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Quality of life for people with schizophrenia in Saudi Arabia

Amira Al Showkan

University of Wollongong

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QUALITY OF LIFE FOR PEOPLE WITH SCHIZOPHRENIA IN SAUDI ARABIA

A thesis submitted in fulfilment of the requirements for the award of the degree

Doctor of Philosophy

From

UNIVERSITY OF WOLLONGONG

by

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B.Sc. in Nursing, M.N. (MntIHlth)

School of Nursing, Midwifery, and Indigenous Health

Faculty of Health and Behavioural Sciences

December 2012
I, Amira Al Showkan, declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Nursing, Midwifery, and Indigenous Health, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Amira Al Showkan

December 2012
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<th>Description</th>
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<tr>
<td>BPRS</td>
<td>Brief Psychiatric Rating Scale</td>
</tr>
<tr>
<td>CaW-QLI</td>
<td>Canadian version of the Wisconsin Quality of Life Index</td>
</tr>
<tr>
<td>CDSS</td>
<td>Calgary Depression Scale for Schizophrenia</td>
</tr>
<tr>
<td>DIEPSS</td>
<td>Drug-Induced Extrapyramidal Symptoms Scale</td>
</tr>
<tr>
<td>GAF</td>
<td>Global Assessment of Functioning</td>
</tr>
<tr>
<td>IEQ</td>
<td>Involvement Evaluation Questionnaire</td>
</tr>
<tr>
<td>KFUH</td>
<td>King Fahd University Hospital</td>
</tr>
<tr>
<td>LES</td>
<td>Life Experience Survey</td>
</tr>
<tr>
<td>LQoLP</td>
<td>Lancashire Quality of Life Profile</td>
</tr>
<tr>
<td>LQoLP-EU</td>
<td>Lancashire Quality of Life Profile-European Version</td>
</tr>
<tr>
<td>LSP</td>
<td>Life Skills Profile</td>
</tr>
<tr>
<td>MANSA</td>
<td>Manchester Short Assessment of Quality of Life</td>
</tr>
<tr>
<td>Oval-pd</td>
<td>Occupational Value with pre-defined items</td>
</tr>
<tr>
<td>PHSD</td>
<td>Past History and Socio-demographic Description Schedule</td>
</tr>
<tr>
<td>PSE</td>
<td>Present Status Examination</td>
</tr>
<tr>
<td>QLS</td>
<td>Heinrichs Quality of Life Scale</td>
</tr>
<tr>
<td>QoL</td>
<td>Quality of Life</td>
</tr>
<tr>
<td>QoLI</td>
<td>Lehman Quality of Life Interview</td>
</tr>
<tr>
<td>SAM</td>
<td>Stress Appraisal Measure</td>
</tr>
<tr>
<td>SANSS</td>
<td>Positive and Negative Syndrome Scale</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<td>--------------------------------------------------</td>
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<tr>
<td>SDO</td>
<td>Satisfaction with Daily Occupations</td>
</tr>
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<td>SLDS</td>
<td>Satisfaction with Life Domains Scale</td>
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<td>SPS</td>
<td>Social Provisions Scale</td>
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<td>SQLS</td>
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<td>VSSS-EU</td>
<td>Verona Service Satisfaction Scale</td>
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<tr>
<td>WHOQoL</td>
<td>World Health Organization Quality of Life</td>
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ABSTRACT

Few studies have examined the quality of life (QoL) for people with schizophrenia in Arab countries and none that solely studied QoL for people with schizophrenia in Saudi Arabia. This study aimed at investigating the QoL for Saudi Arabian people with schizophrenia. It examined the level of satisfaction with their QoL that Saudi Arabian people with schizophrenia had as well as the relationships between socio-demographic characteristics and QoL. In addition, it explored how Saudi Arabian people with schizophrenia perceive their QoL.

A purposive sample was recruited from the Psychiatric Outpatient Department of King Fahd University Hospital (KFUH), Al-Khobar, Saudi Arabia. Structured face-to-face interviews were conducted using the Lancashire Quality of Life Profile–European Version (LQoLP-EU). The quantitative data were entered into SPSS for Windows Version 17. Ordinal regression analysis was used to examine the relationship between socio-demographic characteristics (gender, age, marital status, employment, education, income, and living situations) and total QoL score along with the nine individual QoL domains. A thematic analysis was used with the qualitative data to identify themes related to how Saudi Arabian people with schizophrenia perceive their QoL.

The final sample was comprised of 159 outpatients with schizophrenia. The majority of the participants were male (61%), married (51.6%), and unemployed (54.7%). They had a mean age of 38.23 years. The main findings of the quantitative data analysis were that Saudi Arabian people with schizophrenia were mostly satisfied with their religion (82.2%), while they were dissatisfied with their leisure activities (25.2%), work (23.3%), and consequently, their financial status (24.5%). In addition, females with schizophrenia reported lower QoL than males, particularly in work/education, family and social relationships, and health. People with schizophrenia who
were illiterate or had an elementary school education reported lower QoL than those with a university or college education. Unemployed people reported lower QoL than employed people, particularly in finance, legal and safety, and health categories. Married individuals reported higher QoL in the areas of financial situation, family and social relationships, and health. A thematic analysis of the qualitative interview data identified two main factors affecting the QoL for people with schizophrenia: 1) the shame of having schizophrenia was a barrier to their QoL and 2) the positive role of religion was a facilitator for their QoL.

This study concluded the following: 1) Religion helps Saudi Arabian people with schizophrenia cope with and manage their mental illness, which improves their QoL, 2) the shame of having a mental illness negatively affects the social engagement of Saudi Arabian people with schizophrenia, limiting their participation in leisure and work activities and therefore diminishing their QoL, 3) being female, unemployed, or illiterate or having only primary education is associated with poor QoL, while being married is related to a better QoL. To improve the QoL for Saudi Arabian people with schizophrenia and other mental illnesses, several suggestions were recommended for Saudi Arabian mental health services, mental health practices, and mental health nursing education. In addition, recommendations for future research were discussed.
ACKNOWLEDGMENT

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I am also very grateful to Dammam University and the Saudi Arabian Cultural Mission in Australia, which supported the scholarship and funding for the research project throughout my study. I also would like to thank all the King Fahd University Hospital staff for their support during my study.

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Finally, I would like to thank my parents, Ali and Sabah, my husband and daughter, Rami and Rema, and my brothers and sisters for their loving kindness, encouragement, and support throughout my journey.
CHAPTER ONE
RESEARCH OVERVIEW

Introduction
This thesis is a report of a mixed-methods study undertaken in Saudi Arabia. It provides knowledge about the quality of life (QoL) for Saudi Arabian people with schizophrenia. This chapter provides the background of the study. It identifies the purpose of the study, including the research aim and questions. In addition, the research significance is provided and discussed. At the end of the chapter, the structure of the present thesis is outlined.

Background of the study
Schizophrenia is a devastating mental illness that affects approximately 1% of the world’s population (Abi-Dargham & Guillin 2007). Schizophrenia is a clinical syndrome that affects an individual’s cognition, emotion, perception, and other features of behaviour (American Psychiatric Association 2000). Disturbances may include positive symptoms such as delusions, hallucinations, conceptual disorganization, suspiciousness, agitation, and hostility (Sadock & Sadock 2007). Negative symptoms, on the other hand, include blunted affect, emotional and social withdrawal, lack of spontaneity, and poverty of speech (Sadock & Sadock 2007). These disturbances may have a negative impact on a person’s well-being (Gee, Pearce & Jackson 2003).

Investigation into the QoL and patients’ subjective sense of well-being is a relatively new phenomenon, which has begun to attract the attention of professionals in the field of behavioural sciences only in the last two decades (Goodman & Smith 2007). QoL, in general, is a complex, dynamic, and multidimensional construct; thus, there is no single universally accepted definition (Gorna & Jaracz 2004). Recent studies have indicated that there is a need for both
subjective and objective evaluation of indicators to conceptualize QoL (Cardoso et al. 2005). It is important to consider such a phenomenon or aspect of one cognitive domain because it can be considered a part of mental health (Chen et al. 2006).

Only two studies of the QoL for people with schizophrenia in the whole of the Arabic world have been found. The first published study was conducted by Daradkeh and Al Habeeb (2005); it compared the QoL for people with schizophrenia in Jordan and Saudi Arabia without providing detailed information of the QoL for each sample separately. The second study was undertaken by Zahid et al. (2009) to measure the QoL for people with schizophrenia and their relatives in Kuwait. Both studies used a quantitative method to measure the QoL for people with schizophrenia.

The review of the literature on the QoL for people with schizophrenia identified a limitation in the methodology of the previous studies. The previous studies focused only on socio-demographic factors and did not try to investigate other factors associated with QoL. The limitation on the methodology of the studies of the QoL was firstly and only identified by Bengtsson-Tops and Hansson (1999). The authors reported a very important limitation that needs to be investigated in future studies, which is, by using quantitative data only; it was unable to identify other information that would provide a holistic picture of the QoL for people schizophrenia. Therefore, Bengtsson-Tops and Hansson (1999) recommended that quantitative and qualitative data be combined in order to obtain a comprehensive view of the QoL for people with mental illness. The use of quantitative and qualitative data will help to view people with mental illness from a holistic viewpoint as whole persons involved in daily life.

An extensive literature search showed there were no published articles that combine quantitative and qualitative data to explore the QoL for people with
schizophrenia. Therefore, this study intends to study the QoL for people with schizophrenia through the use of quantitative and qualitative data in order to fill in the gap identified in previous studies and to provide a comprehensive view of the QoL for Saudi Arabian people with schizophrenia.

**Purpose of the study**

**Research aim**
The aim of this study is to investigate the quality of life among people with schizophrenia who live in Saudi Arabia.

**Research questions**
This study addresses the following questions:

1. How satisfied with their QoL are Saudi Arabian people with schizophrenia?

2. What are the relationships between:

   A. Socio-demographic characteristics and the QoL for people with schizophrenia in Saudi Arabia?

   B. Socio-demographic characteristics and the individual QoL domains of the LQoLP-EU (education/work, leisure, religion, income, living situations, legal and safety, family relations, social relations, and health) for people with schizophrenia in Saudi Arabia?

3. How do people with schizophrenia in Saudi Arabia perceive their QoL?
Research significance
The findings of the current study are significant in several ways. One important contribution of this study is that it provides new knowledge of the perception of QoL among people with schizophrenia in Saudi Arabia. These findings provide an important basis for Saudi Arabian mental health care services, mental health nursing practice and education, and future research. In addition, the findings of this study will be helpful in introducing community mental health services to the Arabic world as well as providing an emphasis on the role of mental health nurses in improving the QoL for people with schizophrenia.

Structure of the thesis
This thesis addresses how people with schizophrenia in Saudi Arabia perceive their QoL and, most importantly, factors that contribute to the quality of their lives. For the purpose of providing a more comprehensive study, the thesis structure is formulated as follows:

Chapter 1: This chapter contains a basic overview of the research, identifying the study’s aim, questions, and research significance. In addition, it provides detailed information about the structure of the thesis.

Chapter 2: This chapter provides basic information about Saudi Arabia, the Saudi Arabian health care system, and, specifically, the mental health care system. Finally, it focuses on schizophrenia and the perception of mental illness in Arab culture.

Chapter 3: This chapter provides a detailed review of previous literature on the relationship between schizophrenia and patients’ perceptions of QoL before data collection activities commenced. Firstly, it provides information regarding the definition and measurement of QoL for people with mental illness. Secondly, it explains the steps of an integrative review that was used for reviewing the
literature. Finally, it provides the findings of the literature review and it discusses the rationale for the current study.

Chapter 4: This chapter describes the research methodology, including the rationale behind using a mixed-methods design. Ethical considerations concerning this study are reported. In addition, it provides details of the Lancashire Quality of Life Profile - European Version (LQoLP-EU) (Gaite et al. 2000) and explains why it is used to measure QoL for people with schizophrenia in Saudi Arabia. The psychometric properties of the instrument are discussed.

Chapter 5: This chapter discusses the quantitative data analysis, which focuses on the results and discussion for each result based on the research questions.

Chapter 6: This chapter focuses on the qualitative data analysis and the results and discussion for each result based on the research question.

Chapter 7: This chapter focuses on the conclusion and recommendation for Saudi Arabian mental health services, mental health nursing practice, mental health nursing education, and future research.

**Conclusion**

This chapter has provided a brief introduction to this thesis. It has provided the background to the study and identifies the purpose of the study. The research questions and the significance of the study have been outlined together with the structure of this thesis.
CHAPTER TWO

BACKGROUND OF SAUDI ARABIA, PERCEPTION OF MENTAL ILLNESS IN ARAB CULTURE, AND QUALITY OF LIFE

Introduction
As described in chapter one, this study aims to investigate the quality of life (QoL) for Saudi Arabian people with schizophrenia. This chapter provides comprehensive information on topics related to this study and is arranged into two main parts. The first part covers the Saudi Arabian demography and topography and the history of healthcare development in Saudi Arabia with a focus on mental health services. The second part provides background information on schizophrenia and the perception of mental illness in Arab culture.

Overview of Saudi Arabia

Demography and topography
Saudi Arabia was founded in 1932 under the leadership of the late King Abdulaziz ibn Saud. It is the largest country in the Middle East and occupies about four-fifths of the Arabian Peninsula, a landmass constituting a distinct geographical entity that is bounded on the north by Jordan, Iraq, and Kuwait; on the east by the Arabian Gulf, Bahrain, Qatar, and the United Arab Emirates; on the south by the Sultanate of Oman and Yemen; and on the west by the Red Sea. The landscape comprises mostly highlands, plateaus, and deserts. Most of the surface is covered by sand, forming the deserts of Nafud, Dahna, and the Empty Quarter. Saudi Arabia has no rivers or lakes except dry river beds, which contain water only during seasonal rains. The annual average rainfall is 3-5 inches, with the Asir region in the southwest getting more rainfall, about 10-20 inches (Mufti 2000).
In Saudi Arabia, the main religion is Islam, and its official language is Arabic. Islam governs the Saudi Arabian culture and the Saudi Arabian people’s lives, and this is reflected in the legal system and the daily living activities of the people (Al-Shahri 2002). Conservative religious beliefs and social customs manipulate women’s lives and health in Saudi Arabian culture (Mobaraki & Söderfeldt 2010). Basically, the family core in Saudi Arabia is the traditional family, which is controlled by a male member who is “the breadwinner, protector, disciplinarian, and spokesperson” (Al-Shahri 2002, p.136).

In 2011, the United Nations (UN) estimated the total population at 26.1 million and urban areas housed 82% of the total population (Central Intelligence Agency 2011); this is a marked difference compared to 1960, when only 30% of Saudi Arabian people lived in urban areas (Mufti 2000). According to UN projections, the population of Saudi Arabia is expected to reach 40,472,900 by 2025 and 59,682,900 by 2050 (United Nations 2008). Table 1 below lists selected Saudi Arabian demographic and health indicators.
Table 1
Demographic indicators in the Kingdom of Saudi Arabia in 2011.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Value</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>26,131,703</td>
<td>2011</td>
</tr>
<tr>
<td>Population Growth Rate (%)</td>
<td>1.536</td>
<td>2011</td>
</tr>
<tr>
<td>Life Expectancy at Birth</td>
<td>74.11</td>
<td>2011</td>
</tr>
<tr>
<td>Total Fertility Rate (children born/women)</td>
<td>2.31</td>
<td>2011</td>
</tr>
<tr>
<td>Urban Population (% of total population)</td>
<td>82</td>
<td>2010</td>
</tr>
<tr>
<td>Percent Population 65 Years or More</td>
<td>1.03</td>
<td>2011</td>
</tr>
<tr>
<td>Crude Birth Rate (per 1,000 people)</td>
<td>19.34</td>
<td>2011</td>
</tr>
<tr>
<td>Crude Death Rate (per 1,000 people)</td>
<td>3.33</td>
<td>2011</td>
</tr>
<tr>
<td>Percent Total Adult Literacy Rate</td>
<td>78.8</td>
<td>2003</td>
</tr>
<tr>
<td>Percent Male Literacy Rate</td>
<td>84.7</td>
<td>2003</td>
</tr>
<tr>
<td>Percent Female Literacy Rate</td>
<td>70.8</td>
<td>2003</td>
</tr>
</tbody>
</table>

Note: Data obtained from Central Intelligence Agency 2011

The overall burden of schizophrenia in Saudi Arabia has been considerably reduced along with a significant reduction in mortality and morbidity from infectious and non-infectious diseases because of the improvement in healthcare services. However, infectious diseases and vector-borne outbreaks still occur, although they are no longer common diseases in Saudi Arabia. At a time of increasing longevity and considerable complications in the current lifestyle, the subsequent increase in disease patterns and the noticeable increase in non-communicable diseases such as cardiovascular disease and diabetes mellitus, the incidence of schizophrenia has become more progressive and worthy of the interest of scientists, health professionals, and authorities. It is worth mentioning, however, that traffic accidents are still the largest cause of mortality among Saudi Arabian male adults aged between 16 and 36 years, and the trend is expected to continue (World Health Organization 2006).

According to the Saudi Arabia Market Information Resource (2009), the provision of social services in Saudi Arabia aims at addressing the existing socio-economic
inequality between social classes, improving standards of living and QoL for the wider population, promoting citizen participation in community development activities, and providing curative care and assistance for the disabled and the disadvantaged. A number of social service agencies have been established to address such social problems, and many of them were created through the social development process. Such agencies usually have programmes addressing the ongoing rapid economic and social changes and provide social rehabilitation and care and treatment services that are designed to help the disadvantaged, to protect vulnerable members of society who are physically or mentally disabled, and to deal with problems such as young law-breaking.

On the other hand, while such agencies and programmes consider the value of equal opportunity, the Saudi Arabian government has allocated significant resources for a stimulus programme that covers all levels of education. In fact, this move helps to satisfy the educational aspirations of Saudi Arabian society through the provision of free education for all. In this regard, the educational system is being constantly and systematically expanded to accommodate the growing demand for educational services. According to the Saudi Arabia Market Information Resource (2009), the Saudi Arabian economy is still largely dependent on the production and export of oil. Currently and as a part of The Eighth Development Plan (Ministry of Economy and Planning 2005), the government will achieve the objectives of a modest but consistent GDP growth, increase the private sector’s share in the economy, and create a large number of employment opportunities for Saudi Arabian citizens.

**History of healthcare in Saudi Arabia**

In 1926, structured medical care was instituted in Saudi Arabia with the announcement of the establishment of the Health Department by his majesty, the late King Abdulaziz. The Health Department was responsible for planning and building hospitals and clinics in Mecca, Madinah, Jeddah, and Taif. In 1927, the Health Department was renamed the General Directorate for Health and Aid,
which was amalgamated with the Bureau of the Attorney General and steered by a council comprising the Director of Health, the Inspector-General, the Director of Quarantine, Commissioner of Mecca Police, Director of Endowments, Mayor of Mecca, and Chairman of the Eid Zubaidah Commission (Mufti 2000).

The council’s members meet once every month and are responsible for studying reports submitted by various regions, improving standards of health, and making essential decisions to avoid epidemics and sustain public health, particularly during the pilgrimage season. However, the directors of health districts are responsible for implementing the council’s decisions as well as keeping the government informed about all matters concerning the health of the population (Mufti 2000).

On the other hand, there have been periods of low health funding that caused slow progress in healthcare provision. The total number of hospital beds before 1946, in all Saudi Arabian hospitals, was about 300. The subsequent, relatively rapid improvements in healthcare were caused by economic progress after 1946. By 1950, hospitals had been established in Mecca, Medina, Jeddah, Taif, Riyadh, and Al-Hasa, in addition to many clinics. At that time, the hospitals and clinics were staffed by 111 physicians and equipped with approximately 1,000 hospital beds. However, the available facilities were still insufficient to meet the community demands, and a considerable number of people, prior to the 1960s, relied on traditional forms of healthcare such as, faith healer (Mufti 2000). Table 2 shows data concerning human and physical resources per 10,000 people.
Table 2
Availability of human and physical resources per 10,000 people in 2007

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>21.0</td>
<td>2007</td>
</tr>
<tr>
<td>Dentists</td>
<td>2.5</td>
<td>2007</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>6.2</td>
<td>2007</td>
</tr>
<tr>
<td>Nursing and midwifery</td>
<td>38.7</td>
<td>2007</td>
</tr>
<tr>
<td>Hospital beds</td>
<td>22.1</td>
<td>2007</td>
</tr>
<tr>
<td>Primary healthcare units and centers</td>
<td>0.8</td>
<td>2007</td>
</tr>
</tbody>
</table>

Note: Data obtained from Saudi Arabian Ministry of Health 2007.

**Current Saudi Arabian healthcare planning and delivery system**

Health services in Saudi Arabia are provided by a number of governmental institutions with a wide range of functions; in addition, there is a growing role and participation of the private sector in the provision of healthcare (Mufti 2000). The Ministry of Health (MOH) is considered the main governmental agency responsible for designing and implementing the national health policies, in addition to undertaking the overall supervision of healthcare-related activities provided by the private sector. It provides primary healthcare services through a network of 1986 healthcare centers (Ministry of Health 2008) and has adopted a referral system that provides curative technology specialist services through 231 general and specialist hospitals (Ministry of Health 2008).

In this regard, the Ministry of Health (MOH) is considered the main government agency responsible for designing and implementing the national health policies. The Planning and Development Unit is a part of the ministry, headed by the Deputy Minister of Health, that is responsible for coordinating and planning activities with the Ministry of Planning (MOP) within the Five-Year Development Plans (Mufti 2000).

The Eighth Development Plan (2005-2010) currently has the main focus of improving and expanding health facilities, expanding the health workforce to
meet the growing needs of the population, and maintaining higher levels of service provision. The official projections indicate that the Saudi Arabian population will continue to grow at high rates as a result of high fertility and low mortality rates (Ministry of Economy and Planning 2005).

