service staff [ancillary, non-nursing staff] should have at least the minimum level of psychological skills for dealing with patients; this includes general assistants or gatekeepers

[security personnel], or any other personnel, so that they can support the nursing staff… (Int.14, male participant)

Comments were also made about nursing staff who showed little interest in the patients, or even exhibited malpractice in the form of withholding proper medication. One dissatisfied participant reported that he had to wait too long to receive medication for the side-effects of his standard treatment:

…I told the nurse that I'm tired of these spasms and asked for the necessary antidote, so the nurse responded and gave it to me, after asking me to sit waiting for a quarter of an hour. He told me, "I will give you the antidote, but try to sit down and forget about the spasms; if they don't subside, get back to me and I will give you the antidote". So I sat for a quarter of an hour and the spasms grew more intense and then he gave it to me [the antidote]. (Int.6, male participant)

Such manifest neglect of service user care by staff was a prevalent feature in service users' reports of dissatisfaction and eight of the participants directly cited dissatisfaction with the care received from the nurses. They reported neglect of their individual needs, such as nurses omitting to call doctors in response to service users' complaints about psychological problems:

…but any complaints, for example difficulties in getting to sleep, something like that, they don't call the doctor unless forced to. (Int.2, male participant)

Aside from the above, there was no rigorous attention paid to the service users while they were taking their medication, according to a number of participants, who noted that the service users who were eager to report that they had swallowed their medication were considered 'good' service users. Such reports could be related to the methodological issue of the participants perceiving the researcher to be a health professional allied with the hospital staff and therefore sought to give positive responses regarding their nursing care:

The nurse tells me "this is your medication" and she puts it in my hand and she leaves. She doesn't know whether I will swallow it or not. To be honest, I do swallow it, don't imagine that I don't take it. Look, I came here because I want to recover from psychiatric illness, to take my medication and go home. I don't want to stay here. (Int.30, female participant)

The nurses who were not prepared to offer help and support were perceived as being uncaring. In relation to this lack of help or care, the issue of nurses ignoring service users' requests was noted by five of the participants. For instance, one commented that:

> *All [nurses] say everything is prohibited. Whatever I ask, they say it is prohibited. So, as a patient, where are my rights? How is that prohibited for me? My rights as a patient are trampled on in this hospital.* (Int.29, female participant)

Not responding to service users' requests immediately was an issue reported by seven of the participants, one of whom perceived that staff members only responded to threats of action from the hospital authorities (but were not genuinely interested in service users' concerns):

> *[…] you have to shout, so that they can hear your loud voice and [you have to] raise the matter with the authorities and write complaints, something like that. […] If they aren't afraid of you, they won't meet your demands, as if they bring doctors or provide treatment at their own expense.* (Int.18, male participant)

While the participants interviewed acknowledged the nurse's role in providing care to service users, varying experiences of this nursing care on different wards were reported by six of the participants, reflecting the lack of a unified system of work between the wards. This gave rise to preferences for some wards over others. For example, there was the perception that service users' needs or requests were fulfilled on some wards, but less so on others, resulting in a lower level of satisfaction with some ward services. This view was reflected in the following statement:

> *…I think this ward is much better than others, because in other wards, they don't open bedrooms for patients in the afternoon […] Also, patients' requests are not fulfilled. Patients' deposit money cannot be accessed there, but here it is okay and I feel relaxed.* (Int.4, male participant)

The lack of care provided by social workers during hospitalisation was also a matter raised by the participants as a source of considerable frustration, which contributed to their impression of poor quality services. A number of the participants reported that the presence of a social worker was beneficial to them, because of their fundamental role in helping service users ultimately reach their goal of being discharged. Thus, the social

worker was their only lifeline to their families. However, this may have caused the participants to give a favourable account of their social workers, out of fear of repercussions. Notwithstanding this, the participants commented on the social workers who had failed to meet their individual needs, especially in relation to their living conditions. Moreover, social workers were expected to formulate discharge plans and liaise between service users and their families. The following statement is an example of 11 such comments made by participants about the lack of attention paid to the service users' social needs:

> *The social worker has a vital [role], but this is not activated. No, not that much. As I told you, in order to facilitate the work of the social worker, they should have their office here in this ward and they should work as they are supposed to as social workers.* (Int.3, male participant)

5.5.3.3 Not Being Totally Satisfied with the Service

When asked how they found the general QoS received on the ward (without implicating any particular personnel), a number of the participants reported that they were not totally satisfied with the hospital's services. For example, two of the participants indicated that they were not fully satisfied with the services, but were not vociferously critical:

> *The level of service on this ward is not so high and not so bad, which means it's medium.* (Int.9, male participant)

> *I just wanted to say that the service in general is somewhat good. This is my opinion.* (Int.22, male participant)

Others highlighted the difficulties inherent in achieving satisfaction with services. For example, the impact of the catering services provided, staff behaviour, and the unavailability of amenities appeared to be a source of concern as regards one participant's satisfaction with the services:

> *This is my perception of it in terms of the food provided, the way we are dealt with, the availability of entertainment, you know… which means that there's a deficiency… I mean, 60%, it's fine.* (Int.4, male participant)

Two of the participants also gave the following examples of feeling somewhat dissatisfied with the services, as a result of the care provision being restricted to specific facilities:

…I see it as just tablets and medications. One time he [the nurse] told me this is for an enteric problem and the second time, this injection is for flu and the third one, for coronavirus […]. (Int.26, male participant)

The quality is good, I mean in terms of time management, that's all. I mean… for example, times for lunch, breakfast and prayer. For example, if I want to contact my family […] [they] don't help me, […] they don't come and ask you what you want; instead you have to impose your request on them. (Int.27, male participant)

5.5.4 Staff Qualities

This section highlights service users' perceptions of the characteristics and quality of the staff. The service users mainly described the quality of the staff on their wards in terms of their personal qualities, such as education, experience and competence in providing care. In general, the service users commented negatively on the qualities of the nursing staff, who were contrasted unfavourably with the physicians. For example, two of the participants reported that the nurses were not well-trained and needed more courses on how to deal with mentally ill service users:

…I don't blame the [nurses], maybe they don't have any education, or maybe not a very high level of education. They need courses in psychiatric nursing. (Int.2, male participant)

They [the nurses] are poor, which means many of them are not well-educated. (Int.26, male participant)

Similarly, there were negative perceptions of the nurses' attributes, which demonstrated the ancillary role associated with them by the participants. This is indicative of general perceptions of the nursing profession in Saudi Arabia. References were made to the nurses' actions, which were not perceived as exceeding expectations. Therefore, the nurses were merely expected to follow doctors' orders, as illustrated in the following quotes. This meant that in the participants' experience, the nurses did not attempt to fulfil modern nursing roles:

…they just do their job, for example, "Give him treatment", they give him treatment, or "Stop his treatment", they stop it. Their services are just like that […] I mean, their role is just to carry out the doctor's orders. (Int.6, male participant)

Very few of the participants perceived the nurses as knowledgeable health care professionals based on their qualifications, but felt that the nurses might acquire relevant on-the-job knowledge, based on long experience:

> *…when I refer to the medications that I take, the essential medicines... the nurses understand these things […] I mean lots of work and being here for a long time leads them to understand these medications.* (Int.3, male participant)

Moreover, many positive comments were made by seven of the participants regarding the competence of the physicians, who they generally described as skilful and knowledgeable in their work. The following illustrative quotes summarise the general perceptions of the education and experience of these physicians:

> *The doctors here are very good, educated and they know everything.* (Int.10, male participant)

> *…their experience is good. They know things about you without you telling them.* (Int.8, male participant)

Others also perceived that the nursing and other medical staff were not all of the same level of competence in terms of care provision. Two of the participants reported that:

> *Not all nurses are competent and have experience… There are some nurses who are good and laudable, and others, no…* (Int.4, male participant)

> *…I hope all the consultants attain the level of the chief [physician].* (Int.5, male participant)

One of the participants had the impression that only one staff nurse had provided him with a satisfactory experience of care by being genuinely interested in his condition, whereas he perceived that other nurses did not care:

> *He knows about the patients and asks about their disease and writes about them in the notebook… he writes about their conditions and when they sleep and what has happened and what has not happened, but others [other nurses] don't care.* (Int.8, male participant)

The lack of nursing skills was equally considered as a demonstration of low quality care. One participant pointed out that he was exhausted, because of deficiencies in

nurses' skills with regard to routine matters, such as taking blood or administering injections:

> *…what is going on is that in terms of injections, they are not good at taking blood or finding veins. Yes, some of them are excellent and smart, but some of them don't even know what it is to take blood. They make the patient feel exhausted… he feels exhausted and he tries to escape from this…* (Int.14, male participant)

An interesting finding was the description given by one participant of two categories of nursing staff. In the first category, the nurses aim to develop themselves through reading and studying, in order to acquire new knowledge, while in the second, the nurses are passive and merely interested in receiving their monthly salary:

> *…some of them develop their experience by reading, experimenting and education, which means that they provide something according to what is possible, but others [other staff members] say: "No, I'm such and such, I get my salary at the end of the month and I don't get involved in anything at work.* (Int.18, male participant)

5.5.5 Suggestions for Ensuring Good Quality of Care (QoC)

Out of 30 participants, 19 made suggestions for improving care quality at the psychiatric hospital. Two participants pointed to the need for a yard connected to the ward for the purpose of recreation, as they lacked such amenities in the hospital. Having such a recreation area would help the service users to feel more relaxed, encounter nature (plants), and spend time playing games, away from the smoky environs of the ward. Consequently, such things would help them towards a cure and to feel less isolated from society. For example, one participant expressed his perception as follows:

> *…I wish there was, for example, a place for entertainment, where we could enjoy some sunshine, see nature [a garden], something like that, just that. Recreation can, to a large extent, help patients, help them recover and accept society outside.* (Int.8, male participant)

Engagement in activities and entertainment, learning new skills and going on outings were all considered to be of potential benefit, in that they could distract service users from morbid and obsessive thoughts about their illness or circumstances. When asked what would improve the QoC in the hospital, five of the participants stated that they

wished to enrol on programmes and activities for their self-development and to feel more positive. For example:

> *We want to learn skills like carpentry, plumbing, something like that, instead of just sitting here; we want to benefit from the time, learn something that benefits us for life.* (Int.25, male participant)

Reporting the need for expert nurses, with the knowledge and capability to work with mentally ill service users, one participant suggested considering important personal traits in the recruitment of nurses, in order to enhance care provision. He commented that:

> *…active and talented nurses should be chosen to provide care for psychiatric patients, who need psychiatric treatment and psychological support.* (Int.3, male participant)

Other participants expressed concern about the lack of future planning for enhancing quality at the hospital, reflecting the need for such a plan to improve service user outcomes.

> *I have been admitted to this hospital six times, but there is no improvement; the same patients with the same conditions […] there are no future plans for the development of quality.* (Int.2, male participant)

One of the participants had a different view, whereby he suggested sub-contracting companies that were specialised in providing high quality health services for the operation of the hospital, stating that

> *…there are private companies that provide excellent quality health services, and the government, thank God, has the resources.* (Int.1, male participant)

The design of the wards is mainly based on the format for general hospital accommodation (surgical or medical wards), rather than for the needs of long-term service users with mental health disorders. Reporting the lack of consultation of service users or staff in devising and implementing change, one participant suggested that both service users and staff should be consulted when constructing a new hospital:

> *…in terms of the structural design, it is not as required. I would say that the Ministry of Health and the management in general should take into account the opinions of the staff who work in these places. Staff should sit with the*

architect to draw up plans in light of the needs involved, but what actually happens is based on individual perceptions, such as "this works like this and this works like this". However, the picture [views] that the patient or staff working on the ward have is not available to the engineer drawing up the plans, because he is far removed from what is required. (Int.14, male participant)

Two of the participants made suggestions for improving care provision by constructing a new psychiatric hospital in future, referring to its design and the selection of an appropriate location, as this would have a positive impact on service user outcomes, for example:

As for this hospital, I hope it is rebuilt properly for psychiatric patients. The country wants to produce and wants positive reactions, therefore the construction and the distinctive management and selection of the most appropriate place are all of great importance. (Int.1, male participant)

A number of participants highlighted the lack of differentiation between cases on the wards and suggested the segregation of service users based on different criteria, such as type of case, age and nationality. Five of the participants suggested that the segregation of service users based on the type of case would have benefits for all service user outcomes. For example, one participant stated that:

...you want patients out within a short period and the outcome is positive in all aspects, you sort patients based on their mental condition in the emergency department […] ...if you come to the ward for one day, you will see the mixture of patients, from simple psychological cases to the mentally retarded. Look how his condition is getting worse. (Int.1, male participant)

Another participant highlighted the importance of organising different service users into categories, especially where drug addicts were concerned - as these were characterised as more aggressive - rather than lumping all service users together:

[…] this person is crazy and drug addicted, which means he could possibly kill you and he doesn't care […]. In order to provide treatment, patients should be categorised… bad cases or patients with more advanced illness should be transferred to other wards. (Int.18, male participant)

Distributing service users across wards based on age was another suggestion made by one of the participants:

> *…some of them are old. I mean there should be privacy for the elderly, that is to say, patients' needs should be addressed by categorising them in terms of age.* (Int.14, male participant)

The distribution of service users across wards on the basis of nationality was suggested by another participant with particular regard to prisoners, possible reflecting the propensity of prison populations to congregate according to their ethnic affiliations as a matter of survival. In the hospital under study, however, this concept was clearly analogous to a general wish for national homogeneity among the service users and staff, as expressed by two of the service users:

> *…to keep prisoners separate according to their nationalities, because all the prisoners are mixed together […]. We are Saudis, we know our issues, but the foreigners don't.* (Int.30, female participant)

The training of nurses was perceived by the participants as an important precondition of better care provision. Indeed, four of the participants interviewed believed personal development to be necessary for providing quality care. For example, one participant suggested that offering training and encouraging staff was essential to improving hospital services:

> *If the administration develops them [the staff], the hospital will progress.* (Int.5, male participant)

Similarly, nursing care was perceived by the other four participants to be of low quality in terms of the training and education received by nurses in the field of psychiatry. For example, one service user reported that the nurses were not qualified to write about service users' psychological conditions, suggesting that they needed psychiatric training to be able to provide psychological or social care:

> *He [the nurse] cannot make any impression on the quality of care provided, because he is not qualified. He is qualified in nursing, but in terms of psychological or social services, he is not. If, for example, courses in psychology or social care were provided, he could then acquire skills and deal with us effectively, and we would understand him as well, but they [the*

hospital administrators] don't appear to be providing any such courses. (Int.8, male participant)

Other participants expected nurses to have adequate information about their situation. They pointed to a need for courses to train nurses in appropriate communication skills and in how to deal with the service users. One participant declared that:

…they should offer courses on how to deal with patients, courses on different behaviour patterns and ways of talking to people. (Int.23, male participant)

Similarly, another participant reported that the foreign workers (cleaners) needed to be educated in ethics and basic mental health issues, which would then affect their behaviour with the service users:

To improve the services here, we also need to have awareness courses… For the foreign workers, in terms of explaining to them what a patient is… Their problem is that they don't respect us and they treat us as something like offal, you know. (Int.4, male participant)

5.6 Summary of the Qualitative Findings

The purpose of the qualitative strand of this study was to explore service users' perceptions and experiences of mental health care quality. The participants interviewed for the study were clearly eligible to participate and able to judge the care that they had experienced or perceived.

The majority of the participants were subsequently found to have a negative opinion of the hospital's care services when discussing specific aspects of this care (despite pronouncements made in response to general and direct questions, which indicated their overall satisfaction). Many of the service users specifically compared their experience of hospital to one of imprisonment, which bears upon their judgement of the quality of their mental health care as a whole. Four specific aspects of the care services were consistently identified as being of particular importance in giving rise to this perception: delayed service user discharge, a feeling of imprisonment (for example, locked wards), the lack of activities (for example, recreation), and punishment.

In relation to mental health care quality in terms of staff-service user interaction and the participants' perceptions of it, the service users placed a strong emphasis on certain interpersonal aspects of care, particularly communication with health care providers; concerning their treatment of service users, general interpersonal empathy and skills, as

well as their views of the way in which staff dealt with and behaved towards them, which were categorised as ‘good’, ‘bad’ or ‘mixed’ (a mixture of good and bad). These aspects may have had a significant influence on service users’ perceptions of QoC.

Assuming that staff-service user interaction enhances the therapeutic relationship for service users, almost all the participants’ perceptions of these aspects of the services were likely to impact on their level of satisfaction. Their perceptions were collated as ‘satisfactory’, ‘unsatisfactory’ and ‘not being totally satisfied’. The qualities of staff members were highlighted by the participants as contributing to QoC. The participants therefore described these qualities mainly in terms of personal attributes, such as education, experience and competence in the provision of care (particularly the administration of medication). Some of the participants also made suggestions for improving QoC. Attention to the specific needs of service users during their stay in hospital could therefore serve to improve their outcomes. Chapter Six will now present a detailed discussion of the emergent themes identified in this chapter, alongside the quantitative results (surveys and observations), both individually and in the context of QoC in general.

6 Discussion

6.1 Introduction to the Discussion

Using an embedded mixed methods design, the objectives of this study were twofold: to investigate factors associated with the quality of mental health care and the relationship of these factors with service user outcomes (disability, disease, discomfort and dissatisfaction), and to explore service users' perceptions of the quality of their mental health care. This chapter examines the results presented in the two preceding chapters, within the context of the existing mental health literature, and interprets them in relation to the adopted conceptual framework (Donabedian's QoC Health Model).

This chapter begins by presenting a brief overview of the results, followed by a detailed interpretation of these results with reference to previously published work in the research area; examining where the quantitative and qualitative data converge and diverge, while also demonstrating how the latter facilitate an understanding and explanation of the quantitative findings. Drawing upon theoretical and empirical literature throughout, the discussion ultimately elucidates a largely misunderstood and under-researched issue – the culturally-specific factors influencing the quality of mental health care in KSA and how these may differ from what is known about this topic from other societies. The chapter concludes by examining the strengths and limitations of the study, highlighting implications and making recommendations for policy, clinical practice, and future research in KSA and beyond.

6.2 Overview of the Main Results

An embedded mixed methods design was adopted for this study, whereby a qualitative strand was embedded within a quantitative one. In the quantitative strand, a survey was distributed to 176 nursing staff and structured interviews were conducted with 321 mental health service users. Meanwhile, participant observation of staff-service user interaction was carried out across six different admission wards (4 male/2 female) at the study site in KSA.

Service user characteristics, including age, marital status, employment status, educational level, area of residence, and diagnosis, were found to significantly predict disability (SFS), whereas gender did not. Except for the unemployment variable, none of the variables of service user characteristics were found to be a statistically significant

predictor of disease (BPRS). Only the service users' level of education was indicated as a significant predictor of either discomfort (GASS) or dissatisfaction (CSQ-8).

Both nurses' age and years of experience of working in the hospital proved to be significant predictors of SFS, with the number of years of experience in the hospital being the only significant predictor of dissatisfaction (CSQ-8). However, no nurses' characteristics were indicated as statistically significant predictors of service user outcomes, in terms of either disease or discomfort. Neither were nurses' attitudes to the mentally ill/mental illness a statistically significant predictor of service user outcomes, disability, disease, discomfort or dissatisfaction. However, nurses' competence was revealed as a statistically significant predictor of disability (SFS scores). Meanwhile, none of the other variables for service user outcomes (disease, discomfort or dissatisfaction) were predicted by nurses' competence in the delivery of mental health care. Furthermore, the frequency and nature of staff-service user interaction was not a statistically significant predictor of any measures of service user outcomes: disability, disease, discomfort or dissatisfaction.

In the qualitative strand of the study, 30 semi-structured interviews were conducted to explore service users' perceptions and experience of the quality of their mental health care provision. The analysis of the interview data gave rise to an awareness of the potential indicators (factors) of quality in mental health care. The participants also appreciated the opportunity to participate in the interviews, as it offered them a sense of their own value and personal involvement. It also enabled them to evaluate the care that they had received.

Overall, the majority of the participants expressed negative perceptions of the quality of their mental health care, when discussing specific aspects of their care (despite pronouncements that they were satisfied, made in response to general and direct questions). This process (the data analysis) generated five essential themes, some of which had sub-themes, and all of which contained positive and negative quality indicators that represented the perceptions and experiences of this particular group of service users. The themes included: (1) *hospital like a prison* (associated sub-themes – *delayed service user discharge*, *feeling of imprisonment*, *lack of activities*, and *punishment*); (2) *quality of interaction* (associated sub-themes – *communication and staff members' behaviour*, and *ways of dealing with service users*); (3) *quality of*

services (associated sub-themes – *satisfactory*, *unsatisfactory*, and *not being totally satisfied*); (4) *staff qualities*, and (5) *suggestions for achieving quality of care*.

6.3 Interpretation of the Results

For the sake of clarity, the results of each research question are discussed separately below.

6.3.1 Research Question 1

> *Do service user characteristics (i.e. age, gender, marital status, employment status, educational level, area of residence and diagnosis) predict service user outcomes (disability, disease, discomfort and dissatisfaction)?*

Of the service user characteristics surveyed (age, gender, marital status, employment status, educational level, area of residence and diagnosis), only age, marital status, employment status, educational level, area of residence and diagnosis predicted service user disability. Meanwhile, only the unemployment variable was found to be a statistically significant predictor of disease symptomatology, and only level of education was found to be a significant predictor of discomfort and dissatisfaction.

The results of the current study revealed a significant negative predictor of psychiatric disability in relation to service user age. This result suggests that the older the service user, the less capable they were in engaging in social activities. This finding is consistent with previous research carried out by Sullivan et al. (1993) to examine whether service users who consume a disproportionate share of services can be identified by demographic characteristics (including age). It was reported in the above study that such service users were significantly more likely to belong to the younger age groups. Similarly, Morris et al. (2007) assessed the influence of organisational and individual factors on outcomes of care in mental health services (for example, service-seeking), reporting that the fact of being older, female, from an ethnic minority, and having a diagnosis of schizophrenia all predicted poorer outcomes among service users. The overall findings in the existing literature show that service users who are less likely to access mental health services, including social services (activities), should be targeted, with consequently improved access to services and the development of innovative services to address their needs. This would ultimately improve service user outcomes.

The findings of the interviews conducted for this current study suggest that the social care provided by the hospital generally did not meet participants' needs, regardless of

their age. However, social care is important for service users, and the social worker's role is fundamental in helping them ultimately reach their goal of discharge from hospital. In fact, social workers were widely perceived by the participants in the present study as the only lifeline between the service users and their families. The participants' feelings of frustration were frequently the result of a lack of such services. Anthony and Blanch (1987) argue that every individual, regardless of their level of disability, can be productive in the community, if given appropriate support. This would appear to be evident from the current study.

A similar pattern of inadequate care was experienced by the participants in relation to their spiritual needs. Care of service users' spiritual needs is considered necessary for promoting self-efficacy and social functioning. For example, individuals often require both social and spiritual care when endeavouring to overcome any disability associated with psychological pressures and difficulties with life (Smith et al., 2003). Thus, a large number of the participants highlighted their need for these services and bemoaned the current lack of such provision in the hospital. There are several reasons why spiritual care is particularly germane to nursing care for mental health service users. First, service users in KSA tend to favour religious activities (or Islamic practices), such as praying, reading the Holy Quran and attending religious services to cope with their disorder (Aldossary et al., 2008), over crying, blaming themselves, or isolating themselves from others. Such activities encourage service users to engage with their condition as part of their destiny (thus avoiding blame of self and others), while proactively seeking a cure. This can be associated with mitigated disability and better self-assessment of health (Koenig, 1998, Rassool, 2000).

Secondly, individuals who engage in religious activities are likely to have more informal social contacts and be more active in public life than those who are not (Smith et al., 2003). Religious involvement naturally brings individuals into the orbit of ancillary sources of social care, and such participation may be a mechanism that accounts for some of the inverse association between the fact of being religious and mental disorders. Finally, it has been reported that individuals engaged in religious activities believe that their lives are in the hands of a higher power. This is favourable for numerous health strategies that require self-efficacy (as an area of social functioning), including strategies for dealing with addiction (George et al., 2000, Smith et al., 2003). For instance, such beliefs help conceptualise negative life events as opportunities for spiritual growth; hence, individuals are better equipped for coping

with disorders, in a way that can prevent negative mental health outcomes - including social disability. To summarise, spiritual care and activities for users of mental health services, when experiencing stress or during hospitalisation, can reduce disability in terms of their social functioning, particularly when participants specifically require such services, as is apparent from the results of this current study.

In terms of marital status, being married was a further significant predictor of social functioning. In this study, 19% of the participants reported being married, with a significantly higher number of participants on admission wards reporting that they were married, compared with participants on other wards. This result may be explained by the fact that the married participants tended to face their mental disorders positively by accessing appropriate social support or through social integration. This finding is consistent with a recent study conducted by Akinsulore et al. (2015) to assess the level of disability among Nigerian outpatients diagnosed with schizophrenia, using the WHO Disability Assessment Schedule (WHODAS-II), whereby it was found that marital status was a significant predictor of the disability score.

Marriage is regarded as the foundation of family life (Stolzenberg and Waite, 2005). Consistent with this, it is likely that being married or having a partner will confer a higher level of social support to manage the demands of the illness and increase the willingness to change or seek help. This point was reinforced in a study by Wellman and Frank (2001), who noted that husbands and wives operate their personal networks jointly, sharing individual ties, characteristics and networks that can influence the supply of and access to supportive resources. Dorval et al. (2005) assessed the extent to which both members of a couple reported that breast cancer had brought them closer. The results showed that the breast cancer sufferer's spouse described himself as his wife's confidante, seeking advice with and from her about how to cope with the cancer (informational support), and accompanying her to surgery (instrumental support). Meanwhile, the patient reported receiving more affection from her spouse (emotional support), with both partners claiming that the illness had brought them closer. These findings point to the importance of social support from a spouse in marital interaction for being able to adjust to a disease.

These benefits of marriage could be explained by the direct-effect (model) assumption, which proposes that social relationships (for example, marriage) have a direct beneficial effect, irrespective of whether the parties are under stress (Cohen and Wills, 1985). It

posits that increased social support results in enhanced well-being, regardless of the degree of support (Cohen and Wills, 1985). For example, social support (such as from a spouse) can directly influence adjustment to a disease through reassurance, ensuring that sufferers have a greater sense of control, in the knowledge that others will help them, or as a result of the advice provided, as in encouragement to seek health care (Kornblith et al., 2001). The literature provides strong evidence to show that supportive relationships with others, especially from family and close friends, can directly enhance psychological well-being; satisfying a patient's need for a sense of coherence and belonging, and thus counteracting feelings of loneliness (Bisschop et al., 2004). Conversely, a lack of positive social relationships can lead to negative psychological conditions (such as depression), in turn affecting physical health, either through a direct effect on physiological processes, which can increase susceptibility to disease, or through behavioural patterns that increase the risk of disease and even mortality (Cohen and Wills, 1985). In general, it may be inferred that being married and having children rearranges a service user's priorities, so that being able to see and care for his or her children will encourage the service user to provide for the future and give more of a sense that life is worth living.

In contrast, marital dissolution can lead to a deterioration of supportive resources for both men and women, but this is likely to manifest in different ways, according to gender. For instance, men are prone to losing their most important source of emotional support, while women tend to lose their main source of financial support (Metsä-Simola and Martikainen, 2013). Stolzenberg and Waite (2005) also state that marriage appears to protect the emotional health of men, rather than women. Likewise, Gerstel et al. (1985) have demonstrated that men, unlike women, rely on their spouse for emotional support and on the marital bond to maintain other social ties and supportive social relationships; whereas women tend to make social contacts and intimate ties beyond the scope of their marriage and rely less exclusively on marriage for their emotional support. Another reasonable explanation was posited by Hatemi et al. (2015), who revealed that men tend to rely more exclusively on their spouse for social support, which leaves them relatively more isolated than women following the dissolution of marriage, as women can often turn to people outside the marriage for emotional and financial support after a divorce. Thus, these findings support the argument that the duration of a marriage can help protect an individual's health by increasing the

availability of social resources, such as emotional support, and financial stability. This then means greater access to quality health care (Dupre et al., 2009).

The results of the present study in relation to the socially supportive effects of marriage are consistent with a quantitative survey conducted by Al-Krenawi (1999), who examined service users' explanations of their psychiatric symptoms in a sample of 60 Bedouin Arabs (36 females/24 males) in Israel. It was reported that enhanced social functioning was strongly associated with being married. Likewise, Hong et al. (2008) found that married service users were more likely to visit a health care provider (seeking care). Nevertheless, although numerous studies have shown social functioning to be strongly linked to the fact of being married, there has been little rigorous research investigating the effects of marital status on QoC.

Future studies are recommended to investigate the relationship between socio-demographic characteristics and functional ability, in terms of social functioning amongst this vulnerable population, who are at risk of either neglecting their therapeutic care or reacting in extreme ways (for example, with aggression). Similar to other studies, the functional ability of the service user related to the general quality of their medical care (Hong et al., 2008) and the encouragement of service users' independence by identifying their needs (Clarke and Wheeler, 1992). This is in accordance with the Anderson (Individual) Model, whereby functional ability as an indicator of service users' health service needs is associated with improved care (Andersen and Newman, 2005).

The qualitative data reflect the positive impact of addressing the participants' needs or requests, in terms of a prompt response from staff regarding biomedical or non-biomedical needs. The service users' comments demonstrated that they were freely discussing their concerns about the care that they had received, with many expressing a sense of being valued in response to their individual needs. This result is widely supported by published evidence, showing that a prompt response to service users' requests, symptoms (Schmidt, 2003), or actual and potential problems (Beech and Norman, 1995) is positively associated with the QoC delivered.

In keeping with previous studies, it was demonstrated that several socio-demographic factors can mediate pathways and barriers to health care services in general, such as the availability of services (Saha et al., 2007). With respect to QoS, the majority of the participants explained that the availability of such services, including referral systems to

other hospitals, basic materials and complementary care, financial support, and assistance with issues relating to daily life in the community were all indicators of QoS, especially amongst elderly or disabled service users. In the context of the present study, it may be argued that structural characteristics, such as the availability of services, mix of staff, and attractiveness of the physical environment (such as the cleanliness of the wards) had a positive impact on the service users. In addition, these and other characteristics relating to structure had the potential to affect staff conduct (Larson and Muller, 2002).

With regard to employment status, the results revealed a negative significant prediction of social functioning status resulting from unemployment, and explained the variation identified amongst service users with disability. In sum, the result suggests that unemployed service users have lower levels of social functioning, as unemployment predicted a lower social functioning status amongst the service users in the present study. This may relate to a number of different factors, including the fact that 75.7% of the sample were diagnosed with schizophrenia, since the participants diagnosed with schizophrenia tended to report greater impairment in their social functioning status, as well as a secondary disability (less active pursuit of work) (Bellack et al., 1990). Approximately 71% of the participants were out of work, with percentage unemployment being high across all the admission wards, compared to other categories of employment status (retired or employed). This current finding is consistent with those of previous studies, where it has been revealed that prolonged periods of unemployment were inversely correlated with mental well-being and psychological functioning (Paul and Moser, 2009). In contrast, employment is regarded as personally satisfying and those capable of remaining in employment may have more effective coping mechanisms, enabling them to deal with associated difficulties. Such difficulties could include psychological and social relationships, and other therapeutic considerations, such as taking antipsychotic medication (Awara and Fasey, 2008).

In fact, antipsychotic medication is regarded as a fundamental therapy for managing mental disorders (Stomski et al., 2016). The qualitative data gathered in the present study revealed a link between non-compliance with medication and information about its provision. This was clearly illustrated by one of the participants interviewed, who explained her rationale for refusing to take her medication:

> *There are other people [nurses] who don't have any style; they give me treatment by force, […] they have grabbed me by the hair and closed my mouth [after giving treatment per mouth] using force.* (Int.16, female participant)

Commenting on this issue, several studies argue that non-compliance with antipsychotic medication often leads to a relapse in mental disorders, which can then lead to loss of employment and an inability to maintain normal social functioning (Ascher-Svanum et al., 2008, Yen et al., 2009, Chapman and Horne, 2013). To achieve the desired goal of patients taking their prescribed antipsychotic medication, physicians need to be aware of the importance of open communication about such medication, especially regarding its side-effects (amongst other aspects), while also taking into account the potential benefits of the medication (Naber and Karow, 2001, Happell et al., 2004, Salomon and Hamilton, 2013). In addition, physicians need to communicate with service users about the potential long-term risks of taking antipsychotic medication over a prolonged period, while also providing information about the potential risks of ceasing to take such medication. This could help engage service users who might otherwise reject such medication, due to a lack of knowledge and/or high levels of internalised stigma (Morrison et al., 2012).

Inadequate provision of information on medication, resulting from poor communication, was also recognised among the participants, consistent with the findings of Walsh and Boyle (2009). The above researchers explored psychiatric service users' strategies for coping with mental disorders and found that although a significant number of participants found medication to be the most useful, there was a consensus on dissatisfaction with the information provided about the benefits and side-effects of medication. This lack of information was perceived to be problematic by approximately four of the participants, who reported that this had been their experience. For example, one interviewee in the current study stated:

> *He [the physician] asked me six questions and then he said, "You can go" and I left. He did not explain this. I got information about the treatments from patients.* (Int.5, male participant)

The impact of a lack of communication between ward staff and ward service users highlighted the need to provide the latter with information and education, especially regarding their medication.

Several researchers have suggested a number of factors that could affect service users' decision to take medication, including the relationship between service users and health care providers and the provision of information (Kemp et al., 1998, Heinssen et al., 2000, Gray et al., 2002). The evidence that emerged from the qualitative data in the current study demonstrated that the participants had concerns about the poor provision of information regarding the existing services, with some stating that no explanation was offered about medication. This finding concurs with what has been demonstrated in previous investigations. Moutoussis (2000) found that a lack of choice over available treatment, the side-effects of medication, and poor provision of information potentially led to low satisfaction with services. Meanwhile, Svensson and Hansson (2006) found that a lack of information about treatments and alternatives to these treatments was most obvious among service users, together with inadequate information about the service users' mental disorders.

Data presented in previous literature suggest that a lack of information, exclusion from the formulation of treatment plans, a lack of choice of physician, staff domination and the limited helpfulness of interventions were all potential factors of dissatisfaction with services provided (Barbato et al., 2014). It could be argued that these perceptions on the part of service users (poor provision of information) need to be actively addressed, in order to avoid a negative impact on their level of satisfaction with and use of hospital services, thus potentially enhancing service user outcomes. Moreover, the availability of printed teaching materials relating to medication (amongst other aspects of treatment) could help avoid misunderstandings about services. Hasan et al. (2015) found that written information about medication and health-related behaviour (in the form of booklets) had a positive impact on the level of knowledge about schizophrenia and psychological outcomes for mental health service users. Further research could therefore be useful for evaluating service users' satisfaction with printed materials.

A further significant predictor in the current study was found to be the service users' level of education in relation to their social functioning. This result implies that individuals with a higher level of education are more likely to use care services. For instance, the use of mental health services, as well as social functioning (for example, care-seeking), may be influenced by conventional quality indicators, such as educational level, as demonstrated in previous studies (Howard et al., 1996, Razzano et al., 2006). For example, Razzano et al. (2006) found significant positive relationships between the uptake of mental health services and educational level, whereby the number of

individuals with a relatively high level of education in the study sample was greater (93.8%) than the number of participants with only basic literacy. This was attributed to the phenomenon of individuals with a higher level of formal education being more likely than those with a lower level of education to seek care. It is a finding that may be associated with the view that participants who are not so well-educated are more likely to suffer the cognitive problems that are frequently observed among service users with mental disorders, particularly schizophrenia. However, this finding warrants further exploration, in order to fully understand the needs of mental health service users with only a basic level of education, who are less likely to seek help, integrate socially, or express their opinion about their care. Furthermore, service users diagnosed with mental disorders often lack insight into their illness and may not even have an adequate grasp of reality. Moreover, they are likely to have a heightened sense of being in an inferior position (and potentially threatened), through their need for care. This may be combined with the effects of medication (Schroder and Ahlstrom, 2004). It could be argued that a lack of knowledge, together with a lack of familiarity with the positive and negative symptoms of mental disorders, may lead service users to display little interest in engaging in social activities, including the use of health care resources. Published studies often flag this issue up; reporting that regardless of any therapy received, many mental health service users still experience both positive and negative symptoms, as well as deficits in social functioning and cognition (Naber and Karow, 2001).