Preventive strategies and health education programmes, implemented as a part of primary healthcare activities, will continue to influence the further decline in the incidence of infectious diseases. By contrast, there is a rising incidence of non-communicable diseases and injuries caused by traffic accidents as a result of urbanization, industrial development, increasing population density, and the changing pattern of life. Accordingly, the resulting changes in the demand for health services require the expansion of certain types of governance, and more sectors of the population will obtain health services under the umbrella of the cooperative health insurance system (Ministry of Economy and Planning 2005).

Therefore, the main objectives of The Eighth Development Plan are identified as follows: to continue the provision of preventive healthcare, treatment, and rehabilitation; to facilitate health services access for all residents; to develop and raise the efficiency of healthcare services; to increase the number of Saudi Arabian people in the health workforce; to strengthen the private sector’s role in providing healthcare services; to provide high-quality services in medical emergencies; to continue the provision of preventive, curative, and rehabilitative healthcare; and to facilitate access for the entire population (Ministry of Economy and Planning 2005). However, it is worth noting that, there is no specific mention of mental health services within the list.

**Saudi Arabian healthcare policies**

In Saudi Arabia, access to health services is considered a right for all Saudi Arabian citizens. Approximately 80% of health services are funded by the government and provided free of charge for Saudi Arabian people and public-
sector expatriates. Education, health services, utilities, and other social services are provided for free or financially supported. Generally, the Saudi Arabian people consider using free health services a right rather than a privilege and expect the government to offer the highest possible quality of healthcare free of charge. This stems from the awareness of the massive wealth of their country. The government’s policy of free care was most likely a response to the acute lack of health resources that existed before the discovery of oil and the subsequent dramatic increase in national revenue (Mufti 2000).

Organization and delivery of health services
There are eleven independent government agencies, in addition to private-sector facilities, that are involved in the provision of healthcare in Saudi Arabia. All government agencies provide health services to the majority of the population and to all residents in emergency situations. On the other hand, the Ministry of Health is the primary government agency responsible for the planning and provision of services in Saudi Arabia, with a share of approximately 65% (Mufti 2000).

However, some health services are provided by other government agencies to their own employees, such as the National Guard, the Ministry of Defence and Aviation (MODA), and the Ministry of the Interior. The universities have hospitals that provide primary and specialized healthcare, in addition to medical education, training, and research. Two specialist hospitals, King Faisal and King Khalid, provide highly specialized services to patients on a referral basis. The Royal Commission for Jubail and Yanbu provides health services to employees and their families in the industrial cities. Furthermore, the Saudi Arabian Red Crescent Society provides emergency relief and is highly active during the Hajj and Umrah pilgrimages to the holy sites (Mufti 2000).
**Saudi Arabian mental health services**

The mental healthcare system in Saudi Arabia has developed through important stages. The first stage continued until 1983; there was only one hospital, the Taif Hospital, which provided mental healthcare for all Saudi Arabian patients with mental illnesses, serving up to 1800 patients in 1978. However, because of the hospital’s location in the Western Province of Saudi Arabia, patients had to travel long distances to obtain the mental healthcare they needed. Accordingly, there were considerable difficulties, delays in obtaining the necessary care, and problems in discharging the patients to the community. The second stage started in 1983 with the establishment of smaller-sized (20-120 beds) hospitals and outpatient clinics around the country. The third stage started in 1995 and featured further incorporation of mental health with primary care (World Health Organization 2001; Al-Habeeb & Qureshi 2010).

The Saudi Arabian Ministry of Health currently provides psychiatric services and social health services through 18 psychiatric hospitals and 46 departments, as well as psychiatric clinics attached to general hospitals (Ministry of Health 2007). Taif Hospital is the largest hospital that provides mental healthcare, with a capacity of 570 beds. In addition, 14 hospitals specialize in mental health and work independently around the country. The average bed capacity of those hospitals is 20-120. Three specialized mental health hospitals operate under the Ministry of Health at the Amal Complex for Mental Health, with 280 beds each, located in Dammam, Riyadh, and Jeddah. These hospitals are jointly administered by the Ministries of Health and the Interior, treating people with alcohol and drug dependence. In 1999, a unit for the treatment of alcohol addiction and drugs, which had a capacity of 20 beds, was attached to the Qassim General Hospital. Moreover, 61 psychiatric departments and clinics are attached to general hospitals, each with a bed capacity of 20-30 (World Health Organization 2001; Al-Habeeb & Qureshi 2010).
The governmental health system controls the military, National Guard, and university hospitals. 165 beds are available for patients with mental illnesses in governmental health facilities. Moreover, there are 146 beds in general private hospitals for mental healthcare, as well as outpatient mental services. Child psychiatry services are delivered mainly on an outpatient basis, while emergency cases are admitted to pediatric departments or to general hospitals under the supervision of the nearest psychiatrist. In the school health system, six units provide some mental health services in Riyadh, and similar units are planned for other regions once the necessary staff are recruited and trained (World Health Organization 2001).

It is worth noting that, in all Arab countries, the ratio of mental health beds to the size of the population leaves much to be desired. For example, in Saudi Arabia and Jordan, there are about 12 psychiatric beds per 100 000 population, and in Egypt, there are 15 psychiatric beds per 100 000 population (Okasha & Karam 1998). To compare, in the United Kingdom, there are 90 psychiatric beds per 100 000 population, in the United States, there are 60 psychiatric beds per 100 000 population, and in Australia, there are 40 psychiatric beds per 100 000 population (Looper & Bhatia 1998). The priorities for community healthcare services in Arab countries are not focused on mental health but, rather, on more endemic health problems, such as malnutrition, parasitic infestations, maternal and child morbidity, and drug abuse; these are seen as more important priority items that influence the allocation of resources to mental health services. The programmes for community care in large cities have taken the form of outpatient clinics, hostels for the elderly, institutions for people with developmental and intellectual delays, centres for drug abuse and school and university mental health clinics (Okasha & Karam 1998).

**Mental health workforce**
Currently, there are 716 psychiatrists in Saudi Arabia, with 458 of them working for the Ministry of Health, 196 working for other governmental agencies, and 62
working for the private sector. Among these psychiatrists, only 260 are Saudi Arabian, while the others are expatriates. There are 825 social workers, 335 psychologists, and 1271 nurses (Ministry of Health 2007). While all the psychologists and social workers are Saudi Arabian, the majority of nurses are non-Saudi Arabian, such as Indians and Filipinos. All the mental health nurses (Saudi Arabian and non-Saudi Arabian), after their graduation and specializing in mental health nursing, must take an exam administered by the Saudi Arabian Commission for Health Specialties, and, based on their qualifications and duration of work experience, they will be considered nursing technicians (for individuals who obtain a diploma in nursing from a recognized health institute), nursing specialists (for individuals who obtain a bachelor’s degree in nursing from a recognized university), senior nursing specialists (for individuals with master’s or doctorate degrees in nursing and less than one year of experience in their area of study), or nursing consultants (for individuals with doctorate degrees and no less than three years of experience in their area of study). In 2005, 48 staff members from the Ministry of Health were enrolled in fellowship programmes and higher studies in psychiatry (World Health Organization 2005).

**Mental health training**
There are medical faculties in the universities of King Saud, Riyadh, Jeddah, Abha, King Faisal, and Dammam, graduating approximately 270 medical personnel every year. There are two graduate programmes in psychiatry, one at King Faisal University in Dammam and the other at King Saud University in Riyadh, and the number of medical staff members specializing in psychiatry is gradually increasing. There are also training programmes in the psychiatric units of the military hospitals, the National Guard hospitals, and King Faisal Specialist Hospital in Riyadh (World Health Organization 2001).

**National Programme for Mental Health**
The Saudi Arabian National Programme for Mental Health was established in 1989 (World Health Organization 2005). The main objectives of the National
Programme for Mental Health in Saudi Arabia are: firstly, to ensure that the necessary mental health services are available to all citizens and residents of the country, with a focus on those who are in need of more of these services in disadvantaged areas; secondly, to create a mental healthcare model in line with the social, cultural, and religious values of the country; thirdly, to encourage wider community contribution to the development of mental healthcare services; fourthly, to encourage mental health services to use the required knowledge and skills to help solve social and psychological problems and promote the application of mental health principles for better social health and social and economic development, as well as to improve QoL; and, fifthly, to minimize the adverse effects of the by-products of social and economic developments of society, such as drug abuse, smoking, and crime (World Health Organization 2005).

The strategies applied by Saudi Arabia’s mental health programme include: the integration of mental health services in general health services, supporting mental health services, making these services available in all areas, and providing mental health services for the most vulnerable groups. Another measure is the integration of mental health services with primary healthcare through providing extra training to existing health workers and linking primary healthcare centers to mental health services and education centers through a series of referral systems. Another is the provision of training and supervision by specialist mental health staff members to other medical personnel working at the primary healthcare level and providing essential drugs to neurological and psychiatric primary healthcare facilities. Yet another is cooperating with non-health sectors, leaders of local communities, non-governmental organizations, and religious institutions in the planning and implementation of health programmes (World Health Organization 2005).

*Mental Health Act*

In Saudi Arabia, there is no mental health law, and relationships between doctors and patients are organized according to Sharia’a (Islamic law) (Okasha & Karam 1998). According to the World Health Organization (2001) and Al-Habeeb and
Qureshi (2010), the Saudi Arabian Mental Health Act is awaiting formal approval by the legislature. It was formulated after the consideration of similar legislation in many countries and recommendations from the United Nations and the World Health Organization. This document contains the basic regulations for admission and discharge at psychiatric hospitals and stipulates the human rights of people with mental illness.

In Islam, “no responsibility was attributed to a child, a psychotic adult or a sleeping or stuporous person” (Okasha 2008, p. 91) The welfare and care of people with mental illness under Islam are undoubtedly the responsibility of the family (Okasha 2008). In the Arabic culture, such an illness is viewed as a family issue. Whether or not a person is hospitalized or kept in or discharged from a hospital depends not on what the individual needs but on the desire of the family. Therefore, in Arab culture, the issues of patient consent, autonomy, and decision-making are considered family-centered (Okasha 2008).

**Background of schizophrenia, perception of mental illness in Arab culture, and quality of life**

**Schizophrenia**

Schizophrenia is a devastating disorder characterized by a condition called psychosis, a state characterized by loss of contact with reality, and it manifests in a variety of ways, including false beliefs (delusions), false perceptions (hallucination), and irrational thinking and behaviours (Sadock & Sadock 2007). Worldwide, schizophrenia affects approximately 0.5-1.5% of the population, and the annual incidence is most often within a range of 0.5 to 5.0 per 10,000 people (American Psychiatric Association 2000). The most typical age for the onset of schizophrenia is during the late teens and early 20s, although cases of onset at age 5 or 6 have also been reported (American Psychiatric Association 2000).
In spite of some existing differences, men and women are equally represented in the population of individuals with this disease (American Psychiatric Association 2000). Moreover, individuals with an early age of onset (18-25 years) are more often men who have more signs of structural brain abnormalities and more prominent negative symptoms (characteristics of psychiatric illness expressed as withdrawal behaviour, expressionless face, lack of initiative, lack of interest, slow speech, not saying much when talking, slow thoughts, and slow movements). On the other hand, individuals with a later age of onset (25-35 years) are more likely to be women who have less evidence of brain structural abnormalities and better outcomes (American Psychiatric Association 2000).

One major concern among people with schizophrenia is suicide. It has been identified as the main cause of mortality and morbidity among people with schizophrenia (Lopez-Morinigo, Ramos-Rios, David & Dutta 2012). The risk of suicide among people with schizophrenia was estimated to be in the range of 2% to 5% (Plamer, Pankratz & Bostwick 2005; Dutta et al. 2010). The characteristics of people with schizophrenia who more likely to commit suicide are men who are young, single and white (Fenton 2000; Pompili et al. 2007). The main risk factors of committing suicide include: hopelessness, lack of family and social support, hospitalization, previous suicide attempts, substance abuse, deteriorating health, family stressors or volatility (Pompili et al. 2007) and a diagnosis of paranoid schizophrenia (Fenton, McGlashan, Victor & Blyler 1997).

Treatment-resistant schizophrenia is a contentious issue that attracts interest because of its effects on people with schizophrenia, their family, mental health professionals, managers, and social workers (Meltzer 1997). Treatment-resistant schizophrenia is a condition that is applied to people with schizophrenia who do not respond to antipsychotic treatment at certain doses for a certain period of time (Pantelis & Lambert 2003; Meltzer et al. 2008; Kane, Potkin, Daniel & Buckley 2011; Suzuki et al. 2011). This condition is recognized by the persistence of the
positive symptoms, e.g. delusion and hallucination, while taking antipsychotic treatment (Lindenmayer et al. 2002; Pantelis & Lambert 2003; Suzuki et al. 2011). Therefore, the persistence of positive symptoms may affect patients’ integration into their communities, perception of their quality of life, and their ability to occupy meaningful jobs. It has been suggested to describe people with treatment-resistant schizophrenia as having “incomplete recovery” (Pantelis & Lambert 2003, p. 178). The labelling of people with schizophrenia as “treatment resistant” may reflect that it is impossible to treat the symptoms; on the other hand, the use of “incomplete recovery” reflects the possibility of improving remedial outcomes with the use of improved antipsychotic medications (Pantelis & Lambert 2003).

Recovery in schizophrenia is identified as the reduction of disease symptoms and functioning with normal behaviours. Recovery is not only viewed as a reduction in disease symptoms, but is related to the ability of people with mental illnesses to view their lives with hope, meaning and purpose (Kaewporm, Curtis & Deane 2011). A number of factors were identified that affect personal recovery from mental illness, both positively and negatively. The positive factors that affect recovery from schizophrenia include hopefulness, acceptance of illness and treatment regime (Ochocka, Nelson & Janzen 2005; Kylma et al. 2006; Jensen & Wadkins 2007; Kaewporm, Curtis & Deane 2011), and supportive family and environment (Hoffmann & Kupper 2002; Jensen & Wadkins 2007). On the other hand, stigmatization of people with mental illness was found to negatively affect personal recovery (Smith 2000; Tooth, Kalyanasundaram, Glover & Momtanzadah 2003; Kaewporm, Curtis & Deane 2011). It is worth noting that the concept of recovery from mental illness is a new concept in the Arab world, and no published studies were found in this area from Arab countries.
Prevalence of schizophrenia in Saudi Arabia

It is worth noting that literature on the incidence schizophrenia in Saudi Arabia is surprisingly scarce, with few publications addressing schizophrenia-related aspects. The Saudi Arabian Ministry of Health (2008) reported that 22.4% of outpatient of mental health services were suffering from mental and behavioural disorders caused by schizophrenia or schizotypal and delusional disorders. Generally, studies on the incidence of schizophrenia in Saudi Arabia have focused mostly on specific issues associated with the disease (Zarroug 1975; Chaleby & Tuma 1987; Kent & Wahass 1996) without attempting to investigate the country-wide demographics of schizophrenia. Therefore, further studies on the demographics of schizophrenia in Saudi Arabia are needed.

Perception of mental illness in Arab culture

Cultural beliefs were found to have a great role to play in the understanding of illness. Kleinman, Eisenberg and Good (1978) discuss the notion of explanatory models of mental illness. The authors reported that culture plays a strong position in how a person views and deals with the illness and depends on personal meaning and a person’s social class in the community. Consequently, these factors shape the experience, labelling and understanding of disease symptoms, as well as physicians’ understanding of mental diseases and the actions they take, merely based on their culture. Therefore, cultural beliefs affect the view of an illness, experience of symptoms, labelling behaviours, when, with whom and where to seek help, how long the treatment will take and how to evaluate the satisfaction with treatment.

In Arab culture, the cultural and religious foundation and designation play an essential role in the recognition of mental illness (Aloud 2004). The Quran (Islam Holy book) mentions the existence of supernatural forces, and as a result, some Muslims people strongly believe that these can be the cause of mental illnesses, and not just due to cultural influences (Ally & Laher 2008). The Holy Quran says,
“...Suleiman (Solomon) did not disbelieve, but the devils disbelieved teaching men magic…” (Abdussalam-Bali 2004, p. 21). In addition, the Quran states;

I take refuge with the Load of the day break from the evil of what He has created, from the evil of darkness when it gathers, from the evil of the women who blow on knots, from the evil of an envier when he envies (Abdussalam-Bali 2004p. 22).

Arab people tend to relate mental illness to possession by a supernatural force, such as demons (Jinn), the evil eye, (Nazr or Al Ein), or magic (Sihr) (Al-Krenawi, Graham & Kandah 2000; Al-Subaie & Alhamad 2000; Stein 2000; Al-Adawi et al. 2002; Ally & Laher 2008; Okasha 2008). Consequently, the traditional belief in supernatural forces as the cause of mental illness may delay the recognition of mental illness and, therefore, delay adequate mental health management by professionals (El-Islam 2010).

The perceived causes of auditory hallucination in a sample of patients in Saudi Arabia and the United Kingdom who were attending primary healthcare centers were examined and compared (Wahass & Kent 1997). The sample consisted of 150 Saudi Arabian and 131 British patients. The results showed that, while the British patients believed that hallucinations are caused by stress, brain damage, or childhood trauma, the Saudi Arabian patients believed that hallucinations are caused by a curse, magic, or Satan’s voice. The authors concluded that, because people in Saudi Arabia believe in supernatural forces as causes of auditory hallucinations, religious help is a reasonable treatment.

Because of the prevalent views toward mental health, traditional and religious healers play a major role in primary mental healthcare in Arab culture (Al-Krenawi, Graham & Kandah 2000). Arab people often seek traditional intervention (e.g. faith healers) before making formal contact with primary health and mental healthcare providers (Al-Krenawi, Graham & Kandah 2000). Help-
seeking behaviours for mental illness among Arab people can be divided into four main steps. The first traditional step in dealing with mental illness is seeking the help of the nuclear family and, in some cases, extended family. When the family members fail to provide help, Arab people seek help from numerous other people in the public who are well-known for their justice and social skills (e.g. a good ability to communicate and interact). Otherwise, they may seek help from religious leaders, judges, or faith healers. Finally, if the previous strategies fail, people seek help from general medical doctors (Savaya 1998; Al-Krenawi 2002).

Among Saudi Arabian people, the most common faith healing is limited to the reading of verses of the Quran (Roqaya) and/or definite sayings of the Prophet Muhammad (Al-Shahri 2002). The source of faith healers’ knowledge about disorders and treatment modalities prescribed by faith healers were studied by Al-Habeeb (2004) among 45 male faith healers in the Al-Qassim region in Saudi Arabia. The results showed that faith healers in Saudi Arabia collected information about spirits, magic, and the evil eye from five basic sources: the Holy Quran (92.8%), people treated for the same problem (76%), personal experiences (72%), lectures (45%), and the mass media (10.4%), such as recorded cassettes. All the faith healers prescribed the reading of verses of the Quran (Roqaya) and the regular performance of prayers for the treatment of magic, the evil eye, or spirit possession, followed by the reading of sayings of the Prophet Muhammad (PBUH). Other treatment methods for the evil eye, spirit possession, and magic included the use of specific oils and herbs, exorcism, and physical punishments.

**Conclusion**

This chapter has provided background information about Saudi Arabia and introduced and described the healthcare system in Saudi Arabia. In Saudi Arabia, mental health law is based on Islamic law, there is currently no mental health law, and the majority of the nurses are from India and the Philippines. In Arab culture, religion and family play a strong role in the perception and treatment of mental
illness. Therefore, Arab people would prefer to use non-professional services that are related more to cultural morals and Islamic principles.
CHAPTER THREE
LITERATURE REVIEW

Introduction
This study focuses on the investigation of the quality of life (QoL) for Saudi Arabian people with schizophrenia. This chapter reviews the literature related to the areas of investigation and is organized in four main parts. The first part gives background information about the definition and measurement of QoL. The second part explains the process of the literature review that was undertaken to review studies related to the QoL for people with schizophrenia. The third part presents the main themes that were identified based on the literature review: theme 1, the quality of life of people with schizophrenia and socio-demographic characteristics; theme 2, the quality of life of people with schizophrenia internationally; and theme 3, the quality of life of people with schizophrenia in cross-cultural studies. The final part provides discussion of the literature regarding the QoL for people with schizophrenia and the rational for this study.

Quality of Life
Quality of life definition
QoL is a new view of health from a bio-psycho-social perspective that emerged as a perceived need to balance and supplement the successes of modern medicine to improve the QoL in the case of serious, chronic, and debilitating or fatal diseases (Basu 2004). These broad notions were identified by social scientists who conducted population-based QoL research that significantly contributes to social indicators such as family and social relationships (Awad & Voruganti 2000). Generally, QoL has always included several domains related to health, but the concept also initially included many other non-health related issues such as work, family, wealth, religion, and the environment (Awad & Voruganti 2000).
While the concept of QoL is supported by the literature, to date, there has been no single and unanimously accepted definition of it (Awad & Voruganti 2000; Basu 2004). In this regard, Basu (2004) focused on the historical evolution of the concept of QoL and identified QoL as “one of those words like ‘happiness’, ‘love’ or ‘peace’ that everybody grasps intuitively, but problems arise the moment one tries to formally define them” (Basu 2004, p. 37). According to Awad and Voruganti (2000), there is no agreement on the definition of QoL, and it may be that many definitions are needed depending on the population under study, the stage of the illness and its treatment, and societal expectations at a particular point in time.

Over the last 30 years, several definitions of QoL have been provided (see Table 3). Most of them were based on a theoretical orientation and ranged in scope from a focus on psychological issues such as feelings of well-being and satisfaction with issues related to standards of living such as perceived health, housing, finances, and employment (Awad & Voruganti, 2000).

Table 3
Selected definitions of QoL for people with mental illness

<table>
<thead>
<tr>
<th>Author</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WHOQOL Group (1995, p.1405)</td>
<td>“QoL is defined as individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns.”</td>
</tr>
<tr>
<td>Awad and Voruganti (2000, p.558)</td>
<td>“QoL has come to represent the ultimate outcome of the interaction between the patient and the illness, its treatment, its psychological impact, as well as social contribution and consequences.”</td>
</tr>
<tr>
<td>Katschnig (2000, p.34)</td>
<td>“... comprehensive concept, encompassing non-disease aspects of diseases, which includes three dimensions: (i) subjective wellbeing/satisfaction, (ii) functioning in daily life, including self-care and social roles, and (iii) external resources – material ones (‘standard of living’) and social support”</td>
</tr>
<tr>
<td>Lehman (1996, p. 78)</td>
<td>“... patients’ perspectives on what they have, how they are doing, and how they feel about their life circumstances. At a minimum, QoL covers persons’ sense of well-being; often it also includes how they are doing (functional status) and what they have (access to resources and opportunities)”</td>
</tr>
</tbody>
</table>
Although there is no consensual definition of QoL, there are areas of considerable agreement concerning some of the central characteristics of the concept of QoL. Firstly, the QoL concept is individual-centered and subjective in nature and oriented toward the individual experience, and the final authority or assessor of the QoL is the individual who lives that life (Basu 2004). Secondly, QoL is a multidimensional concept that includes physical, psychological, and societal facets. However, there are variations of this theme depending upon the conceptual, pragmatic, or empirical reasons of the particular group that developed the assessment instrument (Basu 2004, p.38). Thirdly, QoL is a dynamic concept that may change from day to day and is characterized by its individuality, by which each person perceives his quality of life as different from that of others (Awad & Voruganti 2000).

**Quality of life measurement**

Reviewing the literature shows that many QoL instruments have been developed for many reasons. Bobes et al. (2005) reviewed the available QoL instruments in regard to their conceptual framework, structure, administration, and psychometric properties and reported that the assessment of QoL in people with schizophrenia is an area of growing importance, as it is considered an essential outcome for clinical trials and patient management. The same author maintained that QoL assessment is based on the principle of applying medical care and interventions, bearing in mind patients’ right to autonomy, which necessarily includes taking into account their opinions during diagnostic evaluation and in formulating their care plan.

As described in Table 4 (p. 41), two basic types of instruments are used to assess QoL. Disease-specific instruments (e.g. the Quality of Life Interview and the Lancashire Quality of Life Profile) have been developed for specific diseases or groups of related diseases, and they are more suitable for clinical trials or the assessment of outcomes for specific diseases, but comparability is compromised when studying different diseases. On the other hand, generic instruments (e.g. the
World Health Organization Quality of Life and Medical Outcome Study) are intended for application with a wide range of health problems covering different types and severity levels of diseases, medical treatments, and various interventions (Basu 2004). Table 4 is presented in the next page.
<table>
<thead>
<tr>
<th>Author (year)</th>
<th>Type of instrument</th>
<th>Instrument</th>
<th>Life domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>The World Health Organization Quality of Life Group (WHOQoL) (1995)</td>
<td>Generic</td>
<td>WHOQoL (100 item &amp; Brief 26-item)</td>
<td>Physical, psychosocial, social relations, level of independence, environment, spiritual/religious/personal beliefs</td>
</tr>
<tr>
<td>Ware and Sherbourne (1992)</td>
<td>Generic</td>
<td>The Medical Outcome Study (MOS) 36-Item Short-Form Health Survey (SF-36)</td>
<td>Physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, mental health</td>
</tr>
<tr>
<td>Lehman (1982; 1983)</td>
<td>Disease-specific (mental illness)</td>
<td>Quality of Life Interview (QoLI)</td>
<td>Living situation, family relations, social relations, work and school, daily activities and functioning, finances, legal issues, personal safety, health</td>
</tr>
<tr>
<td>Oliver, Huxley, Bridges and Mohamad (1996); Gaite et al. (2000)</td>
<td>Disease-specific (mental illness)</td>
<td>Lancashire Quality of Life Profile (LQoLP; LQoLP-EU)</td>
<td>Living situation, family relations, social relations, leisure participation, work/education, finances, religion, legal and personal safety, health</td>
</tr>
</tbody>
</table>
In the case of people with schizophrenia, Caron et al. (2005) indicated that the QoL for such patients is generally measured by assessing multiple life domains, including subjective and objective components, health status, psychosocial factors, and contextual factors. Fitzgerald et al. (2001) reported that the objective components of QoL help in assessing indicators that are easily observable and can be reliably quantified, including role functioning, physical illness, psychiatric symptoms, income, occupational status, living conditions, and social activities. On the other hand, subjective components of QoL help in assessing individuals’ own perspectives of their life circumstances, including any number of the aforementioned indicators and their satisfaction with them.

**Literature review**

**Integrative literature methods**

An integrative literature review method was undertaken to review literature related to this study because it is more flexible compared to other types of literature review methods such as systematic and meta-analysis reviews (Whittemore & Knafl 2005). The integrative review method is privileged by its ability to review literature with diverse methodologies, and it can be utilized for a broad range of purposes, such as to delineate concepts, to assess evidence, and to examine the methodological issues of a specific topic under study (Whittemore & Knafl 2005). For the purpose of this study, the integrative review method was considered suitable for the literature review because there was a multiplicity of evidence regarding the perception of QoL for people with schizophrenia. It consists of five steps: 1) recognize the problem associated with the research questions, 2) conduct systematic literature search, 3) appraise the quality of the selected relevant articles, 4) review the articles to identify themes, and 5) organize the themes and critically analyse them (Whittemore & Knafl 2005).

The focus in this study was to investigate the QoL for people with schizophrenia in Saudi Arabia. However, the main problem associated with this was there is little published research about the QoL for people with schizophrenia in Saudi
Arabia. The next step of the literature review was a literature search. In this stage, the relevant literature was searched for within the topic areas of schizophrenia and QoL. The literature search was conducted systematically based on previously tried and tested bibliography search strategies. These strategies included searching by keyword, using truncation, selecting databases, and applying a limit to the search results and the number of articles extracted.

The following English terms were used as keywords: “quality of life,” “schizophr*,” and “Saudi*.” The literature review was conducted using the MEDLINE, CINAHL, Proquest, and ScienceDirect databases. The literature publication years were first limited to 2000-2010. An initial search of the aforementioned databases was carried out, followed by an analysis of the words contained in the titles and abstracts and the index terms used to describe the article. The keywords “Saudi*,” “schizophr*,” and “quality of life” were used to screen all articles published in the medical/mental health fields. This literature search process identified 2754 relevant articles (1354 from MEDLINE, 79 from CINAHL, 827 from Proquest, and 494 from ScienceDirect). Most of the search results were general articles, abstracts, letters, policy papers, and general reviews in which the terms “schizophrenia” and “quality of life” were scarcely mentioned. All of the identified articles were examined, and only 15 articles were considered to have a direct connection to this study.

Due to the relatively small number of identified articles related to the current study, it was decided to extend the search period to 10 years earlier. Therefore, the search strategy was repeated using the same databases and keywords, but the publication years were limited to 1990 to 2010. The literature search identified 3327 relevant articles (1672 from MEDLINE, 104 from CINAHL, 921 from Proquest, and 630 from ScienceDirect).
However, to narrow the scope of the review, a number of inclusion criteria were applied to select the relevant literature:

1. Articles identified as primary sources and peer-reviewed.
2. Articles that initially validated or used a previously validated measure of QoL (e.g. QoLI, LQoLP-EU).
3. Studies conducted solely on patients diagnosed with schizophrenia, schizoaffective disorder, or schizophreniform disorder.
4. Studies that measured the QoL for people with schizophrenia who were outpatients or living in the community.
5. Studies on QoL and schizophrenia published in English or Arabic.

Literature exclusion criteria were also employed such as; abstracts, proceeding papers, editorials, commentary papers, letters, articles focusing on patients with other mental illnesses, studies on the QoL for inpatients with schizophrenia, and studies on QoL that used relatives or proxies. After application of the inclusion and exclusion criteria, only 21 studies were identified as relevant to the current study.

The 21 articles selected to be relevant to this study were appraised for quality. The twelve criteria to appraise the quality of articles proposed by Cote and Turgeon (2005) were used to evaluate the quality of the selected articles: 1) the issues are clearly stated and related to the present state of knowledge, 2) the research questions and objectives are obviously declared, 3) the context of the study is clearly described, 4) the method is suitable for the research questions, 5) the selection of participants is suitable to the research question and method, 6) the process of data collection is clear and relevant, 7) the data analysis is trustworthy, 8) the main results are clearly presented, 9) quotations or numbers are used to make the results easier to understand, 10) the results are interpreted in a trustworthy way, 11) the limitations of the study are stated, and 12) the conclusion presents the results of the study and suggests direction for further research. Based on these twelve criteria, all 21 selected articles were considered to be of good
quality and were used in the literature review. The final results of the literature review were presented in tables that summarize all the selected articles (Hawker et al. 2002). The full details regarding the 21 selected articles are presented in Table 5 (pp. 46-48). All documents relevant to the literature review are provided in Appendix A.
<table>
<thead>
<tr>
<th>Author (year)</th>
<th>Country</th>
<th>Denominator</th>
<th>Instrument(s) used</th>
<th>Outcome measure/s</th>
<th>Outcome</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xiang et al. (2010)</td>
<td>China</td>
<td>251 men women</td>
<td>WHOQoL</td>
<td>Gender and QoL</td>
<td>No significant difference between the two genders in the psychological, social, and environmental aspects, but women reported lower scores on the physical aspects of QoL.</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Adewuya and Makanjuola (2009)</td>
<td>Nigeria</td>
<td>99 patients</td>
<td>BPRS, GAF, PSE, DAI-10, WHOQoL</td>
<td>Study of the QoL for people with schizophrenia in Nigeria.</td>
<td>Unemployment and poor social support related to poor QoL.</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Dimitriou, Anthony and Dyson (2009)</td>
<td>Greece</td>
<td>101 patients</td>
<td>Subjective Quality of Life Profile</td>
<td>Study of the QoL for people with schizophrenia in Greece</td>
<td>Gender, age, education, and marital status not related to QoL.</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Narvaez et al. (2008)</td>
<td>U.S.A.</td>
<td>88 outpatients</td>
<td>QoLI</td>
<td>Predictors of QoL.</td>
<td>Female, older, and less educated participants reported lower QoL.</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Heider et al. (2007)</td>
<td>France, U.K., and Germany</td>
<td>288 French patients 618 German patients 302 British patients</td>
<td>QoLI</td>
<td>Study of the QoL for people with schizophrenia in three countries over time</td>
<td>Participants from the U.K. reported significantly lower QoL than those from other countries.</td>
<td>QoL for people with schizophrenia cross-culturally</td>
</tr>
<tr>
<td>De Souza and Coutinho (2006)</td>
<td>Brazil</td>
<td>136 patients</td>
<td>LQoLP, BPRS, CDSS</td>
<td>Study of the QoL for people with schizophrenia in Brazil</td>
<td>Female and older patients associated with better QoL. High education associated with poor QoL.</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Cardoso et al. (2005)</td>
<td>Brazil</td>
<td>123 outpatients</td>
<td>QLS</td>
<td>Socio-demographic characteristics and QoL</td>
<td>Male gender, single marital status, low income, and low schooling associated with low QoL.</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Caron, Lecomte, Stip and Renaud (2005a)</td>
<td>France</td>
<td>143 patients</td>
<td>SLD, LES, SAM, SPS, PANSS</td>
<td>Socio-demographic characteristics, stressors, social support, and QoL</td>
<td>Social support related to better QoL. However, high level of education, lengths of hospitalization and severity of hassles associated with poor QoL.</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Caron, Mercier, Diaz and Martin (2005b)</td>
<td>Canada</td>
<td>181 patients</td>
<td>CaW-QLI</td>
<td>Study of the QoL for people with schizophrenia in Canada</td>
<td>Female, age 40-49, high education, and employment associated with better QoL.</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Author (year)</td>
<td>Country</td>
<td>Denominator</td>
<td>Instrument(s) used</td>
<td>Outcome measure/s</td>
<td>Outcome</td>
<td>Themes</td>
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<tr>
<td>Daradke and Al Habeeb (2005)</td>
<td>Jordan and Saudi Arabia</td>
<td>162 Jordanian patients 49 Saudi Arabian patients</td>
<td>SQLS, SRQ-24</td>
<td>Study of the QoL for people with schizophrenia in Jordan and Saudi Arabia</td>
<td>No difference in the QoL for patients in Jordan and Saudi Arabia</td>
<td>QoL for people with schizophrenia cross-culturally</td>
</tr>
<tr>
<td>Chan and Yu (2004)</td>
<td>Hong Kong</td>
<td>172 patients</td>
<td>WHOQoL, BPRS</td>
<td>Study of the QoL for people with schizophrenia in Hong Kong</td>
<td>Female, unemployment, higher levels of mental health problems, and high numbers of previous hospitalizations associated with poor QoL</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Mubarak, Baba, Chin and Hoe (2003)</td>
<td>Malaysia</td>
<td>174 patients</td>
<td>QoLI</td>
<td>Study of the QoL for people with schizophrenia in Penang, Malaysia</td>
<td>People with schizophrenia reported problems with living condition, work, finances, housing, social relations, and general health.</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Hansson et al. (2002)</td>
<td>Norway</td>
<td>418 patients</td>
<td>LQoLP, BPRS, Interview Schedule for Social Interaction, CAN</td>
<td>Relation between QoL, living situation, and social network</td>
<td>Independent housing and living with family associated with better QoL</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Bryson, Lysaker and Bell (2002)</td>
<td>U.S.A.</td>
<td>97 patients</td>
<td>QLS, QoLI</td>
<td>Paid work and QoL</td>
<td>Work activities associated with better QoL</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Salokangas, Honkonen, Stengard and Koivisto (2001)</td>
<td>Finland</td>
<td>1750 men 1506 women</td>
<td>GAS</td>
<td>Gender, marital status, and QoL</td>
<td>Female gender and marriage associated with better QoL</td>
<td>Socio-demographic characteristics and QoL</td>
</tr>
<tr>
<td>Duno et al. (2001)</td>
<td>Spain</td>
<td>44 outpatients</td>
<td>QoLI</td>
<td>Study of the QoL for people with schizophrenia in Catalan, Spain</td>
<td>Male, older, and employed participants reported high QoL</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Bengtsson-Tops and Hansson (1999)</td>
<td>Sweden</td>
<td>120 outpatient</td>
<td>LQoLP, BPRS, GAF</td>
<td>Study of the QoL for people with schizophrenia in Sweden</td>
<td>No relationship between socio-demographic characteristics and QoL</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Browne et al. (1996)</td>
<td>Ireland</td>
<td>64 outpatients</td>
<td>QLS</td>
<td>Study of the QoL for people with schizophrenia in Ireland</td>
<td>Patients who lived independently or with their family were more satisfied with their QoL than those residing in hostels or group homes</td>
<td>QoL for people with schizophrenia internationally</td>
</tr>
<tr>
<td>Author (year)</td>
<td>Country</td>
<td>Denominator</td>
<td>Instrument(s) used</td>
<td>Outcome measure/s</td>
<td>Outcome</td>
<td>Themes</td>
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<tr>
<td>Vandiver (1998)</td>
<td>Canada, Cuba, and U.S.</td>
<td>102 outpatient men and women</td>
<td>QoLI</td>
<td>Gender and QoL in three countries</td>
<td>Canadian women reported a higher QoL for social relationships than men and the opposite in Cuba. No gender difference found in the U.S. sample</td>
<td>QoL for people with schizophrenia cross-culturally</td>
</tr>
<tr>
<td>Priebe et al. (1998)</td>
<td>U.S., Germany, and Switzerland</td>
<td>24 American outpatients 24 German outpatients 24 Swiss outpatients</td>
<td>LQoLP, BPRS</td>
<td>Work and QoL in three countries</td>
<td>Generally, employment associated with better QoL in Western nations</td>
<td>QoL for people with schizophrenia cross-culturally</td>
</tr>
<tr>
<td>Warner et al. (1998)</td>
<td>U.S. and Italy</td>
<td>100 American patients 70 Italian patients</td>
<td>LQoLP, BPRS, Camerwell Needs Measure</td>
<td>To compare the QoL for people with schizophrenia in the U.S. and Italy.</td>
<td>Participants from the U.S. reported significantly lower QoL than those from Italy</td>
<td>QoL for people with schizophrenia cross-culturally</td>
</tr>
</tbody>
</table>

Schizophrenia Quality of Life Scale (SQLS), Self-Reporting Questionnaire (SRQ-24), Satisfaction with Life Domains Scale (SLDS), Life Experience Survey (LES), Stress Appraisal Measure (SAM), Social Provisions Scale (SPS), Positive and Negative Syndrome Scale (SANSS), Heinrichs Quality of Life Scale (QLS), Life Skills Profile (LSP), Brief Psychiatric Rating Scale (BPRS), Calgary Depression Scale for Schizophrenia (CDSS), Drug-Induced Extrapyramidal Symptoms Scale (DIEPSS), Global Assessment of Functioning (GAF), Present Status Examination (PSE), Lancashire Quality of Life Profile-European Version (LQoLP-EU), World Health Organization Quality of Life (WHOQoL), Canadian version of the Wisconsin Quality of Life Index (CaW-QLI), Lehman Quality of Life Interview (QoLI), Occupational Value with pre-defined items (Oval-pd), Satisfaction with Daily Occupations (SDO), Manchester Short Assessment of Quality of Life (MANSA), Past History and Sociodemographic Description Schedule (PHSD), Involvement Evaluation Questionnaire (IEQ), Verona Service Satisfaction Scale (VSSS-EU).
After the evaluation of the quality of the 21 articles, each article was reviewed to identify the themes related to the quality of life for people with schizophrenia. This process included reviewing each article and extracting the main themes and then grouping the themes together according to a common characteristic and summarizing the key findings that emerged from each group of themes (Sandelowski, Barroso & Voils 2007). Finally, the findings of the literature review were organized according to the identified themes and critically analyzed.

**Literature review themes**

After a integrative review method of the literature review, all of the identified relevant articles were extensively reviewed to identify themes related to QoL for people with schizophrenia. Three themes were identified: the QoL for people with schizophrenia and socio-demographic characteristics, the QoL for people with schizophrenia in specific catchment areas or nations, and the QoL for people with schizophrenia in cross-cultural studies.

**Theme 1: The quality of life for people with schizophrenia and socio-demographic characteristics**

Based on the systematic literature review, only seven studies were found focusing mainly on socio-demographic characteristics (gender, age, marital status, employment, and education) related to the QoL for people with schizophrenia (see Table 6).
Table 6
Studies of the quality of life for people with schizophrenia and socio-demographic characteristics

<table>
<thead>
<tr>
<th>Author/s (year)</th>
<th>Outcomes/measures</th>
<th>Socio-demographic variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xiang et al. (2010)</td>
<td>Gender and QoL</td>
<td>Women reported low QoL in physical aspects (e.g. pain, fatigue)</td>
</tr>
<tr>
<td>Narvaez et al. (2008)</td>
<td>Clinical, functional, and cognitive predictors of subjective and objective QoL</td>
<td>Female, older, and less educated participants reported lower QoL.</td>
</tr>
<tr>
<td>Cardoso et al. (2005)</td>
<td>Socio-demographic and clinical factors related to low QoL</td>
<td>Single male participants with low levels of schooling and income reported low QoL</td>
</tr>
<tr>
<td>Caron et al. (2005a)</td>
<td>Socio-demographics, clinical characteristics, stressors, coping strategies, social support, and QoL</td>
<td>Patients with higher levels of education reported low QoL.</td>
</tr>
<tr>
<td>Hansson et al. (2002)</td>
<td>Relationships between the living situation in the community and QoL</td>
<td>Individuals with independent housing showed better QoL</td>
</tr>
<tr>
<td>Bryson, Lysaker and Bell (2002)</td>
<td>Paid work and QoL</td>
<td>Paid work improved QoL</td>
</tr>
<tr>
<td>Salokangas et al. (2001)</td>
<td>Gender, marital status, and QoL</td>
<td>Single men reported poor QoL</td>
</tr>
</tbody>
</table>
Xiang et al. (2010) studied the association between gender and QoL in 251 male and 254 female patients with schizophrenia using the World Health Organization Quality of Life (WHOQoL) questionnaire in Hong Kong and Beijing, China. They found that there was no significant difference between the genders in their perceived QoL, but women reported lower scores on the physical health items of the WHOQoL (e.g. fatigue, pain and discomfort) with respect to QoL. The authors reported that the lower QoL for women may be due to the relatively more severe discrimination against women with schizophrenia in Chinese society.

In the United States, Narvaez et al. (2008) examined the predictors of QoL in 88 outpatients with schizophrenia or schizoaffective disorder. They used the Lehman Quality of Life Interview (QoLI) to measure the QoL for people with schizophrenia. The results showed that women, older, and less educated participants reported lower QoL. However, the authors failed to investigate the relationship between employment, marital status, and quality of life due to the small number of employed (n=5) and married individuals (n=9).

The socio-demographic characteristics related to the low QoL for people with schizophrenia were studied by Cardoso et al. (2005) among 123 outpatients with schizophrenia in Brazil. The patients were interviewed using the Quality of Life Scale - Brazilian version (QLS-BR scale). The results revealed that the socio-demographic characteristics associated with low QoL included male gender, single marital status, and low levels of schooling and income.

In France, the relationships between socio-demographic characteristics, stressors, coping strategies, social support, and QoL were studied by Caron et al. (2005a) in a cross-sectional design with repeated measures on the same participants after a 6-month interval. In their study, 143 outpatients with schizophrenia or schizoaffective disorder were included, and their QoL was measured using the Satisfaction with Life Domains Scale (SLDS). The study revealed that, in regard
to socio-demographic characteristics, participants with higher levels of education scored lower on QoL both times. Overall, the study suggested that the availability of close personal relationships would enhance emotional integration and have a positive effect on satisfaction with QoL.