Aside from the above, Barbato et al. (2014) reported that mental health service users (especially those with a low level of education) are often from marginal groups and experience a sense of social exclusion due to stigma. This in turn negatively influences their personal and social relationships, as well as their social functioning. Corrigan (2004) points out that stigma may be regarded as a problem in the treatment of mental disorders, as it prevents an individual from seeking appropriate care for mental health problems. This corresponds to a global study of 35 countries, which found that individuals with a major depressive disorder experienced negative discrimination, which prevented them from forming close personal relationships, looking for a job, or enrolling in education and training (Lasalvia et al., 2013).

These negative findings are also assumed to be more common in Arabic countries, where there is more stigma associated with mental health issues than is the case in Western countries (Abdullah and Brown, 2011). The limited research carried out in Arabic countries affirms that mental health service users are socially marginalised

and/or less willing to seek health care (Hasan et al., 2015). A further explanation of why this group of service users is less likely to function well socially may relate to a lower level of education. In the present study, for example, it is possible that the sample had a more serious inability to function well, which increased their dependency on others, thus rendering them unable to access health care services autonomously. Future research is recommended to investigate potential moderating factors affecting the relationship between low educational attainment and social functioning among mental health service users.

Further to the above, health care providers should be aware of service users' care needs and tailor the care that they provide with respect to service users' level of education, psychological well-being, and ability to manage stressful situations (Abrahamsen Grøndahl et al., 2013). Many of the participants in this current study demonstrated a strong desire to ask physicians about their medical care. This point was clearly illustrated in the interviews, when one participant cited a positive aspect of being cared for by physicians, stating that:

> *This is the most enjoyable thing for me, the sense of having competent doctors. Doctors here treat us in a very good manner. I love them and I can give them 100%.* (Int.4, male participant)

However, the issue of not wanting to communicate with staff nurses, as the service users preferred to discuss their condition with physicians and receive health-related education from them, was an interesting finding. For example, one interview participant emphasised,

> *…there are barriers between patients and nurses, such as not wanting to discuss things with them. They are not psychiatric doctors that we should ask them.* (Int.8, male participant)

Indeed, this theme emerging from the data reflected the notion that the majority (83%) of the staff nurses involved in this research held a Nursing Diploma from a further education college (a three-year vocational course). However, they required further training to keep up with advances in the field of mental health nursing, considering the rapid changes that take place in contemporary nursing science and technology. This notion was strongly supported in a systematic review of research literature on staff-service user interaction and communication, conducted by Fleischer et al. (2009), who found that the level of nurses' education can influence their pre-understanding or prior

knowledge. This then influences their communication with service users. Thus, it may be concluded that nurses' level of education is central to effective communication with users of mental health services.

Another finding from this study revealed a significant negative prediction from the area of service users' residence (Eastern Region, Central Region and South Region) with regard to the status of their social functioning. This finding suggests that when service the users were obliged to travel far to reach the hospital, their need for extra social resources increased. A number of other factors may be associated with area of residence, including low socio-economic status and a lack of access to health care facilities, which in turn increases the demand for financial and informational (social) support.

The association between area of residence and social functioning status has rarely been addressed, but the present study is inconsistent with prior research in finding area of residence to be an enabling variable (living in an urban area), with a significant impact on service utilisation. Therefore, service users living in urban areas had access to fewer services than service users living in non-urban areas (Mendenhall, 2012).

The results of this study also show that service users' diagnoses (schizophrenia and depression) were also a significant predictor of social functioning. These results suggest that social functioning is significant for mitigating disease and is therefore of great importance for service users with mental health disorders, particularly schizophrenia and depression. In line with other Western studies (Killaspy et al., 2013), schizophrenia was the most frequent diagnosis among the participants in this study, accounting for 75.7% of all the service users. Impairment of social functioning is regarded as one of the hallmarks of individuals diagnosed with schizophrenia (Chudleigh et al., 2011). In addition, deterioration of social performance is one of the defining diagnostic criteria specified in DSM-V (American Psychiatric Association, 2013), and social impairments, such as social withdrawal, were listed as residual symptoms affecting individuals' life-role functioning, such as everyday life skills. This result correlates well with previous studies on individuals diagnosed with psychiatric disorders, such as schizophrenia and depression (Bellack et al., 1990, Chudleigh et al., 2011). For example, Chudleigh et al. (2011) found that increased levels of depressive symptoms were correlated with decreased levels of social functioning (i.e. withdrawal/social engagement, interpersonal communication and getting along with people).

The evidence that emerged from the qualitative findings of the current study demonstrated a high level of agreement between participants concerning the obstacles associated with a lack of recreational facilities in the hospital, which resulted in several negative outcomes, such as boredom, a feeling of imprisonment, deterioration of mental health and social dysfunction. This was evident when there were no individual care plans integrating the needs of service users beyond the administration of medication. The general approach was to provide a minimum level of QoC, chiefly understood in pharmacological terms, in settings overtly analogous to prison conditions; in terms of individual capacity and sphere of influence, with no provision for activities and no inclusion of service users in therapeutic care planning. This is despite decades of research advocating the inclusion of recreational facilities as part of holistic care, particularly in promoting social care for the health and well-being of long-term psychiatric inpatients (Musisi et al., 1989, Dix and Williams, 1996, Barton and Pretty, 2010).

With regard to service user characteristics and disease, the results of the regression analysis in the present study indicated unemployment as a significant predictor of the severity of psychiatric symptoms. A possible explanation for this was that unemployed service users were more likely than employed service users to complain of certain psychiatric symptoms. It is possible that the employed service users had superior coping strategies, compared to their unemployed counterparts. Therefore, it could be argued that the use of practical coping strategies or skills at work served to strengthen them. The unemployed service users required the use of certain coping skills in the volunteer activities implemented at the hospital. However, they often remained cognitively impaired (for example, in their memory and thinking), compared to their employed counterparts. The finding of this current study is consistent with previous research reporting that employed service users enjoy better mental health than, for example, their unemployed counterparts, service users on sick leave, or service users on disability pensions) (Lundqvist et al., 2012). A similar finding was published by McGurk and Meltzer (2000), reporting that service users who were employed full-time were more likely to be treated with antipsychotic medication, had more positive symptoms, and were engaged in more cognitively complex work tasks than part-time employed and unemployed service users.

In this regard, it is important to consider the mental health benefits of work. There is extensive literature showing the relationship between employment and mental health

(Kessler et al., 1987, Graetz, 1993, Ross and Mirowsky, 1995, Matthews and Power, 2002, Kessler et al., 2003, Artazcoz et al., 2004, Zabkiewicz, 2010, Butterworth et al., 2011, Milner et al., 2015). Overall, this long-standing research topic in social psychology provides strong evidence of the benefit of employment for mental health. The beneficial effects of employment on health are not only associated with reducing the symptoms of a mental disorder, but also with increased self-esteem, enhanced social resources, and greater satisfaction with life in general (Sorensen and Verbrugge, 1987), as well as improved mental health (Artazcoz et al., 2004, Butterworth et al., 2011). Likewise, a systematic review conducted by Van der Noordt et al. (2014), summarising the literature on the health effects of employment, indicates that employment is beneficial for mental health, particularly in cases of depression, suggesting that further research is a necessary to identify the effects of employment on specific physical health effects and mortality, in order to fill the gaps in the literature.

This view is reinforced by a study reporting that improved psychosocial job quality may have significant mental health benefits for individuals with disabilities (Milner et al., 2015). It may be argued that employment provides service users with an opportunity to improve their mental health status, as well as to acquire skills for coping with their disorder. This is a critical element in the improvement of service user outcomes. However, although mental health service users can benefit from employment, they generally experience difficulties in actually finding work, due to their mental disorders, which thereby manifest as disability. Establishing employment programmes for such users could therefore help reduce their level of disability.

Nevertheless, unemployment is common among service users with mental disorders, particularly those with severe psychiatric symptoms, who are more likely to perceive low QoS, because their needs are greater and more complex than those with low symptomology (Mendenhall, 2012). Previous research has indicated that the severity of service users' symptoms is a predictor of service use (Zwaanswijk et al., 2003, Burns et al., 2004). Conversely, the results of the current study indicate that the service users had less severe symptoms, suggesting that they were using hospital services, such as medication (and other resources), more efficiently and effectively.

The qualitative data gathered in the present study suggest that the participants accepted the medication prescribed for them. In fact, increasing attention to the specific needs of service users while in hospital may have served to increase their satisfaction with the

medical services, which in turn had a positive impact on their symptomatology, hence resulting in less severe symptoms. The findings of this study clearly confirm those of one previous study, which reported that service users were satisfied with their medication, found it to be helpful, and thought it important to comply with their medication regime during hospitalisation (Gray et al., 2005, Duxbury et al., 2010).

More importantly, the key findings from the qualitative data gathered in the present research indicated that the participants wished to have a role in making decisions about their medication, which has been found to have a positive impact on service user outcomes (reduced symptomatology). Service users' participation in the formulation and delivery of care is an interesting aspect, revealing the tendency amongst service users to seek enhanced staff-service user interaction. Likewise, it puts service users' experience of the care that they receive, as well as their complaints, in a new perspective. It could thus be argued that communicating the treatment plan to the service user helps the service user and health care provider to negotiate the treatment plan together, using fewer restrictive or disciplinary measures during the service user's hospitalisation.

Additionally, care centred on the service users themselves could improve the QoC provided, in that it would be tailored to their needs, while at the same time respecting their values and preferences. It could help ensure the continuity of care received from staff, with whom the service users are familiar and feel more comfortable (Oltedal et al., 2007). Previous studies have demonstrated that service user-centeredness is crucial for delivering high quality health care (Mead and Bower, 2000, Hamann et al., 2003). Hence, it has been suggested that service users should be permitted a role in formulating their own treatment plans by being allowed to take part in the decision-making process (Bower and Gilbody, 2005). This will then improve mental health care quality and ultimately have a positive impact on service user outcomes. A recent systematic review conducted in the UK by Bee et al. (2015) reported that both service users and staff attributed highest value to the relational aspects of care planning as a service-led outcome, concluding that service user involvement in care planning is meaningful for ensuring the quality of care planning. Such findings demonstrate that the negotiation of treatment plans with service users remains important in terms of enhancing service development, improving health care providers' attitudes, increasing users' self-esteem (Crawford et al., 2002), and enhancing interpersonal skills, as well as preserving dignity and respect (Cleary, 2003).

The findings of the present study reinforce the importance of a medical care framework, where service users' rights and their involvement in formulating a treatment plan are emphasised, especially in the case of service users suffering from (acute) psychiatric manifestations (Perkins and Repper, 1998). Accordingly, this could alleviate paternalism and authoritarianism in mental health institutions (McCabe and Unzicker, 1995). Overall, user participation in establishing treatment plans in mental health services, as well as decision-making, is essential for improving the quality of mental health care, which will in turn influence outcomes.

In terms of service user characteristics and discomfort, the results of the current study revealed that educational level (Intermediate, College or Graduate) was a small, but significant predictor of the side effects of psychiatric mediation. This finding suggests that educated service users, irrespective of their level of education (i.e. Intermediate, College or Graduate) were more likely to report fewer side-effects. This is consistent with previous research conducted by Seltzer et al. (1980), who examined the effect of educational level on medication compliance among 44 service users with schizophrenia, 16 sufferers of bipolar disorder, and seven (7) unipolar service users with affective disorders. The above authors found that educated service users were more likely to be compliant in outpatient follow-up and were less fearful of the side-effects of prescribed psychiatric medication, or of the risk of addiction.

In keeping with previous qualitative research in mental health settings (Duxbury et al., 2010), a few of the participants in this current study expressed a sense of dissatisfaction with antipsychotic medication, because of its unpleasant side-effects. They expressed this dissatisfaction in different ways. When probed further about the effectiveness of the medication in relation to QoC, the participants who had taken part in the interviews described it as detrimental to their health in terms of disability, as stated by the following participants:

> *…they give me psychiatric treatment. I refused to take it, because it causes tremors and a kind of coma, where I become unaware of my surroundings… I refused to carry my baby, because once I dropped my baby while I was carrying him, due to the strength of the treatment; it causes tiredness, I can't hold anything. If I try and hold something, it will fall.* (Int.16, female participant)

> *I tried their medications and they affected my mind a little; I mean the injections made my memory weak, made me feel slightly mad. They also made me put on weight and that increased my depression… I don't want to be obese.* (Int.7, female participant)

Several studies have confirmed that antipsychotic medication can produce a range of side-effects that impact on service users' QoL (Morrison et al., 2015). These side effects include weight gain, hypersomnia, insomnia, sexual dysfunction, dry mouth, constipation, urinary problems and dizziness (Lieberman et al., 2005, Miller et al., 2008). Furthermore, the study finding that the participants exhibited unpleasant side-effects and therefore wanted to stop taking their prescribed medication is unsurprising, since side-effects have been demonstrated to significantly influence adherence to antipsychotic medication in previous studies. For example, Lau et al. (2015) found that unpleasant side-effects accounted for the highest proportion (18.6%) of service users who stopped taking their prescribed medication, and rates of non-adherence to medication were found to be higher (38.6%).

These issues over identifying the side effects of antipsychotic medication and the way in which they can be managed may be addressed through appropriate communication between mental health service users and their health care providers (Duxbury et al., 2010, Stomski et al., 2016). This underlines the need to provide service users with accurate information about antipsychotic medication (Salomon and Hamilton, 2013). In turn, this could lead to a better understanding of the potential side-effects of antipsychotic medication and facilitate communication with service users about strategies to ameliorate them, thus improving adherence to medication (Stomski et al., 2016). As a result, it may be concluded that communication about medication and its associated side-effects between mental health service users and health care providers is crucial for dissipating fears about taking such medication. Future studies would be helpful for investigating the extent of the impact of side-effects from antipsychotic medication on mental health service users' lives (for example, during maternity care, in terms of the responsibilities and duties related to the care of children).

With regard to service users' characteristics and dissatisfaction, the results of the current study revealed that education was a significant predictor of service users' satisfaction. Thus, service users who were university graduates were more likely to report satisfaction with care services, although the percentage variance explained was small.

This finding implies that service users with higher levels of education were more likely to be satisfied with their hospital care. Bener and Ghuloum (2013) found that service users of low socioeconomic status and with a low level of education tended to be less satisfied with mental health care services, linked to their poor psychological interventions and greater likelihood to experience unmet needs during hospitalisation. However, the evidence for the influence of specific service user characteristics (such as educational level) on satisfaction is ambiguous (Westaway et al., 2003). As noted by Sitzia and Wood (1997), "there is a notable lack of supportive evidence from the United Kingdom for this determinant, and it may be that other factors-such as income-are confounding the U.S. evidence" (p.1835). Although the current study suggests that less educated individuals tend to be less satisfied with the services received, the general trend in satisfaction research indicates that more educated people express more specific dissatisfaction with care services, compared to their less educated counterparts (Sitzia and Wood, 1997).

The findings of this current study contrast significantly with those of several others. For example, in the US, a study conducted by Längle et al. (2003) to find out from mental health service users, which aspect of their care was important and how satisfied they were with it, found that in terms of sociodemographic characteristics, food services on wards were rated as significantly more important among male patients, but this showed no relationship with their level of education. Neither did Larsen et al. (1979) find that satisfaction was significantly related to the duration of education. Other studies have also reported that formal education has no clear association with service users' satisfaction with various aspects of their care (Kelstrup et al., 1993, Leavey et al., 1997, Middelboe et al., 2001). However, these findings may be attributed to a number of methodological issues in studies on service user satisfaction, including the use of non-standardised instruments and the evaluation of performance in experimental, rather than actual psychiatric services (Ruggeri et al., 2003).

Meanwhile, the qualitative data gathered in the current study represents the service users' perceptions and experience of the hospital and the care received within it. The findings are derived from data obtained from a purposive sample of 30 service users in multiple wards at the study site, Therefore, it may not be representative of service users in other hospitals in KSA, since this hospital specialises more extensively in mental health care than any other hospital in the country and is therefore considered as a reference for all psychiatric hospitals nationwide. Nonetheless, the findings in this study

suggest that the majority of the participants were dissatisfied with their stay in hospital; expressing generally negative perceptions of its care services (understood here as *hospital services,* as opposed to the personal care received from specific health care personnel), with many describing it quite openly as a prison.

In the findings, delayed service user discharge was identified as a problematic area in the 'service context' dimension. Nearly half the participants narrated experiences of delayed discharge from the hospital, resulting in their suffering and due to a wide range of reasons. This appears to be congruent with one UK study conducted by Lewis and Glasby (2006), who found that delayed discharge amongst mental health inpatients, in terms of the number and duration of delays, specialty and cause, affected around 16% of service users. The above authors suggest that the causes of delayed discharge are varied and interconnected, including a lack of funding, waiting times for assessment, placement in a care (nursing) home, or further NHS care, and a number of other issues, such as patient or family choices.

Another issue of concern related to the participants' feelings of imprisonment while in the hospital. Perceptions relating to locked wards, the closing off of bedrooms and insufficient space on the ward were acute in situations where the participants felt that they were restricted, with limited freedom on the wards. Several studies in mental health settings have indicated that locking ward doors has a profound impact on the personal experience of service users, often manifesting in increased aggression (Bowers et al., 2009), potential self-harm (Bowers et al., 2008), and the refusal of medication (Baker et al., 2009). It has been argued that the association between locked wards and aggressive or confrontational behaviour is due to a sense of imprisonment and confinement. This directly causes mental health service users to perceive the ward as a prison, increasing their resentment and consequently fuelling their non-cooperation, low self-esteem and sense of stigmatisation, as a result of them being isolated from the outside world (Muir-Cochrane et al., 2012). This led to the conclusion that attention to the physical environment is crucial for dissipating and diminishing the anger that can arise from being locked in, which in turn may help improve service user outcomes.

Additionally, the findings in this study suggest that some of the participants were dissatisfied with being kept out of their bedroom and denied access to their own beds during the day, particularly those prone to drowsiness as a result of their medication. This action was perceived by the participants as unacceptable. Therefore, it could be

stated that the simple measure of opening up the bedrooms is clinically meaningful and a predictor of satisfaction with care. One study focusing on ward rules, conducted by Alexander and Bowers (2004), indicated that mental health nurses employed restrictive rules to control their wards by setting limits on service users' behaviour, such as restricting their smoking, locking bedrooms during the day, and enforcing rules about bed times. Restrictive rules are mainly established due to inadequate staff numbers or a lack of facilities (Moghadam et al., 2013). However, there is abundant literature to support the view that service user aggression is triggered by staff restrictions and routine care (Lowe et al., 2003, Flannery, 2005, Irwin, 2006, Foster et al., 2007, Hueske, 2008), staff interaction (Bowers et al., 2011), and service users' unmet needs (Bowers et al., 2014). Further factors relating to ward rules that trigger aggressive behaviour among service users need to be identified. An understanding of these factors could then facilitate earlier intervention by health care providers, thus improving service user outcomes.

In this study, being forced to stay out of the bedrooms and being denied access to their own beds during the day was identified as a factor leading to aggression or general dissatisfaction among the service users. Given the strength of the conviction among the service users that they were locked out of their bedrooms during the day to prevent them from sleeping, it is unlikely that they could ever be genuinely satisfied with the psychiatric services provided. The effect of a locked door is partly psychological and partly physical (Muir-Cochrane et al., 2012). In the UK, Bowers (2014) demonstrated that the physical environment has a major effect on service users and that locked doors were observed precipitating greater susceptibility to anger/resistance or a slump in self-esteem and potential self-harm. In another study, it was also reported that service users in locked wards felt constrained and frustrated (Muir-Cochrane et al., 2012). The issue of keeping service users out of their bedrooms would thus appear to require attention and revision, in order to improve QoC.

This study also identified design and environmental problems, in addition to the policy problem of locked rooms, such as ward design and the lack of sufficient space for service users to move around in comfort on the ward. The evidence emerging from the qualitative data in the current study demonstrated that some of the participants had been confined in a small area and had no outside space. This meant that they lacked basic comfort, especially when they came into contact with aggressive service users. This finding is very much in line with a study by Meehan et al. (2006), who explored service

users' (n=27) perceptions of the factors leading to aggressive behaviour. The above authors reported that the physical environment, especially if there was a lack of personal space, was frequently and unfavourably referred to by the participants, and the restriction of having to live in a confined physical space for a long period with other aggressive service users left them feeling vulnerable to aggression from other inpatients.

Bowers (2009) found that a high quality physical ward environment was significantly associated with reduced rates of conflict (for example, lower incidence of aggression, self-harm and absconding) among mental health service users. This is a view shared by O'Brien and Cole (2003), who indicate that the design of a psychiatric ward should allow for security, privacy, comfort and ample space, in order to avoid the effects of overcrowding on behaviour, levels of aggression and psychiatric symptoms. The design and environmental features of a ward are of great importance to the therapeutic environment, helping to promote its effectiveness. Meanwhile, Bowers (2014) outlines core design features of the physical environment in wards, which influence conflict and containment rates, noting that wards need to be more comfortable and nursing staff should show more respect for service users. Moreover, there need to be more private areas on wards, such as bedrooms, bathrooms and toilets. However, ward doors should not be kept locked. Moreover, Dix and Williams (1996) recommend other design features for the physical environment of psychiatric wards, whereby they should ideally be situated on the ground floor, with access to enclosed gardens, and a ward entrance situated away from the main entrance. Thus, it is implied that without these features, mental health care cannot be optimally effective, resulting in a negative impact on service users' outcomes.

The overriding issue in this study was the lack of available recreational facilities, and this issue underpinned most of the concerns commented upon during the interviews. The participants identified a lack of recreational activities or areas that could help distract them from thinking of mental illness as a major problem, which exacerbated their lack of satisfaction. As noted in the qualitative data, it is clear that there were no individual care plans incorporating the needs of service users, beyond medication. However, they made it clear that they wanted physicians to consider their holistic needs in terms of recreation and fitness, as noted by the following participant:

> *The doctor should discuss other things with patients, not just "Did you sleep well? Are you ok, and how is your treatment?" He is not asking you about*

your physical fitness… whether you want to go downstairs to take part in some recreation. (Int.8, male participant)

Providing such facilities (indoor and outdoor) and involvement in normal everyday activities is generally beneficial for users of mental health services, providing them with a distraction from their mental illness (Walsh and Boyle, 2009). Several studies recommend the inclusion of recreational facilities (Goldney et al., 1985, Musisi et al., 1989, Dix and Williams, 1996, O'Brien and Cole, 2003, Walsh and Boyle, 2009) for enhancing overall service user care (Goldney et al., 1985) and to help manage mental health disorders (Paluska and Schwenk, 2000).

Perceptions relating to punishment following admission to hospital were also a matter of concern for the participants. Approximately 20 of the respondents (service users) reported being physically restrained or assaulted by staff, in acts that they perceived as punitive, whereby nurses became the perpetrators of retributive action and were consequently feared by the service users as disciplinarians. A number of previous studies have highlighted concerns about the attitudinal dimension, which appears to endorse restriction, control, seclusion and punishment in handling mental health service users (Meehan et al., 2000, Meehan et al., 2006, Moghadam et al., 2013).

For example, Moghadam (2013) explored Iranian nurses' experiences of aggression on mental health wards. The above author identified four themes: damage resulting from aggression, catalysts of aggression, the contagious nature of aggression, and various control strategies (for controlling aggression). The strategies used as a punishment for unpleasant service user behaviour included physical containment, the injection of sedative drugs, the use of non-nursing staff, and the isolation of service users. The control strategies reported by the participants in this and previous studies included physical restraint, isolation and giving injections, mainly to control unwanted or unpleasant service user behaviour.

In this context, nursing approaches to the control of unpleasant service user behaviour were found to be exacerbated by certain latent factors, particularly inadequate staffing, which is a major challenge facing hospitals throughout KSA (Hibbert et al., 2012). The shortage of nursing staff constitutes a recognised matter of ubiquitous concern in health systems worldwide, across all clinical areas. For example, in the UK, high turnover and low recruitment in the education sector has aggravated the problem (Arnold et al., 2003, Deary et al., 2003). However, the main driver of the shortage of nurses is the increasing

population and burgeoning demographic explosion of elderly people requiring more care all over the world, further aggravated by the aging nursing workforce and declining enrolment in nursing programmes (Buchan and Edwards, 2000). This has become a vicious cycle, whereby the excessive workload imposed on nurses increases dissatisfaction, burnout and other negative outcomes for staff, causing them to leave the profession and discouraging others from entering it (Ma et al., 2003). In terms of providing direct care for service users, inadequate staffing was found to lead to the failure to deliver quality care (Huycke and All, 2000). For example, one study by Baker et al. (2007), exploring mental health workers' common clinical practices associated with the prescription and administration of 'when required' (PRN) psychotropic medication in mental health settings in the UK, found that nurses used PRN medication as a first rather than last resort, because of limited skills, fewer years of clinical experience, time pressure and low/inadequate staffing levels.

The consequences of inadequate staffing can include unpleasant service user behaviour (Moghadam et al., 2013), which may in turn have a negative impact on care outcomes. For example, inadequate numbers of staff to supervise service users during their hospitalisation may place both service users and health care providers at unnecessary risk - for example, in the form of threatening or aggressive behaviour. This point was clearly demonstrated in the interview data, with one participant stating:

> *…in the morning the numbers are sufficient, but in the evening, there are definitely not enough, because there are some patients who are agitated or suicidal, something like that.* (Int.16, female participant)

As a result, non-nursing staff members, such as cleaners, general assistants and security personnel are drafted to compensate for the shortage in nursing staff, being deployed to restrain service users, as reported by one participant:

> *Many people have been beaten until their legs were bleeding. Service staff [ancillary, non-nursing staff] beat horribly; these personnel have no relationship with patients, but they beat them […].* (Int.22, male participant)

Evidence from prior studies suggests that physical restraints, seclusion (Fagan-Pryor et al., 2003, Fisher, 2003, Lucas and Stevenson, 2006) and the deployment of non-nursing staff (Hueske, 2008) are expedient strategies used to address the shortage of nurses and exert preventive control over unpleasant service user behaviour in acute mental health care settings. Retaliation is another invasive and unethical approach adopted by staff to

control mental health service users, if they are in an aggressive state – it is as if they have forgotten that the service user is a sick person entitled to respectful and dignified care. Likewise, Hueske (2008) reported how service users described being dealt with harshly and disrespectfully by some staff.

The management of aggression in mental health wards, especially acute wards, requires health care providers with specialist skills (Hueske, 2008); the deployment of non-specialist personnel, particularly employees who are not even health care professionals, can be expected to have negative effects on QoC. However, there was a pressing expedient need for such deployment to maintain general safety on wards in the event of fights, etc., although many service users also reported being restrained and abused due to interpersonal problems with staff. In tandem with the general shortage of nurses, increasing numbers of service users were being accommodated in cramped ward conditions (Moghadam et al., 2013).

Health care misconduct and abuses of service users' rights during episodes of mental illness represent an ethical concern for health care providers worldwide. Indeed, numerous international studies have investigated the violation of service users' rights in mental hospitals; examining issues such as professional misconduct, the use of therapeutic interventions, and the measures or standards implemented to reduce these incidents (Saraceno et al., 2007, Mayers et al., 2010, Drew et al., 2011, Maj, 2011). Therefore, many countries have paid special attention to standards of practice for mental health services and mental health nursing. For example, in Australia, the National Standards for Mental Health Services and the Standards of Practice for Mental Health Nursing provide benchmarks for mental health services and mental health nursing (O'Brien and Cole, 2004). In KSA, however, the root cause of most of the difficulties facing nursing staff is the lack of standards for professional practice (Tumulty, 2001). Nevertheless, GDMSH has recently issued its *Policies and Procedures Manual for Mental Health Hospitals* and incorporated guidelines for nursing services (amongst others), in order to ensure the delivery of high quality care to mentally ill service users, as well as maintaining their rights and dignity.

The present study has raised serious and very worrying issues in relation to the treatment and care of service users at the corresponding hospital. The findings show a high level of agreement between the (20) participants over problems with their care in the form of human rights abuses. However, each participant contributed his or her

unique experience to the study. The analysis of the qualitative data indicated that the service users were concerned about physical and psychological abuse, including various types of punishment, beatings, restraint by tying up, unauthorised intramuscular injections, and blood samples being taken by unskilled staff. Methods of restraint and other unprofessional interventions risk violating the rights of service users in the circumstances of their application and the approaches used to implement them.

To address this, a number of policies and guidelines have been issued by GDMSH (incorporated into the *Policies and Procedures Manual for Mental Health Hospitals*) to govern nursing practice (51 policies) in the mental health care system. Awareness and implementation of these guidelines could be cited as evidence of safety in professional practice, as well as maintaining service users' rights and dignity. This is also evident in professional guidelines for nurses. For example, the guidelines for professional conduct state that nursing staff should always act in a way that will promote and protect the well-being of service users and refrain from using therapeutic resources as a punishment, or to secure a break for the working team. With this in mind, it is therefore essential that nurses understand the meaning of mental illness and how they can protect service users' rights, as well as preserving their dignity. This will in turn positively affect outcomes.

Careful consideration of the qualitative data also revealed that the respondents took pains to speak positively about their psychiatrists, who clearly acted as powerful gatekeepers for their discharge. For example:

> *This is the most enjoyable thing for me, the sense of having competent doctors. Doctors here treat us in a very good manner. I love them and I can give them 100%.* (Int.4, male participant)

However, at various points in the narratives, there appeared to be palpable fear of retribution, potentially escalating service users' health conditions and giving rise to their worst fear, namely of being considered as a troublemaker. This was reflected in the view of the following participant:

> *…I was thinking of writing a complaint against him [the physician], but after lots of thought, I cancelled it, because I don't want to create problems with him or his colleagues, because all of them will take this subject personally…* (Int.18, male participant)

A participant verbalising his or her complaints in this way could have given rise to conflict with staff, possibly leading to the service user being restrained, or prevented from being discharged. These findings reveal clearly unethical practices and so there is a need to ensure that the service users understand the procedure for reporting an event, with this process being as non-threatening as possible. Furthermore, these findings highlight a central source of tension in the care of mentally ill service users, related to the reliability of information provided by respondents regarding their psychiatrists. This is because some of the respondents claimed that they had experienced abuse, while others only made positive statements. It points to a divergence of information, where the positive statements cannot be trusted, because they may have been made out of fear.

Such concerns can be discussed from an ethical perspective in relation to service users' rights, given that this was a fearful climate for some of the service users and as such, their positive responses are questionable. In accordance with the objectives of the United Nations (UN) Charter and additional relevant international agreements, human rights are regarded as the fundamental basis of mental health legislation, together with equality and non-discrimination; the right to privacy and individual autonomy; freedom from inhuman and degrading treatment; the principle of the least restrictive environment, and the right to information and participation (Freeman and Pathare, 2005). According to Jones (2005), existing international human rights laws could be invoked against the human rights abuses experienced by service users with mental disorders. Such laws could therefore be effective instruments for applying pressure and safeguarding individuals with mental disorders from abuses of their human rights (Saxena et al., 2007).

In relation to human rights, psychiatrists and other health care providers are committed to working with mentally ill service users; ensuring that each benefits from his or hospitalisation, without being hurt or punished. In other words, psychiatrists should help service users to enjoy relationships based on respect, not abuse, as well as giving them confidence and safeguarding their rights.

To address service users' concerns, stakeholders concerned with service user rights need to regularly monitor and evaluate all hospital services, in order to guarantee these rights. Mental health legislation has a major influence on how the relationship between health care providers and mentally ill individuals is regulated. The MHA passed by the Saudi MoH was designed to enforce service users' rights at local and national level (Qureshi

et al., 2013). According to the Saudi MHA (GDMSH, 2014), service users have the right to lodge a complaint against any individual in a mental health facility, if justified, without prejudice to their QoC. Service users should also be protected against degrading treatment and financial, physical, sexual or any other form of abuse. Moreover, they must not be subjected to or threatened by physical or psychological punishment on any grounds whatsoever. Nevertheless, the service user data in this study were contradictory, as the respondents spoke positively about psychiatrists, but at other points in the data collection, expressed palpable fear of retribution. Such findings imply the violation of service users' rights in the hospital and poor follow-up procedures for dealing with them. Thus, more broadly than ensuring that adequate reporting procedures are in place for service users, psychiatrists - especially in the public sector - are encouraged to remain aware of the rights of the service users under their care (Saxena et al., 2007). They must also be prepared to address these issues when they are identified, in line with the treatment requirements and without contravening any safety regulations. This would ultimately enhance outcomes.

In summary, the results of this current study revealed that service user characteristics, including age, marital status, work employment, educational level, area of residence and diagnosis, all predict psychiatric disability outcomes. In terms of qualitative data, the participants generally expressed very negative experiences of some aspects of their care, which failed to meet their needs, such as social care and its role in their discharge from hospital. This caused them suffering, due to a wide range of reasons. Also cited was the lack of spiritual care, which was perceived to be supportive in terms of increasing their self-efficacy and social functioning. Likewise, the participants stressed the need for information about their medication and the importance of being allowed to participate in developing their treatment plan through proper communication, especially with physicians. This demonstrated that nurses need more education to keep up with advances in the field of psychiatry. Similarly, the participants highlighted the need to improve the quality of the recreational facilities provided, which were perceived as lacking in the hospital. Furthermore, the physical ward restrictions generally gave rise to negative perceptions of the hospital care, resulting in boredom and the sense of being imprisoned in the hospital. Conversely, the participants generally reported that they were happy with some aspects of the care provided by staff, especially their prompt responses to non-biomedical needs (such as buying them snacks from the hospital cafeteria), and the availability of certain services, such as referral to other hospitals,

basic materials and complementary care, financial support, attendance to daily life issues, and the attractiveness of the physical environment (for example the cleanliness of the wards), which were all valued by the participants.

In addition, the interview participants were generally satisfied with the medication prescribed for them and found it to be helpful. However, a few expressed a sense of dissatisfaction with their antipsychotic medication, because of its unpleasant side-effects, thus highlighting the need for better information provision (written and verbal) on the role of medication and its effects. A number of other measures were also mentioned, such as unauthorised intramuscular injections, multiple venipunctures, physical restraint and being assaulted by staff, which the service users perceived as punitive acts that they considered inappropriate in the health care setting. Inadequate staffing was additionally cited and perceived as a major challenge for the hospital, resulting in the ad hoc drafting of non-nursing staff members, such as cleaners and security personnel to compensate for the shortage of nurses. These untrained staff were deployed to help restrain service users, suggesting the necessity to train such personnel, before they are called upon to help care for service users. The next section discusses the findings for predicting service user outcomes based on nursing staff characteristics and elucidates further service user perceptions about the quality of their mental health care.

6.3.2 Research Question 2

Do staff characteristics (i.e. age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers) predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

Of the seven nursing staff characteristics surveyed (age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses and staff numbers), only age and years of experience in the hospital predicted service user disability, and only the number of years of experience in the hospital was a significantly influential predictor of service user satisfaction.

The current study findings reveal the age of the nursing staff as a negative significant predictor of social functioning. This result implies that service users cared for by younger nurses were less likely to show signs of disability. One possible explanation for this is that the majority of the nurses in this study were aged under 40 (94.3%) and were therefore potentially more enthusiastic about attending courses and workshops related to

mental health. In fact, the majority reported that they had attended such courses (88.6%). In addition, it may have led them to behaving positively towards mental health service users, having developed positive attitudes towards them and the disabilities associated with their disorders. This then motivated them to help restore their functioning. For example, one of the themes that emerged from the interviews, *promoting self-efficacy*, reflected that the nurses were caring and helpful about encouraging service user self-care and self-reliance (with appropriate support); leading service users to take responsibility for their own welfare.