The relationships between the living situation in the community and QoL, as well as the social network among community-based individuals with schizophrenia, were studied by Hansson et al. (2002) in Sweden. A total of 418 outpatients with schizophrenia were interviewed through the use of Lancashire Quality of Life Profile (LQoLP) to measure their QoL. They found that 70% of the participants were living in a public or privately owned apartment or house, only 26% were living in a sheltered or supported residential setting, and 19% lived with their families. Overall, individuals with independent housing showed better QoL and were more satisfied with their privacy and autonomy (Hansson et al. 2002).

Bryson, Lysaker, and Bell (2002) investigated the relationships between paid work and QoL measures in a sample of 97 outpatients with schizophrenia or schizoaffective disorders through the use of the QLS and QoLI in the United States of America. The study revealed that paid work improved the QoL for people with schizophrenia. In addition, the results indicated that an increased number of working weeks was related to high total QLS scores.

The association between gender, marital status, and the QoL for people with schizophrenia was examined by Salokangas et al. (2001) in Finland. In the study, interviews were conducted with 1,750 male and 1,506 female outpatients with schizophrenia using the Global Assessment Scale (GAS). The authors found that the female participants tended to be married, older in age, with a long duration of illness, and moved after discharge from the hospital to live alone or with their spouses more often than did men. The results revealed that single men had a poorer QoL than others in almost all areas of measurement, including work life,
daily functioning, housing condition, number of confidants, and psychosocial stability state. Generally, women were found to be more unaffected by their marital status, were more satisfied with their own lives, had closer interpersonal relationships, and had done useful work more often than men had.

**Theme 2: The quality of life of people with schizophrenia internationally**

The systematic literature review identified nine studies that explored the QoL for people with schizophrenia in different countries and related to their cultural context. These studies were undertaken in Western and non-Western nations including Canada, Greece, Sweden, Ireland, Spain, Brazil, Hong Kong, Malaysia, and Nigeria (see Table 7).
### Table 7
Studies of the quality of life for people with schizophrenia internationally

<table>
<thead>
<tr>
<th>Author/s (year)</th>
<th>Country</th>
<th>QoL for people with schizophrenia in relation to the country system.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adewuya and Makanjuola</td>
<td>Nigeria</td>
<td>Patients reported poor QoL due to poor rehabilitation facilities for people with mental illness in Nigeria.</td>
</tr>
<tr>
<td>Dimitriou, Anthony and</td>
<td>Greece</td>
<td>No relationship was found between QoL and socio-demographic characteristics. This can be rationalized by the homogeneity of Greek culture and the high stigmatization of people with schizophrenia.</td>
</tr>
<tr>
<td>Dyson (2009)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caron et al. (2005b)</td>
<td>Canada</td>
<td>Women enjoyed a better QoL in the area of living activities than men due to traditional and cultural factors that require women to be more involved in household activities and shopping.</td>
</tr>
<tr>
<td>Chan and Yu (2004)</td>
<td>Hong Kong</td>
<td>Due to cultural factors, women had poor QoL in Hong Kong because women have to take care of children and the elderly.</td>
</tr>
<tr>
<td>Mubarak et al. (2003)</td>
<td>Malaysia</td>
<td>People with schizophrenia in Malaysia have problems with housing, social functioning, finances, and work due to a lack of community rehabilitation facilities in Malaysia.</td>
</tr>
<tr>
<td>De Souza &amp; Coutinho</td>
<td>Brazil</td>
<td>Because the majority of the people live with their families in Brazil, the participants were highly satisfied with their family relationships.</td>
</tr>
<tr>
<td>Duno et al. (2001)</td>
<td>Spain</td>
<td>Patients were satisfied with their family relationships due to the strong role of the traditional family structure in Spain.</td>
</tr>
<tr>
<td>Bengtsson-Tops and</td>
<td>Sweden</td>
<td>Patients were dissatisfied with their finances due to changes in the state and local community allowance system in Sweden with regard to housing and the costs of medicine.</td>
</tr>
<tr>
<td>Hansson (1999)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Browne et al. (1996)</td>
<td>Ireland</td>
<td>Patients rated their QoL at less than 50% of the maximum score on the Quality of Life Scale due to the cultural norms in Ireland.</td>
</tr>
</tbody>
</table>
In a Nigerian study, Adewuya and Makanjuola (2009) examined the relationship between socio-demographic characteristics and subjective QoL among 99 outpatients with schizophrenia using the WHOQoL questionnaire. The study showed that poor subjective QoL was associated with unemployment and poor social support. The same study revealed that Nigerian people with schizophrenia perceived their QoL to be lower than those reported in other world regions. The authors reported that this result could be due to the poor facilities and amenities that are available for the treatment and rehabilitation of people with mental illness in Nigeria.

In Greece, Dimitriou, Anthony, and Dyson (2009) used the Subjective Quality of Life Profile (SQLP) and QoLI to explore the QoL for 101 outpatients with schizophrenia. They found that age, gender, and marital status were not related to QoL for people with schizophrenia. They explained the homogeneity of the Greek population and the high stigmatization of people with mental illness such that people with schizophrenia find it very difficult to obtain employment and find partners. However, only the level of education was associated with QoL; participants with high levels of education reported better QoL. The authors reported that this result can be explained by the fact that participants with higher educational levels had better expectations of change after receiving medical treatment.

In Canada, using the Canadian version of the Wisconsin Quality of Life Index (CaW-QLI) to examine the relationships between socio-demographic characteristics and the QoL for 181 outpatients with schizophrenia, Caron, Mercier, Diaz, and Martin (2005b) found that women enjoyed a better QoL in the area of living activities (e.g. living arrangements and working status) than men. This could be caused by traditional and cultural factors that require women to be more involved in household activities and shopping, which, in turn, allow them to develop abilities in this area that are superior to those of men. However, in the area of education, tertiary-educated participants reported
higher psychological well-being than those with only a primary education. In the work domain, employed individuals were found to have greater QoL in the areas of social support, relationships, physical health, and global QoL score.

In Hong Kong in a study conducted by Chan and Yu (2004), the QoL was investigated for 172 outpatients with schizophrenia. The participants were interviewed using the Hong Kong Chinese version of the WHOQoL. The study revealed that the unemployed participants were less satisfied with their QoL than others. Women reported lower QoL than men in the domains of life enjoyment, leisure, and personal safety. The authors explained the difference in QoL between men and women by cultural factors as, traditionally, women in Hong Kong have to take care of children as well as older family members, and women still occupy a social position that is substandard compared to that of men; therefore, women are more susceptible to crimes such as domestic violence, rape, and assault.

In Malaysia, Mubarak et al. (2003) measured the QoL for 174 outpatients with schizophrenia in Penang, Malaysia. The participants were interviewed using the QoLI. The study showed that Malaysian people with chronic schizophrenia and living in the community faced many challenges in their day-to-day lives in the domains of housing, daily activities, social relations, finance, work, and general health. The authors argued for the creation of community-based rehabilitation facilities, which are crucial for the implementation of community-based treatment of people with schizophrenia in Malaysia.

In Brazil, using the LQoLP, De Souza and Coutinho (2002) examined the QoL for 136 Brazilian outpatients with schizophrenia. Most of the participants reported that religion was a source of leisure and social support, and this was evident in the high level of satisfaction with the religious domain. In addition, participants were very satisfied with their family relations; satisfaction with
family relations was the second-highest score after religion. The high level of satisfaction with family relations was explained by the fact that, in Brazil, a great proportion of people with schizophrenia live with their families, which certainly represent a source of informal care for these patients. However, high education levels were associated with lower subjective QoL scores, and this could be due to frustration with the ability to achieve goals that are compatible with their educational level.

In Spain, Duno et al. (2001) assessed the subjective QoL for 44 outpatients with schizophrenia living in Catalan using the QoLI. The results showed that male, older, and employed participants reported a high QoL. The authors found that participants were more satisfied with the areas of housing and family relations compared with respondents in other studies. The authors argued that the high level of satisfaction with the housing and family domains is a result of several reasons: firstly, in Spain, there are no community-based mental health and social services; secondly, the Spain National Health Service’s resources for people with mental illness who live in the community are limited to outpatient clinic visits for medication control; thirdly, as a result of the traditional family structure in Spanish society, the majority of patients live with their original families, who serve as their main support system. In addition, the authors reported that due to very low social adversity and Catalonian persecution, the participants reported higher levels of satisfaction with personal safety than those in some American cities.

In Sweden, Bengtsson-Tops and Hansson (1999) assessed the QoL for 120 outpatients with schizophrenia using the LQoLP. The results of the study showed that the participants were mostly satisfied with religion and mostly dissatisfied with finances and work. The high dissatisfaction with the financial domain may be due to the fact that people with schizophrenia in Sweden have problems in handling their personal finances, while for others, it reflects worries about the future and feelings of dependency, which may be a result of changes...
in the state and local community allowance system with regard to housing and the costs of medicine. There were no relationships between socio-demographic variables such as age, gender, employment, marital status, social and family relationships, and QoL.

In Ireland, Browne et al. (1996) measured the QoL for 64 outpatients with schizophrenia who were attending a rehabilitation center to examine the relationships between socio-demographic characteristics and QoL using the Quality of Life Scale (QLS). The results revealed that the participants rated their QoL at less than 50% of the maximum score of the QLS, which may be due to the local norms of the catchment area, as each item of the QLS is scored relative to local norms (Browne et al. 1996, p. 122). No relationships were found between QoL and gender. Patients who lived independently or with their families were more satisfied with their QoL than those residing in hostels or group homes. However, the author did not provide an explanation of those local norms that affected the QoL for people with schizophrenia in Ireland.

**Theme 3: The quality of life for people with schizophrenia in cross-cultural studies**

As described in Table 8, five studies investigated the QoL for people with schizophrenia cross-nationally. Those studies compared the QoL for people with schizophrenia in general or with respect to specific socio-demographic factors between two or more countries.
Table 8
Cross-cultural studies of the quality of life for people with schizophrenia

<table>
<thead>
<tr>
<th>Author/s</th>
<th>Cultures</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heider et al. (2007)</td>
<td>France, U.K., and Germany</td>
<td>Participants from the U.K. reported lower QoL than those from the other two countries</td>
</tr>
<tr>
<td>Daradkeh and Al Habeeb (2005)</td>
<td>Jordan and Saudi Arabia</td>
<td>No difference was found</td>
</tr>
<tr>
<td>Priebe et al. (1998)</td>
<td>United States, Germany, and Switzerland</td>
<td>Employment was associated with better QoL</td>
</tr>
<tr>
<td>Vandiver (1998)</td>
<td>Canada, Cuba, and United States</td>
<td>Canadian women reported a higher QoL for social relationships than men, and the opposite was found in Cuba</td>
</tr>
<tr>
<td>Warner et al. (1998)</td>
<td>United States and Italy</td>
<td>Participants from the U.S. reported lower QoL than those from Italy</td>
</tr>
</tbody>
</table>

Heider et al. (2007) investigated factors influencing the subjective QoL for outpatients with schizophrenia in a longitudinal study in three countries: France, the U.K., and Germany. The study sample consisted of 288 French, 302 British, and 618 German patients. Between 1998 and 2002, the patients were interviewed at 6-month intervals for a total of 2 years. The patients’ QoL was measured using the QoLI. The study revealed that participants from the U.K. reported significantly lower QoL in housing, daily activities and functioning, family, legal and safety issues, and health in comparison with those from Germany and France.

Daradkeh and Al Habeeb (2005) studied the QoL for 211 outpatients with schizophrenia from two outpatient clinics in Irbid, Jordan, and Riyadh, Saudi Arabia. The participants were asked to fill out the modified version of the schizophrenia QLS. They found that nearly a quarter of the patients viewed their general health as excellent or good, while 30% met their expectations, and their high rating of QoL was explained by the psychosocial support they obtained from relatives. In addition, gender and marital status were found to be unrelated to QoL, while employment and high education levels were strongly related to better QoL.
Priebe et al. (1998) examined and compared the attitudes toward work, work incentives, and the impact of work on the QoL for 72 outpatients with schizophrenia, 12 employed and 12 unemployed, from the United States, Germany, and Switzerland using the LQoLP. The results confirmed that employed people with schizophrenia showed remarkable advantages regarding their financial situation, personal safety, and satisfaction with work, leisure, and finances. In addition, in the Western industrialized countries, the association between employment and QoL seemed to be similar.

Vandiver (1998) examined the QoL for 102 outpatient men and women with schizophrenia in Canada, Cuba, and the United States using the QoLI. They found no difference between men and women in the combined sample. However, differences were found between men and women in Canada and Cuba in the social relationship domain. In Canada, women reported higher QoL for social relationships because of the availability of the Canadian healthcare system. On the other hand, Cuban women reported lower QoL for social relationships, apparently because the social relationships of the Cuban women were constrained by the multiple roles of caregiver, housewife, and worker.

Warner et al. (1998) used the LQoLP to compare the QoL for 100 outpatients with schizophrenia from Boulder, Colorado, in the United States and 70 people with schizophrenia from Bologna, Italy. They hypothesized that the dissimilar culture and mental health services in the two countries would lead to differences in the QoL for people with schizophrenia. The results showed that the QoL for people with schizophrenia in Bologna was better than that of the people in Boulder. Several QoL differences favored Bologna over Boulder: higher rates of marriage and partnership, greater length of employment, higher wage rates, greater total earnings, fewer financial obstacles, and more residential stability. Most importantly, more patients in Bologna were living with family and family living was associated with such advantages as meeting the individual’s basic needs for accommodation, food, home care, and budgeting.
Literature review discussion and rationale for this study

The literature review identified three main themes: studies of socio-demographic characteristics associated with QoL, studies of QoL in certain countries, and comparisons of the QoL for people with schizophrenia in two or more countries. Based on the literature review of socio-demographic characteristics associated with QoL, it is clear that there have been inconsistencies in the results regarding the association between gender, educational level, and the QoL for people with schizophrenia who live in the community. While women reported low total scores for perceived QoL (Narvaez et al. 2008) and low QoL in the physical domain (Xiang et al. 2010), Cardoso et al. (2005) found that being a man is a predictive factor associated with low QoL among people with schizophrenia. The difference in the QoL between men and women was rationalized by cultural factors. For example, in China, women with schizophrenia experience high levels of discrimination, which, in turn, negatively affects their QoL (Xiang et al. 2010). However, Cardoso et al. (2005) rationalized the low QoL found for men by the fact that most women are involved in household activities, unlike men, who tend to stay at home without any responsibilities due to their mental illness. Therefore, it is clear that social and cultural factors play a strong role in the perception of QoL for men and women with schizophrenia.

As for the association between the level of education and QoL, Narvaez et al. (2008) and Cardoso et al. (2005) found that less educated people tended to report a low QoL. In contrast, Caron et al. (2005a) and De Souza and Coutinho (2006) indicated that people with high levels of education reported a poor QoL. However, all of the studies agreed that being employed, having a high income, having social support, living with family, and being married were related to better QoL.

Studies measuring the QoL for people with schizophrenia in specific countries have revealed that the QoL for people with schizophrenia depends upon specific factors related to the geographical area, such as the availability of mental health facilities and services (Mubarak, Baba, Chin & Hoe 2003; Adewuya &
Makanjuola 2009), the homogeneity of the community (Dimitriou, Anthony & Dyson 2009), traditional and cultural factors (Duno et al. 2001; Chan & Yu 2004; Caron, Mercier, Diaz & Martin 2005b; De Souza & Coutinho 2006), traditional family roles (Duno et al. 2001; Chan & Yu 2004; De Souza & Coutinho 2006), local norms (Browne et al. 1996), and lifestyle (Bengtsson-Tops & Hansson 1999). However, several studies fail to give clear explanations and examples of local norms and factors affecting the QoL for people with schizophrenia (Browne et al. 1996). Based on a review of the studies of the QoL for people with schizophrenia, factors that most affect their QoL include: 1) traditional and cultural factors and 2) traditional family roles. All of these factors must be taken into consideration when conducting a study investigating QoL. Each culture, city, or county can be regarded as having a unique lifestyle and traditional culture; thus, the results must be interpreted with caution with respect to generalizability.

Cross-cultural studies of the QoL for people with schizophrenia should measure QoL using the same inclusion criteria and the same measurement scale. Each country has different cultural, traditional, and economic features; backgrounds; community compositions; healthcare systems; and social support network availability, and all of these factors were found to influence the QoL for people with schizophrenia living in such surroundings (Priebe, Warner, Hubschmid & Eckle 1998; Vandiver 1998; Warner et al. 1998; Daradkeh & Al Habeeb 2005; Heider et al. 2007). It can thus be concluded that mental health services and programmes must be tailored in accordance with the local culture, lifestyle, community homogeneity, and current availability of mental health services in order to improve the QoL for people with schizophrenia.

Furthermore, the review of the literature on the QoL for people with schizophrenia identified a limitation in the methodology of the previous studies. The previous studies focused only on socio-demographic factors and did not try to investigate other factors associated with QoL. The limitation of the studies
methodology of the QoL was firstly and only identified by Bengtsson-Tops and Hansson (1999) who studied the QoL for 120 patients with schizophrenia in Sweden through the use of a well established quality of life instrument (Lancashire Quality of Life Profile). The authors reported a very important limitation of their study that need to be investigated in future studies, which is, by using quantitative data only, they were unable to identify other information that would provide a holistic picture of the QoL for people with schizophrenia, such as, “the patient’s needs and fulfillment of needs as well as deficiencies and strengths in function skills within different life domains” (Bengtsson-Tops & Hansson 1999, p.262). Therefore, Bengtsson-Tops and Hansson (1999) recommended to combine quantitative and qualitative data in order to obtain a comprehensive view of the QoL for people with mental illness. The use of quantitative and qualitative data will help to view people with mental illness from a holistic standpoint as whole persons involved in daily life. An extensive literature search showed there were no published articles that combine quantitative and qualitative data to investigate the QoL for people with schizophrenia.

Therefore, the current study intends to study the QoL for people with schizophrenia through the use of quantitative and qualitative data to fill in the gaps identified in previous studies and to provide a comprehensive view of the QoL for people with schizophrenia who live in Saudi Arabia.

Conclusion

This chapter provides a comprehensive picture of the research literature on the QoL for people with schizophrenia. While the QoL concept is supported in the literature, there is no agreement on its definition. There are numerous QoL scales, and they vary in nature, such as being generic or disease-specific and covering various life domains or overall QoL. Based on the literature review of studies investigating the socio-demographic characteristics associated with QoL, there was inconsistency in the results regarding the association between gender,
educational level, and the QoL for people with schizophrenia. However, all the studies agreed that being employed, having a high income, having social support, living with family, and being married were related to better QoL.

Studies measuring the QoL for people with schizophrenia in specific catchment areas and countries have revealed that QoL depends upon specific factors related to the geographical area such as the availability of mental health facilities and services, traditional and cultural factors, and traditional family roles. The literature review identified a major limitation in the methodology reported in the literature: the fact that all the studies used only quantitative methods to measure the QoL for people with schizophrenia, therefore reported quantity as opposed to including a qualitative view which may have allowed individuals to expand on concepts from a subjective viewpoint. Therefore, this study was designed to address this limitation by measuring QoL through the use of a mixed-methods approach.

The literature review undertaken and reported in this chapter, also provided some insight to the researcher for the design of the study presented in this thesis. The research design and methodology are presented and discussed in detail in the following chapter.
CHAPTER FOUR
METHODOLOGY

Introduction
As explained previously, this study’s primary aim was to investigate the quality of life (QoL) for Saudi Arabian people with schizophrenia as reported by them. Based on the research questions, the research design for this study used a mixed methods approach to data collection and analysis. This mixed method approach involved both quantitative and qualitative methods for data collection and analysis. This study addresses the following questions:

1. How satisfied with their QoL are Saudi Arabian people with schizophrenia?

2. What are the relationships between:

   A. Socio-demographic characteristics and the QoL for people with schizophrenia in Saudi Arabia?

   B. Socio-demographic characteristics and the individual QoL domains of the LQoLP-EU (education/work, leisure, religion, income, living situations, legal and safety, family relations, social relations, and health) for people with schizophrenia in Saudi Arabia?

3. How do people with schizophrenia in Saudi Arabia perceive their QoL?

A detailed explanation of this study’s methodology is undertaken in this chapter. This explanation has been organised into five sections for clarity. Firstly, the
study’s design will be detailed. This will be followed by a discussion of the ethical considerations associated with the study. The third section explains the sampling technique, sample size estimation and participants. The fourth section discusses the study’s instruments and psychometric properties. Finally, this chapter discusses the study’s data analysis including both the quantitative and qualitative data.

**Study design**

This study was designed to implement a mixed methods approach to information gathering and analysis of the information gained. Mixed methods research is an approach that includes a combination of elements from qualitative and quantitative approaches in a single study based on the research questions posed (Johnson, Onwuegbuzie & Turner 2007; Creswell & Clark Plano 2011). The main purpose of mixed methods research is to acquire a breadth and depth of understanding about the study’s concern while corroborating findings (Creswell & Clark Plano 2011). Mixed method studies include aspects of quantitative and qualitative methods like data collection and analysis (Johnson, Onwuegbuzie & Turner 2007; Polit & Beck 2008). The combination of quantitative and qualitative methods relies on the strength of both methods while limiting the weaknesses of each one. In addition, using both methods allows for more comprehensive analysis (Polit & Beck 2004; Teddlie & Tashakkori 2009; Creswell & Clark Plano 2011).

Mixed methods research was developed to suit particular research problems (Teddlie & Tashakkori 2009; Creswell & Clark Plano 2011). For instance, the research problems that include the use of either quantitative or qualitative data alone, may be insufficient to provide a holistic picture. Quantitative and qualitative data both have strengths and limitations. While the quantitative data offer a general understanding regarding the area of investigation and relies on statistical methods for data analysis, the qualitative data offer an in-depth understanding, and adds a quality rather than a quantity view. In other words,
qualitative approaches allow for a very personal and subjective perception of QoL compared to QoL assessment tools which are very generic in that they are for all people not just an individual; thus, the interviews provided an individual view of the QoL for each participant (Polit & Beck 2004; Teddlie & Tashakkori 2009; Creswell & Clark Plano 2011). Therefore, the use of only quantitative or qualitative data may be insufficient at providing a full understanding of the issues under consideration. In this study, mixed methods were used to provide comprehensive knowledge about Saudi Arabian people’s QoL, the relationship between their socio-demographic characteristics and their QoL, and how Saudi Arabian people with schizophrenia perceive their QoL.