Therefore, the nurses acted as facilitators and sources of support, centred on issues of quality, and in order to improve the satisfaction and functioning of service recipients. As one participant interviewed in this study reported:

> *…the main thing that they try to do is build up the patient, so that he becomes a beneficial member of the community, goes back to his family in an improved condition and participates in social life. Everyone is eager about this.* (Int.14, male participant)

This view corroborates Jacobson and Greenley's (2001) findings, whereby such an experience was seen as an opportunity for service users to re-develop a sense of autonomy and participation in society, which would in turn enhance the extent of their recovery in hospital.

With regard to years of experience, the results revealed a significant negative predictor of social functioning, relating to the number of years of professional experience accrued by nurses in the hospital. This finding suggested that the less professional experience a nurse had of working at the hospital, the less skilled he or she was in coping with disabled service users. Health care professionals, such as nurses, have frequent contact with service users, but to the best of the author's knowledge, studies investigating nurses' characteristics, including age and experience, are rare (especially in the field of mental health) and even those that exist reveal very little about the relationship with service user outcomes. For example, studies investigating nurses' socio-demographic characteristics, such as age and gender, have been conducted, but they are linked with findings other than service user outcomes, such as staff attitudes and turnover.

It may be reasonable to suggest here that the level of a service user's social functioning may be associated with better nursing care performance. In turn, this could have a beneficial effect on service user outcomes overall. In one Canadian study, Doran et al.

(2002) assessed social functioning, using an instrument that they had developed themselves. It contained four items to measure service users' readiness to resume work, usually physical and social activities, using a four-point Likert scale. The study demonstrated that the level of nurses' performance was associated with better social functioning amongst service users and less mood disturbance on discharge from hospital.

Generally speaking, the greater the professional experience displayed by a member of staff, in terms of knowledge and skills, the more confident he or she is likely to be in providing effective health care and, more importantly, improving service user outcomes, including social functioning (Khomeiran et al., 2006). This view was further supported by the interview data, where it was found that many of the participants were positive about their experience of physicians, as one participant emphasised:

> *…their experience is good. They know things about you without you telling them.* (Int.8, male participant)

The study findings also revealed that the number of years of experience accrued by a nurse in the hospital strongly predicted service user satisfaction. This implied that the service users cared for by nurses with extensive experience in the hospital tended to be more satisfied with their care. This result is not surprising, as the findings showed that over half the nurses working in the hospital (68.2%) had more than four years' experience in the field of psychiatry, and most of the nurses had attended training and educational courses in mental health care (88.6%).

It could be argued, however, that the service users' relationship with the nurses simply reflected a higher level of engagement, which in turn led to a greater willingness to accept support from the nurses and more skill in seeking and receiving services. Thus, nurses' experience and skills could explain the predictive association with user service satisfaction. Several researchers have indicated that the provision of quality nursing care is affected by nurses' confidence, knowledge, skills and experience (Bishop and Ford-Bruins, 2003), and nurses' educational background has long been recognised as an important parameter (Taylor and Haussmann, 1988).

The presence of fundamental components of nursing care quality, such as access to continued education, experience and training, are important for the improvement of health organisations. Roche and Duffield (2010) state that service user outcomes in

general health settings are improved in organisations that provide professional development for their nurses. However, this issue has not been extensively studied in mental health environments for the purpose of understanding the existence and potential impact of this issue on mental health service user outcomes.

A search for studies on the relationship between the socio-demographic characteristics of nursing staff and QoC indicated how infrequently this relationship has been compared across mental health institutions. Hence, the results of the current study cannot be compared with other research. Nevertheless, the connection between staff experience and service users' satisfaction with their care is clearly mediated by the degree of professional experience acquired by nursing staff. For example, Bowers (2014) suggested that nurses should have expert knowledge of and be able to manage cases, in terms of understanding psychotic symptomatology and its implications for care, as well as paying attention to service users' needs, such as patient rights and the delivery of information. Priebe et al. (2004) identified predictors of voluntary and compulsory admissions (within a nine-month follow-up period) in assertive outreach services in the UK, finding that staff work experience, in terms of weekend work, burnout, and the lack of contact between service users and other services were independently correlated with both voluntary and compulsory admission (dissatisfaction). The importance of professional experience is likewise echoed by Stichler and Weiss (2001), who reported that 65% of nurses defined QoC as treating service users well and paying attention to their needs. The above authors also noted that nurses attributed differences in QoC provision to staffing levels, training and experience. Taken together, these findings could explain the importance of staff experience for service users' satisfaction with their care, as found in the present study.

In contrast, however, the qualitative data gathered in this study provided additional rich and valuable information about structural elements, such as staff characteristics, in terms of education and experience, which interacted with care processes to affect health outcomes. The data relating to the fourth theme arising from the data on staff qualities were presented from the perspective of various service users. However, the current study findings contradict those of Campbell et al. (2000), revealing that the personal qualities of staff in relation to education, motivation and professional experience had a direct influence on QoC, thus affecting the structure (of care). For example, one participant emphasised that nurses need more courses on dealing with mentally ill service users, which would in turn influence care outcomes:

> *...I don't blame the [nurses], maybe they don't have any education, or maybe not a very high level of education. They need courses in psychiatric nursing.* (Int.2, male participant)

Another participant mainly referred to nursing staff failing to show any interest in their work, which was regarded as an indication of poor quality care:

> *...some of them develop their experience by reading, experimenting and education, which means that they provide something according to what is possible, but others [other staff members] say: "No, I'm such and such, I get my salary at the end of the month and I don't get involved in anything at work.* (Int.18, male participant)

Likewise, another participant interviewed valued the demonstration of knowledge obtained through training programmes and the importance of professional experience in building on this:

> *...when I refer to the medications that I take, the essential medicines... the nurses understand these things [...] I mean lots of work and being here for a long time leads them to understand these medications.* (Int.3, male participant)

Consistent findings were reported by Beech and Norman (1995) to show that nurses' characteristics in terms of selection criteria and nursing training are important prerequisites for the provision of good quality mental health care. In summary, the connection between process and outcome corresponds to the hypothesis that staff characteristics are expressed through processes and outcomes. The effect of staff characteristics is thus mediated by processes and outcomes, but is believed to have no independent direct effect.

As an essential step to improve nursing care in mental health, it is necessary to take action to improve nurses' education, the quality of their work, and the research base of their professional skills (Clarke, 2004). More specifically, nurses' attitudes need to be addressed, with greater emphasis on service user participation, structured engagement, and evidence-based interventions (Bee et al., 2005). This can be achieved through the provision of effective mental health education programmes to improve inpatient health services. In KSA, nursing education programmes are often provided for staff through on-the-job courses, offering adequate opportunities for career development, or else they

are university-based and designed to develop specialist skills, such as psychosocial interventions.

Staff knowledge is another structural variable, which has been proven as a factor of improved service user outcomes in inpatient care. From the study findings, it may be noted that some of the interview participants perceived nurses as knowledgeable. However, they felt that these nurses had acquired relevant knowledge through their long experience in the job. For example, most of the participants had more than four years' experience of working at the hospital. This result could be explained by the fact that the time spent by staff with service users in the provision of direct care over a prolonged period had led to them (the nurses) becoming more experienced and knowledgeable in their service provision. One study conducted by Versteeg et al. (2012) explored the characteristics of the composition, participation, functioning and organisation of a collaborative team formed to improve quality (which included nurses), in relation to mental health outcomes for service users recruited from 19 different mental health care organisations in the Netherlands. The above authors found that team members' level of education, years of professional experience, and previous involvement in quality improvement efforts appeared to be associated with improved mental health care quality. However, these authors were unable to draw a conclusion about the influence of team members' characteristics on health care quality in this study.

Similarly, outcomes are both directly and indirectly affected by staff characteristics, in terms of the number of years of professional experience accrued. It could thus be argued that the greater the number of years of hospital experience, the better the nursing performance, which is in turn expected to affect service user outcomes. Some studies have focused on the contribution of nursing care to service user outcomes, such as satisfaction with care. For example, in KSA, the factors influencing the performance of hospital nursing staff were investigated (Al-Ahmadi, 2009). It was subsequently found that job satisfaction and organisational commitment were strong predictors of nursing performance. Job performance was in fact positively related to specific personal factors, including years of experience, nationality, gender and marital status. However, educational level was negatively related to performance. In a Canadian study, however, a model for the effectiveness of the nursing role was investigated, linking nursing performance with service user outcomes. Here, the researchers found that the structural variables of nursing, such as educational level and hospital experience, influenced

several aspects of performance, including the coordination of care and quality of nurses' communication with service users (Doran et al., 2002).

In summary, the results of the present study revealed that nurses' characteristics, such as age and years of professional hospital experience, predicted disability, but the number of years of professional experience in the hospital was the only predictor of service user satisfaction. The interview data revealed that the participants perceived nurses as caring and helpful in terms of encouraging their self-care and self-reliance. Many of the participants also cited positive perceptions of structural elements, such as the physicians' professional experience, but reported dissatisfaction with the nurses, due to their perceived low level of education or qualifications. In fact, they mainly expressed negative perceptions of the nurses in this regard, emphasising that the nursing staff needed to take more courses on how to deal with mentally ill service users. The next section discusses the findings that predict service user outcomes in relation to staff attitudes to the mentally ill/mental illness, revealing further perceptions from service users of the quality of their mental health care provision.

6.3.3 Research Question 3

Do staff attitudes toward the mentally ill/mental illness predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

The results of the current study failed to reveal significant predictions of health outcomes for mental health service users (i.e. regarding disability, disease, discomfort and dissatisfaction) based on nurses' attitudes toward the mentally ill/mental illness. In general, research on the quality of acute mental health care has emphasised the influence of negative attitudes amongst health care professionals on QoC (Baker et al., 2005, Gang et al., 2014). For example, James and Cowman (2007) reported that 80% of nurses in their study perceived service users with borderline personality disorder to be more difficult to care for, with 81% of the nurses believing that care provision for service users was inadequate. However, further research is required in this regard, in order to understand the attitudes of nursing staff and how these statistically correlate with QoC in mental health facilities.

An additional finding in the current study was that nurses' attitudes toward the mentally ill/mental illness were generally negative. This indicates that the mental health care system in KSA faces profound challenges and requires extensive reform and development. This is supported by findings from other studies on nurses' attitudes,

revealed as more negative than positive (Markham, 2003, James and Cowman, 2007, Hamdan-Mansour and Wardam, 2009, Ahmead et al., 2010). Moreover, attitudes to mental health disorders have been cited as negative among health care professionals and the general public alike (Munro and Baker, 2007).

In a comparison between the attitudes of health care professionals (including GPs, psychologists, psychiatrists and nurses) and the general public, it has been reported that health care professionals tend to have more negative attitudes to the prognosis and health outcomes of service users with mental disorders (Jorm et al., 1999, Caldwell and Jorm, 2000, Caldwell and Jorm, 2001, Munro and Baker, 2007, Chambers et al., 2010). Specifically, mental health nurses are more prone than the general public to negative views, due to greater insights into the outcomes of service users with schizophrenia (Jorm et al., 1999). This finding could be attributed to the fact that nurses are negatively influenced by their more frequent contact with chronic mental health disorders. It is a view that is supported by Baker et al. (2005), who reported how mental health professionals working in acute settings and in frequent contact with severely ill mental health service users often express negative attitudes towards these users. Interestingly, other studies have examined the attitudes of nursing students, as they also have direct contact with mental disorders, but the degree of contact was not found to influence their attitudes to these disorders.

To illustrate the above, one study from Hong Kong, conducted by Callaghan et al. (1997) and investigating the effect of prior contact with mental disorders on attitudes to mental disorders amongst student general nurses, revealed that prior contact had no significant effect on students' attitudes to mental disorders. Overall, it should be noted that the relationship between contact and attitude in the context of mental disorders is still under debate within psychiatry and further research on this issue would be beneficial. Conversely, attitudes to the mentally ill/mental illness were identified from qualitative results in the present study, as the quantitative outcomes failed to provide any evidence of the relationship between nurses' attitudes to the mentally ill/mental illness and the outcome parameters studied, or any evidence to support the qualitative results.

In keeping with previous mental health research, most studies on the impact of distress and trauma associated with psychiatric hospitalisation have found participants to have negative perceptions of their hospitalisation, arising from harsh treatment by nursing

staff, which had resulted in considerable personal distress and trauma. These are bad outcomes in themselves and could worsen other outcomes (Stein et al., 2015). Furthermore, the present findings support previous research demonstrating that poor awareness of mental disorders in the form of mental illness labelling is linked with the internalisation of stigma, which is known to have a negative impact on service users' well-being (Hafner et al., 1999, Sibitz et al., 2011). Likewise, Boyd et al. (2014) found that internalised stigma (using the Internalised Stigma of Mental Illness [ISMI] scale) was linked with higher rates of depression, lower self-esteem and greater severity of symptoms.

The impact of labelling individuals who suffer from mental disorders has been widely studied (Link, 1987, O'Connor and Smith, 1987, Link et al., 1989, Markham and Trower, 2003, Ogunsemi et al., 2008). Research on stigma and labelling has even focused on the very label of 'mental disorder', as well as on the individual receiving mental health services (Markham and Trower, 2003). Labelling can lead to stigma in two different ways: receiving labels from others, such as health care providers, or receiving labels through association, such as an individual being assumed to be mentally ill, on being observed coming out of a mental hospital (Corrigan, 2004). Furthermore, the current finding is in keeping with previous research by Sévigny et al. (1999), which found that nursing staff were more likely than doctors to attribute negative characteristics to mental health service users, such as in their use of labelling. As the QoC for users of mental health services is partially determined by social labelling, it may be understood why service users attempt to avoid being labelled as 'crazy'. It could be argued that according to face work theory, which proposes that people cooperatively attempt to promote their own and each other's self-esteem, based on autonomy and solidarity in conversation (Spiers, 1998), the participants in this present study wished to be viewed positively through their own self-evaluation and in the way in which they perceived that others evaluated them, in order to continue presenting themselves as 'good' service users.

The findings of this study also indicate the importance of de-dramatising mental disorders in care, so as to avoid stigmatisation and shame. The results consequently challenge the notion that services users in mental health care settings should be treated differently from anyone else with regard to their needs fulfilment. This is in accordance with Shepherd's (1998) assumption that users of mental health services should be taken seriously, because shame is painful and can even affect secondary service users, such as

family members, relatives and friends, in addition to the primary service users themselves. For instance, psychotic patients, who express shame at being treated differently by other members of society, including health care professionals, may be less inclined to follow treatment regimes.

Another challenge for nurses is to consider how nursing care can be implemented in a way that respects the rights and dignity of service users. Kozub and Skidmore (2001) propose a continuum of care ranging from least to most restrictive interventions regarding service user safety. This emphasises that the earlier the nursing intervention, the greater the chances of success. The provision of choices in a non-threatening manner, sufficient time and space, debriefing, the education of service users, and the identification of alternatives are all emphasised within the continuum of care (Kozub and Skidmore, 2001). From this point of view, individualisation is regarded as a key concept in nursing care standards, and the presence of this issue in the interview data suggests the importance that service users attach to the individualised nature of their care (Schmidt, 2003).

Service users wish to be treated in a professional manner and as unique individuals, rather than being viewed as a diagnosis or bed number. Van Servellen (1982) describes individualised nursing care as being unique, compatible with the service users, and fulfilling specific and comprehensive needs, while requiring knowledge of the service user as a person. Radwin and Alster (2002) synthesised findings from two grounded theory studies of nursing practice, in order to describe the individualisation of nursing care. One of these studies explored service users' descriptions of quality nursing care and the other, the ways in which nurses got to know service users. The above authors subsequently presented a picture of individualised care, where there is a connection between the nurse and service user, and the service user is recognised as an individual with personal needs, thus requiring tailored nursing care to meet their expectations.

The results relating to inconsistent nursing behaviour when dealing with service users suggest considerable disagreement and a lack of transparency regarding the causes, prognosis and outcomes of mental disorders, as well as of hospital policies and guidelines. This can result in uneven and discouraging care, as well as a sense of hopelessness being conveyed to service users and their families. It has been argued that nursing staff members need to be aware of this situation, and exercise caution when interacting with service users and their families, in order to ensure consistent care that

includes the provision of information and motivation (Caldwell and Jorm, 2001, Munro and Baker, 2007).

In summary, the results of this current study revealed that nurses' attitudes towards the mentally ill/mental illness are not a predictor of service user outcomes. However, this section has also demonstrated that nurses' attitudes to the mentally ill/mental illness are generally negative, which stresses the importance of restructuring the mental health care system in KSA. The data reveal that such attitudes can lead to service users being labelled in unacceptable ways, as indicated by some of the interviewees, who highlighted their need to be treated in a professional manner. The next section discusses the findings for predicting service user outcomes in relation to nurses' competence. This elucidates further perceptions of service users as regards the quality of their mental health care provision.

6.3.4 Research Question 4

Do staff competency levels in the delivery of mental health care predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

The results of this current study revealed a significant negative prediction of social functioning based on nurses' competence, which can be explained by the fact that lower levels of competence and a lack of experience among staff result in poorer social relationships with service users and low performance of daily activities. It is a finding that shows how staff competence may be regarded as an indicator of poor quality of support for the social functioning of service users. In the context of the current study, it could equally be argued that social functioning is important for service users, not only to ensure that they are discharged from hospital with a more positive experience of care, but also that they possess the necessary skills for independent living. The service user's sense of being 'disabled' may even develop from an absence of appropriate support during hospitalisation. However, there is a lack of studies investigating the relationship between the competence of nursing staff and service users' social functioning in mental health and community settings. Future studies are therefore required around outcome measures, such as social functioning and staff competence.

Nevertheless, the nature of the participating nurses could explain the present findings. Firstly, the level of nurses' competence in the delivery of mental health care on the inpatient wards (as measured using CAT-MH) was revealed as 'moderate' (mean=86.40), indicating that the nurses required some form of participation in

intensive courses (for example, in psychosocial care), so that they could develop skills and knowledge in aspects of mental health care. Secondly, the nurses' educational qualifications were found to vary in level, with the majority of the sample only holding a Nursing Diploma (83%), possibly indicating that the majority of nurses working in the field of mental health are less qualified than one would generally expect and this potentially has an adverse effect on service user outcomes. Finally, only 68.2% of the nurses had over four years' experience in the field of psychiatry, which illustrates that a considerable number of the participating nurses (31.8%) still had relatively low levels of professional experience in the field (less than four years). Hence, they may have been less capable of providing competent nursing care, which could impact on service user outcomes in negative ways.

However, it is important and interesting to note that the WHO and GCC Nursing Technical Committee supports the requirement of a bachelor's degree in Nursing as the minimum entry requirement for the nursing profession (Almalki et al., 2011). In KSA, this means a five-year university course, which is a positive step toward developing the quality of nursing care (Almalki et al., 2011). Therefore, it could be stated that an increased emphasis on bachelor's degrees for nurses will improve service user outcomes. There is in fact growing evidence that a bachelor's degree in Nursing is associated with better care outcomes, such as lower hospital mortality (Aiken et al., 2011, Blegen et al., 2013, Kutney-Lee et al., 2013, Aiken et al., 2014).

For example, Aiken et al. (2014) conducted a retrospective observational study to assess whether differences in nurses' educational qualifications were associated with variation in hospital mortality after common surgical procedures in nine European countries (Belgium, England, Finland, Ireland, the Netherlands, Norway, Spain, Sweden and Switzerland). The researchers reported that every 10% increase in the proportion of nurses holding bachelor's degrees was associated with a 7% decrease in inpatients dying within 30 days of admission; suggesting that amongst service users in hospitals where 60% of the nurses held bachelor's degrees and where each nurse was assigned the care of six service users on average, there would be almost 30% lower mortality than in hospitals where only 30% of nurses held bachelor's degrees and each nurse was assigned the care of an average of eight service users. Nevertheless, further research is recommended to assess the impact of nurses' education on mental health service user outcomes, particularly the outcomes measured in this current project (i.e. disability, disease, discomfort and dissatisfaction).

On the whole, mental disorders affect mental health service users' ability to function well (so that they are incapable of independent living or work). For example, service users may exhibit a poor self-image, feel 'useless' (Hosking, 1993), lack motivation and feel worthless (Gelder et al., 2006). This then leads them to withdraw from their usual activities (Moyle, 2003). Nevertheless, Anthony and Blanch (1987) consider that every service user, regardless of their psychiatric disability, can be productive, if they are provided with the appropriate support. As suggested by Birchwood et al. (1990), a comprehensive assessment of social functioning is required to identify an individual's strengths and weaknesses.

The current study findings support the results of a study conducted by Lynn and Moore (1997), which claim that nursing staff consistently underestimate the benefits of both the psychosocial aspects of care and their own professionalism (defined as dedication and efficiency) for service users' perceptions of QoC. Service users identify the most important aspects of high quality care delivered by staff as empathy (Joiner, 1996, Meister and Boyle, 1996, Alizadeh et al., 2016); competence (Jun et al., 1998, Oermann et al., 2000, Alizadeh et al., 2016); scientific knowledge, technical excellence and skilled efficiency (Von Essen and Sjoden, 1991, Clarke and Wheeler, 1992, Alizadeh et al., 2016); responsiveness (Joiner, 1996, Jun et al., 1998); effective communication (Jun et al., 1998, Oermann et al., 2000, Alizadeh et al., 2016), and caring behaviour (Joiner, 1996, Jun et al., 1998, Oermann et al., 2000). Similarly, Allan (2001) noted how service users described an ideal nurse as someone who is there if needed; skilled in valued aspects of care, and emotionally aware. In addition to the above, a systematic review of 132 studies related to what service users want from mental health nurses in the UK found that service users expect mental health nurses to be equipped with both therapeutic clinical skills and the general skills associated with effective interpersonal communication, thus demonstrating sufficient flexibility to fulfil a range of different roles. These roles include acting as the patient's advocate, recognising symptoms, delivering appropriate and effective interventions and treatment options, remaining accessible, and providing opportunities for staff-service user interaction (Bee et al., 2008).

Tasso et al. (2002) found that factors such as the friendliness and helpfulness of nursing staff, as well as the competence of physicians and their readiness to inform, led to greater patient satisfaction with health care services, suggesting that these may be regarded as central to service user satisfaction. In developing countries, service user

satisfaction is also associated with QoC. For example, in a study conducted by Andaleeb (2001) to identify the factors of service quality that are important to service users in the hospital context in Bangladesh, five factors were identified, including responsiveness (being caring, helpful and courteous), assurance (skilled staff and competence), communication (explanation of actions and answering questions), discipline (cleanliness of the facilities and staff), and the expectation of gratuities (*baksheesh*; services were not provided properly without tips). This led to the conclusion that the qualities of health care providers are crucial for service user satisfaction with QoC in mental health services.

These professional qualities have been identified as a core set of views amongst service users, meaning that extensive features are required of health care professionals to ensure high QoC. For example, being aware of service users' needs while they are in hospital is a component of understanding the dynamics of effective care outcomes. Allen et al. (2003) conducted a survey of 59 mental health service users, in order to identify their reasons for accessing psychiatric care services. The above authors reported that the participants were dissatisfied with the way in which psychiatric services were managed, particularly the fact of being treated disrespectfully (63%), not being seen in a timely manner (65%), not being listened to effectively (68%), not having enough time dedicated to their individual care (77%), staff failing to adequately address their problems (80%), and being insufficiently informed about their treatment or its risks, benefits and alternative options, before being asked to consent (82%). They therefore suggested investigating how best to intervene in psychiatric services, while still providing support and maintaining service users' dignity and autonomy. As a result, considering the importance of health care providers' qualities and the impact of these on service user outcomes, the relevant health policy-makers are encouraged to take action in this regard.

Meanwhile, the qualitative data revealed a link to understanding staff competence in terms of staff qualities. This afforded participants the opportunity to discuss the staff qualities that could help shape the quality of mental health care. Commenting on this, Stichler and Weiss (2001) argued that competent staff demonstrate technical skill, assure of accuracy in their diagnoses and diagnostic tests, and provide effective medication. The competency of health team members will lead to the desired outcomes being achieved and this was perceived by the study participants as an essential component of mental health care quality. It is also a finding that is reinforced by

Larrabee and Bolden (2001), who explored service users' perceptions of quality in nursing care, using a convenience sample of 199 hospitalised service users in a public hospital in the US. The above authors reported that the service users recognised the following fundamental characteristics for ensuring quality in nursing care: providing for individual needs, being pleasant, caring and competent, and being prompt in the provision of care.

The qualitative data in the current study revealed that the participants were dissatisfied with the competence of the nursing staff; for example, they expressed negative perceptions of nurses' attributes based on the ancillary role ascribed to them as health professionals of a lower status. This in turn shaped nurses' behaviour, so that they only performed the minimum number of tasks expected of them, solely in response to doctors' orders and purely to maintain order on the ward. They consequently had little interest in providing interpersonal care for service users or fulfilling other contemporary nursing roles. As well as being shaped by their experience of clinical practice and responding to the expectations of service users and other health professionals in the societal context of Saudi health care, this also reflects a lack of awareness and training in modern nursing theory and practice, as manifested in their threadbare academic training, as discussed previously. The vast majority (83%) only held the minimum general Nursing Diploma, which does not imply sufficient knowledge, skills or experience for dealing with mental health service users, as reflected in the QoC provided.

All over the world, mental health service users should be cared for as vulnerable people by a clinical nurse specialist (CNS), in accordance with WHO recommendations. Several researchers have concluded that the inclusion of CNSs in the care of service users can improve health care outcomes, ensuring an effective response to service users' needs and enhancing communication among multidisciplinary health teams (Scott, 1999, Wand and Fisher, 2006, Shafiei et al., 2011). In KSA, however, the role of the CNS has not yet been introduced into the health care system. This fact was sharply criticised in a report on perspectives of specialist nursing in Saudi Arabia (Hibbert et al., 2012). The above researchers argue that it is important to develop nurses in KSA, so that they obtain the necessary qualifications to fulfil the CNS nursing role. This role then needs to be developed by providing these nurses with the knowledge, skills and experience to meet the needs of service users. Furthermore, the above researchers emphasise that the function of the nurse should be enhanced to foster nurses' autonomy

and empowerment, coupled with accountability in a professional relationship with physicians.

The current findings also drew attention to aspects of nursing care that were recognised by the participants as problematic. A lack of interest in the job is a good example of this. Some of the participants reported that certain nurses failed to show any interest in them as service users while delivering nursing care. This reflected negatively on the QoC provided, such as in terms of understanding the service users' needs and prompt response. A lack of interest can partially be explained as the failure to *be there* (poor attendance); referring to nursing staff being fully present and engaged in care provision for service users. It is this which will render the latter more open and honest with health care providers (Schafer and Peternelj-Taylor, 2003).

Other published studies appear to be in agreement with this, reporting that service users perceive nursing staff as not *being there,* defined as a lack of interest, which service users find frustrating. This in turn negatively influences the therapeutic relationship (Schafer and Peternelj-Taylor, 2003, Meehan et al., 2006). Although the above-mentioned studies did not evaluate QoC amongst mental health service users, an improvement in their QoC following intervention was nevertheless evident in the interviews, when they mentioned staff interaction, medication issues and service user-centred factors. In keeping with previous research, the current finding corroborates the results of another study carried out in this field (i.e. mental health care quality) by Beech and Norman (1995), who found that a small number of negative indicators perceived by service users mainly referred to nurses showing a lack of interest in their job, which was regarded as indicative of poor quality nursing care.

Another function of mental health nurses is to help activate the care and treatment of service users. This includes obvious nursing practices, such as taking blood or administering appropriate medication (giving injections). These practices (and others) necessitate an established knowledge base, therapeutic skills, and expertise, along with effective interpersonal and communication skills (Cleary, 2003). In sum, it requires the mental health nurse to be highly efficient and competent to provide therapeutic services in a proper manner and in accordance with mental health nursing standards, which outline the knowledge, skills, attitudes and outcomes required for mental health nursing - as stipulated by the Australian and New Zealand College of Mental Health Nurses (ANZCMHN) (Cleary, 2003).

The issue of skills in nursing presents an interesting arena for the present study participants' descriptions and discussions during the interviews. In relation to nursing skills, a few of these participants conveyed their perceptions and experiences, revealing some deficiencies in routine procedures, such as taking blood or administering injections. According to their perceptions, the participants emphasised the importance of all nurses working at the hospital to develop their nursing skills, since the quantitative findings from the CAT-MH also supported the view that these nurses had a moderate level of competency, as stated previously. O'Brien and Cole (2003) recommend that mental health hospitals should be staffed with highly skilled nurses, in order to be able to meet national nursing and mental health service standards, as well as reducing the unwanted effects of hospitalisation, namely negative outcomes for service users, health systems and national economies.

To summarise, the results of this study reveal that the incompetence of nursing staff in the delivery of mental health care is a predictor of disability. None of the other service user outcomes (disease, discomfort and dissatisfaction) were predicted by the level of nurses' competency in this area. The qualitative data shed some light on the link with staff competence, in terms of the qualities of staff members helping to enhance the quality of mental health care provided. In fact, the participants generally expressed dissatisfaction with the competence of nursing staff, which affected nursing behaviour, in that only the minimum expected duties were performed and these only in response to doctors' orders or to maintain order on the ward. However, there was little interest in offering interpersonal care to service users or performing other contemporary nursing roles. It points to the need for nurses to obtain bachelor's degrees in their field, so as to improve service user outcomes. The next section discusses the findings for predicting service user outcomes in relation to staff-service user interaction. It also presents further perceptions shared by the service users concerning the quality of their mental health care.

6.3.5 Research Question 5

Do the frequency, nature and characteristics of staff-service user interactions predict service user outcomes (disability, disease, discomfort and dissatisfaction)?

The results of the present study failed to obtain a statistically significant prediction of service user outcomes in relation to the frequency and nature of staff-service user

interactions, in terms of disability, disease, discomfort and dissatisfaction. Previous studies have recorded similar findings. One such study was conducted to examine the quality of psychiatric care in relation to the interaction between staff and service users and service users' clinical outcomes on two acute wards in Nigeria, using the Interactions Schedule (QUIS). The above authors found no relationship between staff-service user interaction and clinical outcomes, concluding that good clinical outcomes for service users had more to do with physical care (e.g. checking vital signs) and other treatment methods than with staff-service user interaction (Olusina et al., 2003).

Another quasi-experimental study found no significant relationship between changes in patterns of interaction and service users' psychiatric symptoms, concluding that positive changes in the pattern of interaction may be attributed to the unit's structured programme (Uys et al., 1996). Conversely, there are findings in the literature that conflict with this. For example, in one descriptive study, it was reported that as the average length of stay on a ward increased for service users (as a function of outcome), the staff-service user interaction rate also increased in direct proportion (Sandford and Elzinga, 1990). In a five-year follow-up study carried out by Holmqvist (2000), correlations between staff members' feelings towards service users and treatment outcomes at 23 psychiatric treatment establishments (i.e. small psychiatric inpatient units outside hospital) were assessed in Sweden. The above author reported that for psychotic service users, positive outcomes were associated with low levels of negative feelings throughout treatment. Regarding data on the frequency of service users' interaction with staff, the inference from the data context is that the inpatient wards staffed by female nurses elicited more interactions with service users than was the case on inpatient wards operated by male nurses. A possible explanation for this is that women tend to experience social interaction differently, generally receiving more emotional benefits than men. It would imply that interaction in nursing care leads to greater emotional benefits for women than for men. In contrast, interaction with male service users is associated with social isolation and a loss of emotional care.

One additional finding of interest in the current study related to the interaction between nursing staff and service users, whether verbal, non-verbal, individual or group-oriented. The findings showed that on average, a greater amount of time was spent engaging in non-verbal interaction (for example, eye contact, speaker facing the listener, head movements, gestures, physical contact - including when administering an injection, restraining, dressing or bathing) with service users on all admission wards,

particularly the long-term psychiatric wards. This striking feature is probably due to the nature of service users on long-term psychiatric wards (for example, service users with conditions such as psycho-medical, geriatric and schizophrenic disorders), as these admission wards have a significantly higher level of non-verbal interaction. This could be the result of the absence of any pressing need to communicate with staff, because they are constantly present in the wards and are familiar with the surroundings and ward business.

The above finding is consistent with one study conducted in Australia, where more non-verbal interaction with service users was reported for psychogeriatric wards than for acute psychiatric wards (Tyson et al., 1995). Furthermore, the findings for the current study are important in terms of highlighting the value of encouraging staff to create a friendly atmosphere for service users and to increase verbal interaction by reducing the amount of clerical work (such as checking files, talking to other staff, and taking telephone calls), which staff are required to undertake while caring for service users. Similarly, numerous studies have noted that clerical work is a major barrier to nurses interacting with patients. Lau et al. (2007) observed nurse-resident interactions in a learning disability unit in Hong Kong, using the Staff–Resident Interaction Chronograph (SRIC), reporting that the mean interaction rate between nurses and residents was 27.5%. Moreover, this mainly related to physical care and when nurses were not interacting, they spent more than half of their time performing administrative tasks (54%), which squandered their unique resources, such as their advanced skills in psychosocial intervention and their capacity to change attitudes towards individuals with learning disabilities, as part of holistic care provision.

An additional finding from the present study related to the percentages for all interactions between nurses and service users, in terms of them being ‘positive’, ‘neutral’ or ‘negative’. These were found to be in line with the results reported by Bowers and colleagues (2010), who described how expert nurses interacted with service users in one study on mental health service provision. They highlighted how staff-service user interactions on inpatient wards were not uniformly positive. However, it should be noted that positive and neutral interaction rates significantly changed after introducing the intervention (for example, in terms of sedation, restraint and seclusion), whereas negative staff-service user interaction did not change significantly (Bowers et al., 2006).

Moreover, this finding is consistent with previous research showing that almost all interaction with service users is either positive or neutral, but a great deal of the observed interaction on the wards was in fact neutral in nature (Tyson et al., 1995). A noticeable feature of the current findings and those of Tyson et al. (1995) is that relatively few interactions could be categorised as negative. A potential explanation of this is the Hawthorne effect, as it is possible that nursing staff may have tried to be on their best behaviour during the observation period. However, given that on average, several hundred instances of behaviour were observed for each targeted nurse, it is unlikely that this observed behaviour could be wholly unreliable or unrepresentative of normal behaviour.

In order to further explore the nature of the interaction on the wards, the service users' perceptions and experiences of communication with staff were collected. These perceptions supported some of Schröder et al.'s (2006) findings. The above authors advocated that service users should feel that they can trust staff in an atmosphere of open conversation and supportive guidance. This finding places greatest emphasis on the interpersonal relationship between the service user and health care provider (Ruggeri, 1994, Huycke and All, 2000). According to McIntyre et al. (1989), simply talking to a member of staff could be regarded as the most helpful aspect of care. Accordingly, it is important to emphasise that health care providers should have a clear understanding of service users' communication and experiences in terms of problems and situations, which will in turn facilitate a good therapeutic outcome (i.e. relationship) (Johansson and Eklund, 2003).

Additionally, studies on QoC in psychiatric care, where the importance of treatment characteristics was rated, have demonstrated that service users define staff empathy as the fact of being caring, interested and understanding, while listening to and respecting the service user (Hansson et al., 1993, Bjorkman et al., 1995). However, these studies have not focused on the concept of QoC per se, but rather described the important elements of this care. However, this corresponds to the findings of the current study, where some of the participants set great store by the experience of being cared for and informed in advance about their care (actions explained), whereas this was not the case in previous findings reported by Beech and Norman (1995), where several participants described the failure of staff to explain their nursing actions in advance. It was consequently singled out as particularly important for discussing earlier incidence of aggression.

The lack of communication between health care providers and mental health service users was highlighted during the qualitative interviews as a factor with a negative impact on service user outcomes, where there was no open channel of communication while receiving care. For example, some of the participants complained that they had difficulties in communicating with their health care providers, which may have been due to a lack of staff training in communication skills and/or inadequate understanding of service users' health problems. This finding highlights the need to establish ongoing psychiatric programmes for the development of workers in the field of mental health, because of the importance of communication for improving QoC.

Poor communication skills were also associated with the failure to listen to service users attentively, the presence of foreign staff, and staff being busy with paperwork. In the current study, the act of listening to the service user attentively was indicated as highly important by some of the participants. From this finding, it may be noted that interpersonal communication skills, such as listening carefully and attentively to the service user, are perceived as a positive outcome associated with good nursing/medical practice. These findings are confirmed by Cleary et al. (2012), who noted that vulnerable and upset service users admitted to acute psychiatric wards wanted someone to listen to their problems and issues during each shift, suggesting that this interpersonal skill helped them to adjust to the ward, thus representing a good outcome of QoC.

Another area of concern is the impact of language barriers on QoC. The presence of foreign staff and shortage of indigenous staff was believed to result in generally low QoC, as narrated by the participants. The hospital providing the context of this study has insufficient numbers of female nationals working as nurses to care for service users and so foreign nurses make up the staff shortfall. The current study indicated that approximately 23.3% of the female nurses were Indian or Filipino, recruited by agencies based in their home countries. The problems associated with dependency on foreign staff include the inability to communicate with Arabic service users, due to language barriers, different beliefs, such as religious beliefs, and cultural diversity (since the foreign staff come from different cultural and ethnic backgrounds). The cultural theorist, Madeleine Leininger (1925-2012) (who developed a theory of cultural diversity and universality in care) observed that cultural differences between service users and health care providers can lead to unpredictable outcomes of health care services (Ketefian, 2002).

In relation to the effect of language barriers on QoC, the findings of this current study are consistent with those of Hornberger et al. (1997) and Gerrish (2001). Hornberger et al. (1997) explored the use by a group of primary care physicians of various methods to bridge language and cultural barriers between themselves and their service users. The above authors found that physicians who had access to trained interpreters reported significantly higher levels of physician-service user interaction than physicians who adopted other approaches ($P < 0.0001$), stating that when a physician and service user have no common ground, such as a shared language or culture, communication difficulties may result in compromised care, with potentially worse outcomes.

Gerrish (2001) examined the nature and effect of communication difficulties arising from interactions between district nurses and South Asian service users and their caregivers in UK community settings. It was found that the language used to deliver advice on matters such as compliance with treatment, psychological support, and follow-up visits was occasionally one for which there was no one available to interpret, thus limiting on-going assessment of service users' needs. In conclusion, both studies raised concerns over the QoC provided for service users who spoke a different language from the health service provider.

These findings suggest that language and cultural diversity are important barriers, as also highlighted by the service users in the present study. The current findings stress the need for future research to evaluate communication difficulties, in order to help improve the quality of mental health care provided in psychiatric settings and to meet the growing demand for psychiatric services in KSA.

Spending time with service users need not be overtly psychotherapeutic and it is acknowledged in the literature that service users desire more than simply an opportunity to interact with health care providers while their basic needs are being met; they desire communication that is therapeutic in nature. However, this is not necessarily manifested beyond cursory interaction during safety checks and the dispensing of medication. For example, Robinson (1995) examined the nature of direct contact with service users and found that individualised therapeutic interaction occurred less often than task-centred interaction. In the current study, the participants recognised that considering the circumstances, their need for staff to spend more time interacting with them was left unmet in many cases, which was generally attributed to health care providers being preoccupied with paperwork.

However, it could also be stated that health care providers do in fact have the desire to spend more time working directly with service users, but are frustrated by other demands, such as clerical work or large caseloads (Mason et al., 2004), thus leading to increased staff stress and sickness (Higgins et al., 1999). This could also have a negative impact on service user outcomes, as well as increasing staff turnover and reducing efficiency in the health system (Scheid, 2003). The current study findings resemble those reported by Skelly et al. (2013) in an investigation of service users' perspectives of QoC using six focus groups (n=29), made up of inpatients and outpatients within an independent Irish mental health service. The researchers reported that the psychiatrists were too busy to allocate time to sit and talk to service users.

For mental health nurses in particular, Whittington and McLaughlin (2000) explored the proportion of working time spent by mental health nurses in potentially psychotherapeutic one-to-one communication with service users. They found that a small proportion of working time (6.75%) was dedicated to psychotherapist interaction and less than half of the working day (42.7%) was devoted to contact with service users; concluding that the nurses spent around one third of their time either talking to each other, or carrying out clerical work. Considering all the evidence discussed above, it would seem that paperwork takes staff away from service users. Therefore, the introduction of more information technology (IT) onto wards could enable staff to devote more time to caring directly for service users.

In summary, the quantitative results of this study revealed that staff-service user interaction was not a predictor of service user outcomes. This section has also demonstrated that on average, a large amount of time is spent on non-verbal interaction with service users across all admission wards, which highlights the value of encouraging staff to create a friendly atmosphere and increase verbal interaction by decreasing the amount of administrative work. In terms of interaction quality, the findings revealed that these interactions were either positive or neutral, with much of the interaction being neutral on all the wards observed. Moreover, the interview participants described their experiences of aspects of the staff's interaction with them, reporting the need for an atmosphere of open communication with staff, which would have a positive effect on their care outcomes. The participants also highlighted the importance of allocating enough time to listen to their needs or problems attentively, especially when being cared for by foreign staff, as this could affect the quality of their mental health

care. The next section discusses the findings derived from the service users' suggestions for improving QoC.

6.4 Suggestions for Achieving Quality of Care (QoC)

The findings of this study provide advice and suggestions for the improvement of QoC at a mental hospital, including the ubiquitously noted suggestions made by the participants themselves that they should have access to a garden or yard connected to the ward, offering them the chance to exercise, as they lacked such amenities in the hospital. The availability of such a place would help the service users feel more relaxed and give them the chance to observe nature (such as plants), or spend time engaging in meaningful activities away from the smoky environs of the ward. Moreover, participation in various activities and recreation, learning new skills, and going on outings were all considered helpful for directing service users' attention away from morbid or obsessive thoughts about their illness and circumstances. Research has shown that a lack of meaningful activities both within the framework of formal care and in general life circumstances is a potential source of frustration, potentially leading to aggressive behaviour (Meehan et al., 2006). A qualitative study by Lepola and Vanhanen (1997) raised this point, finding that the service users studied spent most of their time alone, with no engagement in meaningful activities, and that it was vital to render their presence on (acute) mental health wards more meaningful through participation in daily activities. At the same time, this provides an opportunity for health care providers (including occupational therapists) to apply wellness programmes (and other types of programme) that target both the physical and mental health of service users (Karlin and Fuller, 2007). This could ultimately improve their physical and mental health outcomes, including reduced auditory hallucinations, increased self-esteem and improved sleep patterns, as well as enhanced general behaviour (Faulkner and Sparkes, 1999, Callaghan, 2004) and physical fitness (Paluska and Schwenk, 2000, Voss et al., 2011, Diamond, 2013).

One participant expressed the need for expert nurses with the knowledge and capability to work with mentally ill service users. This was explained in the current study from the perspective of the nursing profession itself (i.e. the lack of appropriately qualified mental health nurses in KSA); while a significant number of participants suggested that important personal traits needed to be cultivated among nurses, so that they would provide better care. It is clear that understanding the experiences and circumstances of the service users, and working through their expectations and goals, is important for

nurses to be able to provide effective and positive mental health care (Cleary, 2003). According to one study on expert psychiatric nursing practice, conducted by Cutcliffe (1997), expert nurses are "practitioners who communicate effectively, and form therapeutic relationships, whilst balancing organisational and client need by means of negotiation and flexibility" (p.330). The current study reveals that participants want expert nurses who are knowledgeable. It also illustrates that expert nurses should have the skills to handle service users and implement knowledge in their practice. Therefore, it may be concluded that expert nurses need to be more competent and skilled, so that they can cope well in a stressful work environment (e.g. mental health settings) (Chan and Morrison, 2000).

One participant expressed concerns over the lack of any future planning for the advancement of service quality at the hospital, reflecting the need for such planning in being able to improve service user outcomes. In this respect, the current project is helpful, as it provides valuable information for health care planning and policies addressing the needs of this special group. Therefore, it may be assumed that these factors, particularly those drawn from the qualitative data, will have wider application in conceiving a model for mental health care in practice across KSA.

One participant reported the need to hire companies specialised in the provision of high quality health services in the operation of the hospital. This finding is in line with a prior study from the US, regarded as one of the strongest investigations of service climate outcomes. It was conducted by Schneider et al. (2009), using three-year longitudinal data from Fortune 200 service companies in diverse service sectors and at an organisational level of analysis. The above authors reported that companies with a higher standard of service provision elicited higher service user satisfaction and consequently achieved superior financial performance. It would therefore appear that the mode of delivering health care services in KSA needs to be reformed through a transition towards the privatisation of public hospitals, including in the mental health sector (in accordance with Saudi Vision 2030). Evidence from a previous study on the health care system in KSA, collected by Almalki et al. (2011), reports several challenges for health care reform, including the fact that the transition towards the privatisation of state-sector hospitals is the best approach to reforming Saudi Arabia's public health care system, as supported by policy-makers and researchers. This is based on the belief that it will speed up the decision-making process, reduce the government's

annual expenditure on health care, generate new financial sources for the MoH and improve QoC.

Care could additionally be improved by reconstructing or building a new psychiatric hospital in future, with a more suitable design that is tailored towards mental health care. The design of wards in existing mental hospitals in KSA is based on designs for general wards (e.g. surgical or medical), rather than on the need for mental health service users to be treated in an appropriate environment, such as a designated psychiatric ward. Roche and Duffield (2010) affirm that factors of the work environment (for example, buildings) influence outcomes for both staff and service users. In the present study, the participants also perceived the need for service users and staff to be consulted when devising and implementing change. This would mean service users and staff being consulted over the construction of a new hospital, which would fully accommodate and address their needs, right from the design stage. Taken together, regardless of the facilities available on each ward, such as dormitory-style sleeping accommodation and large dining rooms, participants may additionally require private spaces, to which they can retreat when feeling uncomfortable or in need of some time alone.

Aside from the above, a number of participants expressed a desire for differentiation between cases on the wards. Some suggested that the segregation of service users based on case type, for example, would reap benefits for all service user outcomes. This finding could be explained as some of the participants feeling unsafe in the hospital environment, due to the presence of particularly severe or violent cases. One participant described his past experiences of a problematic co-resident:

> *[…] this person is crazy and drug addicted, which means he could possibly kill you and he doesn't care […]. In order to provide treatment, patients should be categorised… bad cases or patients with more advanced illness should be transferred to other wards.* **(**Int.18, male participant)

This participant specifically mentioned drug addicts, suggesting that such service users should be admitted to separate wards, away from the diagnostic groups, as they are considered as inherently threatening. A recent study by Skelly et al. (2013) found that two participants raised the issue of segregation as a result of feeling unsafe in hospital, where all service users, including persons with addiction problems, were grouped together.

Another suggestion worth noting was made by some of the participants, who expressed concerns about the need to educate staff members, particularly foreign workers (cleaners), about their situation, especially with regard to ethics and basic mental health issues. Based on these findings, a lack of knowledge and skills in how to interact with mental health service users should be addressed through education and practice. It could be achieved via in-service or continuing education courses, aimed at improving staff performance and skills. Additionally, ward managers need to be aware of the invasive or unethical approaches of some of the less experienced staff, including cleaners, which may be passed on to service users. This point was made by some of the participants and could affect service user outcomes. Moreover, it is a finding in line with a previous study, where the participants reported that some staff were aggressive in their treatment of service users (Hueske, 2008).

6.5 Gender Skewness in Interviews and Its Impact on the Findings

The interview sample consisted of six females (20%) and 24 males (80%). These were drawn from multiple inpatient wards and recruited via purposive sampling, which enabled the researcher to gather the perspectives of a mixed sample and gather rich data of the desired depth, based on individual experiences. The participants were selected according to eligibility criteria based on their socio-demographic characteristics (age, gender and educational background). This helped answer the research questions, keeping in mind that the purpose of the interviews was to gain insights into how service users perceived the quality of their mental health care.

The main reasons for considerably fewer women than men being interviewed for this study was that firstly, more males than females are generally admitted to the hospital being studied (11 male wards/3 female wards). Secondly, on the three female wards, only the service users admitted to an acute female ward (F2) were appropriate to be interviewed and met the inclusion criteria. On the remaining female wards (F3 and F5), the service users were not suitable to be interviewed, either because of their difficulty in communicating, due to intellectual disability, or their lack of capacity to give consent, given the incapacitating effects of their disorder. Thirdly, women's admission rates were actually found to be lower, compared to admissions to the male wards. This could be explained by the fact that people in Arab societies prefer to avoid admitting their female relatives to psychiatric hospitals, due to the stigma attached to having a mentally ill woman in the family, the fear of damaging her future marriage prospects, and an increased likelihood of separation or divorce (Al-Krenawi and Graham, 2000).

Therefore, in the case of female relatives with mental disorders, they tend to access psychiatric outpatient services only in emergency situations, such as when a female family member becomes impossible to control as a result of her mental disorder. This was asserted by Al-Krenawi et al. (2004), who reported that stigma is a fundamental obstacle to Arab women accessing mental health services if they are diagnosed with mental disorders. Consequently, it has a negative effect on their ability to seek help and can lead to the women or their families concealing the mental illness, or otherwise delaying or rejecting essential care. Stakeholders in Arab communities, including organisations, health professionals and religious leaders, should therefore play an active role in reducing this stigma, as their training emphasises the integration of the socio-cultural context into health care. As a result, the education and outreach that they provide could help dismiss erroneous beliefs and thoughts about mental illness, as well as discouraging negative labelling and hurtful representations of others (Hasan et al., 2015).

With regard to explaining gender skewness in relation to the present study findings, the researcher and the participants discussed the topic under study, whereby the range of socio-demographic characteristics exhibited by the participants generated sufficiently detailed information from respondents of both genders. However, the differences across these participants did not seem to have a great deal of impact on the quality of the information obtained from either gender. This may have been partially due to their familiarity with the topic, as well as the nature of the topic itself, as it is one that both genders can talk about easily and are likely to have already discussed with others. As a result, it is not one that is perceived as particularly sensitive or threatening (unlike, for example, sexual abuse). Moreover, the participants represented two distinct groups, expected to have different perceptions and experiences related to the quality of their mental health care. This assumption was based on the idea that each gender will have been exposed to a distinct type of care, which may have affected their perceptions.

In addition, each gender was also expected to generate different findings based on their perceptions of the care that they had received. However, the interviews revealed that both male and female service users shared similar ideas and thoughts about their care. As with the male participants, perceptions of the hospital care services were described by the female respondents in negative terms concerning specific aspects, regardless of any satisfaction that they expressed in response to general and direct questions. Because no differences were noted across the genders in their perceptions of the mental health

care that they had received, the findings of this study can be generalised across the gender divide.

Furthermore, gender differences need to be considered in all research processes, including the interpretation of findings, since experience and social background may give rise to certain gender expectations amongst researchers and participants (Järviluoma et al., 2003). It could be stated that in the context of Saudi Arabia, women occupy a lower status than men in society and this may have influenced the perceptions and behaviour of the female participants in the present study. To illustrate the effect of this, a female respondent may tell a male interviewer what she believes he wants to hear, in recognition of the disparity in status. Therefore, female perspectives of the quality of their mental health care could have influenced the current findings. In other words, the male participants were concerned with certain elements of QoC, whereas the female participants highlighted others. Being male, this could have led to the researcher and the male participants sharing common assumptions and experiences, which supports Gill and Maclean (2002), who state that when the researcher and participants are of the same gender and culture, the communication between them is facilitated, since both gender and culture are brought into clearer focus, making more sense of the information produced.

6.6 Relevance of the Donabedian Model and Outcomes of the '5Ds' for Understanding the Quality of Mental Health Care in KSA

The Donabedian Model provides a framework for evaluating health care quality through the provision of information that leads to action that is intended to enhance QoC. This will then affect an individual's health status and well-being (Donabedian, 1988b). The Model consists of three components: structure, process and outcome (Donabedian, 1966), each of which influences the others, leading to improved QoC. Although this Model has been used in previous research on mental health care quality, as an acceptable and useful framework (Ravelli et al., 2003, Schroder and Ahlstrom, 2004, Reilly et al., 2006, Swanson et al., 2007, Hong et al., 2008), the quantitative results produced in this current study provide very modest information (factors) to support its application in an investigation of the quality of mental health care in KSA.

The quantitative results reveal very little association between the variables: structural measures of nurses' characteristics (such as age, gender, nationality, qualifications, years of experience in the hospital, attendance of psychiatric training courses, and staff

numbers) and service users' characteristics (such as age, gender, marital status, employment status, educational level, area of residence, and diagnosis); process measures of nurses' attitudes to the mentally ill/mental illness; nurses' competence in the delivery of mental health care; the nature, frequency and characteristics of staff-service user interactions, and service user outcomes, with reference to disability, disease, discomfort and dissatisfaction.

The most important factors emerging from the qualitative data analysis have not been captured specifically in relation to this mental health population in the Saudi context (for example, stigma and a sense of imprisonment). In other words, the lack of predictive relationships between structural and process measures and service user outcomes (the 5Ds) in mental health seems to be based on the fact that no empirical evidence exists to support their use in this area. Therefore, this is the first study to investigate the issues surrounding QoC using the 5D approach in a mental health context. It means that the qualitative data emerging from this research will have a strong influence on clarifying the quality of mental health care in KSA.

The outcome measures of this study are built on Lohr's (1988) 5D outcomes: death, disability, disease, discomfort and dissatisfaction. These categories have been used in this study (excluding the death variable, see section 3.8.3), in order to provide a systematic approach for guiding the evaluation of QoC. To capture the relationship between the mental health care delivery system and service user benefit and well-being, it was proposed that these outcome measures would result from a care structure and process that integrated functional, social, physical, physiological and psychological aspects of service users' experience of mental disorder (Mitchell et al., 1998). Hence, it was decided that such outcome measures, operationalised into five categories, would be useful for specifying and investigating relationships among the three domains of QoC that address the research questions.

However, the quantitative results in the current study do not support the use of the 5D approach, despite the 5Ds becoming an international concept of potential application in other countries, or indeed in all other health care services around the world. Within this approach, the broadly defined 5Ds are not necessarily relevant to QoC, while the relationships between structure, process, outcome and the 5Ds are questionable and not fully understood. Donabedian (1988b) gives a generic view of the 5D outcomes established by Lohr (1988), conceding that it is unclear whether these categories begin

with highly specific symptoms, or physiological measurements related to particular diagnoses, and end with global measurements of human performance, referring to health indexes. This raises questions over the effectiveness of these indexes in capturing the dynamics in the process-based relationships between them. For example, Donabedian (1988b) posed the question, of "how all of these states, including the extension of life itself, are to be combined in a single integrative measure" (p.179).

Accordingly, it may be argued that despite recognising the importance of 5D outcomes as an international concept and growth in the amount of research conducted on the relationship between structure, process and QoC, the quantitative results in this study reveal that service users' views of the quality of their mental health care have little to do with social functioning (disability), pathology (disease), the side-effects of psychiatric medication (discomfort), or satisfaction (dissatisfaction). This could partly be explained by the fact that there are other apparent factors, which have not been captured using these relevant outcome measures, such as stigma, a feeling of being imprisoned, and service users' unmet needs. Therefore, it should be acknowledged that the qualitative data findings in this study may provide a precise explanation of how service users (the participants) perceive the quality of their mental health care.

The qualitative findings suggest that service users' perceptions may have a much wider influence than the quantitative results on improving the quality of mental health care. The importance of integrating service users' views as an alternative approach in the assessment of QoC has been acknowledged worldwide. Data for assessing QoC rely primarily on service user satisfaction, captured in measures (surveys) of quality assessment, or on service users' evaluation of their health care in interviews. According to Donabedian (1988a), service users' views should supplement the usual indicators of health care quality in all its aspects. Accordingly, the qualitative themes emerging from the participants' interviews in this study so far correspond to the perceptions of mental health service users internationally, particularly in Western countries (to the researcher's knowledge, no other study has hitherto been conducted in any Arabic societies on the quality of mental health care, in order to serve as a point of comparison). Therefore, there is no means of identifying whether the qualitative themes are unique to Saudi culture, or relevant to other Arabic societies, signifying that these findings are based on perceptions or experiences, which are not restricted to a specific nation or culture.

This view is supported by a very recently published study by Cutcliffe et al. (2015), evaluating mental health care in the UK, Portugal, Canada, Switzerland, Germany and Australia. It found that service users' experience of inpatient mental health care indicates a lack of warmth, compared to what is typical in conventional therapeutic relationships, such as respectful interaction, the provision of information, choice of medication, or indeed any kind of formal or informal communication; rather, they report negative experiences, such as coercion, disinterest, inhumane practices, custodial and controlling practitioners, and a gross over-use of antipsychotic medication. Therefore, it could be argued that the qualitative findings (five themes) of this study provide a benchmark for mental health services, against which past and future efforts to enhance the quality of mental health care can be compared and evaluated. Future study is certainly needed to understand why the situation is the way as it is and what can be done differently to improve it.

To conclude, the quantitative results generated in the current study cannot be considered as indicative of KSA; qualitative investigation was more likely to produce novel data. It could thus be stated that this study has revised the Donabedian Model to illustrate how structure, as measured by the SCS (including age, gender, nationality, qualifications, years of experience in the hospital and attendance of psychiatric training courses) and SUCS (including age, gender, marital status, employment status, education level, area of residence, and disease diagnosis) is important in non-Saudi contexts, but appears to be less important in KSA. Thus, while it is valid to consider the use of the Model, a very different process is clearly played out in KSA, compared to other countries. For example, the participants drew attention to the importance of service quality (they mentioned ward rules prohibiting access to the bedrooms and own beds during the day) and the powerful impact of prevailing negative images of mental health hospitals. Moreover, in this study, the 5D outcome measurements (i.e. SFS, BPRS, GASS and CSQ-8) are less relevant to the Saudi context, because they do not reveal much about the factors associated with mental health care quality.

Therefore, it may be deduced that the current quantitative findings are of no relevance to Saudi mental health service users, or else they are perhaps less relevant in terms of the measures used in this study, which are standard measures that are viewed as indicators of quality in Western studies, but are perhaps less relevant to the Saudi context. Furthermore, it may be concluded that the 5Ds are not necessarily the only issue, since they merely represent broad concepts (a framework). Consequently, the

choice of measures for the factors (i.e. structure and process measures) could be the problem in this study; although the sample size is adequate and the measures are valid and reliable. Nevertheless, it is the qualitative results that would appear most relevant to the quality of mental health care in the Saudi context, emphasising that other factors are apparently more important for mental health service users. As a result, in order to study the components of mental health care quality in KSA, it might be more appropriate to consider the qualitative results when seeking to identify key quality indicators. The originality of this study therefore lies in the fact that the quantitative data appear to be less relevant.

The next section explains how different conceptualisations of the qualitative findings (five themes) from the current study indicate enhanced service user satisfaction, with a bearing on the current understanding of QoC using the Donabedian Framework incorporated with the Andersen Behavioural Model of Health Service Use. This is an alternative approach to improving health status and outcomes for service user satisfaction, in an investigation of the factors associated with mental health care quality among service users.

6.7 Explaining Qualitative Findings in Relation to the Donabedian Quality of Care (QoC) Model and Andersen's Behavioural Model of Health Service Use

The qualitative findings derived from the participants' perceptions gathered during the interviews in this study can be broadly described as a combination of the Donabedian Health Care Model for Evaluating QoC (the Donabedian Framework) and the Andersen Behavioural Model of Health Service Use (Donabedian, 1966, Andersen, 2008). The Donabedian Framework is the overarching model, consisting of structure, process and outcome, with the Andersen Behavioural Model embedded within it. The Andersen Model is a framework that is widely used to explore mental health services among service users (Swanson et al., 2007, Dhingra et al., 2010, Williams and Cabrera-Nguyen, 2016). This Model posits that structural (contextual) characteristics, such as factors of health organisations and health care providers, combined with enabling factors and the need for service factors, influence processes of care and service user outcomes (see Figure 6.1, below).

This Model suggests that there are two main domains of care quality processes: quality of interaction and quality of service. Both these domains can affect service user satisfaction - an outcome of quality care. The process column of the Model includes

measures of mental health care produced by the qualitative strand of this study, i.e. quality of interaction and quality of services. Quality of interaction also comprises staff-service user communication, such as caring; listening attentively; the perception of shared decision-making over the treatment plan; the perception of actions explained; the perception of health-related education, and staff attitudes to service users and mental health. Meanwhile, quality of service contains variables relating to health services, which should be measured to allow for an accurate evaluation of the impact of process of care variables on outcomes. Measures could include appropriate treatment (for example, medication type or a referral system), frequent monitoring of the condition of service users, and the availability of basic materials and complementary care (for example, the supply of food and facilities, such as clothes and a prayer area/religious texts – namely the Holy Quran, in this context).

In addition, staff characteristics may affect outcomes, including education/qualifications, professional experience in the hospital, and staffing (for example, levels, ratios and turnover rates - continuity of staff). In addition to staff qualities, the structural column of the Model also contains enabling and need factors, since these variables, along with staff characteristics, should be measured and controlled to allow for the precise evaluation of the impact of process of care variables on service user outcomes. The enabling factors that could influence service user satisfaction with heath care services include social and financial support, the latter being regarded as an enabler, because it acts as a psychological barrier affecting satisfaction with care. Need characteristics refer to service users' state of health and their need for health care, as identified by their health care providers. This includes services that diminish the impact of hospitalisation and the care received within it, such as the penal atmosphere (for example, obstructed discharge from hospital, the lack of activities and stringent ward rules); the monitoring of health status (physical, mental, social and spiritual health), and the physical environment (for example, comfort level, ward space and cleanliness), which may predict service user outcomes. Further research is therefore required to validate the relationship between the Model's parameters for assessing mental health care quality. The qualitative data could nevertheless support the development of a revised model of the factors that appear to be relevant to the quality of mental health care provided in Saudi Arabia, from the perspective of the service user and thus adopting a completely novel approach. Future studies could then be undertaken to

obtain quantitative data for testing the revised Model (a potential model for quality mental health care in KSA), as shown in Figure 6.1, below.

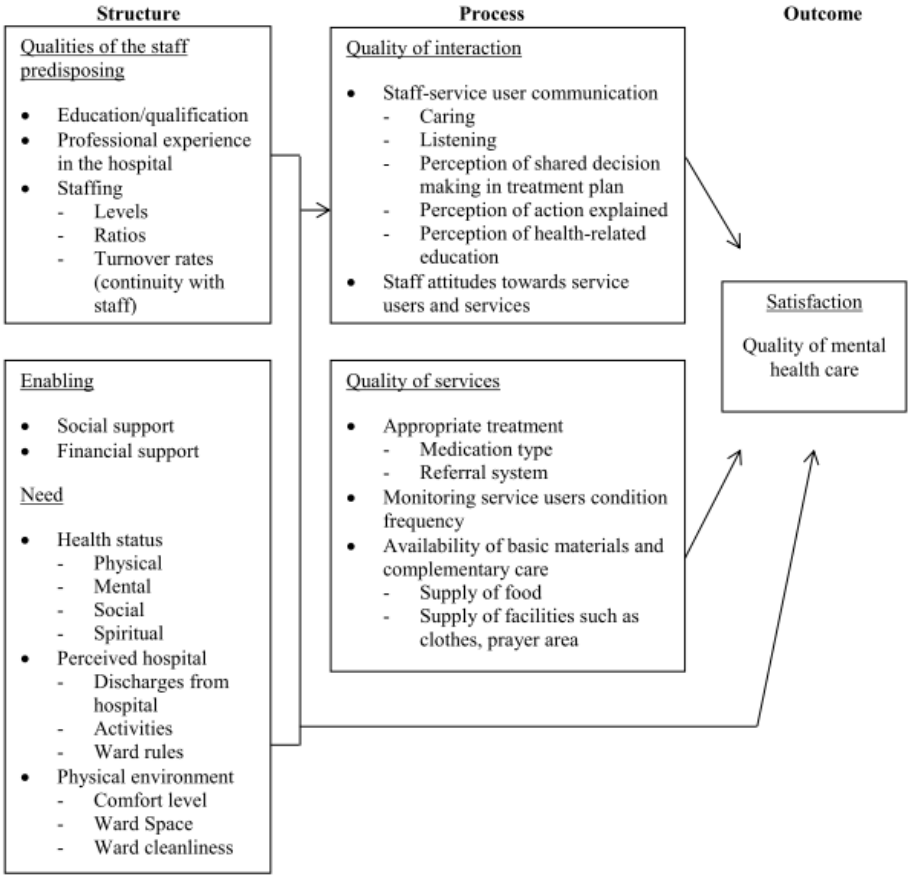


Figure 6.1: Conceptual model for assessing the quality of mental health care

6.8 The Challenges and Benefits of Using a Mixed Methods Research Approach in the Context of Saudi Arabia

It is of special importance to identify the factors associated with mental health care quality in developing countries, particularly in the Arab world, where there is a dearth of formal research on mental health (Okasha and Karam, 1998, Qureshi et al., 2013). As has been discussed previously in the section dedicated to the study design (see section 3.3.1), an investigation of the relationships between the factors (structure and process) and outcome variables is likely to be of significant benefit through the combining of two methodological approaches, where the two methods separately address different research questions, as well as contributing to a fuller understanding of the factors associated with QoC in KSA. These two approaches include theory testing, leading to the investigation of factors associated with the quality of mental health care for the

service user (using Donabedian's Framework) and the generation of theory (the qualitative element). This would lead to an exploration of service users' perceptions of the quality of the mental health care delivered to them.

A great deal of discussion in the literature has been centred on the benefits of using Donabedian's Framework to evaluate QoC. However, there is a need to study mental health services in Arab countries, particularly in KSA, in order to test theory in a statistically generalisable fashion and apply judgment in filling the research gaps. Consequently, the present researcher began with a quantitative investigation using Donabedian's Model, which is an internationally recognised standard framework of valid and reliable measures (process and outcome measures) for the mental health context. However, these measures have never been applied in the Saudi context and the current researcher did not wish to invent a model that had yet to be proved effective in any previous contexts.

Although Donabedian's Framework appears to be a conceptually sound, practically viable and empirically grounded model, it produced only very modest results in the current study and this had not been predicted by testing the Model. There were consequently concerns that this Model may not have been able to support findings drawn from a population that had not been tested before. This is why a qualitative exploratory study was also included to help develop the Model, based on qualitative findings and relating to the Saudi context. Such work would be post-doctoral. It has been suggested in health service research that a qualitative approach can contribute to quantitative work by identifying the relevant variables/factors to be studied in more detail (Barbour, 1999). Using the proposed Model (as described previously), health care providers, managers and health policy-makers could be better placed to evaluate the quality of mental health care for each stage, namely structure, process and outcome. On the other hand, the qualitative strand of the investigation (theory generation) reveals what the components of mental health care quality look like from the perspective of the service user. Accordingly, in future research, other individuals may be interviewed about what they feel are the indicators of QoC.

In summary, this study did not favour the quantitative over the qualitative element, or vice versa. Instead, it applied a mixed methods research design, where the two elements were used to address different research questions separately, as well as contributing to a fuller understanding of the factors associated with mental health care quality in KSA.

6.9 The Responsibility of the Saudi Ministry of Health (MoH) to Improve Quality of Care (QoC)

The concept of QoC has existed for more than three decades and has received a great deal of attention in the international literature during recent years. Empirical research and reviews of the literature on QoC assert that it is a matter of concern for stakeholders around the world. Moreover, they point to a consensus in relation to the dimensions (structure and process) that contribute to improving health care quality and the impact of these on service user outcomes (Donabedian, 2005). In brief, within the Saudi context, QoC highlights the way in which responsibility and authority lie with the MoH. Also acknowledged is the role of quality improvement in facilitating positive outcomes and serving as an agent of change. Quality improvement has crucial implications extending to health care providers and the corresponding service users. It has thus been argued that governments have a responsibility to provide care for those who cannot adequately care for themselves, in order to ensure that their human dignity and worth are recognised (Tang et al., 2004).

Furthermore, it is important to emphasise that the improvement of service user outcomes is predominantly a quality issue and that the MoH has a responsibility to make it happen, albeit with appropriate communication and consultation with stakeholders. This gives rise to the consideration of a fundamental and recurring question in health care policy discussions, namely the way in which the MoH can bear responsibility for a stressful or depleted environment, not least at a structural or resource level. Indeed, any discussion surrounding the responsibilities of the MoH has and will continue to be an important issue in the improvement of QoC. Beyond this, however, there is general agreement over the MoH's responsibility to improve QoC for the benefit of service users.

Governments can play a role in improving the quality of health care at almost all levels of authority (whether local or national). For example, in the US, the (Federal) government has outlined 10 roles/responsibilities in the improvement of QoC and to enhance safety for service users (Tang et al., 2004). These include the purchasing and provision of health care; ensuring the accessibility of quality care for vulnerable people; regulating health care markets; enhancing the acquisition of new knowledge; developing and evaluating health technologies and practices; monitoring health care quality; informing health policy-makers; developing the health workforce, and communicating with stakeholders from across the health care system.

Meanwhile, the Saudi government is helping to develop the health care system in which the MoH operates by setting out plans, policies, codes of practice, guidelines, procedures and models. One view is that the government should intervene in health care quality by privatising the public health sector, in order to improve health services for citizens, increase productivity, and reduce expense. However, the MoH faces a number of challenges to the prospect of developing the Saudi health care system and improving the quality of its health care services (Almalki et al., 2011). These specifically relate to the health care workforce (for example, staff shortages); finance and expenditure; changing patterns of disease (from communicable to non-communicable diseases); access to health care services; the introduction of a cooperative health insurance scheme; the privatisation of public hospitals; the utilisation of electronic health (e-health) strategies, and the development of a national system of health information. To overcome these challenges, the MoH has adopted a national strategy for health care services (Almalki et al., 2011), which focuses on: (1) diversifying sources of funding, (2) developing information systems, (3) developing the workforce, (4) activating the MoH's responsible supervision and monitoring of health services, (5) encouraging the private sector to assume a role in health service provision, (6) distributing health care services equally to all regions, and (7) improving the quality of preventive, curative and rehabilitative care.

In addition, the Saudi MoH plays an important role in monitoring and evaluating the quality of health care by obtaining information on health care quality, for the purpose of informing and guiding health policy-makers. For example, in terms of the health care workforce, the MoH is responsible for monitoring QoC in hospitals, where there are inadequate staff numbers. Investment in educational infrastructure and career development is consequently vital for the government and will enhance the importance of professionalism in health care quality.

Over the past 40 years, however, the educational infrastructure has been unable to produce sufficient numbers of health professionals (such as physicians and nurses). The result of this is that even though the nation's educational capacity has drastically increased, there are still large numbers of non-Saudi health professionals staffing hospitals in KSA, with only 50.9% of all physicians and nurses in the Kingdom being Saudi nationals, despite all efforts to increase this percentage (MoH, 2014). Taking this into consideration, it may be argued that despite the quality of health professionals employed, there are external factors that can influence QoC, such as staff shortages and

high turnover. In other words, if the MoH succeeds in providing more hospital staff, improving retention, and lowering turnover rates, QoC is likely to improve in Saudi hospitals. In this context the MoH has a major influence on QoC and it is not solely a matter for existing hospital staff to address.