Creswell and Clark Plano (2011) have suggested the following six main types of mixed methods design. Convergent design includes collecting quantitative and qualitative data before integrating the data during analysis to compare results. Explanatory design includes collecting quantitative data and analysing it quantitatively. After the quantitative component, a qualitative study in carried out based on the quantitative results in order to further explain the data. Exploratory design includes collecting qualitative data and analysing it before designing a quantitative study based on the qualitative results in order to generalize findings. An embedded design includes collecting and analysing either quantitative or qualitative data primarily then analysing secondary data embedded within the primary data. In embedded mixed methods design, the secondary data is used to support and integrate the primary data. Transformative design involves collecting quantitative and qualitative data by integrating or linking data based on the design used, either simultaneously or sequentially. Multistage design includes collecting and analysing data for each stage of a project and integrating data at the end of the whole project.

This study employed an embedded mixed methods design, which includes collecting quantitative and qualitative data at the same time. It involved analysing quantitative data by way of statistics and analysing qualitative data through
thematic analysis. Finally, it uses both forms of data to describe the perceived QoL for those with schizophrenia in Saudi Arabia.

This study was designed using mixed methods for two main reasons. Firstly, a mixed methods approach would allow for a more in depth description of QoL for the participants in the study. QoL for people with mental illness is a complicated concept, the findings of either a quantitative or qualitative study may not capture the full picture. For example, findings from the quantitative study will answer the research question related to Saudi Arabian people’s satisfaction with QoL, and the relationship between their socio-demographic characteristics and QoL. However, the use of only quantitative data may not give a comprehensive view of how Saudi Arabian people with schizophrenia perceive their QoL. Therefore, conducting a mixed methods study provides more comprehensive knowledge about the QoL for Saudi Arabia people with schizophrenia by elaborating on the results of the quantitative study using the qualitative study or vice versa (Creswell & Clark Plano 2011).

An example of how the use of a mixed methods approach yields a comprehensive analysis can be seen in a study by Benoit et al. (2007) who used a longitudinal mixed methods research design to investigate an understanding of the social context of postpartum depression. The study involved interviewing a group of women three times; during their third trimester of pregnancy (n=93), at 3-4 weeks postpartum (n=89), and during the 4-6 months postpartum period (n=83). Furthermore, participating women were asked to complete the Beck Depression Inventory at all three interviews. The findings of a quantitative analysis showed that there was a correlation between satisfactions with birth experience and depression at 3-4 weeks of postpartum; while a qualitative data analysis identified two main sources of dissatisfaction: disruption of birth plans and inadequate support from maternity providers. This study confirmed how the use of mixed methods can offer a more comprehensive understanding about the social context of postpartum depression than the use of a qualitative or quantitative study alone.
The second reason for using a mixed methods approach was to expand the scope of the study. This study primarily used quantitative data in order to investigate Saudi Arabian people’s satisfaction with QoL and to examine the relationship between their socio-demographic characteristics and QoL. However, the scope of the study was enlarged by collecting qualitative data in order to gain knowledge about how Saudi Arabian people with schizophrenia perceive their QoL. Consequently, employing quantitative and qualitative approaches in a single study to investigate different problems expanded the study’s scope (Teddle & Tashakkori 2009).

**Ethical considerations**

An ethics application to conduct this research was submitted in June 2009 to the University of Wollongong Human Research Ethics Committee (HREC) in Australia. Permission was granted by the committee, enabling the study to be conducted (ethics committee approval number HE09/236). Another ethics application to conduct this study was submitted in October 2009 to the manager of King Fahd University Hospital (KFUH) in Saudi Arabia. Approval to undertake the study was received from the hospital in December 2009. Documents relevant to the ethical approval are presented in Appendix B.

Research ethical considerations including the nature and aims of the research, voluntary participation, the right to withdraw from participation, the protection of confidentiality and privacy of patients, the use and publication of the research results, the storage of data, and benefits of research were explained in writing to potential participants. This information was conveyed in the human ethics application form as well as the research information package; it was also verbally reinforced before the administration of the questionnaire administration. All the information the patients provided was confidential, and no identifying information was used. Data obtained from the patients were kept under lock in the researcher’s personal computer and her file binder while collecting data from Saudi Arabia. In Australia, research data were stored in a filing cabinet in the office of the
Associate Head of the nursing school at the University of Wollongong, Australia. The researcher and her supervisors were the only ones with access to the research data, and the data will be destroyed five years after the completion of this thesis.

**Sampling technique, sample size estimation and participants**

**Sampling technique**
Because of the nature and aim of this study, a purposive sampling technique, which involved using a predefined group of study subjects, was used. This sampling technique would enable the researcher to obtain specific and relevant information about the QoL for a group of people with schizophrenia in Saudi Arabia. The selection process can be described as purposive, judgmental, and non-random, based on strict selection criteria for the participants (Parahoo 2006).

**Sample size estimation**
In order to determine the sample size, a power analysis using G*Power (Faul, Erdfelder, Lang & Buchner 2007), a stand-alone power analysis programme for statistical tests, was conducted. The seven socio-demographic characteristics (age, gender, education, employment, income, living situation, and marital status) were used in a multiple regression equation. G*Power indicated that a minimum sample size of 103 was needed for a medium effect size for a power of 0.80 and an alpha of 0.05. A minimum sample size of 153 was needed for a medium effect size with a power of 0.95 and an alpha of 0.05. Therefore, a sample size of 159 is considered sufficient to undertake the current study.

**Participants**
The study was carried out at King Fahd University Hospital (KFUH) in Al-Khobar, Eastern Province, Saudi Arabia. The 444-bed hospital provides general and tertiary care, and receives referrals from many parts of the Eastern Province. The KFUH psychiatric department is the original and only psychiatric inpatient
service in the Al-Khobar area. It was opened in 1988 with a capacity of 18 beds—10 for men and 8 for women (AbuMadini & Rahim 2002).

The participants of the current study were people with schizophrenia. The study inclusion criteria were; Saudi Arabian citizens, aged 18-65 years, and meeting the DSM-IV –TR (American Psychiatric Association 2000) diagnosis of schizophrenia. The patients were identified as being clinically stable by a psychiatrist. On the other hand, a group of exclusion criteria was also applied to the patients’ participation in the current study. In this regard, patients diagnosed with co-morbidities—such as alcohol and substance disorders, neuro-cognitive impairment such as dementia, and those with special needs—were excluded.

Study instrument
This study primarily aimed to investigate the QoL for Saudi Arabian people with schizophrenia. It used the Lancashire Quality of Life Profile-European Version (LQoLP-EU) questionnaire (Gaite et al. 2000) as a data collection instrument. The LQoLP-EU is a structured interviewer-administered questionnaire. The original LQoLP was developed by Oliver, Huxley, Bridges and Mohamad (1996) from Lehman’s Quality of Life Interview (QoLI) (1982; 1983). It integrates various domains of life, including those associated with subjective (patient’s point of view including feelings, perceptions and concerns) and objective (observable and measurable data obtained through observation and assessment) measures. The LQoLP and LQoLP-EU is a well-known instrument to measure QoL for people with schizophrenia and one of the most widely used instruments for the assessment of QoL in schizophrenia research (Van Nieuwenhuizen, Schene, Koeter & Huxley 2001).

The LQoLP-EU is comprised of 105 items and combines personal characteristics, objective QoL indicators, subjective QoL indicators, and a global well-being measure. As described in Table 9, each measure includes a number of items.
Table 9
Structure of Lancashire Quality of Life Profile-European Version (LQoLP-EU)

<table>
<thead>
<tr>
<th>Measures</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal characteristics</td>
<td>Age, gender, ethnic group, and age upon leaving full-time education</td>
</tr>
<tr>
<td>Objective and subjective quality of life indicators</td>
<td>Work/education, participation in leisure activities, religion, finances, living situation, legal and safety, family relations, social relations, and health</td>
</tr>
<tr>
<td>Global well-being</td>
<td>How do you feel about your life as a whole?</td>
</tr>
<tr>
<td></td>
<td>How happy has your life been overall?</td>
</tr>
</tbody>
</table>

Both the objective and subjective indicators cover the nine life domains including work and education, participation in leisure activities, religion, finances, living situation, legal and safety, family relations, social relations, and health. As described in Table 10, each individual life domain contains a number of objective and subjective items. The objective components are composed largely of social and economic indicators and are evaluated on a scale of “yes,” “no,” or “don’t know.” However, the subjective components of these domains are assessed using a seven-point Likert scale, which is rated by the respondent, and is identified in the interview as the Life Satisfaction Scale (LSS), where a rating of 1 means “cannot be worse” and 7 means “cannot be better.”

Table 10
Objective and Subjective Quality of Life Indicator of LQoLP-EU

<table>
<thead>
<tr>
<th>Quality of Life Domains</th>
<th>Objective Items</th>
<th>Subjective Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work/education</td>
<td>4 items</td>
<td>3 items</td>
</tr>
<tr>
<td>Leisure activities</td>
<td>5 items</td>
<td>3 items</td>
</tr>
<tr>
<td>Religion</td>
<td>2 items</td>
<td>2 items</td>
</tr>
<tr>
<td>Finances</td>
<td>5 items</td>
<td>2 items</td>
</tr>
<tr>
<td>Living situation</td>
<td>5 items</td>
<td>7 items</td>
</tr>
<tr>
<td>Legal and safety</td>
<td>3 items</td>
<td>2 items</td>
</tr>
<tr>
<td>Family relations</td>
<td>4 items</td>
<td>3 items</td>
</tr>
<tr>
<td>Social relations</td>
<td>4 items</td>
<td>2 items</td>
</tr>
<tr>
<td>Health</td>
<td>7 items</td>
<td>3 items</td>
</tr>
</tbody>
</table>
At its end, the LQoLP-EU contains an open-ended question, which is stated as follows: “Can you name any thing(s) that would improve the quality of your life?” The participants were asked this question as an initial core question and allowed to respond to this as fully as possible. Further prompt questions were added throughout the interview that were relevant to the focus and progress of the individual interview process so as to obtain in-depth information, clarification, and additional details (Pope & Mays 2006). These questions, listed below, were used to elicit additional information about barriers to, and facilitators of QoL.

*What are the facilitators of your quality of life?*

*What are the barriers to your quality of life?*

The rationale behind using LQoLP-EU in the current study rests upon the American quality of life interview as well as the British Lancashire quality of life profile developed for use with people with mental illness (Thornicroft et al. 2006). The LQoLP-EU is a structured interview for measuring the health and welfare of people with mental illness, particularly those with chronic, complex, and serious conditions (Thornicroft et al. 2006). The use of specific instruments to measure QoL for people with mental illness would benefit this study for two reasons: there are particular issues that play a greater role in the QoL for patients with certain diseases, and it has been confirmed that the more specific the instrument, the more responsive it is to changes in patients’ conditions (Bobes 2001).

The collection of data using an interview was chosen for this study given that face-to-face interviews tend to obtain more valid information because it is easier to build a rapport with the participants during such interviews (Shi 2008). It is worth noting that based on the fact the total literacy rate in Saudi Arabia is approximately 80% (see Table 1, p. 21), therefore the use of face to face recorded interview will ensure that people who may have been illiterate were not discriminated against and were able to participate in this study. Therefore, interviews were considered feasible with most people. In addition, the interviewers could generate additional information by observing the participants’
level of understanding, and degree of cooperativeness, which can be useful in interpreting the responses (Polit & Beck 2006). In addition, the interview allows for the reformulation or clarification of a perplexing question or range of responses (Cormack 2000).

Permission to use LQoLP-EU (Appendix C), and its standardized Arabic version (Appendix D), were obtained from the Royal College of Psychiatrists, publisher of the “International Outcome Measures in Mental Health: Quality of Life, Needs, Services Satisfaction, Costs and Impact on Carers.” In order to examine the accuracy of the Arabic version of the LQoLP-EU, a panel of health professionals from Dammam University in Saudi Arabia (Associate Professor psychiatric and mental health nursing, Associate Professor community health nursing, Associate Professor critical care nursing) were invited to review the Arabic version of the LQoLP-EU in terms of its applicability and suitability for Saudi Arabian culture. The panel made minor modifications to the religion and living situation domains (Table 11). The religion domain now focuses on specific Muslim religious activities and includes the frequency with which respondents have attended congregational prayers in mosques in the past month. Because community mental health services are not available in Saudi Arabia, hostels, boarding houses, group homes, and shelters were deleted from the living situation domain.
Table 11
Original and modified questions of the LQoLP-EU

<table>
<thead>
<tr>
<th>LQoLP-EU Domain</th>
<th>Original questions</th>
<th>Modified questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion domain</td>
<td>How often have you attended religious services in the past month?</td>
<td>How often have you attended congregational prayers in the mosque in the past month?</td>
</tr>
<tr>
<td></td>
<td>How satisfied are you with:</td>
<td>How satisfied are you with:</td>
</tr>
<tr>
<td></td>
<td>The frequency that you attend services (includes no attending)</td>
<td>The frequency that you attend Muslim congregational prayers (includes no attending)</td>
</tr>
<tr>
<td>Living situation domain</td>
<td>What is your current residence?</td>
<td>What is your current residence?</td>
</tr>
<tr>
<td></td>
<td>1. Hostel</td>
<td>1. Private house (owner-occupied)</td>
</tr>
<tr>
<td></td>
<td>2. Boarding out</td>
<td>2. Private house (rented)</td>
</tr>
<tr>
<td></td>
<td>3. Group home</td>
<td>3. Flat</td>
</tr>
<tr>
<td></td>
<td>4. Hospital ward</td>
<td>4. Hospital ward</td>
</tr>
<tr>
<td></td>
<td>5. Sheltered housing</td>
<td>5. None</td>
</tr>
<tr>
<td></td>
<td>6. Private house (owner-occupied)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Private house (rented)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Flat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. None</td>
<td></td>
</tr>
</tbody>
</table>

**Psychometric properties of the Arabic version of LQoLP-EU**
A pilot study was undertaken in order to examine the psychometric properties of the amended Arabic version of the LQoLP-EU before data collection. A purposive sampling technique was employed for the pilot study at the King Fahd University Hospital between December 2009 and January 2010. Fifteen people with schizophrenia agreed to participate and signed the consent form.
The internal reliability of the amended Arabic version of the LQoLP-EU was examined using Cronbach’s alpha coefficient for the life satisfaction scale (total score of QoL) and the nine life domains (work/education, leisure and participation, religion, finances, living situation, legal and safety, family relations, social relations, and health). As described in Table 12, the Cronbach’s alpha for the life satisfaction scale was very high (total score of QoL = 0.95). For the nine life domains, Cronbach’s alpha ranged from 0.71 (work) to 0.96 (finance and social relations). The results indicated that the amended Arabic version of LQoLP-EU has very high internal consistency (George & Mallery 2003; Burns & Grove 2005; Polit & Beck 2008).

Table 12
Cronbach’s alpha coefficient of the Arabic version of LQoLP-EU

<table>
<thead>
<tr>
<th>Scales</th>
<th>Number of Items</th>
<th>Cronbach’s alpha coefficient 1st analysis*</th>
<th>Cronbach’s alpha coefficient 2nd analysis**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life satisfaction</td>
<td>27</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Work</td>
<td>3</td>
<td>0.71</td>
<td>0.71</td>
</tr>
<tr>
<td>Leisure activities</td>
<td>3</td>
<td>0.90</td>
<td>0.87</td>
</tr>
<tr>
<td>Religion</td>
<td>2</td>
<td>0.91</td>
<td>0.98</td>
</tr>
<tr>
<td>Finances</td>
<td>2</td>
<td>0.96</td>
<td>0.98</td>
</tr>
<tr>
<td>Living situation</td>
<td>7</td>
<td>0.90</td>
<td>0.86</td>
</tr>
<tr>
<td>Safety</td>
<td>2</td>
<td>0.91</td>
<td>0.86</td>
</tr>
<tr>
<td>Family relations</td>
<td>3</td>
<td>0.83</td>
<td>0.81</td>
</tr>
<tr>
<td>Social relations</td>
<td>2</td>
<td>0.96</td>
<td>0.98</td>
</tr>
<tr>
<td>Health</td>
<td>3</td>
<td>0.91</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Note: *Analysed from a group of 15 people with schizophrenia
**Analysed from a group of 159 people with schizophrenia

Data collection
After obtaining permission to undertake this study from the University of Wollongong Human Research Ethics Committee and the KFUH manager in
December 2009, the researcher met with the manager and head of the KFUH Department of Psychiatry to discuss the study design, to examine the proposed survey, to address any potential concerns, and to identify potential participants who met the study criteria. Feedback concerning survey items and content was sought from the head of the Department of Psychiatry.

All directors of nursing and the nursing supervisor at KFUH were informed about the study’s procedure, and all relevant issues were discussed with them. They were provided copies of the following documents: ethical approval letters from the University of Wollongong, ethical approval letter from the KFUH manager, LQoLP-EU questionnaire, LQoLP-EU Arabic translated questionnaire, Participant Information Sheet for Nurses, Participant Information Sheet for Patients, Research Invitation Letter, and Research Consent Form. Documents relevant to the ethical approval are presented in Appendix B; documents relevant to the study instrument are presented in Appendix C and D.

The nursing supervisor organized a meeting between the researcher and mental health registered nurses to brief them about the research purposes, eligible participants, required settings, timing, ethical approval, data collection tool, and their anticipated assistance in approaching the participating patients. All nurses were provided with the Participant Information Sheet for Nurses, which included clear explanations of the relevant issues. During that meeting, the researcher answered all inquiries and addressed all concerns about ways of approaching the patients and strategies to maintain confidentiality of the collected information. Three registered nurses from the Psychiatric Outpatients Department agreed to participate in this study by facilitating the approach of patients. The nurses were provided with a research information package, which included the Research Invitation Letter, Participant Information Sheet for Patients, and Research Consent Form (see Appendix B).
In cooperation with the head of the Department of Psychiatry, patients who met the study participation criteria were identified, consequently, the department head recommended 198 patients to the study. The nurses approached the patients during their regular follow-up visits at the outpatient clinic, and they provided the patients with the research information package along with brief explanations regarding the research project. The patients had the opportunity to decide whether to participate in the study which would occur during their next appointment at the clinic. If they decided to participate, they contacted the researcher via telephone prior to their next appointment in order to arrange for the interview and completion of the questionnaire.

Of the 198 eligible patients, 159 contacted the researcher and agreed to participate in the study. The consenting patients were interviewed by the researcher on the day of their next visit to the King Fahd University Hospital psychiatric outpatient clinic. At the beginning of the interview, each patient was required to sign the consent form together with the researcher. Based on the inclusion criteria and their consent to participate, the researcher interviewed the participating 159 patients after they had finished their ordinary consultation sessions in a room in the psychiatric outpatient clinic that was free of distraction.

Interviews of approximately 45 minutes in duration were conducted to investigate the QoL for Saudi Arabian people with schizophrenia during a period of four months. At the beginning of the interview, the researcher administered the Lancashire Quality of Life Profile-EU to the participants. Following the completion of the questionnaire, participants were asked the following initial core question and allowed to respond to it as fully as possible:

*Can you name any things that would improve your life quality?*

Further questions were added throughout the interview that were relevant to the focus and progress of the individual interview process so as to obtain in-depth
information, clarification, and additional details (Pope & Mays 2006). These questions were as follows:

*What are the facilitators of your quality of life?*

*What are the barriers to your quality of life?*

All interviews were conducted in Arabic because both the interviewer and interviewees were Arabic. The interviews were recorded on a digital voice recorder under agreement from each participant. Interview recording is essential for evaluation of qualitative research because it records the data without missing any details (Britten 1995; King & Horrocks 2010). Responses to these questions were later transcribed, and the interview transcripts were analyzed.

**Data analysis**

**Quantitative data analysis**

As the LQoLP-EU has a coding and scoring manual, the guidelines to compute the nine individual life domains (work/education, leisure, religion, finance, living situation, legal and safety, family relation, social relation, and health) as well as the total score of QoL were followed. Statistical Package for the Social Sciences (SPSS) for Windows Version 17 was used for data entry and analysis. Demographic characteristics were summarized to obtain a description of the sample through the use of basic descriptive statistics: the frequency, percentage, mean, and standard deviation. For inferential statistics, ordinal regression analysis was used to examine the relationship between socio-demographic characteristics (gender, age, marital status, employment, education, income, and living situations) and total QoL score along with the nine individual QoL domains. To be consistent with other studies and be able to compare the results of this study with previous studies, no analysis was undertaken to discriminate between the QoL for married women and married men. Therefore, the term married individual, refers to both married men and women.
Ordinal regression was used to examine the relationship between socio-demographic characteristics and QoL for Saudi Arabian people with schizophrenia. This approach was chosen because of the nature of the LQoLP-EU, which measured QoL on an ordered, categorical seven-point Likert scale: 1) can’t be worse, 2) displeased, 3) mostly dissatisfied, 4) mixed, 5) mostly satisfied, 6) pleased, and 7) can’t be better (Chan & Yeung 2008; SPSS 2008). According to Chan and Yeung (2008), if researchers wish to study the effects of variables on all levels of the ordered categorical outcome, an ordinal regression must be chosen to obtain valid results. In addition, it is implausible to assume the normality and homogeneity of variance of ordered categorical outcomes when the ordinal outcome contains a small number of discrete categories. Therefore, the ordinal regression model has become a preferable modeling tool that does not assume normality and constant variance but requires the assumption of parallel lines across all levels of the categorical outcome. Detailed information regarding the process and results of the data analysis are provided in chapter five.

Qualitative data analysis

In this study, data analysis included two main stages: data preparation and data analysis. In the data preparation stage, the interview recordings were transcribed by the researcher. Transcribing the verbal data into written form is essential when conducting qualitative data analysis (King & Horrocks 2010). The transcription was carefully performed by listening to voice tone, breaks, and emotional expression (Burns & Grove 2005; King & Horrocks 2010). After the transcription and a careful reading, data were translated from Arabic to English by the researcher. In order to test the accuracy and validity of the translation, it was checked by a bilingual expert (Dr. Wathib Jabouri). A few differences between the two translations were identified. For instance, some Arabic words and expressions that are specific to Arabic culture were difficult to translate into English, so these sentences were translated according to their context. Consequently, the accuracy and reliability of the interview translation were maintained through these procedures. The transcribed data of the interview were provided in a Word document file (.doc) and used for data analysis.
In the data analysis stage, thematic analysis was used to identify themes related to how Saudi Arabian people with schizophrenia perceive their QoL. Thematic analysis is a method used for analysing qualitative data through organizing and describing it before identifying and reporting themes (Braun & Clarke 2006). This method of qualitative data analysis was used in this study because it is more flexible than other methods because it lacks theoretical restrictions such as, grounded theory (Braun & Clarke 2006). In this study, data were analysed through the use of thematic analysis and its six main phases: 1) reading and re-reading the data until becoming familiar with data, 2) creating preliminary codes, 3) exploring for themes, 4) evaluating themes, 5) defining themes and 6) producing the report (Braun & Clarke 2006). The qualitative data analysis process through the use of thematic analysis will be explained in detail in chapter five.

**Mixed methods analysis**

This study was designed as a mixed method approach to investigate the QoL for Saudi Arabian people with schizophrenia. It involved collecting quantitative and qualitative data simultaneously. Then, quantitative data was analysed through the use of the SPSS software. Finally, qualitative data was investigated through the use of a thematic analysis. The results of the quantitative and qualitative data analysis were incorporated during the final stage. The findings of the quantitative data analysis were provided in a numeric form; however, these findings may be excessively theoretical in investigating the QoL for Saudi Arabian people with schizophrenia and understanding how they perceive their QoL. Thus, using the qualitative findings help to make the quantitative results more comprehensible (Creswell & Clark Plano 2011).

The use of mixed method analysis helps to provide a rich, clear picture of the QoL for Saudi Arabian people with schizophrenia. The quantitative findings provide information regarding Saudi Arabian people’s satisfaction with their QoL and
examine the relationship between socio-demographic characteristics and QoL. Meanwhile, the qualitative findings provide information about how Saudi Arabian people with schizophrenia perceive their QoL. Thus, the use of two different data analysis approaches to interpret findings provides a breadth and depth to the investigation to the QoL for Saudi Arabian people with schizophrenia.

**Conclusion**

This chapter has provided detailed information about the research methodology. This study used a mixed methods approach in order to compensate for the limitations of either quantitative or qualitative approaches. The use of both quantitative and qualitative approaches offers a more complete knowledge about the QoL for Saudi Arabian people with schizophrenia. The findings of the qualitative data analysis were used to support or augment findings of the quantitative study. Therefore, the use of mixed methods analysis provides a rich picture of the QoL for Saudi Arabian people with schizophrenia.

This study primarily aimed to investigate the QoL for Saudi Arabian people with schizophrenia. A purposive sample was recruited from the Psychiatric Outpatient Department of King Fahd University Hospital, Al-Khobar, Saudi Arabia. The research package was given to 198 people with schizophrenia, and 159 agreed to participate in this study. Structured face-to-face interviews were conducted using the LQoLP-EU. Quantitative data were analyzed using a statistical analysis including descriptive statistics and ordinal regression analysis. Qualitative data were analyzed using a thematic analysis.
CHAPTER FIVE
QUANTITATIVE STUDY RESULTS

Introduction

This chapter presents the quantitative data analysis of the Lancashire Quality of Life Profile-European Version (LQoLP-EU) which was used to investigate the quality of life (QoL) in people with schizophrenia in Saudi Arabia. This chapter addresses two specific research questions:

1. How satisfied with their QoL are Saudi Arabian people with schizophrenia?

2. What are the relationships between:

   A. Socio-demographic characteristics and the QoL for people with schizophrenia in Saudi Arabia?

   B. Socio-demographic characteristics and the individual QoL domains of the LQoLP-EU (education/work, leisure, religion, income, living situations, legal and safety, family relations, social relations, and health) for people with schizophrenia in Saudi Arabia?

As described in chapter 4 (pp. 79-80), SPSS 17 software was used for data entry and analysis. The first research question was analysed through the use of the LQoLP-EU manual (Thomicroft et al. 2006). For the second research question ordinal regression analysis was used to find the relationship between socio-demographic characteristics and QoL.
This chapter has been arranged in two main parts. The first part provides the results of the study, which includes the socio-demographic characteristics of the participants of the study and the results of a statistical analysis of each research question. The second part provides a detailed discussion based on the study’s results and its relation to previous studies. Finally, a conclusion of the main study’s findings is presented.

Results

Socio-demographic characteristics of the participants

The final sample comprised 159 participants. The mean (SD) age of the participants was 38.23 years (11.39). As can be seen in Table 13, the majority of the participants (61%) were male, 45.3% had a secondary school education, 51.6% were married, and 54.7% were unemployed. The majority of participants reported living with their parents (50.9%); 62.9% owned their own house and 30.2% earned less than 2500 Saudi Arabian Riyals (SAR) ($677 AU) per month.
Table 13
Socio-demographic characteristics of participants (n=159)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>97</td>
<td>61</td>
</tr>
<tr>
<td>Female</td>
<td>62</td>
<td>39</td>
</tr>
<tr>
<td>Age (years) mean (SD)</td>
<td>38.23 (11.39)</td>
<td></td>
</tr>
<tr>
<td>18–29</td>
<td>41</td>
<td>25.8</td>
</tr>
<tr>
<td>30–39</td>
<td>44</td>
<td>27.7</td>
</tr>
<tr>
<td>40–65</td>
<td>74</td>
<td>46.5</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary/illiterate</td>
<td>61</td>
<td>38.4</td>
</tr>
<tr>
<td>Secondary/diploma</td>
<td>72</td>
<td>45.3</td>
</tr>
<tr>
<td>University/and above</td>
<td>26</td>
<td>16.4</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>82</td>
<td>51.6</td>
</tr>
<tr>
<td>Single</td>
<td>62</td>
<td>39</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>11</td>
<td>6.9</td>
</tr>
<tr>
<td>Widow</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>72</td>
<td>45.3</td>
</tr>
<tr>
<td>Unemployed</td>
<td>87</td>
<td>54.7</td>
</tr>
<tr>
<td>Living arrangement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live with spouse/children</td>
<td>61</td>
<td>38.4</td>
</tr>
<tr>
<td>Live with parents</td>
<td>81</td>
<td>50.9</td>
</tr>
<tr>
<td>Live with relatives</td>
<td>17</td>
<td>10.7</td>
</tr>
<tr>
<td>Type of Accommodation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private house (owner occupied)</td>
<td>100</td>
<td>62.9</td>
</tr>
<tr>
<td>Private house/flat (rented)</td>
<td>59</td>
<td>37.1</td>
</tr>
<tr>
<td>Monthly Income SAR (Saudi Arabian Ryial) Mean (SD) 3.0 (1.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAR*</td>
<td>AUD*</td>
<td></td>
</tr>
<tr>
<td>&lt; 2500</td>
<td>&lt; 677</td>
<td>48</td>
</tr>
<tr>
<td>2500–3500</td>
<td>677 - 948</td>
<td>26</td>
</tr>
<tr>
<td>3501–4500</td>
<td>949 - 1220</td>
<td>12</td>
</tr>
<tr>
<td>4501–5500</td>
<td>1221- 1490</td>
<td>32</td>
</tr>
<tr>
<td>&gt; 5000</td>
<td>&gt; 1490</td>
<td>41</td>
</tr>
</tbody>
</table>

1 Saudi Arabian Riyals (SAR) = $ 0.272 Australian dollar (AUD) at 06/10/2011

Quality of life
In this study, the QoL for people with schizophrenia in Saudi Arabia was measured through the use of the LQoLP-EU (Gaite et al. 2000). The QoL was measured as a whole (total satisfaction score) and through the participants’ satisfaction with nine life domains (work/education, leisure activities, religion, finance, living situations, legal and safety, family relations, social relations, and
health). The findings of the descriptive statistics of the reported QoL are shown in Table 14.

Overall, the majority of participants (69.2%) reported feeling satisfied with their perceived QoL while 10.7% were not satisfied. Further analysis of the nine individual domains of the LQoLP-EU found that the majority of participants were satisfied with their work/education (63.5%); with leisure activities (55.3%); with their religion (82.4%); with their financial position (58.5%); with their living situation (72.3%); with their legal and safety situation (78.6%); with their family relationships (73.6%); with their social relationships (64.2%); and with their health (67.3%).

Therefore, the domains with the highest level of satisfaction were religion, legal and safety, and family relations. Conversely, the domains that reported the lowest level of satisfaction were leisure, finance, and work/education.
Table 14
Descriptive statistics for subjective quality of life scores for Saudi Arabian people with schizophrenia

<table>
<thead>
<tr>
<th>Perceived QoL and QoL domains</th>
<th>No. of Items</th>
<th>Mean (SD)</th>
<th>Not Satisfied (Score 1-3) n (%)</th>
<th>Basically Satisfied (Score 4) n (%)</th>
<th>Satisfied (Score 5-7) n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived QoL</td>
<td>27</td>
<td>5.04 (1.05)</td>
<td>17 (10.7)</td>
<td>32 (20.1)</td>
<td>110 (69.2)</td>
</tr>
<tr>
<td>QoL domains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work/Education</td>
<td>3</td>
<td>4.77 (1.68)</td>
<td>37 (23.3)</td>
<td>21 (13.2)</td>
<td>101 (63.5)</td>
</tr>
<tr>
<td>Leisure Activities</td>
<td>3</td>
<td>4.71 (1.55)</td>
<td>40 (25.2)</td>
<td>31 (19.5)</td>
<td>88 (55.3)</td>
</tr>
<tr>
<td>Religion</td>
<td>2</td>
<td>5.74 (1.43)</td>
<td>16 (10.1)</td>
<td>12 (7.5)</td>
<td>131 (82.4)</td>
</tr>
<tr>
<td>Finance</td>
<td>2</td>
<td>4.79 (1.57)</td>
<td>39 (24.5)</td>
<td>27 (17.0)</td>
<td>93 (58.5)</td>
</tr>
<tr>
<td>Living Situation</td>
<td>7</td>
<td>5.18 (1.21)</td>
<td>16 (10.1)</td>
<td>28 (17.6)</td>
<td>115 (72.3)</td>
</tr>
<tr>
<td>Legal and Safety</td>
<td>2</td>
<td>5.65 (1.38)</td>
<td>15 (9.4)</td>
<td>19 (11.9)</td>
<td>125 (78.6)</td>
</tr>
<tr>
<td>Family Relations</td>
<td>3</td>
<td>5.35 (1.42)</td>
<td>20 (12.6)</td>
<td>22 (13.8)</td>
<td>117 (73.6)</td>
</tr>
<tr>
<td>Social Relations</td>
<td>2</td>
<td>4.80 (1.52)</td>
<td>33 (20.8)</td>
<td>24 (15.1)</td>
<td>102 (64.2)</td>
</tr>
<tr>
<td>Health</td>
<td>3</td>
<td>4.87 (1.26)</td>
<td>29 (18.2)</td>
<td>23 (14.5)</td>
<td>107 (67.3)</td>
</tr>
</tbody>
</table>
The relationship between socio-demographic characteristics and quality of life

The relationship between socio-demographic characteristics and general quality of life

As described in chapter 4 (pp. 79-80) ordinal regression was undertaken to examine the relationships between socio-demographic characteristics and the reported QoL for Saudi Arabian people with schizophrenia. The results of the ordinal regression analyses for socio-demographic characteristics and QoL are shown in Table 15.

Table 15
Ordinal regression analyses for socio-demographic characteristics and QoL

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Regression Coefficient</th>
<th>Std. Error</th>
<th>Wald</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>-.815</td>
<td>.260</td>
<td>9.841</td>
<td>.002*</td>
</tr>
<tr>
<td>Education</td>
<td>Illiterate/Primary</td>
<td>-.665</td>
<td>.328</td>
<td>4.104</td>
<td>.043*</td>
</tr>
<tr>
<td>Employment</td>
<td>Unemployed</td>
<td>-1.244</td>
<td>.286</td>
<td>18.940</td>
<td>.000*</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>1.213</td>
<td>.437</td>
<td>7.690</td>
<td>.006*</td>
</tr>
</tbody>
</table>

Note: *p value significance at < .05

From the observed p-value significance levels, it is clear that gender, education, employment, and marital status are all significantly related to QoL. The regression coefficients of gender, education, and employment were negative, which indicates that females (p = .002) were less likely to assign a higher rating to QoL than males, people who are illiterate or with a primary education (p = .043) were less likely to assign higher rating to QoL than people with a university graduate education, and unemployed people (p = .000) were less likely to assign higher ratings to QoL than employed people. Finally, married people (p = .006) were likely to assign a higher rating to QoL than single, divorced, and widowed people.
The relationship between socio-demographic characteristics and individual quality of life domains

Again ordinal regression was undertaken to examine the relationships between socio-demographic characteristics and the nine individual QoL domains. The results of the ordinal regression analyses for socio-demographic characteristics and QoL are shown in Table 16.

On the one hand, in the work/education subscale, being female \( (p < .001) \) was found to be significantly associated with poor QoL. In the leisure activities domain, being unemployed \( (p < .001) \) was significantly associated with poor QoL. In the finance subscale, being unemployed \( (p < .001) \) was significantly associated with poor QoL. On the other hand, being married \( (p = .013) \) was associated with better QoL. In the living situations domain, being unemployed \( (p = .046) \) and single \( (p = .003) \) were found to be associated with poor QoL. Finally, in the legal and safety domain, being unemployed \( (p = .009) \) was associated with poor QoL.

In the family relations domain, while females \( (p = .006) \) reported having poor QoL than males, married individuals \( (p < .001) \) were associated with better QoL. In the social relations domain, while females \( (p < .001) \) reported poor QoL, married people \( (p = .012) \) reported having better QoL. Finally, in the health domain, females \( (p = .038) \), the unemployed \( (p = .002) \), and single people \( (p = .005) \) were found to be associated with poor QoL.
Table 16
Ordinal regression analyses for the relationship between QoL domains and socio-demographic characteristics

<table>
<thead>
<tr>
<th>QoL domains</th>
<th>Variables</th>
<th>Category</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>Wald</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work/Education</td>
<td>Gender</td>
<td>Female</td>
<td>-1.149</td>
<td>.324</td>
<td>12.604</td>
<td>.000*</td>
</tr>
<tr>
<td>Leisure Activities</td>
<td>Employment</td>
<td>Unemployed</td>
<td>-1.479</td>
<td>.339</td>
<td>18.991</td>
<td>.000*</td>
</tr>
<tr>
<td>Finance</td>
<td>Employment</td>
<td>Unemployed</td>
<td>-1.564</td>
<td>.341</td>
<td>21.032</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Marital status</td>
<td>Married</td>
<td>1.485</td>
<td>.597</td>
<td>6.186</td>
<td>.013*</td>
</tr>
<tr>
<td>Living Situation</td>
<td>Employment</td>
<td>Unemployed</td>
<td>-.656</td>
<td>.329</td>
<td>3.975</td>
<td>.046*</td>
</tr>
<tr>
<td></td>
<td>Marital status</td>
<td>Single</td>
<td>-1.860</td>
<td>.621</td>
<td>8.979</td>
<td>.003*</td>
</tr>
<tr>
<td>Legal and Safety</td>
<td>Employment</td>
<td>Unemployed</td>
<td>-.802</td>
<td>.305</td>
<td>6.909</td>
<td>.009*</td>
</tr>
<tr>
<td>Family Relations</td>
<td>Gender</td>
<td>Female</td>
<td>-.918</td>
<td>.331</td>
<td>7.668</td>
<td>.006*</td>
</tr>
<tr>
<td></td>
<td>Marital status</td>
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<td>3.829</td>
<td>.693</td>
<td>30.535</td>
<td>.000*</td>
</tr>
<tr>
<td>Social Relations</td>
<td>Gender</td>
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<td>-1.238</td>
<td>.323</td>
<td>14.734</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Marital status</td>
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<td>.592</td>
<td>6.384</td>
<td>.012*</td>
</tr>
<tr>
<td>Health</td>
<td>Gender</td>
<td>Female</td>
<td>-.393</td>
<td>.189</td>
<td>4.315</td>
<td>.038*</td>
</tr>
<tr>
<td></td>
<td>Employment</td>
<td>Unemployed</td>
<td>-.609</td>
<td>.192</td>
<td>10.053</td>
<td>.002*</td>
</tr>
<tr>
<td></td>
<td>Marital status</td>
<td>Single</td>
<td>-1.010</td>
<td>.361</td>
<td>7.824</td>
<td>.005*</td>
</tr>
</tbody>
</table>

Note: *p value significance at < .05


Discussion
In this study, Saudi Arabian people with schizophrenia were mostly male with a mean age of 38.23 years, unemployed, married, and lived with their parents in their own houses. Similar socio-demographic characteristics were found in a study by Zahid et al. (2009) that studied the QoL for 130 people with schizophrenia through the use of the LQoLP-EU in Kuwait. Zahid et al. (2009) found that most of the participants were male with a mean age of 36.8 years, while 53.1% were unemployed, 26.9% were married, 50.8% lived with their parents, and 77.7% lived in their own houses. The similarities in these socio-demographic characteristics can be explained in that both Saudi Arabia and Kuwait share the same ethnic culture. In both countries, the main religion is Islam; the official language is Arabic, and the people’s daily lives are structured by religious and social customs. In addition, both countries have a family core in which the traditional extended family is controlled by a male member. Therefore, a reasonable number of the participants were married and lived with their parents. Furthermore, Saudi Arabia and Kuwait are rich countries; therefore, most of the participants lived in houses owned by themselves, their parents, or their relatives.

In addition, people with schizophrenia in this study were found more likely to be married, employed, and all of them were living with their families (partner, relative, or parents) in comparison with the people with schizophrenia in Denmark, Netherlands, Italy, Spain, and the United Kingdom (Gaite et al. 2002) and the United States (Narvaez et al. 2008). The possible explanation for the difference in the socio-demographic characteristics of people with schizophrenia in Saudi Arabia, Europe, and the United States is that Saudi Arabia has a traditional conservative culture; therefore most of the participants were married and all of them lived within a family structure. In addition, the high employment rate among people with schizophrenia in Saudi Arabia in compare to other people with schizophrenia in Denmark, Netherlands, Italy, Spain, the United Kingdom, and the United States can be explained in that people with mental illness in Saudi
Arabia are supported by their families and it is unusual for them to leave their family home to live by themselves. No comparisons were made between the monthly income of Saudi Arabian people and people in other countries due to differences in their currency rates and standards of living.

**Quality of Life**

The results of this study showed that most Saudi Arabian people with schizophrenia were satisfied with their QoL. They were mostly satisfied with their religion, their legal and safety issues, and family relations. Similar results were found in four studies through using either the LQoLP or LQoLP-EU to investigate the QoL for outpatients with schizophrenia in Kuwait (Zahid et al. 2009), Sweden (Bengtsson-Tops & Hansson 1999), Brazil (De Souza & Coutinho 2006) and Denmark, Netherlands, Italy, Spain, and United Kingdom (Gaite et al. 2002). For example, Zahid et al. (2009) studied the QoL for 130 people with schizophrenia and found that most participants were satisfied with their religion (84.1%), legal and safety issues (73.1%), and family relations (64.1%). Therefore, the high satisfaction with religion reported by Saudi Arabian people with schizophrenia may reflect the support that religion provides to them.

There are some possible explanations why Saudi Arabian people with schizophrenia are mostly satisfied with their religion. The literature review identified three main reasons that explain the findings, namely 1) religion helps people with mental illness to manage and cope with their illness (Russinova, Wewiorski & Cash 2001; D'Souza 2002; Shah et al. 2011), 2) religion is a source that provides hope, love, and life essence for people with mental illness (Mohr et al. 2006), and 3) religion is a vital source of support for people with mental illness through attending religious services (Borras et al. 2007).

Firstly, religion was found to be a great help for people with mental illness to manage and cope with their illness in many countries around the world. In the
United States, Russinova, Wewiorski, and Cash (2001) focused on people with severe mental illness and asked about the types of alternative healthcare practices they used. The study consisted of 40 people with schizophrenia, 70 people with bipolar disorder, and 39 people with major depression. The results showed that the most frequently reported practices that improved health were religious and spiritual activities, as 57.5% of the people with schizophrenia reported that the practices most beneficial to their mental health were religious and spiritual activities. In India, Shah et al. (2011) investigated the relationship between spirituality, religiousness, and coping skills in 103 people with schizophrenia. The results showed that there was a strong relationship between spirituality, religiousness, and coping skills. Therefore, the high satisfaction with religion can be explained by the role of religion in helping people to manage and cope with their mental illness.

Secondly, religion is a source that provides hope, love, and life essence, which is another important reason for high satisfaction with religion among people with mental illness. For example, in Switzerland, the role of religion in the life of people with mental illness was examined by Mohr et al. (2006). In their study, 115 people with mental illness were interviewed about the importance of the religion to their life. The results showed that 71% of the patients reported that religious practices such as, prayer, inspired and implanted an optimistic self-view in the form of “hope, comfort, meaning of life, enjoyment of life, love, compassion, self-respect, self-confidence, and so on” (Mohr et al. 2006, pp.1953-1954). Thus, religion is considered an important source for hope and meaning of life for people with mental illness. Therefore, the participants feel mostly satisfied with their religion.