6.10 Conclusion

This thesis has investigated the factors associated with the quality of mental health care and their relationship with service user outcomes (death, disability, disease, discomfort and dissatisfaction). It also explores service users' perceptions and experiences of the quality of mental health care received during their hospitalisation. It reports on a study revealing modest positive findings from its quantitative strand, regarding predictors of mental health care quality that could enhance the dimensions of Donabedian's QoC Framework. As a result, service user outcomes may be enhanced in the longer term. The results demonstrate that the characteristics of service users, including age, marital status, employment status, educational level, area of residence, and disease diagnosis, can help predict social functioning as an outcome variable. Here, the unemployment factor was found to be a predictor of positive outcomes for reporting psychiatric symptoms in users of mental health services. In addition, educational level proved to be a factor related to service user structure, capable of producing positive outcomes in relation to the discomfort caused by the side-effects of psychiatric medication and dissatisfaction with mental health care services.

Furthermore, the quantitative results of the present study indicate that the age of a nurse and his or her years of professional experience spent working at the hospital were seen as positive predictors of service users' social functioning. Additionally, the number of years of professional experience accrued by a health care provider at the hospital under study was found to be a positive predictor of service user satisfaction with the mental health care services received. Furthermore, competence in the delivery of mental health care was seen as a positive predictor of service users' ability to function socially.

Despite these modest findings, the quantitative analysis suggests that the predictors investigated (the structure and process factors) were not particularly relevant to Saudi users of mental health services. As a result, there were no predictors of relationships found that anticipated predictors of mental health care quality being linked to the study's care outcome measures. Therefore, it is either the predictors (structure and process measures) or the choice of care outcome measures (i.e. SFS, BPRS, GASS and

CSQ-8) that could be problematic. It could also simply be a case of the outcome measures being irrelevant, or maybe both the predictors and the measures are irrelevant. In short, the various factors suggested by the qualitative data, for example, can produce different results. However, the qualitative results of this study appeared relevant to the quality of mental health care delivered in the Saudi context, emphasising that the factors arising from the qualitative findings were apparently more important than the quantitative data for mental health service users.

The qualitative data suggest that the majority of the participants had negative perceptions of the quality of their mental health care provision and this was revealed when they discussed specific aspects, regardless of their apparent satisfaction expressed in response to general and direct questions. The findings of the present study revealed that a number of the participants felt physically and psychologically victimised by the staff, who restrained, beat and punished them by administering unauthorised intramuscular injections and multiple venipunctures. Therefore, it is important for health care organisations to implement appropriate measures or actions to protect the rights of service users, despite the policies and procedures already in place.

One of the advantages of implementing qualitative data in the present study was to be able to address the results derived from the quantitative data. These results revealed very little association between the predictors (structure, process) and outcomes, which may have been due to a failure to capture other important predictors (for example, stigma or a sense of imprisonment). The qualitative data may reveal that other factors are more significant predictors of mental health care quality in KSA. However, this study was restricted to investigating outcome measures in terms of death, disability, disease, discomfort and dissatisfaction, most of which were not found to be predictors. The qualitative interviews subsequently afforded insights into what was found in the quantitative data.

Donabedian's (1966) Framework, with its structure-process-outcome approach, informed the general discussion and was used to evaluate the quality of mental health care using the 5D Model. This was then shaped by the pioneering nature of this research conducted in the Saudi health context; extrapolating the literature derived from other contexts, using measures devised, developed and applied almost exclusively to non-Arab populations, and identifying certain general parameters of QoC in mental health that have generally not been tested in Arab countries.

The quantitative results suggest that neither structure nor process of care predictors reveal strong predictive relationships with service user outcomes, such as disease or discomfort. Therefore, it was proposed here that these measures, with the corresponding predictors and outcomes, are less likely to be relevant to the Saudi cultural context. However, it could be argued that the qualitative data identified factors that are more relevant to this context. Therefore, future psychiatric work should consider evaluating the conceptual model developed (a revised model), utilising Donabedian's Framework for health care quality incorporated with Andersen's Behavioural Model of Health Service Use and based on the outcomes of the current qualitative analysis. This could then be applied in secondary quantitative research to determine the significant predictors. The resulting Model suggests predictive relationships, leading to the effective testing of variables that are sensitive to mental health care quality in KSA.

The Donabedian Framework is a pragmatic approach to exploring structure, process and outcomes (i.e. quality). While structure and process were evident in the context of KSA, these differed from what emerged from qualitative data derived in other contexts. In fact, the quantitative results from the current study suggest that structure, as measured using the SCS and including age, gender, nationality, qualifications, years of professional experience in the hospital, and attendance of psychiatric training courses, and the SUCS, including age, gender, marital status, employment status, educational level, area of residence, and disease diagnosis, are less likely to be relevant in KSA, while process is crucial. The outcomes need to be reconsidered in this context, as quality may be conceptualised or manifested in different ways. Donabedian (1988b) notes that process and structure are both critical, but in different contexts, with different structures and processes potentially contributing to varying outcomes. To conclude, the quantitative results suggest that the predictors (structure and process measures) and/or measures of service user outcomes are likely to be less relevant to the Saudi context, although they are reliable and valid measures of these issues.

However, the themes generated from the qualitative data (five themes) suggest quality indicators that are perhaps more relevant and need to be tested quantitatively, as proposed in the suggested conceptual model (alternative indicators). They also provide insights regarding predictors of quality underlying the care received in KSA. It could be argued that the originality of the current study rests upon the fact that this is the first test of these proposed qualitative indicators of quality in an untested context. Thus, future research is required, before firm conclusions can be inferred regarding the underlying

Framework's efficacy and validity; incorporating the themes generated from the qualitative findings. This suggests that the service users' perceptions would have a much wider influence than the quantitative data collected, on improving mental health care quality. However, given the positive feedback received from others (Ravelli et al., 2003, Schroder and Ahlstrom, 2004, Reilly et al., 2006, Swanson et al., 2007, Hong et al., 2008) and the solid inductive base of the Framework (Donabedian, 1966), it is hoped that there is room for optimism. The implications of these findings for mental health care policy, clinical practice and research are discussed in the following section, with recommendations subsequently being made for future mental health service planning, intended to enhance the quality of mental health care in KSA.

6.11 Strengths and Limitations of the Study

6.11.1 Study Design

To the researcher's knowledge, this is the first mixed methods evaluation of factors associated with the quality of mental health care that has investigated the relationship between variables for characteristics at both ward level, including staff structural (socio-demographic) and process variables (attitudes to the mentally ill/mental illness, staff competence in providing mental health care, and staff-service user interactions) and service user level, including structural (socio-demographic) characteristics and outcomes. This study therefore has the potential to help shape future efforts to improve QoC for users of mental health services, particularly in KSA. This study is also considered to be the first of its kind in an Arabic-speaking country to use semi-structured interviews in an exploration of service users' perceptions of the quality of their mental health care provision. The semi-structured nature of the interviews permitted several topics of interest to the researcher to be covered within the domain of mental health care quality. Furthermore, this approach allowed the participants to judge the care that they had experienced according to the aspects that they considered to be important. All the interviews were carried out by the same researcher, in order to guarantee the accuracy of the data collection, to enhance the flow of data and to enable detailed information to be gathered for verification as required.

A further strength of this study is that the participants were not limited to a specific diagnosis, as the pragmatic approach allowed for the inclusion of all service users diagnosed with any form of mental disorder, according to the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-V; American Psychiatric Association, 2013) and admitted to the inpatient psychiatric facility. The inclusion of participants

merely on the basis of specific diagnoses, such as schizophrenia or depression, would not have enabled the researcher to maximise the generalisability of the findings to all mental health service users. Therefore, it is acknowledged that this inclusiveness may be useful for ensuring that the findings are broadly applicable (Van der Noordt et al., 2014).

Nevertheless, these study findings are not without limitations. The most obvious limitation is that the interview sample was recruited from only one psychiatric hospital in KSA. Thus, the results of this study may not be generalisable (in terms of transferability) to health care facilities in other regions or facilities of varying size (although *hospital capacity* will not affect service users' level of comfort, if the *ward capacity* is equivalent). Neither will they necessarily be applicable to facilities that are essentially different, such as new buildings with rehabilitation centres and a yard connected to the wards. The availability of such facilities in a hospital could lead to the service users forming different perceptions of the quality of their mental health care provision.

A second limitation of the study was that the screening of titles and abstracts of studies addressing the quality of mental health care using Donabedian's QoC Framework was undertaken by just one researcher, which increases the likelihood of relevant studies being overlooked. Meanwhile, a third limitation refers to the types of instrument used in this study. Here, it could be argued that even though the instruments used to measure service user outcomes (SFS, BPRS, GASS and CSQ-8) are valid and reliable measures that have been used extensively in Western studies, they may lack the sensitivity to measure the same constructs in the Saudi mental health care setting, given its different culture. As a result, it could prove helpful to conduct further studies in this regard, in order to enable researchers to shed light on areas where these measures need further evaluation, so that the desired goals can be achieved, particularly in Arab cultures.

A fourth limitation relates to the general limitation of questionnaire-based research taking place during structured interviews, where the researcher may be forced to give explanations or directions for certain items to participants who are unable to complete the questionnaires, due to their low level of literacy. This may be taken by the participants as an indirect clue to answers. Furthermore, the participants may give responses that they think are desirable for the researcher or expected of them in the institutional context (social desirability bias). This is a form of response bias,

consequently affecting the validity of a questionnaire. It is commonly cited as a criticism of self-reported data (Grimm, 2010). However, this effect may be reduced by collecting data with anonymous questionnaires.

A fifth limitation of this study arises from the fact that a substantial number of the interview informants experienced the hospital as a prison, due to the feeling that the nursing staff lacked any understanding of the problems accompanying their illness. As a result, they claimed that they were treated with a distinct lack of empathy, neglect and abuse of human rights such as various punishments, beatings, restraint by tying, non-authorised injections and unskilled blood-taking. This perceived lack of caring had a detrimental impact on their behaviour and psychological well-being, giving rise to thoughts of harming staff and retaliatory aggression. Therefore, in order to obtain a full picture of the findings from the current study, it should be extended to include the health care providers employed on the wards, in order to generate more discourse around the issues. This is crucial for the development of high quality mental health care services.

A sixth limitation of this study relates to the methodological problem associated with the observational findings, where almost all interaction with the service users was either positive or neutral on the corresponding admission wards. However, given the potential for the Hawthorne effect, as explained previously, it is possible and even likely that staff endeavoured to be 'on their best behaviour', as they knew that they were being observed. The Hawthorne effect is often cited in criticisms of observational studies of workplace behaviour, where there is the aim of improving performance (Holden, 2001). This effect suggests that additional attention should be paid to the data collection process, in order to avoid or minimise the potential for the Hawthorne effect. For example, during the data collection, on different occasions and sometimes concurrently, the researcher(s) manipulated the length and timing of the observation periods. This virtually eliminated the possibility of bias on the part of the staff or researcher. In addition, all key components of observational research were identified (including methodological considerations), which ruled out the possibility of distortion in the study. Another strategy adopted to avoid or reduce the Hawthorne effect involved covert data collection, whereby the staff were not informed about the data to be gathered (the observation categories of staff behaviour), prior to the data collection. Such a strategy keeps staff ignorant of the information that the researcher is interested in collecting. Furthermore, given that on average, several hundred instances of behaviour

were observed for each targeted staff member, it is unlikely that the observed behaviours could be wholly unreliable or unrepresentative of usual staff behaviour.

A seventh limitation of the study relates to the selected expert advice group assessing the content validity of the Arabic versions of all the survey instruments implemented. The researcher was interested in engaging a group of experts defined by their experience and who had published in the relevant subject area, amongst other criteria (Squires, 2009). Therefore, the researcher had a clear profile of why these individuals might be considered expert and approached each one, including psychiatrists, nurses and other health care professionals from various health settings, based on their background and experience, at the beginning of the study. Added to this, the researcher favoured diversity in the choice of experts for this study, because health professionals from across the spectrum would be included and so reviews by a representative group of other health professionals were considered to be more valid than those conducted by a homogenous group. As there are a negligible number of nursing experts qualified at master or doctoral level in the field of psychiatric nursing in KSA, their representation was less reliable than the inclusion of psychiatrists.

The above-mentioned limitation also extends to the failure to include service users' expertise in this study for making informed judgements about the instruments. It could be argued that mental health service users are only just starting to play an active role in the Saudi mental health context and so it would have been difficult to include them in any decision-making about this study. However, if the study was conducted elsewhere, this would be more likely. In Saudi Arabia, the development of service user participation has not progressed very far and this was the first opportunity in the context to include service users with mental disorders in research, where they were invited to share their experiences and make comments on the topic under study. As a result, future research is recommended, with the participation of a panel of experts that would include mental health service users, so that they could provide important information on how service users think study data should be recorded.

An eighth limitation of the study relates to the observation periods, which were confined to the morning shift between 07.00 am and 03.00 pm. This time period corresponds to what is known as the 'therapeutic day' and it is during this period that the greatest number of interactions is likely to occur. The selected daytime period clearly offered a better opportunity for a representative observation, in the sense of

capturing typical care; possibly offering a better reflection of the way in which interactions affected service user outcomes. However, the absence of other shifts (evening and night) from the observation of interactions between mentally ill service users and their health care providers could have limited the understanding of 24-hour QoC outside the chosen timeframe, since these other observed periods may have been good sources of information about staff behaviour. As a result, the findings may be biased in favour of the morning shift (selection bias); possibly raising questions about the generalisability of the findings, in terms of developing a limited understanding of 24-hour QoC. Therefore, any future research should take this issue into consideration.

6.11.2 Data Analysis (Quantitative and Qualitative)

Multilevel modelling (alongside SPSS Statistics, Version 22) was used as the method of analysing the quantitative data (the questionnaires and observations). This is a generally accepted and robust method of analysing data collected at different levels or in different units of analysis. Here, one level was nested in the other (Bristol, 2016). By using this approach, both levels of data could be grouped in the analysis. This is particularly important, given that there were two levels of data: (1) service user level, whereby the data obtained from service users admitted to various psychiatric wards included socio-demographic variables (service user characteristics) and dependent variables (i.e. disability, disease, discomfort and dissatisfaction), and (2) ward level, concerning ward characteristics obtained from the nursing staff assigned to various hospital wards, including nurses' socio-demographic and process variables. However, a few variables, such as hospital features (including the hospital profile, the availability of essential infrastructure in the hospital, and the availability of essential drugs for psychiatric service users) and the characteristics of other health professionals (including psychiatrists, psychologists, social workers and occupational therapists) were not analysed, due to problems encountered with the SPSS (Version 22) analysis, which could be seen as an extraneous factor affecting the results of the study. Hence the generalisation of the (quantitative) findings may be limited to nursing personnel.

This study is based on a relatively large sample size and response rate (76.5% for nurses and 62.1% for service users), which enabled the researcher to establish the generalisability of the findings to the characteristics of the study participants. Moreover, using a large sample size containing participants' datasets helped facilitate the regression analysis of fundamental importance to this research.

With regard to qualitative analysis, the validation of the interview responses was crucial for the implications of the credibility of the data findings gathered, in terms of whether the interpretation of the data reflected the service users' actual perceptions (Holloway and Wheeler, 2013). However, respondent validation in this study was not carried out, due to resource and time constraints. Furthermore, it can be problematic for a researcher to seek validation from participants, as participants' opinions may change over time. This would necessitate additional information, presenting a challenge for the researcher to choose which account to use for interpretation (Johnson and Waterfield, 2004). As a result, the interview transcripts were not reported back to the participants to validate the data and it is consequently acknowledged that some of the perceptions and experiences reported by the service users may have been misinterpreted or misunderstood during the process of interpretation.

6.12 Recommendations and Implications of the Study

The findings of this study inform the following recommendations and implications for mental health research, policy and clinical practice.

6.12.1 Recommendations and Implications for Future Research

This study has raised numerous questions requiring further investigation. The evidence produced suggests that future research should be conducted to investigate the educational and training needs of mental health workers, which would include nurses and the ancillary staff who support nursing care. This would shed light on areas where staff need more training in the provision of quality care.

The relationship between the characteristics of nurses, service users and health outcomes, as categorised by Lohr's 5Ds, is still not well understood or documented in the literature. Further research is therefore required to determine the effects of these characteristics on the quality of mental health care provision. In addition, although it is nurses who have the most frequent contact with service users, to the best of the researcher's knowledge, very few studies have investigated the impact of nurses' characteristics, such as age and experience, on care outcomes, particularly in the mental health field. Therefore, it is impossible to draw any consistent conclusions about the relationship between the socio-demographic data for this group of nursing staff and service user outcomes. Further studies in this area are consequently recommended to shed light on the association between the socio-demographic characteristics of health care providers and mental health service user outcomes.

Moreover, researchers are encouraged to investigate the influence of spiritualty and religious practices on the QoC provided for users of mental health services. As a result, studies need to be undertaken with individuals other than service users, who may be asked to evaluate the quality of mental health care (for example, caregivers of those who are cognitively impaired). This would determine whether the themes remain valid. The findings of this study should also be examined from the perspective of health care providers to assess how staff members perceive their role and the clinical area in which they work in Saudi Arabia, as well as how their self-perception influences their behaviour and relationships with service users. Additionally, considerably more research into Saudi mental health nursing services, including practices and outcomes, is imperative for the future development of the nurse's role and services in KSA.

This study merely involved interviewing a small, purposively selected group of service users to discuss their perceptions and experiences of the quality of mental health care provision. As a result, the views obtained from these participants may not represent the needs of those service users, who did not have the opportunity to participate in this study. Future qualitative research is recommended to shed more light on this issue, exploring multiple features of service users' backgrounds, including mixed socio-demographic variables and medical profiles (medical diagnosis). This is of particular importance, as the results could have crucial implications for the planning of future mental health services, in that they highlight the extent to which different groups of service user s (with diverse medical profiles) have varying needs.

Although the SFS, BPRS, GASS and CSQ-8 are valid instruments for researching service users in Western cultures, they may lack sensitivity to specific cultural differences. Therefore, it is necessary to develop new instruments that are sensitive to Saudi culture, so as to be able to assess the social functioning, disease symptomatology, experience of the side-effects of psychiatric medication, and satisfaction with mental health care services amongst mental health service users in that context.

6.12.2 Recommendations and Implications for Policy and Clinical Practice

On a practical level, the findings from the current study should be taken into consideration by health care administrators seeking to improve mental health service user outcomes. Given the negative perceptions of nurses' educational level, nurses at all levels need to develop reflective knowledge, so that they can support users of mental health services. Therefore, attention must be given to nursing education at

undergraduate and graduate levels. Factors such as nurse training programmes, continuing professional development and ongoing education will help change nurses' negative attitudes, as well as developing their therapeutic abilities. This will likewise enhance their interaction with service users during their stays in hospital (Tyson, 2013). Furthermore, nursing attitudes and behaviours must be addressed and appropriately integrated into the nursing curriculum, in order to reflect national and international standards of mental health care.

Further to the above, health care professionals must consider the individual needs of service users with mental disorders. These needs may differ from one individual to another and even within the same individual across different diagnoses. Thus, appropriate teaching materials should be specifically developed for each mental disorder, including instruction on antipsychotic medication and its side-effects (amongst others). Such materials are practical and cost-effective. Moreover, foreign health workers need to be made aware of cultural differences, values and beliefs, which could influence the quality of mental health care provided for service users. According to the results of the qualitative analysis, it seems plausible that additional aspects of care to be considered should focus on medication content, education, ward atmosphere, and the availability of social and daily activities. It is also recommended that careful assessment be carried out during the admission of psychiatric service users; helping to identify those at risk of developing aggressive behaviour, so that adequate support and help can be provided.

As the field of mental health care quality is of interest to the MoH in Saudi Arabia, the policy implications associated with it may have significant positive effects on outcomes for mental health service users. Currently, the improvement of mental health care quality is on the agenda of the National Strategic Plan for improving and developing mental health care services in KSA (Al-Habeeb and Qureshi, 2010). The qualitative findings of this study have implications for policy-makers in terms of emphasising the importance of specialist mental health and support for interdisciplinary efforts to develop a strategic plan, intended to enhance mental health care in KSA. Towards this end, this study has considered data from one hospital, regarded as a leading hospital in the country, with regard to QoC for its service users. It has also demonstrated an urgent need to dedicate more attention to mental health practice by developing policies and protocols for mental health care and in particular, nursing practice.

Although the GDMSH provides guidelines (as stated in the *Policies and Procedures Manual for Mental Health Hospitals*) governing nursing services (practice), a number of the respondents' perceptions collected in this study revealed unacceptable practices in the hospital's health care system, such as appalling care quality and the consequent violation of service users' rights. This frequently took the form of physical and psychological abuse. Appropriate actions and measures must therefore be taken from a multidisciplinary perspective to enhance the quality of mental health care and minimise or control the factors leading to such dire alleged abuse. Furthermore, in their role as advocates, hospital workers are expected to become more prominent in protecting service users. So far, there have been several steps taken at the hospital to apply the guidelines (policies) developed by GDMSH and implement these in practice. However, guidelines are of no practical use, unless they become part of standard practice.

In consequence, there is a need to develop standards of professional practice for mental health nurses, as there is a general lack of such standards in KSA. There is also a need to identify new strategies for enhancing practice at the hospital hosting this study. Furthermore, all health professionals and more especially, non-health care personnel, should be adequately trained in the management of service users with mental disorders, in case they are ever called upon in an emergency (Bonner et al., 2002). Moreover, hospital administrators and nursing supervisors should monitor nurses and arrange regular in-service/continuity education programmes to modify their attitudes to mentally ill service users. Service user satisfaction surveys could also be implemented to help develop guidelines for essential policies and procedures, as well as to identify any deficiencies in the services provided by nursing personnel (and others).

Given this context and the need to develop protocols and policies to address the needs of this special group, with a view to improving their health care outcomes, the qualitative findings of this mixed methods study may be of interest to both policy-makers and health care providers, as well as to the users of these services. For example, health policy-makers could influence the distribution of a protocol based on these findings across mental health facilities. Such an action would enable policy changes aimed at improving care, regardless of whether or not a hospital is a centralised institution with high bed capacity. This would allow for greater improvements in health care services and improved health service user outcomes.

Furthermore, the present study suggests a need for richer and more nuanced education in ethics and service users' rights, pertinent to mental health care facilities. Education of this nature would promote positive relationships and ethical treatment in a healthy and humane environment; empowering service users and their families by protecting their human rights and providing a meaningful context for QoC. The findings of this study could inform the application of such rights for service users in mental health settings in KSA. Additionally, this research suggests a need for health care providers (for example, psychiatrists) to collaborate with other stakeholders in identifying effective means of addressing the ethical issues associated with service users' rights, as a necessity for improving outcomes in mental health care settings. They could then implement interventions to promote ethically sound practice related to these rights. Addressing legal, ethical and organisational issues is a huge challenge and so concentrated, planned and collaborative work is required. Moreover, the structural components of service users' rights should contain clear and detailed guidelines, setting out a process for protecting such rights within and beyond the mental health treatment facility, in order to achieve optimal health outcomes.

6.13 Reflection on the Human Rights Issues Raised in the Data Collection

My PhD brought together my work experience as a mental health nurse and my emerging role as a researcher, given that I was an active participant in the research process (Finlay, 2003). I adopted a qualitative approach to exploring health care delivery to service users in a psychiatric hospital, with a focus on QoC. While collecting the data, I occasionally drew upon my professional background, personal perspective and research position to inform the process, based on my insider status and in acknowledgement of my previous ontological position. This reflection on my professional background was essential, in order to understand the impact that I might have as a mental health professional on the process of data collection and analysis. With respect to my education, I am a male Saudi health professional, with a BSc in Nursing Science and MSc in Adult Critical Care Nursing. I have previously held positions in both a general and a psychiatric hospital, indicating my familiarity with the government health care system in KSA.

My interest in exploring the factors associated with QoC from the perspective of the mental health service user originated from a desire to explore service users' perceptions and experience of the care received. I specifically examined this during the first year of my PhD study; especially through self-questioning, a review of the relevant literature,

and discussion with my academic supervisors. Conversely, my previous work experience made me aware of the burden of such care on the health system and of the suffering potentially endured by service users as a result of the QoC that they received. I acknowledged that in addition to being a care-centred, mental health service users deserve far more than they are given in Saudi Arabia. For example, they already face many difficulties as a result of their condition, such as isolation, devaluation and stigma, and so they should at least be provided with high quality care that will have a positive impact on their mental health.

Thus, the research interviews provided me with an opportunity to construct a clear picture of service users' perceptions of the QoC delivered in mental health care settings in KSA. This was facilitated by the enthusiasm of most of the service users to share their stories, with five essential themes and areas for future research being identified. Importantly, the interviews raised ethical issues relating to the delivery of care. In this regard, one of the significant challenges consisted of the participants' accounts of human rights abuses during their hospitalisation. Here, the findings showed a high level of agreement between the (20) participants, who each contributed their unique experience to the study.

The qualitative data indicated that the participants experienced the hospital as a prison, due to the feeling that the nursing staff lacked any understanding of the problems accompanying their illness. As a result, they claimed that they were treated with a distinct lack of empathy and that they experienced neglect, as well as various punishments, such as beatings, restraint by tying up, unauthorised injections and unskilled blood-taking. This perceived lack of caring was detrimental to their behaviour and psychological well-being, giving rise to thoughts about retaliatory aggression.

I was most saddened by the participants' accounts of these abuses, which undermined the health care that they received. Nevertheless, I faithfully reported their statements verbatim in the study, without any amelioration or omission. In addition, my supervisors reviewed the data analysis process applied, which enhanced the study's objectivity. Despite this, I was presented with a significant dilemma over reporting the alleged abuse to the authorities at the time of the data collection, but felt powerless to deal with it in the face of the accompanying ethical issues. For example, the service users stated that they did not wish their accounts to be relayed to the hospital or any other institution, as they feared conflict with staff and did not want to be labelled as trouble

makers. They even expected me (as the researcher) to maintain their anonymity. Hence, I respected their wishes.

Regardless of the poor QoC alleged by the participants, one important part of the interviewing process in my study was to gather service users' perspectives of service quality in Saudi Arabia. The participants therefore needed to feel empowered, through support and the opportunity to express themselves, with sufficient autonomy to tell their story in an uninhibited manner. Thus, they would feel able to provide appropriate information for policy-makers to address the needs of mental health service users in terms of their rights and the mental health setting itself, including the relevant human resources, facilities and so on. Empowerment can bring a sense of pride in one's identity, thus increasing the willingness to speak out about personal experiences, as well as to connect with a group that can offer support, acceptance and a sense of belonging (McAllister and Walsh, 2003).

Through my engagement in this research, I was made aware that the culture of the psychiatric setting needs to change, so that the administration, health care providers and researchers start to see a restraint-free environment and empowered service users as desirable and achievable (Mayers et al., 2010). For instance, the service users in the present study appeared to be empowered by the research process, wherein they were given an opportunity to provide significant information on how service quality could be enhanced in Saudi Arabia.

In responding to the alleged human rights violations, I nevertheless had a responsibility to:

a) educate the service users about their rights under the relevant Mental Health Act (GDMSH, 2014); including mechanisms of complaint and redress regarding human rights violations in the hospital environment, which should be dealt with fairly and promptly, without fear of compromising service users' care.
b) provide appropriate education and training to all health care providers; in particular, non-nursing staff members who are sometimes deployed to restrain service users, as explained previously in the qualitative findings chapter. This would include cleaning staff, general assistants and security personnel, who might be called upon to manage and assist mentally ill service users in acute situations.

c) educate service users' caregivers and relatives, so that they can detect early signs of relapse and respond appropriately, in order to prevent emergencies (Mayers et al., 2010).

6.14 Planned Notification of Ethical Concerns Raised over Physical and Psychological Abuse

In the course of conducting interviews for this research, 20 participants reported that they had witnessed staff verbally and physically abusing service users in the past. They described several incidents of human rights abuses and cited a poor follow-up system for dealing with these issues and/or violations. The violation of service uses' rights had included various punishments, such as beatings, restraint by tying down, unauthorised intramuscular injections, and multiple venipunctures, due to incompetence or inefficiency in taking samples. Therefore, it is important to implement appropriate administrative actions/measures to protect the rights of service users in health care organisations. Following a request from the thesis examiners on 4th April 2017, the Research Ethics Committee at the University of Nottingham was informed about this issue by the candidate on 8th July 2017. The Committee was notified that during the interviews several participants revealed information of concern regarding alleged abuse of patients under treatment and a request was made for a form so that this could be reported to the Committee. The e-mail was shared with both supervisors. On 26 July 2017, the officer acting for Nottingham REC replied attaching an adverse event form that is used for this and the candidate was advised to discuss next steps with his supervisors. On 31 July 2017 the primary supervisor e-mailed the committee clarifying that during the course of conducting interviews as part of the research patients reported that they had witnessed staff verbally and physically abusing patients in the past. The Supervisor confirmed that it was their intention to inform the hospital concerned and the KSA IRB/ethics committee. The Committee was satisfied that this was being dealt with appropriately given that the study was being conducted overseas and out of jurisdiction. The candidate notified the respective KSA Ethics Committee/ IRB (Appendix 19) on 15/11/2017 and Mental Hospital study site (Appendix 20) on 20/11/2017.

The Saudi IRB at KFSH-D, who gave ethical approval for the study, was informed of these allegations. However, no action has hitherto been taken by them, other than their recommendation to report this abuse to the hospital where the event actually took place. This was because it was considered to be an unexpected event, unrelated to the research study, i.e. the study did not cause any harm to the service users.

Following the above, the Mental Hospital study site was notified of these allegations, in order to alert the hospital administration to this issue, as well as to advise them on their duty to monitor, train and supervise hospital staff. This was intended to ensure that the rights of service users and their families were upheld and protected. In response to the researcher reporting the alleged physical and psychological abuse to the hospital concerned, it is clear that the hospital administration accepted the report, and their response (in Arabic and translated into English) was as follows:

1. *The study was conducted four years ago and it cannot be confirmed that the incidents occurred in that period or during previous periods, according to the patients' statements. Moreover, it was not reported by you [the researcher] in that period.*
2. *A number of years ago, the Quality Management Department was established in the hospital to establish procedures and policies for the provision of services to patients, in accordance with strict standards of service provision.*
3. *There is a new department dealing with patients' rights, through which the types of services provided can be identified, ensuring that none of the patients' rights are violated and assuring of their privacy. This department also deals with any complaints made to them by service users or their families, with full guarantee of upholding their rights.*
4. *No violations or ill-treatment of patients, which would require intervention, was reported recently; the patients concerned are a vital part of our focus and the main interest of our workers. We firmly adhere to this principle without any deviation.*

In response to and to account for the fact that the researcher did not report alleged abuse to the authorities at the time of collecting the data, as noted in the letter from the Mental Hospital study site (see response # 1, above), the service users made it clear that they did not want these accounts to be relayed to the hospital or to any other institution, as they feared for their safety. For example, they did not wish to cause conflict or trouble with hospital staff, for fear of being labelled as troublemakers, even expecting the researcher to refrain from disclosing their names or other identifying information, thus ensuring their anonymity. As a result, their wishes were respected.

However, regardless of the above-mentioned response, based on the current researcher's professional background and experience as a registered mental health nurse, along with

careful attention to and understanding of these findings, protection and respect for the rights of mentally ill service users are still in their primary phase of development in KSA. Therefore, in order to enhance respect for service users' rights in the relevant context, it would be helpful to reflect on the findings of this study and plan to notify GDMSH health policy-makers of concerns raised over physical and psychological abuse. Although this study is based on a small sample of service users, it presents a platform for a population; more specifically, sufferers of mental illness. Furthermore, this is a population that has not previously been given a voice to express their opinions and experiences. Thus, the findings suggest that something urgently needs to be done. Support from the MoH - GDMSH by way of the law would seem to be a basic response. A general statement of the rights of mentally ill service users is to be found in the Saudi MHA. A major objective of this Act was to prevent human rights abuses in mental health care facilities (Article 9). Its Article 9 therefore declares unequivocally that all mentally ill service users are entitled to freedom, informed consent, protection against degrading treatment, and to be treated with dignity and respect.

The present study findings further suggest some evidence-based guidelines for health policy-makers, in relation to service users' rights. The WHO has recommended several plans for preventing abuse: changing negative attitudes by raising awareness; drawing more attention to human rights in mental health settings; empowering mental health service users and their families; replacing mental health facilities with community care; increasing national financial allocations for mental health services, and adopting policies, laws and procedures for upholding and protecting human rights (WHO, 2015). In KSA, a human rights committee made up of mental health experts already exists; it is responsible for inspecting mental health facilities and imposing sanctions on settings were service users' rights are persistently violated (Qureshi et al., 2013). In addition, the committee advises the government on mental health policies, legislation, planning, monitoring, and quality evaluation. In terms of the appalling care described by several of the informants in the present study, the researcher intends to notify the above-mentioned committee of the research findings. The committee can then conduct an informed inspection to explore the root cause of this issue and resolve it step by step until it is completely eradicated.

In reality, the mentally ill are frequently exposed to a wide range of human rights abuses around the world (WHO, 2015). For example, due to the stigma of their illness, they are often rejected by society, or else fail to receive the health care that they need.

Additionally, they may be subjected to neglect and abuse. The present researcher therefore intends to request the Protection from Violence & Harm Unit at the Saudi MoH and other stakeholders, as appropriate, to run further educational campaigns aimed at changing public attitudes to mental illness and to advocate for the human rights of individuals with mental disorders.

The nursing profession is still very much a work in progress in KSA and many countries are way ahead in terms of developing ethical standards of professional conduct for nursing staff and the protection of service users' rights. For example, in the US, there are numerous organisations that help to promote quality in the nursing profession and ethical standards to protect service users' rights. The efforts of these organisations have led to the establishment of a Nursing Code of Ethics, which helps to clarify nurses' ethical and moral commitment to their profession and the service users in their care. Although this code was developed in a different culture, it could still be applied by Saudi nursing staff to assess its feasibility and appropriateness for the Saudi context. Furthermore, as identified in the Literature Review, there are general ethical standards established to protect human rights, which both Islam and the international community are agreed upon. From this point of view, the present researcher will endeavour to encourage the policy-makers concerned to adopt international ethical and moral standards in relation to the rights of mental health service users in Saudi Arabia.

Finally, it is now an opportune time for KSA to develop specific evaluation criteria for individuals who are likely to work in the mental health care sector. Such candidates are currently required to pass licensure exams, which ensure that entry level nurses master basic mental health nursing skills, so that safe and ethical practice is maintained. However, this step goes beyond the scope of the hospitals themselves. Therefore, the present researcher plans to communicate directly with the GDMSH at the Saudi MoH to initiate the development of a national professional standard for the nursing profession, with particular reference to the mental health sector.

6.15 Dissemination of the Findings

The findings of this study will be presented at relevant conferences in KSA, as well as in the Middle East and internationally. Moreover, they will be disseminated to the relevant Saudi stakeholders (for example, policy-makers and facility administrators) in the General Department for Mental and Social Health (GDMSH). Finally, they will be

made available to health professionals, especially those who are expected to be involved in issues surrounding QoC.

In addition, this thesis will be included in the libraries of the University of Nottingham and the General Directorate of Research and Studies – Ministry of Health, KSA for the benefit of other researchers and students. Additionally, a minimum of three papers drawn from this thesis will be submitted to specialised journals for publication.

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Appendices

Appendix 1: Staff Characteristics Sheet (SCS)

(English Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

Staff Characteristic Sheet (SCS)

A) General demographic characteristics:

1. Age: .....
2. Gender: ☐ Male ☐ Female
3. Nationality: ☐ Saudi ☐ Non-Saudi
4. Qualification: ☐ Diploma ☐ Graduate ☐ Postgraduate

B) Job-related characteristics:

5. Years of experience in the hospital: ☐ < 4 years ☐ > 4 years
6. Attending psychiatric training: ☐ Train ☐ Not train
7. Having a chance to pursue study abroad: ☐ Yes ☐ No

Ethics Ref. No: OVS13022014 SoHS

Staff Characteristics Sheet (SCS)

(Arabic Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

قائمة معلومات الممارس الصحي
Staff Characteristics Sheet (NCS)

أ) الخصائص الديموجرافية العامة:

1. العمر: .....

2. الجنس: ☐ ذكر ☐ انثى

3. الجنسية: ☐ سعودي ☐ غير سعودي

4. المؤهل العلمي: ☐ دبلوم ☐ بكالوريوس ☐ دراسات عليا

ب) الخصائص ذات العلاقة بالوظيفة:

5. عدد سنوات الخبرة: ☐ أقل من 4 سنوات ☐ أكثر من 4 سنوات

6. حضور دورات تدريبية في مجال الصحة النفسية: ☐ إلتحقت بالتدريب ☐ لم ألتحق بالتدريب

7. هل حصلت على فرصة للإبتعاث للدراسة بالخارج أثناء عملك؟ ☐ نعم ☐ لا

Ethics Ref. No: OVS13022014 SoHS

Appendix 2: Service User Characteristics Sheet (SUCS)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

Service user Characteristics Sheet (SCS)

(will be filled by the researcher from service user's record)

A) Socio-demographic characteristics:

1. Age: .....
2. Gender: ☐ Male ☐ Female
3. Marital status: ☐ Single ☐ Married ☐ Divorced ☐ Widowed
4. Work status:

Retired	Employed	Unemployed

5. Education Level:

Illiterate	Primary School	Intermediate School	Secondary School	College (diploma)	Graduate	Post Graduate

6. Area of residence:

Western Region	
Eastern Region	
Central Region	
North Region	
South Region	

B) Medical Profile:

7. Date of admission: .....
8. Diagnosis:

Schizophrenia	
Personality disorder	
Bipolar disorder	
Substance-related disorder	
Depression	

Ethics Ref. No: OVS13022014 SoHS

Appendix 3: Hospital Characteristics Sheet (HCS)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

Hospital Characteristics Sheet (HCS)

(will be filled by the researcher)

Date of data extraction:

Part 1: Hospital Profile

1.1 Hospital location:

	Total served population	Total no. of served service users	No. of beds	Total no. of working staff	No. of psychiatrists			No. of psychologists			No. of social workers			No. of staff nurses			No of occupational therapists			Overall total
					M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	
No.																				

1.2 Average waiting time for service users in the waiting area in the Emergency Department

No.	Gender	Service user's ID	Arrival time	Examination time	Waiting duration in MIN	Total duration in MIN	Overall average in MIN

1.3 Average waiting time for service users in the waiting area in the Outpatient Department

No.	Gender	Service user's ID	Arrival time	Examination time	Waiting duration in MIN	Total duration in MIN	Overall average in MIN

1

1.4 Average staff-service user ratio

Gender	Ward number	Category	Average staff-service user ratio in each ward	Overall average staff-service user ratio in the hosptial

Part 2: Availability of essential infrastructures in the hospital

No.	Item	1= Available	0= Not available
1	Appropriate organizational structure for the hospital		
2	Appropriate job description for staff		
3	A registration system (including open patient's file, admission, discharge, emergency cards)		
4	Outpatient appointment system		
5	Outpatient appointment reminder system		
6	Referral system (coordination between TMHH and other hospitals)		
7	Coordination between TMHH and the referral primary health care centres (PHCCS)		
8	Health education coordinator		
9	Safety and risk prevention plan		
10	Health educational materials (booklets, posters, pamphlets, video tapes)		
11	Out-patient department waiting area: enough space, furniture, set up, cleanliness, privacy, availability of drinking water, availability of bathroom		
12	Appropriate building condition, cleanliness, setup, furniture, technical facilities		

Part 3: Availability of the essential drugs for psychiatric service users

No.	Item	Degree of availability			
		4= always	3= often	2= rare	1= never
1	Amitriptyline (Tryptizol)				
2	Benztropine (Cogentin)				
3	Carbamazepine (Tegretol)				
4	Citalopram (Cipram)				
5	Clonazepam (Rivotril)				
6	Diazepam (Valium)				
7	Escitalopram (Cipralex)				
8	Fluphenazine (Anatensol)				
9	Haloperidol (Haldol, Serenace)				
10	Methylphenidate (Concerta)				
11	Phenytoin (Epanutin)				
12	Risperidone (Risperidal)				
13	Zuclopenthixol (Clopixol)				
14	Aripiprazole (Abilify)				
15	Olanzapine (Zeprexa)				
16	Mirtazapine (Remeron)				

Appendix 4: Attitudes toward Acute Mental Health Scale (ATAMH-33)

(English Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

Attitudes Towards Acute Mental Health (ATAMH-33)

The aim of this measure is to develop an understanding of the attitudes and knowledge of staff towards patients with mental health problems.

The data will be combined for analysis and no attempt will be made to identify you personally.

For questions 1-25 please tick the appropriate box to your point of view.

No.	Question	Strongly agree	Agree	Slightly agree	Neutral	Slightly disagree	Disagree	Strongly disagree
1.	Alcohol abusers have no self-control							
2.	Patients with chronic schizophrenia are incapable of looking after themselves							
3.	Members of society are at risk from the mentally ill							
4.	Mentally ill patients have no control over their emotions							
5.	Staff should not talk to patients about their delusions							
6.	Deliberate self-harm more often happens when other people are around							
7.	Depression occurs in people with a weak personality							
8.	The cause of many psychological problems is bad nerves							
9.	Patients with mental illnesses are more likely to harm someone else than themselves							
10.	Acute wards are little more than prisons							
11.	Mental illness is the result of adverse social circumstances							
12.	Many normal people would become mentally ill if they had to live in a very stressful situation							
13.	Those with a psychiatric history should never be given a job with responsibility							
14.	Those who attempt suicide leaving them with serious liver damage should not be given treatment							

Ethics Ref. No: OVS13022014 SoHS

No.	Question	Strongly agree	Agree	Slightly agree	Neutral	Slightly disagree	Disagree	Strongly disagree
15.	Violence mostly results from mental illness							
16.	Psychiatric patients are generally difficult to like							
17.	Patients who abuse substances should not be admitted to acute wards							
18.	Psychiatric treatments cause patients to worry too much about their symptoms							
19.	It is difficult to negotiate care plans with patients in acute environments							
20.	It is hard to help patients who are emotionally disturbed							
21.	Psychiatric drugs are used to control disruptive behaviour							
22.	Mental Illnesses are genetic in origin							
23.	Psychiatric illness deserves as much attention as physical illness							
24.	The manner in which you talk to patients affects their mental state							
25.	People are born vulnerable to mental illness							

For questions 26-33 please mark on the line between the two words where, in your opinion, the average patient you care for lies. No. 5 is the midpoint and the numbers 0-5 indicate the negative trend, for example.

Dangerous 0 ------1-----2------3------4------5------6------⬇7------8------9------10 Safe

This indicates that you feel patients are slightly more safe than dangerous.

26. Dangerous 0 ------1-----2------3------4------5------6------7------8------9------10 Safe
27. Child 0 ------1-----2------3------4------5------6------7------8------9------10 Adult
28. Immature 0 ------1-----2------3------4------5------6------7------8------9------10 Mature
29. Pessimistic 0 ------1-----2------3------4------5------6------7------8------9------10 Optimistic
30. Caring 0 ------1-----2------3------4------5------6------7------8------9------10 Cold-hearted
31. Rude 0 ------1-----2------3------4------5------6------7------8------9------10 Polite
32. Beneficial 0 ------1-----2------3------4------5------6------7------8------9------10 Harmful
33. Dirty 0 ------1-----2------3------4------5------6------7------8------9------10 Clean

Thank-you for your help in completing this questionnaire

Attitudes toward Acute Mental Health Scale (ATAMH-33)

(Arabic Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

مواقف أو وجهات نظر العاملين في الحقل الطبي إتجاه الصحة النفسية
Attitude Towards Acute Mental Health (ATAMH-33)

الهدف من المقياس هو فهم توجهات ومعرفة الطاقم العامل تجاه المرضى الذين يعانون من أمراض عقلية.
المعلومات ستستخدم لغرض البحث العلمي فقط ولن يتم التعريف بك شخصياً.
من سؤال 1 - 25 ضع إشارة على الجواب المناسب من وجهة نظرك.

الرقم	السؤال	موافق بشدة	موافق	موافق الى حد ما	محايد	معارض الى حد ما	معارض	معارض بشدة
.1	مدمني الكحول ليس لديهم القدرة على السيطرة على أنفسهم							
.2	مرضى الفصام العقلى المزمن لا يستطيعون الإعتناء بانفسهم							
.3	يوجد خطر على أفراد المجتمع من المرضى العقليين							
.4	المرضى العقليين لا يستطيعون السيطرة على مشاعرهم							
.5	يجب على الطاقم الصحي أن لا يتحدثوا مع المرضى عن ضلالاتهم وأوهامهم							
.6	تفكير المريض النفسي بإيذاء نفسه يحصل بوجود أشخاص حوله							
.7	الإكتئاب يصيب الأشخاص الذين لديهم شخصية ضعيفة							
.8	السبب في حدوث كثير من المشاكل النفسية هو مرض الأعصاب							
.9	المرضى الذين يعانون من أمراض عقلية هم أكثر عرضة لإيذاء الآخرين أكثر من ايذائهم لأنفسهم							
.10	قسم الحالات الحادة الذى يتم إدخال المرضى عليه هو أشد او أسوأ قليلاً من السجن أو الحبس							
.11	الأمراض العقلية هى نتيجة للظروف الإجتماعية السيئة							
.12	العديد من الأشخاص العاديين الذين لا يعانون من أمراض قد يصبحوا مرضى عقليين إذا عاشوا في ظروف نفسية ضاغطة جداً							
.13	المرضى الذين لديهم تاريخ مرض عقلي يجب عدم إعطائهم وظيفة أو عمل يتطلب مسؤولية							
.14	يجب عدم إعطاء علاج (أدوية) للأشخاص الذين حاولوا الإنتحار ونتج عنه مرض خطير بالكبد							
.15	العنف فى الغالب هو نتيجه للأمراض العقلية							
.16	من الصعب ان نحب المرضى العقليين							

Ethics Ref. No: OVS13022014 SoHS

الرقم	السؤال	موافق بشدة	موافق	موافق الى حد ما	محايد	معارض الى حد ما	معارض	معارض بشدة
.17	يجب عدم إدخال المرضى الذين يعانون من الإدمان الى قسم الحالات الحادة							
.18	العلاج بالأدوية النفسية يسبب قلق شديد عند المرضى بسبب الأعراض التى تنتج عنها							
.19	من الصعب نقاش الخطة العلاجية مع المريض إذا كان يعانى من من حالة نفسية / حاده أو صعبة							
.20	من الصعب مساعدة المرضى الذين لديهم إضطرابات نفسية							
.21	أدوية الأمراض العقلية تستخدم للسيطرة على السلوك المضطرب							
.22	المرض العقلي هو وراثي بالأصل							
.23	المرض العقلي يستحق نفس الدرجة من الإهتمام مثل المرض الجسدي							
.24	الطريقة أو الإسلوب الذى تتحدث به مع المرضى النفسيين يؤثر على حالتهم العقلية							
.25	يولد الناس ولديهم قابلية للأمراض العقلية							

ضع إشارة على الخط الواصل بين الكلمتين لكل من الأسئلة التالية والتى من وجهة نظرك تدل على موقع المرضى الذي تعتني بهم في الوقت الحالي على مقياس من 0–10 حيث ان رقم 5 هو نقطة الوسط والأرقام من **0–5 تدل على إتجاه سلبي.**

مثال للتوضيح :

آمن (safe) 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 (dangerous) خطر

هذا يشير إلى أنك تشعر بأن متوسط المرضى الذين تقوم برعايتهم أكثر قليل اماناً.

26. آمن 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 خطر

27. راشد 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 طفل

28. ناضج 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 غير ناضج

29. متفائل 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 متشائم

30. بارد القلب 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 يهتم

31. مؤدب 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 وقح

32. مؤذي 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 نافع

33. نظيف 10-----9-----8-----7-----6-----5-----4-----3-----2-----1-----0 وسخ

شكراً لكم على مساعدتكم في إستكمال هذا الإستبيان

Appendix 5: Permission to Use the ATAMH-33 Scale

From: John Baker <John.A.Baker@manchester.ac.uk>
To: Yagoub Al Mousa <yymm_2004@yahoo.com>
Sent: Tuesday, June 25, 2013 8:21 AM
Subject: RE: Asking for permission

Dear Yaqoub,

Please find attached copies of the scale, if you need further help please let me know, if you could check the translation I would be most grateful.

John

From: Yagoub Al Mousa [mailto:yymm_2004@yahoo.com]
Sent: 21 June 2013 14:18
To: John Baker
Subject: Asking for permission

Dear Baker,

I`m a PhD student at the University of Nottingham. My study is on "Predictors of quality of mental heath care in Kingdom of Saudi Arabia: structure, process, outcome investigation".

The "Attitudes Towards Acute Mental Health Scale (ATAMHS-33)" you have developed will be very suitable for this study and therefore I`m planning to use it.

I would be grateful if you kindly provide me with the two copies of English and Arabic versions in order for me to use both. The Arabic version will be for my study participants who are the health professionals working in mental health hospital in Saudi Arabia, and English version will be for my thesis and supervisors.

Kind regards,

Yaqoub Al Mousa

0044(0)7521258668

Appendix 6: Competency Assessment Tool-Mental Health (CAT-MH)

(Amended English Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

Competency Assessment Tool–Mental Health (CAT-MH)

Instructions: The following statements measure skills and/or knowledge aspects of competence of mental health care workers. Indicate how competent do you think you are in providing direct mental health care. Do this by checking the most appropriate box.

Response format: 1=not competent, 2=somewhat competent, 3= uncertain, 4= competent, 5= highly competent.

No.	Statements	Not competent = 1	Somewhat competent = 2	Uncertain = 3	Competent = 4	Highly competent = 5
1.	Treating clients with respect, dignity, and as equal partners in their treatment.					
2.	Including family members and other supportive people/groups in the client's treatment.					
3.	Knowing the symptoms/ characteristics of mental illness.					
4.	Responding to cultural, racial and gender issues that affect clients.					
5.	Knowing the uses and side effects of psychiatric medication.					
6.	Knowing the biological nature of mental illness.					
7.	Knowing and using the best types of therapy for general mental illnesses.					
8.	Knowing and using the best types of therapy for people with a forensic status.					
9.	Knowing and using the best types of therapy for people with a substance abuse/mental illness (SA/MI) diagnosis.					
10.	Knowing and using the best types of therapy for people with a mental illness/mentally retarded (MI/MR) diagnosis.					
11.	Knowing and using the best types of therapy for children/adolescents affected by severe emotional disorders (SED).					
12.	Knowing and using crisis interventions.					
13.	Knowing and using recovery principles.					
14.	Developing and putting into practice Individual Service Plans (ISP) and Individual Treatment Plans (ITP).					
15.	Using community resources effectively.					
16.	Being a client advocate.					
17.	Knowing about legal issues, client rights and ethical issues.					
18.	Working well as a member of an interdisciplinary team.					
19.	Working in a professional way.					
20.	Evaluating one's own work performance.					
21.	Keeping accurate work records.					
22.	Knowing and being able to use first aid, CPR, and other ways to keep clients and workers safe.					
23.	Providing basic nursing care, including taking vital signs and helping clients use the bathroom.					
24.	Using different ways to reduce worker stress.					
25.	Knowing basic facts of good nutrition.					
26.	Using computer technology.					

Ethics Ref. No: OVS13022014 SoHS

Competency Assessment Tool-Mental Health

(Amended Arabic Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

أداة تقييم الكفاءة للعاملين في مجال الصحة النفسية
Competency Assessment Tool-Mental Health (CAT-MH)

الجمل التالية تقيس المهارات والجانب المعرفي والعملي لكفاءة مقدمي الرعاية الصحية النفسية.
المعلومات ستستخدم لغرض البحث العلمي فقط، ولن يتم التعرف على الموظف. ضع إشارة في المربع المناسب من وجهة نظرك.

الرقم	العبارة	1 = غير مؤهل	2 = مؤهل بعض الشئ	3 = غير متأكد	4 = مؤهل	5 = عالي التأهيل
.1	التعامل مع العميل (المريض) بإحترام وتقدير وتقديم الخدمة العلاجية له على قدم المساواة					
.2	إشراك افراد اسرة العميل (المريض) او الأشخاص او المجموعات الداعمة له اجتماعياً في الخطة العلاجية					
.3	معرفة الأعراض والخصائص المميزة للمرض النفسي					
.4	الأخذ بعين الإعتبار العوامل الثقافية والعرقية و الجنس التى تؤثر على العميل (المريض)					
.5	معرفة الإستخدامات والآثار الجانبية للأدوية النفسية					
.6	معرفة الطبيعة البيولوجية والأسباب العضوية للأمراض النفسية					
.7	معرفة وإستعمال أفضل أنواع العلاجات النفسية للاضطرابات النفسية العامة					
.8	معرفة وإستعمال أفضل أنواع العلاجات النفسية لحالات الطب النفسي الجنائي					
.9	معرفة وإستعمال أفضل أنواع العلاجات النفسية لحالات الأمراض النفسية المصاحبة بإساءة إستعمال او الإعتماد على الكحول او المخدرات					
.10	معرفة واستعمال افضل انواع العلاجات النفسية لحالات الأمراض النفسية المصاحبة للتأخر العقلي					
.11	معرفة وإستعمال أفضل أنواع العلاجات النفسية لحالات الامراض النفسية عند الأطفال و المراهقين					
.12	المعرفة بطرق وأساليب معالجة الازمات وإستخدامها					
.13	المعرفة بقواعد الشفاء وإستخدامها					
.14	إعداد وتنفيذ خطط الخدمة والعلاج الفردي					
.15	الإستخدام الأفضل للموارد والإمكانيات					
.16	العمل على دعم العميل (المريض) وتقديم النصح و المشورة له					
.17	المعرفة والإلمام بالأمور القانونية وحقوق العميل (المريض) و أخلاقيات المهن الطبية					
.18	إتقان العمل كعضو ضمن فريق متعدد التخصصات					
.19	أداء العمل بطريقة مهنية إحترافية					
.20	التقييم الذاتي للأداء الوظيف					
.21	الحفاظ على دقة الكتابة والتوثيق في السجلات الطبية					
.22	المعرفة النظرية والقدرة العملية للقيام بالإسعافات الاولية والإنعاش القلبي الرئوي وأي إجراءات اخرى تحافظ على سلامة العميل (المريض) ومقدمي الرعاية الصحية					
.23	تقديم الرعاية التمريضية الأساسية مثل أخذ العلامات الحيوية و مساعدة العميل (المريض) على إستعمال الحمام					
.24	إستخدام طرق مختلفة لتخفيف ضغط العمل					
.25	معرفة الحقائق الأساسية للتغذية					
.26	إستخدام تقنية الحاسب الالي					

Ethics Ref. No: OVS13022014 SoHS

Appendix 7: Permission for CAT-MH Utilisation

(For Translation)

From: Carla Clasen <carla.clasen79@gmail.com>
To: Yagoub Al Mousa <yymm_2004@yahoo.com>
Sent: Sunday, June 23, 2013 9:03 PM
Subject: Re: Asking for permission

Dear Yaquob,
Yes, it will be all right for you to translate the scale. If you have not already considered it, i recommend that you translate it into Arabic and then have another Arabic/English speaker back-translate it into English again. I have found that this helps to identify unrecognized problems in translation. Best of luck.
Carla Clasen

On Thu, Jun 20, 2013 at 4:39 PM, Yagoub Al Mousa <yymm_2004@yahoo.com> wrote:
Dear Clazen,

I`m a PhD student at the University of Nottingham. My study is on "Predictors of quality of mental heath care in Kingdom of Saudi Arabia: structure, process and outcome investigation".

The "Competency Assessment Tool-Mental Health (CAT-MH)" you have developed will be very suitable for this study and therefore I`m planning to use it.

I would be grateful if you kindly give me permission to translate the scale into Arabic language and adapt it for health professionals working in mental health hospital in Saudi Arabia.

Kind regards,

Yaqoub Al Mousa

0044(0)7521258668

Permission for Competency Assessment Tool-Mental Health Utilisation

(For Amendment)

From: Carla Clasen [mailto:carla.clasen79@gmail.com]
Sent: 02 November 2016 12:00
To: Al Mousa Yaqoub <ntxyyal@exmail.nottingham.ac.uk>
Subject: RE: Permission for amending the CAT-MH tool - reminder

Dear Yaqoub,
Many apologies for the delay. Yes, you have my permission to amend the CAT-MH. Good luck with your work.
Sincerely,
Carla Clasen

On Nov 2, 2016 6:49 AM, "Yaqoub Al Mousa" <Yaqoub.Almousa@nottingham.ac.uk> wrote:

Dear Dr. Clasen, Carla,

This is to remind you that I am still waiting for your response to my email regarding obtaining permission for the amended scale (CAT-MH), as described below.

I look forward to hearing from you soon.

Many thanks in advance.

Yaqoub Al Mousa

Appendix 8: Interaction-Observation Checklist (IOC)

Interaction-Observation Checklist (IOC)

Date: Ward: Start time: Finish time:

Number	Staff Name	Entry Time	Leave Time	Entry Time	Leave Time
1					
2					
3					
4					
5					
6					
7					
8					

Time unit	IV				INV				GV				GNV				IG			SOL	OTH
	PT			ST	PT			ST	PT			ST	PT			ST	PT				
	POS	NEU	NEG		POS	NEU	NEG		POS	NEU	NEG		POS	NEU	NEG		INA	NEU	APP		
1																					
2																					
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Interaction-Observation Checklist (IOC)

Time unit	IV				INV				GV				GNV				IG			SOL	OTH
	PT			ST	PT			ST	PT			ST	PT			ST	PT				
	POS	NEU	NEG		POS	NEU	NEG		POS	NEU	NEG		POS	NEU	NEG		INA	NEU	APP		
33																					
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IV	Individual verbal
INV	Individual non-verbal
GV	Group verbal
GNV	Group non-verbal
IG	Ignoring patient
SOL	Solitary task-oriented
OTH	Other

PT	Patient
ST	Staff
POS	Positive
NEU	Neutral
NEG	Negative
INA	Inappropriate patient behaviour
APP	Appropriate

Appendix 9: Brief Psychiatric Rating Scale (BPRS)

Brief Psychatric Rating Scale (BPRS)

Please enter the score for the term that best describes the service user's condition.

0 = Not assessed, 1 = Not present, 2 = Very mild, 3 = Mild, 4 = Moderate, 5 = Moderately severe, 6 = Severe, 7 = Extremely severe.

Items	0	1	2	3	4	5	6	7
1. SOMATIC CONCERN Degree of concern over present bodily health. Rate the degree to which physical health is perceived as a problem by the service user, whether complaints have a realistic basis or not.								
2. ANXETY Worry, fear, or over-concern for present or future. Rate solely on the basis of verbal report of service user's own subjective experiences. Do not infer anxiety from physical signs or from neurotic defence mechanisms.								
3. EMOTIONAL WITHDRAWAL Deficiency in relating to the interviewer and to the Interviewer situation. Rate only the degree to which the service user gives the impression of tailing to be in emotional contact with other people in the interview situation.								
4. CONCEPTUAL DISORGANIZATION Degree to which the thought processes are confused, disconnected, or disorganized. Rate on the basis of integration of the verbal products of the service user; do not rate on the basis of service user's subjective impression of his own level of functioning.								
5. GUILT FEELINGS Over-concern or remorse for past behaviour. Rate on the basis of the service user's subjective experiences of guilt as evidenced by verbal report with appropriate affect; do not inter guilt feelings from depression, anxiety or neurotic defences.								
6. TENSION Physical and motor manifestations of tension "nervousness', and heightened activation level. Tension should be rated solely on the basis of physical signs and motor behaviour and not on the basis of subjective experiences of tension reported by the service user.								
7. MANNERISMS AND POSTURING Unusual and unnatural motor behaviour, the type of motor behaviour which causes certain mental service users to stand out in a crowd of normal people. Rate only abnormality of movements; do not rate simple heightened motor activity here.								
8. GRANDIOSITY Exaggerated self-opinion, conviction of unusual ability or powers. Rate only on the basis of service user's statements about himself or self-in-relation-to-others, not on the basis of his demeanour in the interview situation.								
9. DEPRESSIVE MOOD Despondency in mood. Sadness. Rate only degree of despondency; do not rate on the basis 0 inferences concerning depression based upon general retardation and somatic complaints.								
10. HOSTILITY Animosity, contempt, belligerence, disdain for other people outside the interview situation. Rate solely on the basis of the verbal report of feelings and actions of the service user toward others; do not infer hostility from neurotic defences, anxiety, nor somatic complaints. (Rate attitude toward interviewer under uncooperativeness).								
11. SUSPICIOUSNESS Belief (delusional or otherwise) that others have now, we have had in the past, malicious or discriminatory intent toward the service user. On the basis of verbal report, rate only those suspicions which are currently held whether they concern past or present circumstances.								

12. HALLUCINATORY BEHAVIOR Perceptions without normal external stimulus correspondence. Rate only those experiences which are reported to have occurred within the last week and which are described as distinctly different from the thought and imagery processes of normal people.								
13. MOTOR RETARDATION Reduction in energy level evidenced in slowed movements. Rate on the basis of observed behaviour of the service user only; do not rate on the basis of service user's subjective impression of own energy level.								
14. UNCOOPERATIVENESS Evidence d resistance, unfriendliness, resentment and lack of readiness to cooperate with the interviewer. Rate only on the basis of the service user's attitude and responses to the interviewer and the interview situation; do not rate on basis of reported resentment or uncooperativeness outside the interview situation.								
15. UNUSUAL THOUGHT CONTENT Unusual, odd, strange or bizarre thought content. Rate here the degree of unusualness, not the degree of disorganizations of thought processes.								
16. BLUNTED AFFECT Reduced emotional tone, apparent lack of normal feeling or involvement								
17. EXCITEMENT Heightened emotional tone, agitation, increased reactivity.								
18. DISORIENTATION Contusion or lack of proper association for person, place or time.								

Appendix 10: Glasgow Antipsychotic Side-effect Scale (GASS)

(English Version)

Glasgow Antipsychotic Side-effect Scale (GASS)

This questionnaire is about how you have been recently. It is being used to determine if you are suffering from excessive side effects from your antipsychotic medication.

Please place a tick in the column which best indicates the degree to which you have experienced the following side effects. Tick the end box if you found that the side effect distressed you.

*Over the **past week**:*	*Never*	*Once*	*A few times*	*Everyday*	*Tick this box if distressing*
1. I felt sleepy during the day					
2. I felt drugged or like a zombie					
3. I felt dizzy when I stood up and/or have fainted					
4. I have felt my heart beating irregularly or unusually fast					
5. My muscles have tense or jerky					
6. My hands or arms have been shaky					
7. My legs have felt restless and/or I couldn't sit still					
8. I have been drooling					
9. My movements or walking have been slower than usual					
10. I have had, or people have noticed uncontrollable movements of my face or body					
11. My vision has been blurry					
12. My mouth has been dry					
13. I have had difficulty passing urine					
14. I have felt like I am going to be sick or have vomited					
15. I have wet the bed					
16. I have been very thirsty and/or passing urine frequently					
17. The areas around my nipples have been sore and swollen					
18. I have noticed fluid coming from my nipples					
19. I have had problems enjoying sex					
20. **Men only**: I have had problems getting an erection					

Tick yes or no for the following questions about the **last three moths**	*No*	*Yes*	*Tick this box if distressing*
21. **Women only:** I have noticed a change in my periods			
22. Men and women: I have been gaining weight			

Glasgow Antipsychotic Side-effect Scale (GASS)

(Arabic Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

مقياس جلاسكو للآثار الجانبية للأدوية المضادة للذهان
Glasgow Antipsychotic Side-effect Scale (GASS)

هذا الإستبيان لتبين حالتك موخراً. ومدى معاناتك من الأدوية مضادات الذهان والأثار الجانبية لها إن وجدت.

الرجاء الإشارة للخانة التي تناسب حالتك بصورة أكبر.

الرقم	خلال <u>الأسبوع الماضي:</u>	لا أبداً	مرة واحدة	مرات قليلة	كل يوم	أشر على هذه الخانة إذا كنت تعاني
.1	شعرتُ بالنعاس خلال النهار					
.2	شعرتُ بأني تحت تأثير الأدوية وكأني في غيبوبة					
.3	شعرتُ بدوخة عندما أقف / كأني سأفقد الوعي					
.4	شعرتُ بدقات قلبي سريعة او غيرمنتظمة					
.5	عضلاتي متوترة ومشدودة ومتشنجة					
.6	يدي وذراعي يرتجفان ويرتعشان					
.7	ساقي مضطربتان ولا يمكن بقائهما ثابتتين (لابد من تحريكهما)					
.8	مصاب بسيلان اللعاب من الفم					
.9	لدي بطئ في الحركة مقارنة بالماضي					
.10	لاحظتُ او لاحظ الأخرين وجود حركات لا إرادية على وجهي أو جسمي					
.11	لدي ضبابية في الرؤية					
.12	لدي جفاف بالفم والحلق					
.13	لدي صعوبات في إخراج البول					
.14	لدي شعور بالغثيان /كأني سأتقيأ					
.15	التبول أثناء النوم					
.16	الشعور بالعطش الشديد/كثرة التبول					
.17	المنطقة حول حلمات الثدي مؤلمة ومتقرحة وخشنة					
.18	وجود إفرازات (سوائل) تخرج من حلمة الثدي					
.19	وجود صعوبات للإستمتاع بالعملية الجنسية					
.20	<u>للرجال فقط</u>: وجود صعوبات في إنتصاب العضو الذكري					

أجب على الأسئلة التالية بنعم أو لا <u>عن فترة الثلاثة أشهر الماضية:</u>	لا	نعم	أشر على هذه الخانة إذا كنت تعاني
.21 <u>للنساء فقط:</u> وجود اضطراب في العادة الشهرية			
.22 <u>للرجال والنساء</u>: يوجد زيادة في الوزن			

Ethics Ref. No: OVS13022014 SoHS

Appendix 11: The Social Functioning Scale (SFS)

(English Version)

THE SOCIAL FUNCTIONING SCALE

INDIVIDUALS VERSION

NAME: _____

This questionnaire helps us to learn how you have been getting on since you became ill.

This questionnaire takes about 20 minutes to complete- before getting started could you please answer the following:

1. Where do you live?

   Answer: _____

   _____

2. Who do you live with?

   Answer: _____

   _____

FOR INTERVIEWER'S USE ONLY:

	Raw Score	Scaled Score
Withdrawal/Social Engagement (W)		
Interpersonal Communication (Inter)		
Independence-Performance (Ip)		
Independence-Competence (Ic)		
Recreation (R)		
Prosocial (P)		
Employment/Occupation (E/O)		

3

1. What time do you get up each day?

Average weekday _____
Average weekend
(if different) _____

2. On average how many waking hours do you spend alone in one day?
e.g. alone in a room
walking out alone
listening to radio or watching TV alone etc.

Please tick one of the boxes:

0-3 hours	Very little spent alone	
3-6 hours	Some of time	
6-9 hours	Quite a lot of the time	
9-12 hours	A great deal of time	
12 hours	Practically all the time	

3. How often will you start a conversation at home?

Almost never	Rarely	Sometimes	Often

4. How often do you leave the house (for any reason)?

Almost never	Rarely	Sometimes	Often

5. How do you react to the presence of strangers/people that you don't know?

Avoid them	
Feel nervous	
Accept them	
Like them	

1. How many friends do you have at the moment?
(people who you see regularly, do activities with etc.)



2. Do you have a partner?

Yes	
No	

3. How often are you able to carry out a sensible or rational conversation?
Please tick a box

Almost never	
Rarely	
Sometimes	
Often	

4. How easy or difficult do you find it talking to people at the moment?

Very easy	
Quite easy	
Average	
Quite difficult	
Very difficult	

Please place a tick against each item to show how often you have done the following over the **past 3 months**.

	Never	Rarely	Sometimes	Often
Buying items from the shops (without help)				
Washing pots, tidying up etc.				
Regular washing, bathing etc.				
Washing own clothes				
Looking for a job/working				
Doing the food shopping				
Prepare and cook a meal				
Leaving the house alone				
Using buses, trains etc.				
Using money				
Budgeting				
Choosing and buying clothes for self				
Take care of personal appearance.				

Please place a tick in the appropriate column to indicate how often you have done any of the following activities **over the past 3 months.**

`

	Never	Rarely	Sometimes	Often
Playing musical instruments				
Sewing, knitting				
Gardening				
Reading things				
Watching television				
Listening to records or radio				
Cooking				
D.I.Y activities (e.g. putting up shelves)				
Fixing things (car, bike, household etc).				
Walking, rambling				
Driving\cycling (as a recreation)				
Swimming				
Hobby (e.g. collecting things)				
Shopping				
Artistic activity (painting, crafts etc.)				

Please place a tick in the appropriate column to indicate how often you have done any of the following activities **over the past 3 months.**

	Never	Rarely	Sometimes	Often
Cinema				
Theatre\Concert				
Watching an indoor sport (squash, table-tennis).				
Watching an outdoor sport (football, rugby).				
Art gallery\ museum.				
Exhibition.				
Visiting places of interest.				
Meetings, talks etc.				
Evening Class.				
Visiting relatives in their homes.				
Being visited by relatives.				
Visiting friends (including boy/girlfriends).				
Parties.				
Formal occasions.				
Disco etc.				
Nightclub\ Social club				
Playing an indoor sport.				
Playing an outdoor sport.				
Club\ Society.				
Pub.				
Eating Out.				
Church Activity.				

Please place a tick against each item to show how able you are at doing or using the following.

	Adequately	Needs Help	Unable	Don't know
Public transport				
Handling money.				
Budgeting.				
Cooking.				
Weekly shopping.				
Looking for a job/ in employment				
Washing own clothes.				
Personal hygiene.				
Washing, tidying etc.				
Purchasing from shops.				
Leaving the house alone.				
Choosing and buying clothes.				
Caring for personal appearance.				

Are you in regular employment?
(This includes industrial therapy, rehabilitation or retraining courses).

Yes	
No	

1 **IF YES**: What sort of job_____.

How many hours do You work per week?_____.

How long have you had this job?_____.

2 **IF NO**: When were you last in employment?_____.

What sort of job was it?_____.

How many hours per week?_____.

Are you registered disabled?

Yes	
No	

Do you attend hospital as a day patient?

Yes	
No	

If not employed (do not answer if working)

Do you think you are capable of some sort of employment?

Definitely yes	Would have difficulty	Definitely no

How often do you make attempts to find a new job?
(e.g. go to the Job Centre, look in the newspaper.)

Almost never	Rarely	Sometimes	Often

The Social Functioning Scale (SFS)

(Arabic Version)

IRB ID: MOH0170
Version: 1, dated 21/06/2014

مقياس الأداء الإجتماعي
The Social Functioning Scale (SFS)

هذا الإستبيان يساعد في معرفة كيف تسير أمورك منذ مرضك.

يحتاج الإستبيان الى عشرين دقيقة من الوقت لإنجازه.

قبل البدء أجب على السؤالين التاليين:

1- أين تعيش؟

الإجابة: .....

2- مع من تعيش؟

الإجابة: .....

لإستخدام الباحث فقط:

	مجموع الخام	مجموع القياس
الإنسحاب/ المشاركة الإجتماعية (W)		
التواصل بين الأشخاص (Inter)		
الأداء المستقل (Ip)		
الكفاءة المستقلة (Ic)		
الإستجمام (R)		
(التفاعل) الإجتماعي الإيجابي (P)		
الوظيفة/المهنة (E/O)		

Ethics Ref. No: OVS13022014 SoHS

1- ما الوقت الذي تستيقظ فيه كل يوم؟

إجابة: خلال أيام العمل .....

خلال عطلة نهاية الأسبوع (إذا كان هناك إختلاف) .....

2- في المعدل كم ساعة من اليوم الواحد تقضيها لوحدك أثناء إستيقاظك ؟

مثلا: - لوحدك في غرفتك.

- تمشي خارجا لوحدك.