Finally, religion is a vital source of support for people with mental illness through attending religious services and practice, which is an important reason for high satisfaction with religion among people with mental illness. For example, in Switzerland, Borras et al. (2007) investigated the role of religion on the attitude
toward medication in 103 people with schizophrenia. The participants were identified as Christian (58%), Buddhist (4%), Muslim (3%), Jewish (2%), and members of other religious movements (14%), while 19% were identified as not having any religious association. The results showed that the majority of the participants reported regular personal and community religious practice (i.e., prayer and reading religious material). Participants who were adherent to medication regimens were more likely to attend community religious practice than were non-adherent patients. In addition, 34% of the participants insisted that attending the community religious practices was a very important source of support in comparison to the non-adherent patients. Therefore, it seems that religion can play a vital role in providing community support for people with mental illness through attending religious services and practices.

In this study, the Saudi Arabian people with schizophrenia were mostly less satisfied with their leisure activities, work, and financial status. Similar results were found in three studies through using either the LQoLP or LQoLP-EU to investigate the QoL for outpatients with schizophrenia in Sweden (Bengtsson-Tops & Hansson 1999), Brazil (De Souza & Coutinho 2006) and Denmark, Netherlands, Italy, Spain, and United Kingdom (Gaite et al. 2002). The high level of dissatisfaction with leisure activities, work and financial status of Saudi Arabian people with schizophrenia may reflect the attitude of the public toward people with mental illness, which may limit their engagement in leisure and work activities.

There are some possible explanations why Saudi Arabian people with schizophrenia were dissatisfied with their leisure activities, work and financial status. These are associated with the high level of discrimination and stigmatization of people with mental illness. The literature review identified three main themes that explain the finding regarding the high level of dissatisfaction of Saudi Arabia people with schizophrenia with their leisure activities, work and financial status. Those are; 1) public fear and view of people with mental illness
as dangerous, 2) lack of knowledge about people with mental illness, and 3) mental illness limiting the individual’s ability to work.

Firstly, public fear and view of people with mental illness as dangerous may be considered a strong factor that limits the engagement of people with mental illness in leisure activities and work. For example, Bener, and Ghuloum (2010) examined the attitudes toward people with mental illnesses in 2,514 Qatari and Arab expatriates during the period from 2008 to 2009. They found that 39.5% of women were found to be more afraid to talk with people with a mental illness than were men (28.8%). While more than half of the women found it distressing to work with people with mental illness, 46.8% of the men found it distressing. More women reported being afraid of having a mentally ill neighbor than men. In addition, more than half of the participants believed that people with mental illnesses were dangerous. Therefore, the community’s fear and the consequent nonacceptance of people with mental illnesses may limit engagement of people with mental illness in the society and particularly in leisure activities and working beside other people.

Secondly, the lack of knowledge about people with mental illness may impact their participation in leisure and work activities. For example, in Oman, Al-Adawi et al. (2002) examined the attitudes of 173 medical students, 64 relatives of people with mental illnesses, and 231 of the general public toward people with mental illnesses. The results showed that both medical students (46.2%) and the general public (57.1%) thought that people with mental illnesses tend to have strange and stereotypical appearances. The majority of the relatives of people with a mental illness reported that people with mental illnesses were unable to differentiate between good and bad. In addition, the participants preferred that mental healthcare facilities be located away from the community. Thus, the lack of knowledge about people with mental illness could work as a hindrance to their involvement in leisure and work activities and therefore will affect their financial situation.
Finally, the view of mental illness as limiting the ability of the individual to work is another factor that affects Saudi Arabian people with schizophrenia and their satisfaction with their work status and financial situation. For example, in the United States, Scheid (2005) examined the effects of stigma in the employment of people with mental illnesses. The study’s participants were 117 employers interviewed regarding the employment of people with a mental illness during the period from 1996 to 1997. The result of the study showed that the majority of the employers felt uncomfortable in hiring people who were taking antipsychotic medication, and people with a previous history of hospitalization for mental illnesses. Generally, the employers saw mental illness as limiting one’s ability to be able to work or to work under stressful conditions. Consequently, the view of mental illness as limiting the ability of the individual to work could affect the employment of people with mental illness and therefore, their satisfaction with their work and financial status.

The relationship between socio-demographic characteristics and quality of life
Women in this study reported lower levels of QoL than men. They were less satisfied with their work/education, social and family relations, and health. Similar findings were found in women with schizophrenia in Hong Kong (Chan & Yu 2004) and China (Xiang et al. 2010). There are some possible explanations why Saudi Arabian women with schizophrenia reported lower QoL than men in this study. Saudi Arabia’s local interpretation of Islamic laws and social norms may lead to a gender inequity in Saudi Arabia that has a negative impact on the health and wellbeing of women. Saudi Arabian women with schizophrenia in this study were found to be dissatisfied with their QoL in four main areas of their life, namely, 1) work/education, 2) family and social relation, and 3) health.

Firstly, Saudi Arabian women with schizophrenia were found to be dissatisfied with their work and/or education, both of which are influenced by the social norms. Women in Saudi Arabia are expected to study and work in occupations
that are related to women only. For example, Vidyasagar and Rea (2004) studied the experience of 28 Saudi Arabian women doctors. They found that these women doctors had to deal with problems related to Saudi Arabian culture that included choice of specialty, which is limited by the prospect of working with male patients and alongside male professionals. Thus, social norms consideration may limit education and employment opportunities for women in Saudi Arabia. This factor may have a great influence in women’s satisfaction with their education and work and therefore, their QoL in general. Therefore, if women in general are feelings that social norms limited the education and employment opportunities, then for women with schizophrenia the feelings are compounded.

Secondly, Saudi Arabian women with schizophrenia were found to be dissatisfied with their family and social relationship. The high dissatisfaction with their family and social relationship may reflect the effects of social norms in the life of women in Saudi Arabia. For example, Mobaraki and Söderfeldt (2010) undertook a literature review to investigate the inequality of gender in Saudi Arabia and its effects on women’s health. For the purpose of this literature review, two main databases (PubMed and the Google search engine) were used to search for articles related to this review. The authors reported that social norms and conservative religious beliefs have a powerful effect on women’s lives and the lives of the Saudi Arabian people. Saudi Arabian law requires a male relative’s agreement before a woman can seek work, obtain an education, travel, go out in public, or be issued an identity card or passport. Previously, Saudi Arabian women were only named, not pictured, on family identity (ID) cards that identified them as dependants of their husbands or fathers. This means that women’s rights can be abused by male guardians. For instance, in banks, court, and hospitals – with her face covered and without a photo ID – a woman’s identity cannot be confirmed. Therefore, the social norms may impact strongly on the satisfaction with their family relations and their QoL in general for Saudi Arabia women with schizophrenia.
Finally, Saudi Arabian women with schizophrenia were found to be dissatisfied with their health. In Saudi Arabia, there is no sports education in girls’ schools, and social norms prohibit females from practicing physical activities in public. In addition, lack of exercise is a known cause of obesity. Al-Nozha et al. (2005) conducted a national health survey from 1995 to 2000 that examined the frequency of obesity among Saudi Arabian men and women 30 to 70 years old. The result showed that women (44%) are drastically more obese than males (26.4%) (Al-Nozha et al. 2005, p. 824). The Saudi Arabian government does not prohibit women from practicing sports in public or in private places separated by gender, but cultural norms limit women’s opportunities for outdoor exercise (Mobaraki & Söderfeldt 2010). Therefore, the social norms in Saudi Arabia limit women’s participation in sport activities and this might affect women’s health.

In this study, Saudi Arabian people with schizophrenia who were illiterate or only had an elementary school education reported a lower QoL than those who had a university or college education. These results are consistent with studies undertaken by Vandiver (1998), Cardoso et al. (2005), Daradkeh and Al Habeeb (2005), Caron et al. (2005b), Dimitriou, Anthony and Dyson (2009), and Narvaez et al. (2008). The possible explanation for high education being associated with high QoL is that people with mental illnesses who have high educational achievement are more likely to hold highly skilled positions of employment. Working in highly skilled jobs might increase their enthusiasm to maintain employment and avoid relying on others (Mechanic, Bilder & McAlpine 2002). Only two study was found to contradict this result: Caron et al. (2005a) and De Souza and Coutinho (2006) found that poorly educated patients with schizophrenia reported a high QoL, though no possible explanation is given to explain how low education is related to high QoL.

Furthermore, in this study Saudi Arabian unemployed participants were found to have lower QoL scores than those employed. They are less satisfied with their financial situations, their legal and safety issues, and their health. These findings
were supported by the findings of studies conducted in Spain (Duno et al. 2001), Hong Kong (Chan & Yu 2004), Canada (Caron, Mercier, Diaz & Martin 2005b), and Nigeria (Adewuya & Makanjuola 2009) on the QoL for people with schizophrenia. A possible explanation for unemployed people to be dissatisfied with his/her QoL is that unemployment affects a person’s health and social life. Work is an important area of a person’s life. For example, in Sweden, Bejerholm and Eklund (2007) examined the relationship between occupational commitment, psychiatric symptoms, and QoL for 74 outpatients with schizophrenia. Their results showed that a high level of occupational commitment was related to fewer psychiatric symptoms and better QoL ratings and vice versa. Therefore, employment for people with schizophrenia is associated with better health and QoL.

This study also showed that in Saudi Arabia, married people with schizophrenia had a better QoL than unmarried people. Married people were more satisfied with their financial situation, their family and social relationships, and their health status. These results are supported by Salokangas, Honkonen, Stengard, and Koivisto (2001) and Cardoso et al. (2005), who found similar results in their studies. The possible explanation for this finding is that marriage has a major role in the life of people with mental illnesses, particularly in their family and social relationships. For example, Melle et al. (2000) assessed the level of reincorporation of 74 people with schizophrenia into the community of Oslo, Norway. They found that good social functioning and community reincorporation were associated with being married. In the United States, Shapiro and Keyes (2008) examined the association between marriage and social satisfaction among 3,032 people. They found that married people have a significantly higher level of social satisfaction over unmarried people. Thus, married people with schizophrenia may have better family and social support and therefore better QoL.
Conclusion

This chapter presents the quantitative data analysis findings aimed at investigating the QoL for people with schizophrenia in Saudi Arabia. The study draws on a final sample of 159 outpatients with schizophrenia who were interviewed through the use of the LQoLP-EU. The majority of the participants were male, married, unemployed, and with a mean age of 38.23 years. The first part of this study focused on the quantitative data analysis concerning QoL for Saudi Arabian people with schizophrenia and the relationships between socio-demographics characteristics and QoL. The main findings of the quantitative data analysis were as follows:

1. Saudi Arabian people with schizophrenia were mostly satisfied with their religion, legal and safety issues, and family relations while they were dissatisfied with their leisure activities, financial situations, and work status.

2. The relationship between socio-demographic characteristics and quality of life identified that:

   - Females with schizophrenia reported lower QoL than males, particularly in work/education, family and social relationships, and health.

   - People with schizophrenia who are illiterate or only had an elementary school education reported lower QoL than those with a university or college education.

   - Unemployed persons reported lower QoL than those employed, particularly in finance, legal and safety, and health.

   - Married individuals were found to report high QoL in the areas of their financial situations, family and social relationships, and health.
While this chapter focused on investigating the QoL and its relationship with the socio-demographic characteristics of Saudi Arabia people with schizophrenia, the next chapter will focus on investigating how people with schizophrenia in Saudi Arabia perceive their QoL.
CHAPTER SIX
QUALITATIVE STUDY RESULTS

Introduction
This chapter focuses on the analysis of the qualitative data. It addresses the following research question: How do people with schizophrenia in Saudi Arabia perceive their quality of life (QoL)? This chapter is structured in two main sections. The first part presents the findings of the thematic data analysis, which identified two main themes: (a) shame of schizophrenia and (b) positive role of religion. The second part provides a critical discussion of the findings.

Findings
As described in chapter 4, interviews were transcribed by listening to voice recording generated at the time of the interview and typing the transcripts verbatim, including punctuation that reflected the nuances and emphasis of speech. After entering and coding the transcribed data in Microsoft Word®, qualitative thematic analysis was used to scrutinize the data and draw out the main themes. To analyze the qualitative data through the use of thematic analysis, Braun and Clarke’s (2006) process of thematic analysis in psychology was followed. An example of the process of thematic data analysis is provided in Table 17.
Table 17
An example of the process of thematic data analysis

<table>
<thead>
<tr>
<th>Data</th>
<th>Data unit</th>
<th>Code</th>
<th>Sub-theme</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you name any things that would improve the quality of your life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Praise and prayers for forgiveness are daily miracles; they give me comfort.</td>
<td>Religious practices provide</td>
<td>Facilitator of quality of life.</td>
<td>Importance of religion</td>
<td>Religious practice comfort.</td>
</tr>
<tr>
<td>Happiness and peace of mind come from listening to the Word of God as the Word of God is at work to break things within the self. (Participant no. 6)</td>
<td>Happiness and peace of mind.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive strong belief of God’s power in human beings.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the process detailed in the data’s thematic analysis, two main themes emerged; under each theme a group of subthemes was identified. The emerging themes were as follows: (a) shame of schizophrenia and (b) positive role of religion. The findings of the thematic analysis of the data are shown in Table 18.

Simple counting (content analysis) was used to identify the number of responses to specific themes to add weight to the importance of themes. Forty-four of the participants, out of a total number of 159, reported that the shame of schizophrenia affected their lives negatively. Within the group that reported feeling shame about their schizophrenia, a group of subthemes emerged. This group of subthemes included keeping “it” secret and the Media exaggerate “it”. On the other hand, 110 out of 159 participants reported that the positive role of religion was positively associated with their QoL. Likewise, a number of subthemes emerged in the areas of the positive role of religion including acceptance of the illness; practices (e.g., prayer and reading the Quran); and belief in faith healer treatments. Each theme is discussed in more detail along with quotes from the participants’ comments.

Table 18
Themes and subthemes that emerged based on the thematic analysis of data

<table>
<thead>
<tr>
<th>Codes</th>
<th>Subthemes (no)</th>
<th>Themes (no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barriers to QoL</td>
<td>Keeping “it” secret (39)</td>
<td>Shame of schizophrenia (44)</td>
</tr>
<tr>
<td></td>
<td>Media exaggerate “it” (5)</td>
<td></td>
</tr>
<tr>
<td>Facilitators of QoL</td>
<td>Acceptance of illness (15)</td>
<td>Positive role of religion (110)</td>
</tr>
<tr>
<td></td>
<td>Religious practices such as prayer and use of the Quran (82)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Belief in faith healer treatments (13)</td>
<td></td>
</tr>
</tbody>
</table>

Note: no = Number of the study participants who suggested each subthemes and theme. Total number of participants = 159.
Shame of schizophrenia

Keeping “it” secret

The issue of keeping schizophrenia a secret matter emerged as a major theme. Thirty-nine of the 159 participants reported that the shame of having schizophrenia affected their lives. Participants indicated that they would prefer to keep their illness secret for two main reasons: (a) family shame of having a family member with schizophrenia; and (b) public shame of having schizophrenia.

Firstly, participants reported that they preferred hiding their illness because it brings shame to their families and affects their position in the community. Participant no. 27 explained this sentiment in the following statement:

The problem is that our society looks at people with mental illness as a disgrace to their family. Therefore, the patient and family prefer to hide the disease and don’t seek professional help.

(Participant no. 27, 45 years old, male, primary education, unemployed, married)

Participants indicated that they felt punished by their family for having schizophrenia. Participants described the ways that their family punished them as taking the form of misunderstanding, mistreatment, over-controlling them, being treated differently from others in their family, being mistrusted and watched by their family, and being punished for having certain behaviours. For example:

My mum can’t understand me. If she will see me nervous or with a very bad mood, she does not know how to deal with me and therefore she starts to ask, “Why are you nervous?” Sometimes I can’t tolerate her and I start crying. My mother always tries to break my opinion. She always tries to control me even in the silly things; she treats me like a three-year-old.

(Participant no. 55, 22 years old, female, primary education, unemployed, single)
Their feeling of being punished is elaborated further by participant no. 115 who felt devalued by how she was treated:

_In fact, the person who hurts me the most is my father and his way that he treats me. He really makes me different from my brothers and sisters... I feel inferior...I feel like a mentally retarded person who needs extensive care._

( Participant no. 115, 32 years old, female, secondary education, unemployed, single)

Secondly, participants talked about consciously trying to hide that they had a mental illness. They indicated that they preferred to hide their illness and keep it a secret matter because they feel shame from the public, uncomfortable and anxious when someone knows about their illness. For example:

_The only thing that makes me happy is hiding the fact that I am mentally ill because I feel uncomfortable and anxious when I tell other people about my sickness and that I am on medication. This is a highly sensitive issue for me and... and it must be a private and confidential matter. Only a limited number of my relatives know about my illness because it places a stigma on my family._

( Participant no. 9, 44 years old, female, university education, unemployed, single)

Participants reported that having a mental illness impacted on their personal, social, and employment potential. They indicated that due to the shame and negative view associated with mental illness in society, they would not be allowed to get married or to have a job or social relationships. For example:
But because of my illness and negative view of people with mental illness as they are mentally ill . . . people will not allow me to get a job and to get married and to have a little dream like any other human being.

(Participant no. 71, 41 years old, male, primary education, unemployed, single)

Because of the shame and stigma associated with mental illness, participants felt that other people would prefer them to be hospitalized. They believe that the general public is afraid of them and thinks that they should not be in the community, but should rather be kept isolated, away from the mainstream community. For example:

My problem is that all the people who are aware of my condition are afraid of me. At the beginning when I hid my disease, none of them looked at me as a crazy person. But when I was treated for my disease and faced the people, they said that I am mentally ill and I should be in the hospital, not with them in public.

(Participant no. 128, 22 years old, female, secondary education, unemployed, single)

**Media exaggerate “it”**

Five out of the 159 participants thought that the media has a vital role in demonstrating the lack of knowledge about mental illness, and it adds shame and stigma to those people who diagnosed with schizophrenia. By not understanding mental illness, the medial reinforced stereotypes, myths and fear of people with schizophrenia and therefore perpetuated the notion of dangerousness and stigmatizing them more. In term, this increased their feeling of shame. For example:
I found that in the Arabian Gulf TV series, and in Egyptian films, it displays mental illness in an exaggerated and sarcastic way. Usually, all the bad, evil, and dangerous people on TV are people with mental illness.

( Participant no. 16, 34 years old, female, primary education, employed, single)

Not all participants simply accept the idea that media portrayal or broadcast needs to be negative. Providing mental health education by means of the media was suggested as an important way of creating a healthier community, increasing knowledge about schizophrenia, and decreasing myths about the disease, thereby lessening discrimination. For example:

I think it would be better to increase media mental health education for the public to help families and friends to support and take care of those people. And to provide a healthy community that can treat schizophrenia like the flu.

( Participant no. 156, 24 years old, female, primary education, unemployed, single)

Positive role of religion

Religious practices such as prayer and use of the Quran

The majority of the participants (82) reported that they perform religious practices to improve their lives. Participants stated that they rely on reading and listening to the verses of the Quran. They perform different kinds of worship such as private prayer, prayer at mosques, and praise. The performance of worship helps them to be happy because they will be closer to God and feel that God is with them. They believed that it improves their mental health and find reading the Quran relaxes them, and thereby relieves stress. For example:
Continually reading the Quran gives me psychological fulfilment and comfort. Reading verses of the Quran has an influence on my spirit and soul . . . the Holy Quran has a much greater influence in improving my mental health because it relieves stress; satisfies my heart, mind, and soul; and relaxes the psyche. Listening to Quran tapes daily is a great comfort.

(Participant no. 1, 25 years old, male, primary education, employed, married)

Participants experienced a feeling of peace as they concentrated on listing to the Quran or engaged in prayers. They found the process comforting. For example:

Praise and prayers for forgiveness are daily miracles; they give me comfort. Happiness and peace of mind come from listening to the Word of God as the Word of God is at work to break things within the self.

(Participant no. 6, 43 years old, male, secondary education, employed, married)

**Belief in faith healer treatments**
Belief in the faith healer treatment of mental illness emerged as an important theme for the improvement of their health. Thirteen of the 159 participants reported that seeing a faith healer helped them to feel better.

Recently, after visiting a faith healer, I began to feel much better, and the hallucinations gradually began to disappear. I continued to see the faith healer . . . I feel much better every time I see the faith healer.

(Participant no. 11, 39 years old, female, university education, employed, widowed)

Faith healers helped participants to be in control of their negative symptoms and encouraged them to trust in God.
I was taking high dose medication because I don’t leave my home [sic]. The symptoms were controlling me, until I felt that I have tightness in my chest and heart, and then I visited a well-known faith healer and he advised me to be close to Almighty God and trust him. This was just after Friday prayers.

(Participant no. 28, 43 years old, male, secondary education, employed, married)

The participants cited the most common methods of treatment that were used by the faith healer were as follows: Roqua (reading verses from the Quran), rubbing oil on the body, and drinking water with God’s word read over it. For example:

I felt very [much] better when I went to a faith healer . . . . He treated me by Roqua and gave me water to drink from it.

(Participant no. 145, 44 years old, female, university education, employed, married)

I followed up with him [faith healer] for about a year. He read Roqua every time I went to see him and gives me some type of oil to rub all over my body. I felt better after seeing him.

(Participants no. 10, 24 years old, female, university education, unemployed, married)

Meaning of life
Fifteen of the 159 participants indicated that religion and faith help them to view their illness positively, to accept their illness and improve their life. They view sickness as a test of their belief, and they believe that God will reward them for their patience. They believe that the treatment for their sickness is in God’s hands. They insist that they rely on God, have a relationship with God, and find comfort and safety in their religious beliefs and practices. For example:
But my faith in God Almighty is strong, and I believe that what happens to me was decided by God. He decided that I would be sick; I am not mentally ill by chance. And I do not protest what God decided for me. I believe that the only healing for my sickness is in God’s hands.

(Participants no. 2, 28 years old, male, primary education, employed, divorced)

Participants believe mental illness to be a challenge sent by God in order to test them. Hope was offered in the form of a story of faith in God. For example:

If you will have the strong belief in God you will say that I am lucky because my God chose to test me in this life. I believe that life is just a test for the believer and my God will reward me in the afterlife.