- تستمع للمذياع او تشاهد التلفاز لوحدك...الخ.

الرجاء أشر على ما يناسبك مما يلي:

0-3 ساعات	تمضي وقت قليل جداً لوحدك	
0-6 ساعات	تمضي بعض الوقت لوحدك	
6-9 ساعات	تمضي الكثير جداً من الوقت لوحدك	
9-12 ساعات	تمضي معظم الوقت لوحدك	
12 ساعة فأكثر	تمضي عملياً كل النهار لوحدك	

3- كم مرة تكون أنت البادئ في المحادثة مع الأهل في البيت؟

تقريبا ولا مرة	نادراً	أحياناً	غالباً

4- كم مرة تُغادر البيت (لأي سبب كان)؟

تقريبا و لا مرة	نادراً	أحياناً	غالباً

5- ما هي ردة فعلك لوجود الغرباء/الأشخاص الذين لا تعرفهم؟

أتجنبهم	
أشعر بالتوتر	
أتقبلهم	
أحبهم	

1- كم صديق لديك في هذه اللحظة؟
(أشخاص تراهم بنتظام وتمارس معهم بعض الأنشطة .. وغيرها)

2- هل لديك شريك (زوجة/زوج) ؟

نعم	
لا	

3- كم عدد المرات التي تمارس فيها محادثات مفيدة؟

تقريبا ولا مرة	
نادراً	
احياناً	
غالباً	

4- كيف تجد صعوبة أو سهولة الحديث مع الناس هذه اللحظة؟

سهل جداً	
سهل نوعاً ما	
عادي/متوسط	
صعب نوعاً ما	
صعب جداً	

الرجاء وضع إشارة في الخانة التي غالباً تلائم ما كنت تفعله **خلال فترة الثلاثة شهور السابقة**:

	لا مطلقاً	نادراً	أحياناً	غالباً
شراء أغراض من المحلات (بدون مساعدة)				
غسيل الأواني وترتيب المكان ... الخ				
الغسيل المنتظم و التنظيف ... الخ				
غسل ملابسك				
البحث عن عمل/وظيفة				
تسوق لشراء المواد الغذائية				
تجهيز وطهي الوجبات				
مغادرة المنزل لوحدك				
إستعمال المواصلات مثل الباصات والقطارات ...الخ				
إستعمال المال				
عمل ميزانية				
إختيار وشراء ملابس لنفسك				
العناية بالمظهر الشخصي				

الرجاء وضع إشارة في الخانة التي تُظهر عدد مرات ما قمت به من الأنشطة التالية **خلال فترة الثلاثة شهور السابقة**:

	لا ابداً	نادراً	أحياناً	غالباً
إستعمال الآلات الموسيقية				
الخياطة والحياكة والتطريز				
البستنة (العمل في الحديقة)				
قراءة الأشياء				
مشاهدة التلفاز				
الإستماع الى المذياع او التسجيلات				
الطبخ				
أنشطة تفعلها بنفسك (مثل تعبئة الأرفف)				
إصلاح الأشياء (السيارة، أدوات المنزل ...الخ)				
المشي والتسلق				
الغطس / ركوب الدراجة (على سبيل التسلية)				
السباحة				
الهوايات (مثل جمع الأشياء)				
التسوق				
النشاط الفني (الرسم، الصباغة، النحت ...الخ)				

الرجاء وضع إشارة في الخانة التي تُظهر عدد مرات ما قمت به من الأنشطة التالية **خلال فترة الثلاثة شهور السابقة**:

	لا ابداً	نادراً	أحياناً	غالباً
السينما				
المسرح /الحفلات الموسيقية				
مشاهدة الرياضات الداخلية مثل طاولة التنس و الاسكواتش وغيرها				
مشاهدة الرياضات الخارجية مثل كرة القدم والركبي وغيرها				
المتاحف /المعارض الفنية				
المعارض				
زيارة الاماكن التي تثير اهتمامك				
المقابلات والحديث مع الآخرين				
الفصول المسائية للدراسة				
زيارة الأقارب في منازلهم				
إستقبال الأقارب عندما يزورونك				
زيارة الأصدقاء				
الحفلات				
احتفالات رسمية				
المراقص				
النادي الاجتماعي/النادي الليلي				
لعب الرياضات الداخلية				
لعب الرياضات الخارجية				
النادي/ الجمعية				
الحانة				
الأكل خارجاً				
النشاط الديني				

الرجاء وضع إشارة في الخانة التي تظهر مقدرتك على القيام أو إستخدام الأشياء التالية:

	كاف/متمكن	أحتاج مساعدة	غير قادر	لا أعرف
إستخدام المواصلات العامة				
التعامل المالي				
عمل الميزانية				
الطبخ				
التسوق الأسبوعي				
البحث عن وظيفة و مهنة				
غسيل الملابس الخاصة به				
الصحة الشخصية				
الغسيل والترتيب والتنظيم ...الخ				
الشراء من المحلات				
مغادرة المنزل لوحدك				
إختيار وشراء الملابس لنفسك				
الإهتمام بالمظهر الشخصي				

هل أنت في وظيفة منتظمة (دائمة)؟ (يشمل العلاج الصناعي، التأهيل، إعادة التدريب)

نعم	
لا	

1- **إذا كانت الإجابة نعم** : فما نوع الوظيفة؟ .....

كم عدد ساعات العمل الأسبوعية؟ .....

منذ متى وأنت في هذا العمل؟ .....

2- **إذا كانت الاجابة لا**: متى كانت آخر وظيفة حصلت عليها؟ .....

وما هي هذه الوظيفة؟ .....

وكم كانت عدد ساعات العمل أسبوعياً؟ .....

هل تم تسجيلك معاق /غير قادر على العمل؟

نعم	
لا	

هل تراجع المستشفى للعلاج نهاراً (المستشفى النهاري)؟

نعم	
لا	

لغير الموظفين (لا تجيب على الأسئلة التالية إذا كانت لديك وظيفة)

هل تعتقد نفسك قادراً على بعض أنواع الأعمال؟

بكل تأكيد نعم	مع صعوبات	بكل تأكيد لا

ما مدى محاولاتك للبحث عن وظيفة؟ (مثل البحث في الجرائد ومراكز التوظيف)

لا ابداً	نادراً	أحياناً	غالباً

شكراً لكم على مساعدتكم في إستكمال هذا الإستبيان

Appendix 12: Permission for SFS Utilisation

From: Birchwood, Maximillian [mailto:M.J.Birchwood@warwick.ac.uk]
Sent: 10 December 2013 17:48
To: Al Mousa Yaqoub
Subject: Re: Asking for SFS and permission

Hi, yes happy to grant my permission to translate and to use.
On condition please that you supply me with a copy of the translated scale into Arabic.
Good luck in your studies

On 9 Dec 2013, at 16:16, Yaqoub Al Mousa wrote:

Dear Birc

Attachments:

Social Functioning Scale 1990 (reliability and validation, not actual scale).pdf	(1.0 MB)
THE SOCIAL FUNCTIONING SCALE & scoring.doc	(356 KB)

Appendix 13: Client Satisfaction Questionnaire (CSQ-8)

(English Version)

CSQ-8 UK English

CLIENT SATISFACTION QUESTIONNAIRE

CSQ-8

Please help us improve our service by answering some questions about the help that you have received. We are interested in your honest opinions, whether they are positive or negative. *Please answer all of the questions*. We also welcome your comments and suggestions. Thank you very much. We appreciate your help.

CIRCLE YOUR ANSWERS

1. How would you rate the quality of service you received?

4 *Excellent*	3 *Good*	2 *Fair*	1 *Poor*

2. Did you get the kind of service you wanted?

1 *No, definitely not*	2 *No, not really*	3 *Yes, generally*	4 *Yes, definitely*

3. To what extent has our service met your needs?

4 *Almost all of my needs have been met*	3 *Most of my needs have been met*	2 *Only a few of my needs have been met*	1 *None of my needs have been met*

4. If a friend were in need of similar help, would you recommend our service to him or her?

1 *No, definitely not*	2 *No, I don't think so*	3 *Yes, I think so*	4 *Yes, definitely*

5. How satisfied are you with the amount of help you received?

1 *Quite dissatisfied*	2 *Indifferent or mildly dissatisfied*	3 *Mostly satisfied*	4 *Very satisfied*

6. Have the services you received helped you to deal more effectively with your problems?

4 *Yes, they helped a great deal*	3 *Yes, they helped somewhat*	2 *No, they really didn't help*	1 *No, they seemed to make things worse*

7. In an overall, general sense, how satisfied are you with the service you received?

4 *Very satisfied*	3 *Mostly satisfied*	2 *Indifferent or mildly dissatisfied*	1 *Quite dissatisfied*

8. If you were to seek help again, would you come back to our service?

1 *No, definitely not*	2 *No, I don't think so*	3 *Yes, I think so*	4 *Yes, definitely*

WRITE ANY COMMENTS OVERLEAF

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TMS.180S

SAMPLE

Client Satisfaction Questionnaire (CSQ-8)

(Arabic Version)

CSQ-8 Arabic

CSQ-8 CLIENT SATISFACTION QUESTIONNAIRE
إستبيان رضا العملاء

الرجاء مساعدتنا لتحسين خدماتنا عبر إجابتكم على جميع الأسئلة حول المساعدة التي حصلتم عليها. نحن مهتمون بأرائكم الصادقة سواء كانت إيجابية أو سلبية. الرجاء الإجابة على جميع الأسئلة، كما نرحب أيضاً بملاحظاتكم وإقتراحاتكم. لكم منا الشكر الجزيل ونقدر مساعدتكم لنا.

ضع دائرة حول إجابتك:

1. كيف تُقيم جودة الخدمة التي تلقيتها؟

ممتاز 4	جيد 3	مقبول 2	رديء 1

2. هل حصلت على نوعية الخدمة التي أردتها؟

لا، بكل تأكيد 1	لا، ليس حقاً 2	نعم، بشكل عام 3	نعم، بكل تأكيد 4

3. إلى أي مدى لبت خدماتنا حاجاتك؟

تقريباً كل حاجاتي قد لبيت 4	معظم حاجاتي قد لبيت 3	فقط القليل من حاجاتي قد لبيت 2	لم يتم تلبية أي شيء من حاجاتي 1

4. هل توصي بخدماتنا لصديق احتاج لمساعدة مشابهة؟

لا، بكل تأكيد 1	لا أعتقد ذلك 2	نعم أعتقد ذلك 3	نعم، بكل تأكيد 4

5. ما مدى رضاك عن مقدار المساعدة التي حصلت عليها؟

غير راض تماماً 1	غير راض لحد ما 2	في الأعم راض 3	راض تماماً 4

6. هل الخدمات التي حصلت عليها ساعدتك للتعامل بفعالية أفضل مع مشاكلك؟

نعم، ساعدت كثيراً جداً 4	نعم، ساعدت إلى حد ما 3	لا، في الحقيقة لم تساعد 2	لا، لقد زادت الأمور سوءاً 1

7. بصفة عامة كيف رضاك عن الخدمة التي حصلت عليها؟

راض جداً 4	عموماً راض 3	غير راض لحد ما 2	غير راض تماماً 1

8. إذا احتجت للمساعدة مرة أخرى فهل ستعود إلى خدماتنا؟

لا، بكل تأكيد 1	لا أعتقد ذلك 2	نعم أعتقد ذلك 3	نعم، بكل تأكيد 4

تمت الترجمة بواسطة يعقوب الموسى
جامعة نوتنجهام، المملكة المتحدة

التوزيع بواسطة أنظمة تمالبيس ماتركس، ل ل ك info@CSQscales.com www.CSQscales.com
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إستخدام، نقل، نسخ، إستنساخ، دمج، ترجمة، تعديل، أو تعزيز
(بأي صيغة كانت بما في ذلك الإلكترونية)، كلياً أو جزئياً غير مسموح به دون إذن خطي.

TMS.100S

SAMPLE

Appendix 14: Permission for CSQ-8 Utilisation

CLIFFORD ATTKISSON <cliff@tammatrix.com> 06/18/14 at 5:42 PM

To Yaqoub Al Mousa, BSc, MSc

Dear Yaqoub,

Yes, I certainly intended to say that you have permission to use the Arabic translation of the CSQ-8 for your current graduate research project. You also have permission to use the Arabic CSQ-8 without payment of royalty costs for other personally directed research projects in the future. However, I will want to provide the copies of future forms that you use and may need you to help support the shipping of such forms to you for your use in the research.

For the current study, you may make the copies needed from the form that I sent to you as a PDF. In all your studies, I will want to see data related to the operating characteristics and the psychometric properties of the CSQ-8 in Arabic translation.

I hope that these terms are agreeable?

Cliff Attkisson

Appendix 15: Research Informed Consent Form (for Staff and Service Users)

Research Informed Consent Form for Staff

(English Version)

IRB ID: MOH0170
PROTOCOL VERSION: 1, dated 21/04/2014

RESEARCH INFORMED CONSENT FORM (Staff)
VERSION 1.0, 22APR2013
PERMISSION TO TAKE PART IN A HUMAN RESEARCH STUDY
RESEARCH ADMINISTRATION

Title of Research Study: "An embedded mixed methods investigation of factors associated with the quality of mental health care in the Kingdom of Saudi Arabia (KSA): A structure, process and outcome evaluation"

Investigator: Yaqoub Yousef Al Mousa

Why you are being invited to take part in a research study

We invite you to take part in a research study because you are a member of the healthcare professionals working at the study site and we believe that you can help us by providing valuable information based on your experience with service users.

What you should know about a research study

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.
- Feel free to ask all the questions you want before you decide.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at Principal Researcher: 966 (0) 558155199/ +44 (0) 7521258668 or **yymm_2004@yahoo.com**
Principal Supervisor Professor Patrick Callaghan: +44 (0) 1158230812 or **patrick.callaghan@nottingham.ac.uk**
Also, this research has been reviewed and approved by an Institutional Review Board.
You may talk to them at **+966- 3-844 2222 Ext: 2978/2890** or **irb@kfsh.med.sa** for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

Why are we doing this research?

Identifying factors associated with the quality of mental health care may be useful in addressing service users' physiological and psychological health needs. It is commonly known that people who experience mental health difficulties require their needs to be met by the mental health services providing high quality care to them. Therefore, this study aims to explore the factors that are important for improving the level of quality of care which will ultimately improve service user health and well-being. We also believe that this study is

important because it will help in providing information for health planning and policies addressing the needs of the mental health hospitals and mental clinics in terms of human resource recruitments, buildings and others.

How long will the research last?
We expect that you will be in this research study for approximately 20-30 minutes.

How many people will be studied?

We expect about 300 people here will be in this research study out of 671 people in the entire study.

What happens if I say yes, I want to be in this research?

If you agree to take part in the study, you will be asked to complete a number of study questionnaires (2 questionnaires). Before this, you will be requested to sign the "Signature Block for Capable Adult". Completing the questionnaires will take approximately 20-30 minutes and your name will not appear anywhere. The filled instruments will be coded and fed into computer for data analysis.

What happens if I say yes, but I change my mind later?

You agree to take part in the research now and stop at any time it will not be held against you. If you decide to leave the research, your participation in the study will no longer be required and will not affect your current status or relationship with others. If you decide to leave the research, contact the investigator so that the investigator can assure you that you are free to change your mind or stop at any time and without giving a reason. This will not affect your legal right.

Is there any way being in this study could be bad for me?

We do not anticipate any risk or harm associated with this study. However, if any participant experiences distress or discomfort, this will be terminated.

What are the possible benefits of taking part?

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include: The findings of this study will help explore factors associated with the quality of care that improve mental health services in the future. In addition, you will not receive any payment or incentives for your participation.

What happens to the information we collect?

Efforts will be made to limit your personal information, including research study to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of this organization. It will be also seen by the research team (the principal researcher and 2 supervisors) from the University of Nottingham, and will be stored safely in a locked filing cabinet within an office of the university. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

Signature Block for Capable Adult

Your signature documents your permission to take part in this research.

DO NOT SIGN THIS FORM AFTER THIS DATE → 23/08/1436H, 10/06/2015G

SIGNATURE OF SUBJECT	**Date**
PRINTED NAME OF SUBJECT	
SIGNATURE OF PERSON OBTAINING CONSENT	**Date**
PRINTED NAME OF PERSON OBTAINING CONSENT	**Form Date**

Copies of this **signed** consent form should be distributed as follows:

- 1 copy for the Principle Investigator
- 1 copy for the Participant
- 1 copy for the Institutional Review Board

Research Informed Consent Form for Staff

(Arabic Version)

IRB ID: MOH0170
PROTOCOL VERSION: 1, dated 21/04/2014

إستمارة الموافقة بالعلم بدراسة بحثية (الممارس الصحي)
VERSION 1.0, 22APR2013
تصريح للمشاركة في دراسة بحثية
إدارة الأبحاث

عنوان الدراسة: "دراسة تتبع المنهجين (الكمي والنوعي) لبحث العوامل المرتبطة بجودة الرعاية الصحية النفسية في المملكة العربية السعودية: بإستخدام إطار الهيكلة، الآلية والنتيجة"

اسم الباحث: يعقوب يوسف الموسى

لماذا تمت دعوتك للمشاركة في هذه الدراسة البحثية؟

لقد تمت دعوتك للمشاركة في هذه الدراسة لأنك عضو في فريق مزودين الخدمة الصحية العاملين في مستشفى الدراسة، ونحن نؤمن بأنك ستساعدنا في توفير معلومات قيمة بناء على خبرتك مع المرضى.

ماذا ينبغي لك أن تعرفه عن هذه الدراسة البحثية؟

- سوف يقوم الباحث بشرح هذه الدراسة لك.
- المشاركة في هذه الدراسة إختيارية حيث يمكنك القبول او الرفض من قبلكم.
- يمكنك إختيار عدم المشاركة.
- يمكنك إعطاء الموافقة للمشاركة الآن، كما يمكنك تغير رأيك فيما بعد.
- أيا كان قرارك فسوف لن يستخدم ضدك.
- لا تتردد في طرح جميع الأسئلة التي تجول في خاطرك قبل أن تقرر المشاركة.

من هو الشخص الذي يمكنني التحدث معه؟

اذا كان لديك أسئلة، إستفسارات، او شكوى أو تعتقد أن البحث قد يضرك، يمكنك التحدث مع فريق البحث: الباحث الرئيسي: +966(0)558155199/ +44(0)7521258668 او البريد الألكتروني yymm_2004@yahoo.com

أو المشرف الرئيسي على البحث: د. البروفيسور باتريك كالهان 1158230812 (0) 44+ او البريد الألكتروني

patrick.callaghan@nottingham.ac.uk

أيضاً تم مراجعة هذا البحث والموافقة عليه من قبل لجنة أخلاقيات البحوث (IRB). ويمكنك التحدث معهم:

+966 (3) 844 2222 Ext: 2978/2890 أو البريد الإلكتروني irb@kfsh.med.sa في حال وجود أي من الآتي:

- لم يتم الإجابة على أسئلتك او إستفساراتك او الشكاوي من قبل فريق البحث.
- عدم التمكن من التواصل مع فريق البحث.
- الرغبة في التحدث مع شخص ما الى جانب فريق البحث.
- وجود أسئلة حيال حقوقك كونك مشارك في البحث.
- الرغبة في الحصول على معلومات او التزويد بمعلومات بشأن هذا البحث.

ما أهمية هذه الدراسة البحثية؟

إن التعرف على العوامل المرتبطة بجودة الرعاية الصحية النفسية قد تساعد في معالجة إحتياجات المرضى الجسمانية والنفسية وغيرها. حيث أن الأشخاص الذين يعانون من مشاكل نفسية/عقلية لديهم احتياجات تتطلب تلبيتها من قبل الخدمات الصحية النفسية من خلال تقديم خدمات عالية الجودة. لذلك تهدف هذه الدراسة الى إستكشاف العوامل التي تعتبر مهمة للإرتقاء بمستوى جودة الرعاية الصحية المقدمة وبالتالي تؤدي الى تحسين صحة المريض النفسي. كما نؤمن أيضاً أن هذه الدراسة ستساعد في توفير المعلومات اللازمة للتخطيط الصحي ووضع السياسات التي من شأنها ان تلبي حاجات المستشفيات والعيادات الصحية النفسية من حيث توظيف الموارد البشرية والمباني وغيرها.

ما هي مدة المشاركة في البحث؟

إن المدة الزمنية المتوقعة لمشاركتك في هذه الدراسة البحثية حوالي 20- 30 دقيقة.

كم عدد المشاركين في هذه الدراسة؟

إن عدد المشاركين المتوقع في هذه الدراسة حوالي 300 ممارس صحي من أصل 671 مجموع عدد الممارسين الصحيين بالمنشأة.

ماذا سيحدث إذا شاركت في هذه الدراسة؟

إذا قررت المشاركة في الدراسة فسوف يطلب منك ملئ بعض الإستبيانات (عدد 2) لتعيين مؤشرات جودة الرعاية النفسية والسماح لنا بالإطلاع على هذه المعلومات، وقبل هذا سوف يطلب منك التوقيع على نموذج "تفويض للمشاركة في دراسة بحثية للبالغين". إن المدة الزمنية المتوقعة لملئ الإستبيانات تستغرق حوالي 20-30 دقيقة، لن يكون إسمك موجوداً على الإستبيانات، وسوف تعطى رقماً مشفراً على جميع الأوراق يستخدم في تحليل البيانات.

ماذا سيحدث إذا شاركت في هذه الدراسة ومن ثم غيرت رأي في وقت لاحق؟

إذا قررت المشاركة في البحث الآن ومن ثم أوقفت مشاركتك في وقت لاحق فسوف لن يستخدم ضدك.

أيضاً إذا قررت الإنسحاب من البحث لن تكون هناك حاجة لمشاركتكم ولن يؤثر ذلك على وضعك الحالي او العلاقة مع الأخرين.

علماً بأنه يمكنك الإتصال بالباحث ليؤكد لكم بأن مشاركتكم طوعية ويمكنك تغير رأيك او إيقاف مشاركتكم في أي وقت وبدون إبداء أي أسباب ودون أن يؤثر ذلك على حقك القانوني.

ما هي المخاطر المتوقع حدوثها في هذه الدراسة بالنسبة لي؟

ليس هناك أي خطر أو ضرر مرتبط بهذه الدراسة، ومع ذلك إذا شعرت بقلق او عدم الراحة أثناء مشاركتك سوف يتم إنهاء المشاركة فوراً.

ما هي الفوائد المتوقعة من المشاركة؟

لا نستطيع أن نعدك او الأخرين بأي منفعة مباشرة من هذه المشاركة، ومع ذلك فإن نتائج الدراسة سوف تساعد في بحث العوامل المرتبطة بجودة الرعاية الصحية النفسية التي من شأنها أن تساعد في الرقي بالخدمات الصحية المقدمة للمرضى النفسيين في المستقبل. علماً بأنه لن يتلقى المشارك في هذا البحث أي مدفوعات أو حوافز مادية.

ما الذي سيجري على المعلومات التي يتم جمعها؟

سوف تبذل الجهود للحد من معلوماتك الشخصية التي يتم الحصول عليها من المشاركة، بما في ذلك بيانات الدراسة البحثية من الإطلاع عليها من قبل أشخاص آخرين لغرض مراجعتها. كما أنه لا يمكننا أن نعدك بالسرية التامة حيث أن لجنة أخلاقيات البحوث (IRB) ومن يمثلهم في هذه اللجنة قد تطلب فحص ونسخ المعلومات الخاصة بك. بالإضافة الى ذلك، سوف يتم الإطلاع عليها من قبل فريق البحث (الباحث الرئيسي و عدد إثنان من المشرفين) من جامعة نوتنجهام. وسوف يتم تخزين الأوراق في مكان آمن في خزينة مقفلة داخل أحد المكاتب في الجامعة.

كما أن فريق البحث قد يقوم بنشر نتائج البحث. ومع ذلك، فإننا نضمن لك سرية اسمك وكافة البيانات التي يتم الحصول عليها وذلك بإستخدام أرقام تشفيرية بحيث لا يمكن لأحد التعرف عليك.

تفويض للمشاركة في دراسة بحثية للبالغين (الممارس الصحي)

توقيعك يوثق إذنك للمشاركة في هذا البحث.

لا توقع هذه الإستمارة بعد هذا التاريخ ⟵ 1436/08/23هـ الموافق 2015/06/10

توقيع المشارك	**التاريخ**
اسم المشارك	
توقيع المفوض	**التاريخ**
اسم المفوض	**تاريخ النموذج**

يتم توزيع نسخ التفويض بعد التوقيع عليها على النحو التالي:
1 نسخة للباحث الرئيسي
1 نسخة للمشارك
1 نسخة للجنة أخلاقيات البحوث (IRB)

Research Informed Consent Form for Service Users

(English Version)

IRB ID: MOH0170
PROTOCOL VERSION: 1, dated 21/04/2014

RESEARCH INFORMED CONSENT FORM (Service user)
VERSION 1.0, 22APR2013
PERMISSION TO TAKE PART IN A HUMAN RESEARCH STUDY
RESEARCH ADMINISTRATION

Title of Research Study: "An embedded mixed methods investigation of factors associated with the quality of mental health care in the Kingdom of Saudi Arabia (KSA): A structure, process and outcome evaluation"

Investigator: Yaqoub Yousef Al Mousa

Why you are being invited to take part in a research study

We invite you to take part in a research study because you are a service user at the study site and we believe that you can help us by providing valuable information based on your experience.

What you should know about a research study

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.
- Feel free to ask all the questions you want before you decide.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at Principal Researcher: 966 (0) 558155199/ +44 (0) 7521258668 or **yymm_2004@yahoo.com**
Principal Supervisor Professor Patrick Callaghan: +44 (0) 1158230812 or **patrick.callaghan@nottingham.ac.uk**
Also, this research has been reviewed and approved by an Institutional Review Board.
You may talk to them at **+966- 3-844 2222 Ext: 2978/2890** or **irb@kfsh.med.sa** for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

Why are we doing this research?

Identifying factors associated with the quality of mental health care may be useful in addressing service users' physiological and psychological health needs. It is commonly known that people who experience mental health difficulties require their needs to be met by the mental health services providing high quality care to them. Therefore, this study aims to explore the factors that are important for improving the level of quality of care which will ultimately improve service user health and well-being. We also believe that this study is

important because it will help in providing information for health planning and policies addressing the needs of the mental health hospitals and mental clinics in terms of human resource recruitments, buildings and others.

How long will the research last?
We expect that you will be in this research study for approximately 60 minutes to fill in the questionnaires and 45-60 minutes for interview if you be willing and eligible for the study inclusion criteria.

How many people will be studied?

We expect about 330 people here will be in this research study out of 690 people in the entire study.

What happens if I say yes, I want to be in this research?

If you agree to take part in the study, you will be asked to complete a number of study questionnaires (3 questionnaires). Before this, you will be requested to sign the "Signature Block for Capable Adult". Filling in the questionnaires will not exceed 60 minutes and your name will not appear anywhere. The completed instruments will be coded and fed into computer for data analysis. *If you are also willing to take part in a brief interview and you are eligible for the study inclusion criteria, you will be requested to sign another form of "Signature Block for Capable Adult", and then you will be asked a few open-ended questions about your experiences of quality of care that you received during hospitalization. This interview will take approximately 45-60 minutes and will be conducted in a quiet room inside your ward setting. The interview will be audio-taped using an audio recorder for the purpose of the research study only. Please ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not wish to take part.*

What happens if I say yes, but I change my mind later?

You agree to take part in the research now and stop at any time it will not be held against you. If you decide to leave the research, your participation in the study will no longer be required and will not affect your treatments at the hospital. If you decide to leave the research, contact the investigator so that the investigator can assure you that you are free to change your mind or stop at any time and without giving a reason. This will not affect your legal right or the quality of care you receive or will receive in the future.

Is there any way being in this study could be bad for me?

We do not anticipate any risk or harm associated with this study. However, if any participant experiences distress or discomfort during the interview, this will be terminated.

What are the possible benefits of taking part?

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include: The findings of this study will help explore factors associated with the quality of care that improve mental health services in the future. In addition, you will not receive any payment or incentives for your participation.

What happens to the information we collect?

Efforts will be made to limit your personal information, including research study to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of this organization. It will be also seen by the research team (the principal researcher and 2 supervisors) from the University of Nottingham, and will be stored safely in a locked filing cabinet within an office of the university. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

Signature Block for Capable Adult

Your signature documents your permission to take part in this research.

DO NOT SIGN THIS FORM AFTER THIS DATE → 23/08/1436H, 10/06/2015G

SIGNATURE OF SUBJECT	**Date**
PRINTED NAME OF SUBJECT	
SIGNATURE OF PERSON OBTAINING CONSENT	**Date**
PRINTED NAME OF PERSON OBTAINING CONSENT	**Form Date**

Copies of this **signed** consent form should be distributed as follows:

- 1 copy for the Principle Investigator
- 1 copy for the Participant
- 1 copy for the Institutional Review Board

Research Informed Consent form for Service Users

(Arabic Version)

IRB ID: MOH0170
PROTOCOL VERSION: 1, dated 21/04/2014

إستمارة الموافقة بالعلم بدراسة بحثية (مستخدم الخدمة)
VERSION 1.0, 22APR2013
تصريح للمشاركة في دراسة بحثية
إدارة الأبحاث

عنوان الدراسة: "دراسة تتبع المنهجين (الكمي والنوعي) لبحث العوامل المرتبطة بجودة الرعاية الصحية النفسية في المملكة العربية السعودية: بإستخدام إطار الهيكلة، الآلية والنتيجة"

اسم الباحث: يعقوب يوسف الموسى

لماذا تمت دعوتك للمشاركة في هذه الدراسة البحثية؟

لقد تمت دعوتك للمشاركة في هذه الدراسة لأنك أحد النزلاء في مستشفى الدراسة.

ماذا ينبغي لك أن تعرفه عن هذه الدراسة البحثية؟

- سوف يقوم الباحث بشرح هذه الدراسة لك.
- المشاركة في هذه الدراسة اختيارية حيث يمكنك القبول او الرفض من قبلكم.
- يمكنك اختيار عدم المشاركة.
- يمكنك إعطاء الموافقة للمشاركة الآن، كما يمكنك تغير رأيك فيما بعد.
- أيا كان قرارك فسوف لن يستخدم ضدك.
- لا تتردد في طرح جميع الأسئلة التي تجول في خاطرك قبل أن تقرر المشاركة.

من هو الشخص الذي يمكنني التحدث معه؟

اذا كان لديك أسئلة، إستفسارات، او شكوى أو تعتقد أن البحث قد يضرك، يمكنك التحدث مع فريق البحث: الباحث الرئيسي: +966(0)558155199/ +44(0)7521258668 او البريد الألكتروني yymm_2004@yahoo.com

أو المشرف الرئيسي على البحث: د. البروفيسور باتريك كالهان 1158230812 (0) 44+ او البريد الألكتروني

patrick.callaghan@nottingham.ac.uk

أيضاً تم مراجعة هذا البحث والموافقة عليه من قبل لجنة أخلاقيات البحوث (IRB). ويمكنك التحدث معهم:

+966- 3-844 2222 Ext: 2978/2890 أو البريد الإلكتروني irb@kfsh.med.sa في حال وجود أي من الآتي:

- لم يتم الإجابة على أسئلتك او إستفساراتك او الشكاوي من قبل فريق البحث.
- عدم التمكن من التواصل مع فريق البحث.
- الرغبة في التحدث مع شخص ما الى جانب فريق البحث.
- وجود أسئلة حيال حقوقك كونك مشارك في البحث.
- الرغبة في الحصول على معلومات او التزويد بمعلومات بشأن هذا البحث.

ما أهمية هذه الدراسة البحثية؟

إن التعرف على العوامل المرتبطة بجودة الرعاية الصحية النفسية قد تساعد في معالجة إحتياجات المرضى الجسمانية والنفسية وغيرها. حيث أن الأشخاص الذين يعانون من مشاكل نفسية/عقلية لديهم احتياجات تتطلب تلبيتها من قبل الخدمات الصحية النفسية من خلال تقديم خدمات عالية الجودة. لذلك تهدف هذه الدراسة الى إستكشاف العوامل التي تعتبر مهمة للإرتقاء بمستوى جودة الرعاية الصحية المقدمة وبالتالي تؤدي الى تحسين صحة مستخدم الخدمة النفسية. كما نؤمن ايضاً أن هذه الدراسة ستساعد في توفير المعلومات اللازمة للتخطيط الصحي ووضع السياسات التي من شأنها ان تلبي حاجات المستشفيات والعيادات الصحية النفسية من حيث توظيف الموارد البشرية والمباني وغيرها.

ما هي مدة المشاركة في البحث؟

إن المدة الزمنية المتوقعة لمشاركتك في هذه الدراسة البحثية حوالي 60 دقيقة لملئ الإستبيانات و 45 - 60 دقيقة لإجراء مقابلة إذا كانت لديك الرغبة وتنطبق عليك معايير الإشتمال الخاصة بالدراسة.

كم عدد المشاركين في هذه الدراسة؟

إن عدد المشاركين المتوقع في هذه الدراسة حوالي 330 نزيل من أصل 690 مجموع عدد نزلاء المنشأة.

ماذا سيحدث إذا شاركت في هذه الدراسة؟

إذا قررت المشاركة في الدراسة فسوف يطلب منك ملئ بعض الإستبيانات (عدد 3) لتعيين مؤشرات جودة الرعاية النفسية والسماح لنا الإطلاع على هذه المعلومات، وقبل هذا سوف يطلب منك التوقيع على النموذج المرفق "تفويض للمشاركة في دراسة بحثية للبالغين". إن المدة الزمنية المتوقعة لملئ الإستبيانات لن تتجاوز 60 دقيقة. لن يكون اسمك موجوداً على الإستبيانات، وسوف تعطى رقماً مشفراً على جميع الأوراق يستخدم في تحليل البيانات.

بالإضافة الى ذلك اذا كانت لديك الرغبة بالمشاركة في مقابلة قصيرة وتنطبق عليك معايير الإشتمال الخاصة بالدراسة فسوف يطلب منك مسبقاً التوقيع بالموافقة على نموذج " تفويض للمشاركة في دراسة بحثية للبالغين"، ومن ثم سوف يتم طرح بعض الأسئلة عليك حول رأيك عن نوعية الرعاية الصحية النفسية التي تلقيتها أثناء العلاج بالمستشفى. إن المدة الزمنية المتوقعة لإجراء المقابلة يستغرق حوالي 45-60 دقيقة وسوف تجرى المقابلة داخل الجناح الخاص بك، علماً بأن المقابلة ستكون مسجلة باستخدام مسجل الصوت لغرض البحث العلمي فقط. وقبل أن تقرر المشاركة خذ وقتك في التفكير ما إذا كنت ترغب في المشاركة ام لا .

ماذا سيحدث إذا شاركت في هذه الدراسة ومن ثم غيرت رأي في وقت لاحق؟

إذا قررت المشاركة في البحث الآن ومن ثم أوقفت مشاركتك في وقت لاحق فسوف لن يستخدم ضدك.

أيضاً إذا قررت الإنسحاب من البحث لن تكون هناك حاجة لمشاركتكم ولن يؤثر ذلك على حقك في العلاجات الخاصة بك في المستشفى. علماً بأنه يمكنك الإتصال بالباحث ليؤكد لكم بأن مشاركتكم طوعية ويمكنك تغير رأيك او إيقاف مشاركتكم في أي وقت وبدون إبداء أي أسباب ودون أن يؤثر ذلك على حقك القانوني او نوع أو كفاءة الخدمة الصحية التي تتلقاها او ستحصل عليها في المستقبل.

بالإضافة الى ذلك في حال رغبتكم إيقاف مشاركتكم في البحث، فإنه لن يتم إلغاء البيانات التي تم جمعها من قاعدة بيانات الدراسة. وسوف يطلب منك ما إذا كان الباحث يمكنه جمع البيانات من الرعاية الطبية الروتينية. إذا كنت توافق فسوف يتم التعامل مع هذه البيانات بنفس درجة البيانات البحثية.

ما هي المخاطر المتوقع حدوثها في هذه الدراسة بالنسبة لي؟

على الرغم أنه ليس هناك أي خطر أو ضرر مرتبط بهذه الدراسة، إلا أن بعض الأشخاص قد يعانون من الضيق أو عدم الراحة أثناء المقابلة وبالتالي إذا شعرت بقلق أو عدم الراحة اثناء مشاركتك سوف يتم انهاء المشاركة فوراً.

ما هي الفوائد المتوقعة من المشاركة؟

لا نستطيع أن نعدك او الآخرين بأي منفعة مباشرة من هذه المشاركة، ومع ذلك فإن نتائج الدراسة سوف تساعد في بحث العوامل المرتبطة بجودة الرعاية الصحية النفسية التي من شأنها أن تساعد في الرقي بالخدمات الصحية المقدمة للمرضى النفسيين في المستقبل. علماً بأنه لن يتلقى المشارك في هذا البحث أي مدفوعات أو حوافز مادية.

ما الذي سيجري على المعلومات التي يتم جمعها؟

سوف تبذل الجهود للحد من معلوماتك الشخصية التي يتم الحصول عليها من المشاركة، بما في ذلك بيانات الدراسة البحثية والسجل الطبي من الإطلاع عليها من قبل أشخاص آخرين لغرض مراجعتها. كما أنه لا يمكننا أن نعدك بالسرية التامة حيث أن لجنة أخلاقيات البحوث (IRB) ومن يمثلهم في هذه اللجنة قد تطلب فحص ونسخ المعلومات الخاصة بك.

بالإضافة الى ذلك، سوف يتم الإطلاع عليها من قبل فريق البحث (الباحث الرئيسي و عدد إثنان من المشرفين) من جامعة نوتنجهام. وسوف يتم تخزين الأوراق في مكان آمن في خزينة مقفلة داخل أحد المكاتب في الجامعة.

كما أن فريق البحث قد يقوم بنشر نتائج البحث. ومع ذلك، فإننا نضمن لك سرية اسمك وكافة البيانات التي يتم الحصول عليها وذلك بإستخدام أرقام تشفيرية بحيث لا يمكن لأحد التعرف عليك.

تفويض للمشاركة في دراسة بحثية للبالغين (مستخدم الخدمة)

توقيعك يوثق إذنك للمشاركة في هذا البحث.

لا توقع هذه الإستمارة بعد هذا التاريخ ⟵ 1436/08/23هـ الموافق 2015/06/10

توقيع المشارك	**التاريخ**
اسم المشارك	
توقيع المفوض	**التاريخ**
اسم المفوض	**تاريخ النموذج**

توقيعي أدناه يوثق بأن المعلومات الواردة في إستمارة الموافقة بالعلم بدراسة بحثية وأي معلومات أخرى مكتوبة تم توضيحها بدقة وتبدو مفهومة لدى المشارك وأن موافقته في هذا البحث كانت طوعية.

توقيع الشاهد على عملية التفويض	**التاريخ**
اسم الشاهد على عملية التفويض	

يتم توزيع نسخ التفويض بعد التوقيع عليها على النحو التالي:
- 1 نسخة للباحث الرئيسي
- 1 نسخة للمشارك
- 1 نسخة للجنة أخلاقيات البحوث (IRB)
- 1 نسخة تحفظ في ملف مستخدم الخدمة

Appendix 16: Sampling Schedule

SAMPLING SCHEDULE FOR OBSERVATION OF

NURSE-SERVICE USER INTERACTION*

Ward no.	Date	Time of observation begins	List of all staff members to be observed	
			No.	Staff Name
			1	
			2	
			3	
			4	
			5	
			6	
			7	
			8	

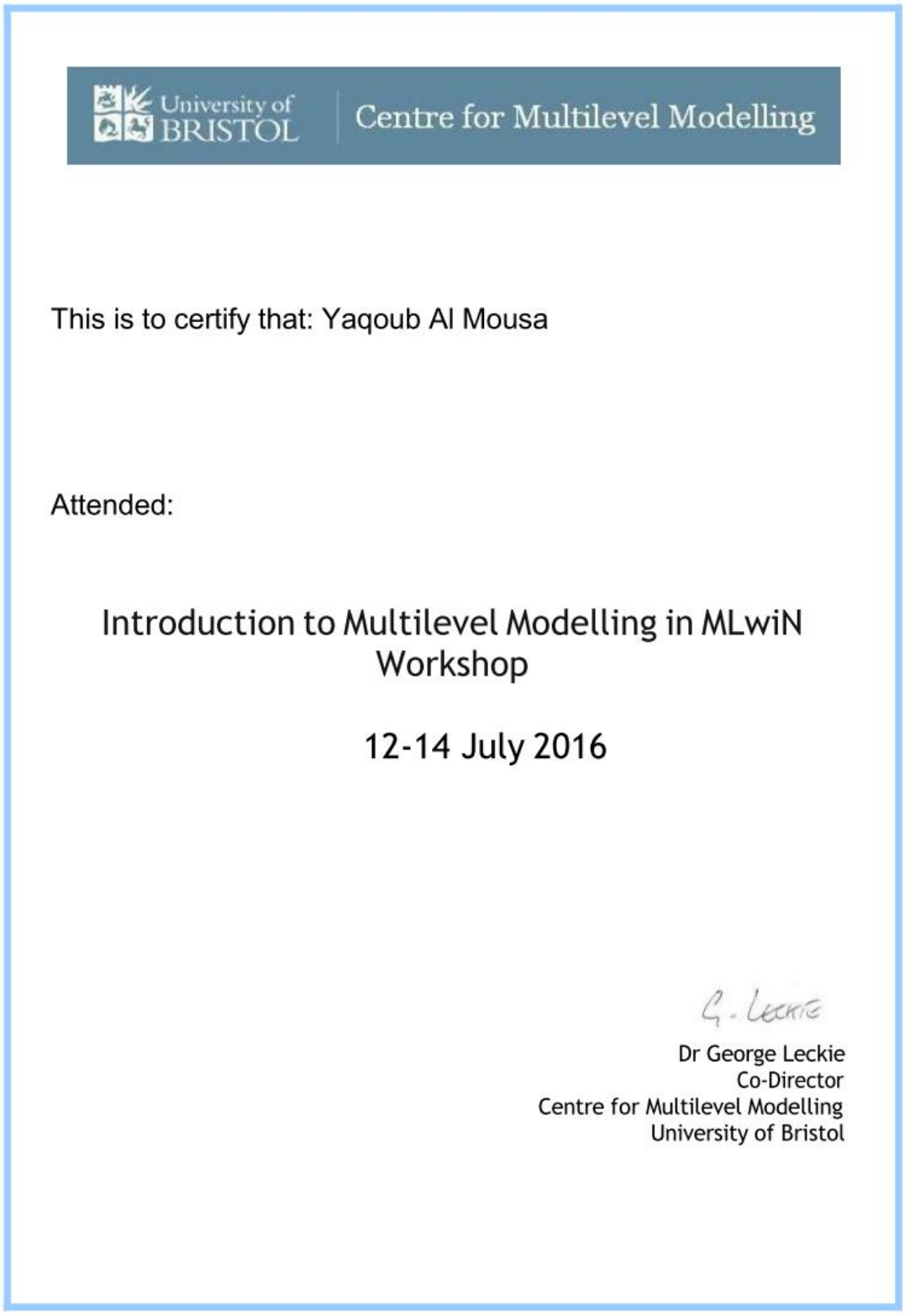
Name of Ward Manager _____

Date _____

Signature _____

*Note: Staff-service user interaction will be observed by the researcher for a four-week period during the daytime shift from 7.00 AM to 3.00 PM. Each participating ward will be observed for one hour per day for three days a week, using the Interaction Observation Checklist (IOC).

Appendix 17: Attendance Workshop on MLwiN



University of BRISTOL | Centre for Multilevel Modelling

This is to certify that: Yaqoub Al Mousa

Attended:

Introduction to Multilevel Modelling in MLwiN Workshop

12-14 July 2016

G. Leckie

Dr George Leckie
Co-Director
Centre for Multilevel Modelling
University of Bristol

Appendix 18: Ethical Approval Letters

University of Nottingham, Faculty of Medicine and Health Sciences Research Ethics Committee

Direct line/e-mail
+44 (0) 115 8232561
Louise.Sabir@nottingham.ac.uk

Faculty of Medicine and Health Sciences

Research Ethics Committee
Division of Respiratory Medicine
D Floor, South Block
Queen's Medical Centre
Nottingham University Hospitals
Nottingham
NG7 2UH

25th February 2014

Yaqoub Al Mousa
PhD Student
c/o Professor Patrick Callaghan
Professor of Mental Health Nursing
School of Health Sciences
QMC Campus
Nottingham University Hospitals
NG7 2UH

Dear Yaqoub

Ethics Reference No: OVS13022014 SoHS
Study Title: A mixed methods study to investigate predictors of quality of Mental Health Care in the Kingdom of Saudia Arabia: A structure, process and outcome approach.
Chief Investigator/Supervisors: Professor Patrick Callaghan, Professor of Mental Health Nursing, Dr Maria Michail, Deputy Director of PG Research Education, Senior Research Fellow, School of Health Sciences.
Lead Investigator/Student: Yaqoub Al Mousa, Postgraduate Student, School of Health Sciences
Duration of Study: 05/2014-10/2014 **No of Subjects:** 330

Thank you for your letter dated 24th February notifying the Committee of amendment no 1, 24/02/2014 as follows:

- The Interaction-Observation Checklist (IOC) will replace the Staff-Resident Interaction Chronograph (SRIC) to assess the frequency nature characteristics of staff-patient interaction. Observations procedures otherwise remain unchanged.

This has been reviewed and amendment no 1, 24/02/2014 is noted.

The following documents were received:

- Appendix C: Interaction-Observation Checklist (IOC)

Documents previously received:

- FMHS REC Application form dated 1/28/2014
- Project Proposal dated 1/28/2014
- Health Professionals Characteristics Sheet (HPCS) 1/28/2014
- Patient Characteristics Sheet (PCS)
- Hospital Characteristics Sheet (HCS)
- Health Professional Information Leaflet 1/28/2014
- Patient Information Leaflet 1/28/2014
- Participant Consent Form Final version 1.0 date 28/1/2014
- Patient Consent Form for Interview Participation Final Version 1.0 28/1/2014
- Interview Schedule, 28/1/2014
- On-Line NIH Certificate for Yaqoub Al Mousa 01/11/2014 certificate number 1345556.
- Appendix A: Attitudes Towards Acute Mental Health (33) version 3, Feb 10 ©The University of Manchester 2010.
- Appendix B: Competency Assessment Tool – Mental Health (CAT-MH)

- Appendix C: Staff-Resident Interaction Chronograph (SRIC), Pau (1987, p62)
- Appendix D: Brief Psychiatric Rating Scale (BPRS)
- Appendix E: Glasgow Antipsychotic Side-effect Scale (GASS) J Psychopharmacol 22, 238-243, 2008.
- Appendix F: The Social Functioning Scale.
- Appendix G: Client Satisfaction Questionnaire (CSQ-8)

These have been reviewed and are satisfactory and the study has been given a favourable opinion subject to the following conditions:

1. A Favourable opinion is given on the understanding that all appropriate ethical and regulatory permissions are sought for each overseas project in accordance with all local laws, and that the host organisation/s involved also gives their permission where applicable. Please submit a copy of these letters of permission and approval when they are available.

2. You must follow the protocol agreed and inform the Committee of any changes using a notification of amendment form (please request a form).

3. You must notify the Chair of any serious or unexpected event.

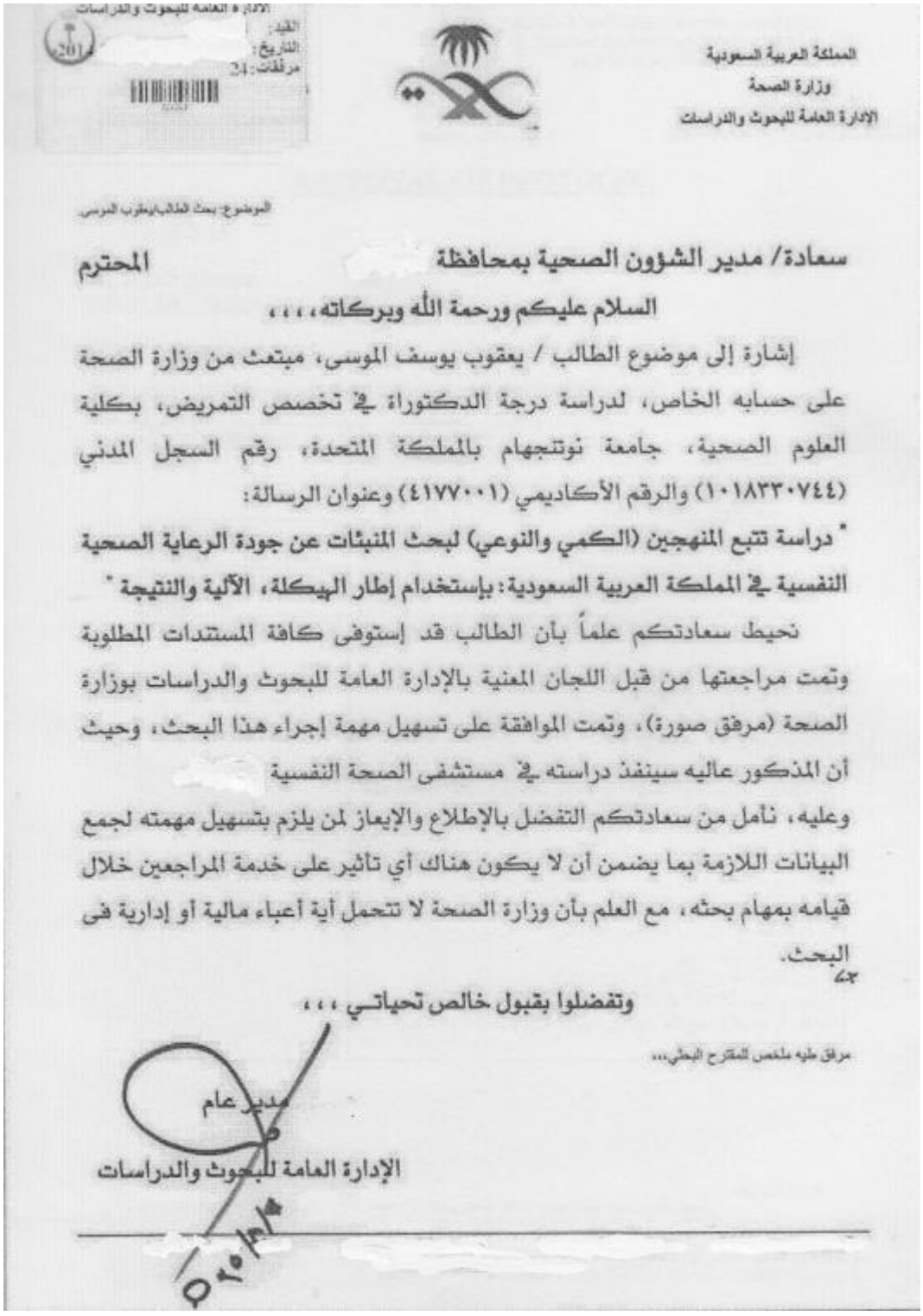
4. This study is approved for the period of active recruitment requested. The Committee also provides a further 5 year approval for any necessary work to be performed on the study which may arise in the process of publication and peer review.

5. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely



Dr Clodagh Dugdale
Chair, Nottingham University Faculty of Medicine and Health Sciences Research Ethics Committee



الإدارة العامة للبحوث والدراسات
القيد:
التاريخ:
مرفقات: 24

المملكة العربية السعودية
وزارة الصحة
الإدارة العامة للبحوث والدراسات

الموضوع: بحث الطالب/يعقوب الموسى

المحترم سعادة/ مدير الشؤون الصحية بمحافظة

السلام عليكم ورحمة الله وبركاته،،،

إشارة إلى موضوع الطالب / يعقوب يوسف الموسى، مبتعث من وزارة الصحة على حسابه الخاص، لدراسة درجة الدكتوراة في تخصص التمريض، بكلية العلوم الصحية، جامعة نوتنجهام بالمملكة المتحدة، رقم السجل المدني (١٠١٨٣٣٠٧٤٤) والرقم الأكاديمي (٤١٧٧٠٠١) وعنوان الرسالة:

" دراسة تتبع المنهجين (الكمي والنوعي) لبحث المنبئات عن جودة الرعاية الصحية النفسية في المملكة العربية السعودية: بإستخدام إطار الهيكلة، الآلية والنتيجة "

نحيط سعادتكم علماً بأن الطالب قد إستوفى كافة المستندات المطلوبة وتمت مراجعتها من قبل اللجان المعنية بالإدارة العامة للبحوث والدراسات بوزارة الصحة (مرفق صورة)، وتمت الموافقة على تسهيل مهمة إجراء هذا البحث، وحيث أن المذكور عاليه سينفذ دراسته في مستشفى الصحة النفسية

وعليه، نأمل من سعادتكم التفضل بالإطلاع والإيعاز لمن يلزم بتسهيل مهمته لجمع البيانات اللازمة بما يضمن أن لا يكون هناك أي تأثير على خدمة المراجعين خلال قيامه بمهام بحثه، مع العلم بأن وزارة الصحة لا تتحمل أية أعباء مالية أو إدارية فى البحث.

وتفضلوا بقبول خالص تحياتـي ،،،

مرفق طيه ملخص للمقترح البحثي،،،

مدير عام
الإدارة العامة للبحوث والدراسات

IRB at King Fahad Specialist Hospital – Dammam (KFSH-D), KSA



King Fahad Specialist Hospital - Dammam



وزارة الصحة
Ministry of Health

KFSH-D Institutional Review Board (IRB)
National Registration Number (H-05-D-002)
IRB Number (IRB00008686)

إدارة الأبحاث
RESEARCH ADMINISTRATION

APPROVAL OF PROTOCOL

11 June 2014

Mr. Jacoub Almousa
Yymm_2004@yahoo.com

Dear Mr Almousa,

On 11/06/14 the IRB reviewed the following protocol and documents:

Type of Review:	**Initial Review**
Title:	A mixed methods study to investigate predictors of quality of mental health care in the Kingdom of Saudi Arabia: A structure, process and outcome approach
Investigator:	Jacoub Almousa
IRB ID:	MOH0170
Sponsor:	NA
IND:	none
Documents Reviewed:	Protocol version 1, dated 21/04/2014 إستمارة الموافقة بالعلم بدراسة بحثية (المريض) VERSION 1.0, 22APR2013 إستمارة الموافقة بالعلم بدراسة بحثية (الممارس الصحي) VERSION 1.0, 22APR2013 Version 1, dated 21/06/2014 of the following documents: أداة تقييم الكفاءة للعاملين في مجال الصحة النفسية إستبيان رضا العملاء برنامج المقابلة قائمة معلومات المريض قائمة معلومات الممارس الصحي قائمة ملاحظة تفاعل الموظفين مع المرضى مقياس الأداء الإجتماعي مقياس التقييم النفسي المختصر مقياس جلاسكو للآثار الجانبية للأدوية المضادة للذهان مواقف أو وجهات نظر العاملين في الحقل الطبي إتجاه الصحة النفسية

Issued by IRB OFFICE. **Telephone**: +966-3-8431111 **Ext**: 2978- 2904- 2903. **Email:** IRB@kfsh.med.sa

• الرقم • المملكة العربية السعودية
• التاريخ • وزارة الصحة
• المرفقات • صحة الشرقية



مستشفى الملك فهد التخصصي بالدمام
King Fahad Specialist Hospital-Dammam

ص.ب ١٥٢١٥ الدمام ٣١٤٤٤ هاتف ٠٣٨٤٣١١١١ ، المملكة العربية السعودية
www.kfsh.med.sa

The IRB approved the protocol under the expedited category from 11/06/14 to 10/06/15 inclusive. Before *10/06/15* or within 30 days of study close, whichever is earlier, you are to submit a completed "FORM: Continuing Review Progress Report" and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 10/06/15 approval of this protocol expires on that date.

Attached is stamped approved data collection sheet for your use.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL.

IF THE STUDY IS TO BE CONDUCTED OUTSIDE KING FAHAD SPECIALIST HOSPITAL-DAMMAM, PERMISSION OF THE ADMINISTRATION OF THAT INSTITUTION AND OR ITS IRB (IF AVAILABLE) MUST BE SOUGHT AND SECURED BEFORE THE STUDY CAN BE CONDUCTED.

We thank you for submitting your study for review by the IRB at KFSH-D and wish you all the best with this study.

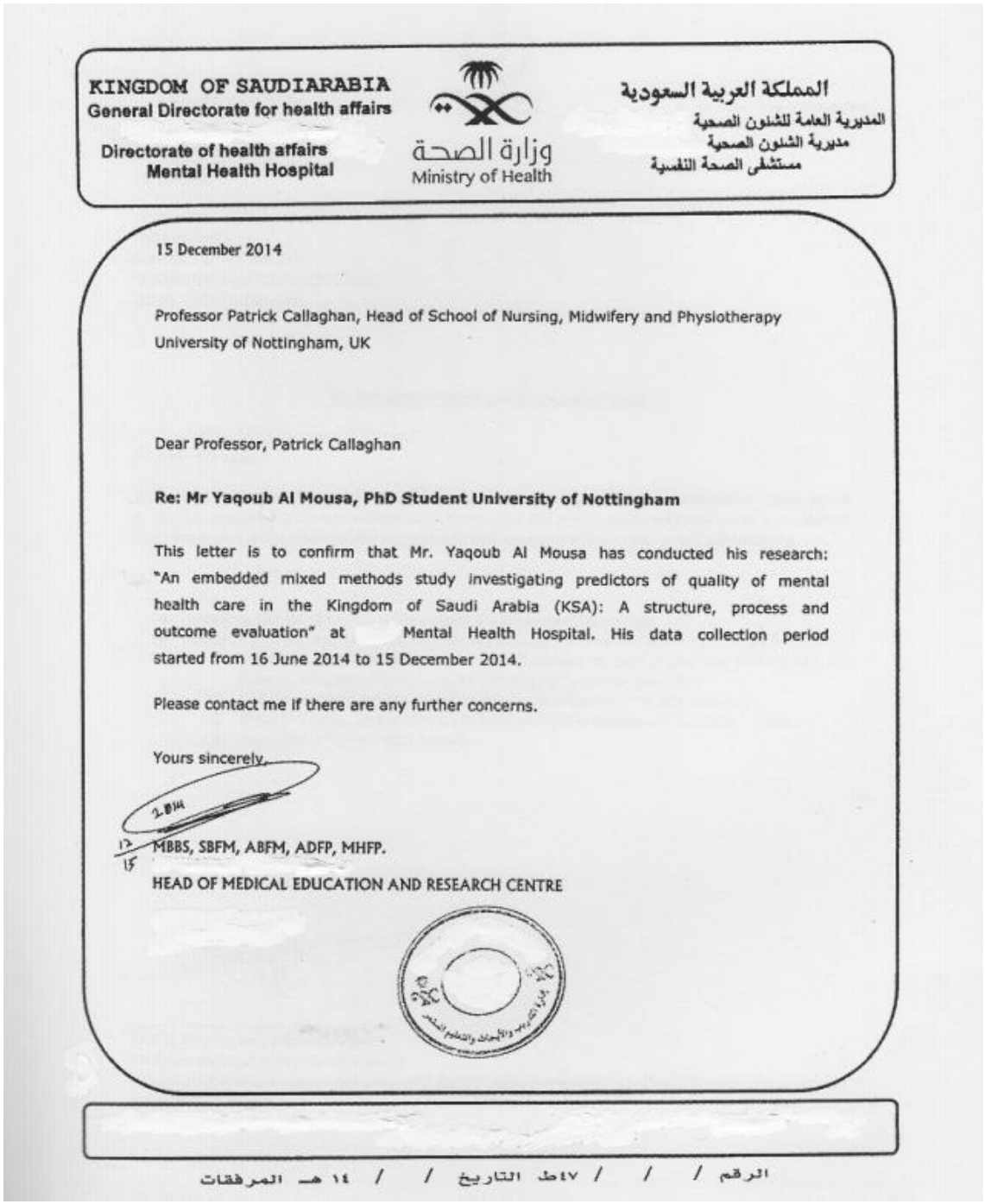
Sincerely

Khalid Bel'eed-Akkari, FRCP (Lon), MBA
IRB Chairman
KFSH-D

Mohamed Sager, MD, MHA, PhD
Director, Research Administration
KFSH-D

Issued by IRB OFFICE . **Telephone**: +966-3-8431111 **Ext**: 2978- 2904- 2903. **Email:** IRB@kfsh.med.sa

Administration of the Study Site



KINGDOM OF SAUDIARABIA
General Directorate for health affairs
Directorate of health affairs
Mental Health Hospital

وزارة الصحة
Ministry of Health

المملكة العربية السعودية
المديرية العامة للشئون الصحية
مديرية الشئون الصحية
مستشفى الصحة النفسية

15 December 2014

Professor Patrick Callaghan, Head of School of Nursing, Midwifery and Physiotherapy
University of Nottingham, UK

Dear Professor, Patrick Callaghan

Re: Mr Yaqoub Al Mousa, PhD Student University of Nottingham

This letter is to confirm that Mr. Yaqoub Al Mousa has conducted his research: "An embedded mixed methods study investigating predictors of quality of mental health care in the Kingdom of Saudi Arabia (KSA): A structure, process and outcome evaluation" at Mental Health Hospital. His data collection period started from 16 June 2014 to 15 December 2014.

Please contact me if there are any further concerns.

Yours sincerely,

MBBS, SBFM, ABFM, ADFP, MHFP.
HEAD OF MEDICAL EDUCATION AND RESEARCH CENTRE

الرقم / / التاريخ ٤٧/ / ١٤ هـ المرفقات

Appendix 19: Reporting Physical and Psychological Abuse, IRB at KFSH-D

Institutional Review Board Office
National Registration Number (H-05-D002)
IRB Number (IRB00008686)

وزارة الصحة
Ministry of Health

Research Executive Administration
King Khalid Medical City (REA-KKMC)

15/11/2017

Yaqoub Yousef Mousa Almousa
PhD Candidate
University of Nottingham
Yaqoub.Almousa@nottingham.ac.uk
yymm_2004@yahoo.com

Re: Reporting Physical and Psychological Abuse

Dear Mr. Almousa,

In response to your reporting to the alleged Physical and Psychological Abuse to Institutional Review Board at King Fahad Specialist Hospital -Dammam, it is clear that this is an unexpected event which is not related to your research study; however, IRB is grateful to your reporting and we recommend the following:

- Reporting this abuse to the institute where the actual event happened.
- You and/or affected patients or their relatives may report this event to the national bodies such as:
  1. Protection from violence & harm unit at ministry of health, you may wish to visit the ministry of health website for more details. (وحدة الحماية من العنف والإيذاء).
  2. Civil rights can be applied as well by raising this allegation to police authorities.
  3. Social Protection Unit at Ministry of Labor and Social Development (Hotline 19911).
  4. Saudi Arabia human rights council.

Sincerely,

Mai S. Hashhoush, Pharm.D., BCPS
Chairperson, Institutional Review Board
KFSH-D Institutional Review Board is AAHRPP accredited, and operates according to ICH-GCP and applicable Saudi laws and regulations

Appendix 20: Reporting Physical and Psychological Abuse to the Study Site

Fw: Reporting physical and psychological abuse
From: Mental Health Hospital
Sent: 24 December 2017 23:46
To: Yaqoub Al Mousa ntxyyal@exmail.nottingham.ac.uk
Subject: rep: Reporting physical and psychological abuse

Dear Mr. Yaqoub Yousef Al-Mousa University of Nottingham, UK

Peace upon you.

We were informed that during the interviews with some patients as part of your research in the period 1435-1436H, some inpatients reported that they had been subjected to violations of their rights in the past in terms of inappropriate verbal or physical allegations by giving unauthorised injections or multiple venipunctures due to lack of efficiency in the taking of samples.

Based on that, we thank you for your Excellency's interest and would like to inform you the following:

1. The study was conducted four years ago and it cannot be confirmed that it occurred in that period or previous periods according to the patients' statement and was not reported by you in that period.
2. A number of years ago Quality Management Department has been established in the hospital to put the procedures and policies for the provision of service to patients in accordance with strict standards to provide the service.
3. There is a new department dealing with patients' rights through which to ascertain the types of services provided and not to violate any of the patients' rights and ensure their privacy, and to deal with any complaint by them or their families with full possession and guarantee of rights.
4. No violations or bad treatment of patients had been reported during the past period that requires intervention, and the patients concerns are the focus of the workers' interest and do not allow any deviation in this regard.

Thankful and appreciate your interest and your concern.

From: Mental Health Hospital
Sent: 24 December 2017 23:46
To: Yaqoub Al Mousa
Subject: رد: Reporting physical and psychological abuse

السيد / يعقوب يوسف الموسى جامعة نوتنجهام - بريطانيا

السلام عليكم ورحمة الله وبركاته

تم الاطلاع على احاطة سعادتكم بأنه أثناء اجراء المقابلات مع بعض المرضى كجزء من البحث في الفترة 1435-1436هـ أفاد بعض المرضى أنهم تعرضوا لإنتهاكات

حقوقهم داخل أقسام التنويم في الماضي من حيث الإعتداء عليهم بألفاظ غير لإئقة أو جسدية -أو المعاقبة من خلال إعطاء الحقن الفعلي الغير موصوف من قبل الطبيب المعالج أو الوخز المتكرر بالحقن لعدم الكفائة في سحب العينات .
عليه تم الإطلاع ونشكر لسعادتكم الاهتمام ونود إحاطة سعادتكم بالتالــي :ـ
1- اجراء البحث كان في وقت سابق قبل أربع سنوات - ولايمكن التأكيد من حدوثه في تلك الفترة أو الفترات السابقة لها حسب إفادة المرضى ولم يتم التبليغ من قبلكم في تلك الفترة .
2- منذ عدة سنوات تم انشاء إدارة الجودة بالمستشفى وتضح الاجراءات والسياسات الخاصة بتقديم الخدمة للمرضى بما يتناسب مع المعاير الدقيقة لتقديم الخدمة .
3- هناك إدارة مستحدثة تعنى بحقوق المرضى يتم من خلالها التأكد من نوع الخدمات المقدمة ومن عدم انتهاك أي حق من حقوق المرضى ويضمن خصوصيتهم والتعامل مع أي شكوى من قبلهم أو أهاليهم بمنتهى الحيازية وضمان الحقوق .
4- لم يتم الإبلاغ على أي انتهاكات أو سوء معاملة للمرضى خلال الفترة الماضية تستدعي التدخل ومايخص المرضى هو محل إهتمام العاملين ولا يسمح بأي تجاوز في هذا الشأن .

شاكرين ومقدرين إهتمامكم وحرصكم .

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تنبيه بإخلاء المسئولية: هذه الرسالة ومرفقاتها معدة لاستخدام المُرسَل إليه المقصود بالرسالة فقط و قد تحتوي على معلومات سرية أو محمية قانونيا. إن لم تكن الشخص المقصود، فإنه يُمنع منعا باتا أي عرض أو نشر أو استخدام غير مصرح به للمحتوى. نرجو إخطار المُرسِل عن طريق الرد على هذا البريد الإلكتروني وإتلاف جميع النسخ الموجودة لديك. تعد التصريحات و الآراء المذكورة في الرسالة خاصة بالمُرسِل و لا تمثل وزارة الصحة. كما لا تتحمل الوزارة مسؤولية الأضرار الناتجة عن أي فيروسات قد تحملها هذه الرسالة. تعد جميع عمليات أو توصيات الشراء أو الالتزامات القانونية سارية المفعول فقط عند الحصول على توقيع المسئول المصرح له بذلك من قبل وزارة الصحة على النسخة المطبوعة.

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من: Yaqoub Al Mousa [Yaqoub.Almousa@nottingham.ac.uk]
تاريخ الإرسال: 11 ديسمبر, 2017 08:37 ص
إلى: Mental Health Hospital
نسخة: Callaghan, Patrick 3; Maria Michail
الموضوع: RE: Reporting physical and psychological abuse

Peace be upon you

Following from my previous email (as described below), I would like to let you know that I am still waiting for your response to my email regarding allegations that reported by your inpatients.

Thanks in advance,

Yaqoub

السلام عليكم ورحمة الله وبركاتة:

تعقيباً على الايميل السابق (كما هو موضح أدناه) بشأن إبلاغ سعادتكم عن انتهاكات حقوق المرضى داخل أقسام التنويم بالمستشفى.

لذا أود تذكير سعادتكم بأني ما زلت في انتظار ردكم بخصوص هذه المسالة.

ولكم مني خالص الشكر والتقدير،

يعقوب الموسى

From: Yaqoub Al Mousa
Sent: 20 November 2017 05:20
To: Mental Health Hospital
Cc: Callaghan, Patrick 3; Maria Michail
Subject: Reporting physical and psychological abuse

Peace be upon you.

I would like to inform you that in the course of conducting interviews as part of the research on 1435-1436 H (2014-2015), a couple of inpatients reported that they had witnessed staff verbally and physically abusing patients in the past in terms of restraining, beatings, punishing by giving unauthorised intramuscular injections and multiple venipunctures (unskilled blood-taking), which is not related to the research.

The allegations as reported by patients are extremely serious and cannot be tolerated. I have already informed the Institutional Review Board (IRB) at King Fahad Specialist Hospital – Dammam, where the ethical approval for conducting this study has been sought and gained from (see attached). They have been informed of these allegations for their information, guidance and advice in this regard. However, no action has been taken by them other than

their recommendation to report this abuse to the hospital where the actual event happened (see attached). This was because there were no adverse events related to this research.

It is also our intention to inform the hospital concerned and wanted to make your Hospital Management aware about this issue.

Yours sincerely,

Reported by/ Researcher: Yaqoub Y. Almousa

Mobile/ 0558155199

University of Nottingham- UK

السلام عليكم ورحمة الله وبركاته

أود أن أحيطكم علماً بأنه أثناء إجراء المقابلات كجزء من البحث في الفترة 1435-1436 الموافق (2014-2015)، أفاد بعض المرضى أنهم تعرضوا لانتهاكات حقوقهم داخل أقسام التنويم في الماضي من حيث الاعتداء عليهم سواء كانت بألفاظ غير لائقة أو جسدية عن طريق التقييد والضرب، أو المعاقبة من خلال إعطاء الحقن العضلي الغير موصوف من قبل الطبيب المعالج أو الوخز المتكرر بالحقن لعدم الكفاءة في سحب عينات الدم، والتي لا علاقة لها بالبحث.

وحيث أن الادعاءات التي أبلغ عنها المرضى خطيرة للغاية ولا يمكن التسامح معها، فقد تم إخطار إدارة الأبحاث - اللجنة الأخلاقية في مستشفى الملك فهد التخصصي بالدمام (IRB) والتي قامت بمراجعة بروتوكول هذه الدراسة والموافقة عليه مسبقاً (مرفق صورة) لغرض الإحاطة والتوجيه والمشورة في هذا الصدد. علماً بأنه لم يتخذ أي إجراء من قبلهم سوى توصيتهم بالإبلاغ عن هذه الانتهاكات إلى المستشفى المعني (مرفق صورة). ويرجع ذلك إلى عدم وجود أحداث او آثار سلبية تتعلق بهذه الدراسة.

لذا لزم الأمر بإبلاغ إدارة المستشفى لديكم وإحاطة سعادتكم حيال هذه المسألة لإجراء ما يلزم لتنفيذ الاجراءات التصحيحية لحماية مرضانا الأعزاء.

تفضلوا بقبول فائق الاحترام والتقدير،،،

مقدم البلاغ/ الباحث: يعقوب يوسف الموسى

جوال/ 0558155199

جامعة نوتنجهام - بريطانيا