(Participant no. 55, 23 years old, female, primary education, unemployed, single)

Discussion
This study involved a qualitative study investigating the QoL for people with schizophrenia in Saudi Arabia. Two themes were identified in relation to the perception of QoL for Saudi Arabian people with schizophrenia; 1) shame of schizophrenia, and 2) the positive role of religion. The discussion will be based on those two themes.

Shame of schizophrenia
The findings of this qualitative study reveal that Saudi Arabian people with schizophrenia suffer shame from having schizophrenia. This result is supported by other studies undertaken in Morroco (Kadri, Manoudi, Berrada & Moussaouï 2004) and Yemen (Alzubaidi, Baluch & Moafi 1995). These researchers found that people with schizophrenia in traditional Arab countries suffered from stigma. In this study, Saudi Arabian people with schizophrenia reported having two main
forms of shame associated with having schizophrenia; 1) *family shame of having a relative with schizophrenia*, and 2) *public shame of having schizophrenia*.

Firstly, Saudi Arabian people with schizophrenia indicated that the family shame of having a relative with schizophrenia affects their life and how their family treats them. Only a few studies have been published about the family shame of people with mental illness in Arab countries. Arab people prefer to hide that they have a family member with mental illness because they fear a bad reputation if people knew that they have a family member with mental illness. For example, in Morocco, Kadri, Manoudi, Berrada, and Moussaoui (2004) investigated whether 100 family members of people with schizophrenia suffer from stigma. The results showed that most families had no knowledge about schizophrenia; 63.9% did not rely on the family member with schizophrenia for important tasks because of the lack of trust (34%) or because they view the patients as handicapped (14%). Most of the families (59%) reported being overprotective of their family member with schizophrenia whereas 15% of families reported treating them with rejection and aggressive behaviour. Most importantly, 86.7% of family members reported feeling stigmatized from having a family member with schizophrenia. Thus, the family shame of having a family member with schizophrenia may have a negative impact in dealing with that person.

Secondly, the public shame of schizophrenia was another factor that negatively affects the QoL for Saudi Arabian people with schizophrenia. Public attitudes toward people with mental illness was studied and assessed in the general public in Yemen (Alzubaidi, Baluch & Moafi 1995) and Qater (Bener & Ghuloum 2011), in health professionals in Palestine (Ahmead, Rahhal & Baker 2010) and Jordan (Hamdan-Mansour & Wardam 2009), and in non-health providers who work at mental health hospitals in Egypt and Kuwait (Meguid, Rabie & Bassim 2011); the results showed a negative view of and attitude toward people with schizophrenia. For example, in Yemen, Alzubaidi, Baluch, and Moafi (1995) assessed the attitude toward mental illness in 160 Yemeni men. In the study, more
than 60% of the study’s participants reported that people with mental illness have an evil spirit, and they are dangerous to society. In addition, more than 50% of the participants reported not having a relationship with people with mental illness because they fear that their peers will perceive them negatively. Thus, negative public attitudes toward people with mental illness may impact their lives negatively.

Another important finding that participants in this study raised is the role of the media in adding to more stigmatization of, and discrimination of people with mental illness. These findings were supported by other studies undertaken in the United Kingdom (Crisp et al. 2000) and New Zealand (Allen & Nairn 1997) in regard to the role of the media in generating a negative view of people with mental illness. For example, In New Zealand, Allen and Nairn (1997) undertook a study to explore how mental illness was portrayed as dangerous in the print media. The print media consisted of a community newspaper and mental health special reports. The results of the study showed that mental illness was depicted negatively and people with mental illness were described as dangerous and were considered a threat to the community. According to the authors, people with mental illness were frequently represented in the media to exhibit “physical violence to others and themselves, verbal abuse or harassment, and damage to property together with impacts on the mental and physical well-being of others, especially parents” (Allen & Nairn 1997, p.378). Thus, the negative portrayal of people with mental illness in the media can be considered as a main contributor to forming the attitude of the general public toward people with mental illness.

The interpretations of this qualitative study reveal that the shame of having schizophrenia negatively affected the QoL for people with schizophrenia in Saudi Arabia. This result is consistent with previous studies conducted in the United States of America (Rosenfield 1997; Markowitz 1998), Taiwan (Hsiung et al. 2010), and New Zealand (El-Badri & Mellsop 2007) that showed that the discrimination and stigmatization of people with mental illness are associated with
poor QoL. A possible explanation for this result is that higher levels of stigmatization among people with schizophrenia decreased their self-esteem; thus, they may have had difficulty in seeing their life as important and diminish their ability to enjoy it, which led to a lower QoL. For instance, Markowitz (1998) studied the relationship between stigma and the QoL for 610 people with mental illness. The author found that stigmatization of people with schizophrenia was related to low self-esteem and poor QoL.

Positive role of religion
The results of this study show that people with mental illness in Saudi Arabia believe that mental illness is caused by the will of God. In Islam, health and sickness are perceived as caused by God, and it is believed that health is distributed through His heavenly decisions and power. Therefore, Muslims tend to accept the will of God and face the illness with a strong faith and patience. The findings were supported by other studies (Al-Krenawi 1999; Al-Krenawi & Graham 1999a; Al-Krenawi, Graham, Ophir & Kandah 2001) undertaken in Arab countries that found that people believe mental illness is caused by the will of God. For instance, Al-Krenawi, Graham, Ophir, and Kandah (2001) assessed the perceptions of the aetiology of mental illness in Jordanian Arab Muslims. The sample consisted of 148 Muslim Jordanian Arabs living in Zarka, Jordan, and 61 Moroccan Jews living in Ashdod, Israel, who were mental health outpatients. The results show that all of the Jordanian outpatients with mental illness believe that the cause of their mental illness is due to the will of God. Therefore, it is common for Arab people to believe that mental illness is caused by the will of God.

In addition, Saudi Arabian people with schizophrenia in this study reported using religious practice (e.g., prayer, worship, reading the Quran) as a method to cope with their mental illness. This result was supported by Al-Krenawi et al. (2009) as well as Al-Krenawi, Graham, Dean, and Eltaiba (2004). For example, Al-Krenawi, Graham, Dean, and Eltaiba (2004) investigated and compared the attitude of Arab Muslim female undergraduate students toward seeking treatment
for mental illness. The study consisted of: 102 Arab Israelis, 84 from Jordan, and 76 from the United Arab Emirates. The results showed that 85% of Jordanians, 78% from the United Arab Emirates, and 70% of the Arab Israelis reported that they refer to God through prayer if they experience mental health problems. The authors reported that “religion imparts explanatory mechanism, including meaning, purpose and specific aetiologies (the supernatural world, the Divine)” (Al-Krenawi, Graham, Dean & Eltaiba 2004, p.109). In addition, the Islamic religion provides healing and coping mechanisms (e.g., Muslim faith healer and support from religious people). Therefore, religion practices and support from religious people are vital coping mechanisms for people with schizophrenia in Saudi Arabia.

Saudi Arabian people with schizophrenia in the current study showed personal belief in faith healers. This result is supported by Savaya (1998) and by Salem, Saleh, Yousef, and Sabri (2009). In Arab culture, the faith healer has a very important position in the community because he/she belongs to the same culture, background, and community as the patient; they deal with mysterious and supernatural forces in which Arab people strongly believe (Savaya 1998; Al-Krenawi 2005). In the United Arab Emirates (UAE), Salem, Saleh, Yousef, and Sabri (2009) studied the help-seeking behaviour of patients referred to the mental health department of Al-Ain Hospital. The authors found that before presenting to the mental health service, people with mental illness (44.8%) consulted faith healers, and 45% of them reported improvement with the faith healers’ help. The main treatments that were used by the faith healers were prayer, use of herbs, or both. Of the total sample, 82% believed that God acts through doctors or faith healers (Salem, Saleh, Yousef & Sabri 2009, p.144). Therefore, it is clear that in Arab culture religion plays a strong role in the perception and treatment of mental illness. In addition, the faith healer holds a powerful position in the Arab community.
The interpretations of the qualitative findings of the current study show that religion is found to be positively related to the QoL for people with schizophrenia in Saudi Arabia. This result is consistent with previous studies undertaken in China (Young 2010) and the United States of America (Corrigan, McCorkle, Schell & Kidder 2003; Bellamy et al. 2007) that show that spirituality and religiousness were positively related to a high QoL for people with mental illness (Bellamy et al. 2007). Therefore, religious faith and practice is an important factor in improving the QoL for Saudi Arabian people with schizophrenia.

One possible explanation for this result is that religion may provide valuable coping skills, supportive networks, and hope that help the individual to reduce the difficulties that arise from having mental illness, as mentioned in chapter 5. For example, Bellamy et al. (2007) studied the factors related to the spirituality of people with mental illness. The study was made up of 1,835 people with mental illness who attended community mental health services. They were asked to complete questionnaires regarding demographic characteristics, psychiatric history, spirituality activities, and QoL. The results revealed that people with mental illness who reported higher levels of community integration, hope, and QoL were more likely to hold spirituality in high regard. According to the authors, spiritual activities (e.g., prayer and reading the Bible) can provide hope that “this too shall pass,” which promotes hope that things will be better (Bellamy et al. 2007, p.292). Therefore, Saudi Arabian people rely on their religion as a source of coping with their mental illness to improve their QoL.

It is worth noting that none of this study’s participants talked about negative religious coping, for example, anger, fear and guilt in their life. A number of studies have focused on investigating the negative and positive effects of religion on the lives of people with schizophrenia. For instance, Huguelet et al. (2009) investigated religious coping in 115 outpatients with schizophrenia in Switzerland. They found that 42% of patients considered religion to play the most
important protective role in fighting substance misuse, while 3% of them reported that religion played a negative role, which impelled them to misuse drugs.

Another study was undertaken in Switzerland by Mohr et al. (2011) to investigate the positive and negative effects of religious coping in 115 outpatients with schizophrenia. They found that 83% of patients reported positive religious coping (e.g. hope and meaning of life), while 14% of them reported negative religious coping (e.g. despair and guilt). According to Mohr and Huguelet (2004, p.369), although religion sometimes has negative effects on the lives of people with mental illness, “Religion plays a central role in the processes of reconstructing a sense of self and recovery.”

Therefore, a possible reason why Saudi Arabian people with schizophrenia in this study reported only positive religious coping is that Saudi Arabia is a traditional and religious country. The main religion is Islam, which teaches Muslims to accept the will of God and face illness with strong faith and patience. However, a response bias must also be considered as participants might have been reluctant to discuss religion in negative terms in a traditional religious country such as Saudi Arabia.

**Conclusion**

This chapter provides the findings of the qualitative study. The main aim of the study was to explore how people with schizophrenia perceive their quality of life. Data were collected through the use of the Lancashire Quality of Life Profile-European Version from 159 people with schizophrenia.

Saudi Arabian people with schizophrenia identified two main factors that affect their QoL. The first factor is that the stigma of having schizophrenia was identified as a barrier to their QoL. Particularly, they identified family shame, public shame, and the role of the media in creating a negative view of people with
mental illness. The second factor that affects their QoL is the positive role of religion in working as a facilitator for their QoL. They highlighted the positive role of religion and religious practice (e.g., prayers and the role of the faith healer treatment) in improving their health and life. The next chapter focuses on the conclusion and recommendations based on the study’s findings.
CHAPTER SEVEN
CONCLUSION AND RECOMMENDATIONS

Introduction
This study aimed to explore the quality of life (QoL) for Saudi Arabian people with schizophrenia through the use of a mixed methods approach to provide a comprehensive view of their perceived QoL. This chapter provides the conclusion and recommendations from this study, and is organized in three parts. The first part provides a summary of the key findings integrated from both studies. The second addresses the limitations of the study. Finally, recommendations for nurses to improve the QoL for Saudi Arabian people with schizophrenia are offered, including suggestions for Saudi Arabian mental health services, Saudi Arabian mental health practice, Saudi Arabian mental health nursing education, and future research.

Summary of the key findings
As described in chapter 4, the study employed a mixed methods approach to provide a comprehensive understanding about the quality of life (QoL) for people with schizophrenia in Saudi Arabia. While the quantitative study provided information about how satisfied Saudi Arabian people with schizophrenia are with their QoL and about the relationship of their socio-demographic characteristics to their QoL, the qualitative study showed how people with schizophrenia perceive their QoL and provided a richness to the quantitative data. The combination of quantitative and qualitative findings provided a more comprehensive understanding about the QoL for people with schizophrenia in Saudi Arabia than the use of either qualitative or quantitative findings alone would have allowed (Bengtsson-Tops & Hansson 1999; Johnson, Onwuegbuzie & Turner 2007). Based on the use of the mixed methods analysis, this study arrived at three main findings, which are: 1) religion improves the QoL for people with schizophrenia in Saudi Arabia; 2) shame of having schizophrenia diminishes QoL; and 3) being
female, unemployed, or illiterate or having only primary education is associated with poor QoL, while being married is related to better QoL.

Firstly, a very important finding from this study was that 82.2% of the participants reported high satisfaction with their religion. They emphasized the major role that religion has in helping them to cope with their mental illness. Participants reported using religious practice (e.g., prayer, worship and reading the Quran) as a method to cope with their mental illness. In addition, they showed strong personal belief in faith healers. This strong belief in faith healing treatment can be explained by the fact that faith healers belong to the same culture, background, and community as do the participants of this study (Savaya 1998; Al-Krenawi 2005). Three reasons can be offered to explain the high satisfaction with religion reported by Saudi Arabian people with schizophrenia: 1) religion helps people with mental illness to manage and cope with their illness (Russinova, Wewiorski & Cash 2001; D'Souza 2002); 2) religion is a source that provides hope (which in Western countries is a major component in the consumer driven recovery movement), love, and life essence for people with mental illness (Mohr et al. 2006); and 3) religion is a vital source of support for people with mental illness through attending religious services (Corrigan, McCorkle, Schell & Kidder 2003; Bellamy et al. 2007; Borras et al. 2007). Therefore, religion might function as a persistent and potentially effective coping method for people with mental illness and work as a salient method to improve the QoL for people with schizophrenia.

Secondly, participants reported suffering from shame because of their schizophrenia. This reported feeling of shame had two facets. The first concerns the participants’ perception of their schizophrenia affecting their family relationships and causing them to be treated differently from other family members. Participants reported that their family members misunderstand, mistreat, and over-control them. The second aspect concerns public shame, evidenced by participants’ not being allowed to get married, have a job, or have social relationships. Participants also reported the role of the media in contributing
to the stigmatization of, and discrimination against people with mental illness; for example, portraying people with mental illness as dangerous. The participants’ suffering from the shame of having schizophrenia explains why they are mostly dissatisfied with their leisure activities (25.2%), work (23.3%), and consequently their financial status (24.5%) reflected by not having a job or not able to find employment. This stigmatization results in poorer self-esteem, and consequently the participants have difficulty in seeing their lives as valuable or enjoyable, which results in a lower reported QoL (Rosenfield 1997; Markowitz 1998; El-Badri & Mellsop 2007; Hsiung et al. 2010). Therefore, the high level of stigmatization of Saudi Arabian people with schizophrenia acts as a significant barrier to becoming engaged in the community and negatively affects their participation in leisure activities, their employment status, and their financial situation.

Finally, being female, unemployed, or illiterate or having only primary education is associated with poor QoL, while being married is related to better QoL. Women reported a lower QoL and less satisfaction with their work/education, social and family relations, and health than did men. This lower QoL reported by Saudi Arabian women with schizophrenia can be attributed to 1) the expectation that women will study and work in occupations that are related to women only (e.g., teaching, nursing, and household activities), thereby limiting women’s education and work opportunities (Al-Jarf 1999); 2) Saudi Arabian conservative religious beliefs may negatively affect the life of women; and 3) Saudi Arabian social norms, which limit women’s participation in sporting activities, thereby affecting women’s health (Al-Nozha et al. 2005). Therefore, Saudi Arabia’s local interpretation of Islamic laws and social norms lead to gender inequity in Saudi Arabia that has a negative impact on the health and wellbeing of women.

Further, participants in this study who were illiterate or had a very basic education reported a lower QoL than did those with a university or college education. The possible explanation for higher levels of education being associated with higher
QoL is that people with mental illnesses who are well educated are more likely to hold more highly skilled jobs. Working in such positions might provide an enthusiasm for maintaining employment and avoiding reliance on others (Mechanic, Bilder & McAlpine 2002). In addition, because of this enthusiasm to maintain employment, the person may also be more likely to adhere to a medication and treatment regime for his or her illness, whereby the individual’s mental illness would be better controlled.

Unemployment was also found to be associated with lower QoL, and those who were unemployed reported being less satisfied with their financial situation, legal and safety issues, and health. The most probable explanation for unemployed people to be dissatisfied with their QoL is that unemployment affects a person’s health (Bejerholm & Eklund 2007; Bejerholm 2010) and social life and the ability to afford the expenses associated with daily living (Chan & Yu 2004). Conversely, the employment of people with schizophrenia is associated with a better perceived health and QoL, which in turn would have a positive effect on their mental health status.

Those with schizophrenia who were married reported a better perceived QoL than those who were unmarried. Married people were more satisfied with their financial situation, their family and social relationships, and their health status. This positive outcome can be attributed to marriage providing support to the patient through having a spouse; furthermore, having children would provide a reason for the patient to build social relationships not available to single individuals (Melle, Friis, Hauff & Vaglum 2000; Shapiro & Keyes 2008). In addition, Saudi Arabia is a traditional culture where the emphasis on marriage and having children is very strong. Thus, married people with schizophrenia have better family and social support and therefore better QoL.
Limitations of the study

Although this study reveals significant findings, there are some important limitations that should be addressed. There are three main limitations in this study. The first limitation was that the participants in this study were patients who were receiving outpatient clinic treatment and in a stable mental health condition. Therefore, the findings may not be generalized to people with schizophrenia who are institutionalized in psychiatric hospitals, clinically unstable, and are experiencing severe psychotic symptoms.

The second limitation of this study was that the findings of the study may not be generalized. Although the sample size was sufficient to undertake this study, the use of purposeful sampling (Saudi Arabian people with schizophrenia receiving outpatient treatment at only one hospital—King Fahd University Hospital, in Al-Khobar city) makes it difficult to generalize the study’s findings.

The third limitation was that this study used a cross-sectional design by which data were collected at a single point in time. While QoL is a dynamic construct and maybe change from day to day based on the life conditions, the findings of the study may not be sensitive to change over time.

The fourth limitation was a possible response bias, as participants may have been reluctant to discuss religion in negative terms in a traditional religious country like Saudi Arabia.

Recommendations

The recommendations based on the key findings of this research study include recommendations for the Saudi Arabia mental health services in general, mental health nursing practice and education, and for future research. These
recommendations would lead to an improvement in the QoL for those with schizophrenia in Saudi Arabia.

**Recommendations for Saudi Arabian mental health services**

Recommendations aimed at improving Saudi Arabian mental health services for people with mental illness, and particularly people with schizophrenia, include the following:

1. Mental health services in Saudi Arabia need to integrate professional mental health treatment and religious treatment and provide mutual care for people with mental illness. The study reveals that people with schizophrenia reported that religious beliefs and practices, as well as faith healing treatment, facilitate improvements in their QoL. Several mental health programmes (Kehoe 1999; Phillips, Lakin & Pargament 2002; Revheim & Greenberg 2007; Wong-McDonald 2007) and psychotherapy (Propst et al. 1992) integrating religion and spirituality from different countries were initiated and examined and showed favourable results. According to Hefti (2011), in order to develop proficiency in integrating professional mental health treatment and religious treatment, the cultural background of patients needs to be carefully considered. Therefore, mental health services need to accommodate religious aspects in a treatment programme. In addition, faith healers need to be professionally trained to deal with people with mental illness.

2. The stigmatization of people with mental illness in Saudi Arabia needs to be addressed. This study showed that people with schizophrenia in Saudi Arabia are suffering from stigmatization, which serves as a barrier to improving their QoL. Therefore, strategies to de-stigmatize people with schizophrenia in Saudi Arabia should be implemented. Carr and Halpin (2002) suggested a number of such strategies, namely, 1) formulating an agency that monitors how the media portray mental illness and provides
penalties for inaccurate information, 2) educating the media and using it to provide public health education and community awareness, 3) engaging people with mental illness in the community, and 4) providing patients and their families with psycho-education. In addition, McGorry, Yung, Bechdolf and Amminger (2008) suggested that in order to reduce stigma toward people with mental illness people need to share their experience and be open to talk and cope with illness and find the right way to get help.

3. Women-specific mental health services in Saudi Arabia should be implemented. This study showed that Saudi Arabia women with schizophrenia reported poorer QoL than men. They face cultural restrictions in Saudi Arabia. Therefore, it is important to argue for mental health focus services which cater to women only. Such services have been described by Seeman and Cohen (1998) and implemented in Australia (Monash Alfred Psychiatry Research Centre 2011; Psychiatric Disability Services of Victoria 2011) and in Canada (Monash Alfred Psychiatry Research Centre 2011) and have shown favorable results.

4. Community mental health services in Saudi Arabia should be implemented. It is very important to note that such services have not yet been established in Saudi Arabia (Al-Habeeb & Qureshi 2010). Based on the analyses of the literature reviewed for this study, it is argued that the creation of community mental health services is crucial for people with schizophrenia in Saudi Arabia, in order to decrease the rate of hospitalizations and improve their quality of life. Community mental health service programmes should be tailored according to the needs of their users by focusing on work/education, marital status, and social relationships. Lehman, Ward and Linn (1982) suggested a number of strategies to improve the quality of life for people with mental illness, including offering financial support, providing vocational preparation programmes, granting employment opportunities, facilitating integration
into the community, and affording protection against crime. These strategies can be achieved through the establishment of community mental health services in Saudi Arabia. In addition, previous studies showed that community support services are effective in improving the quality of life for people with mental illness (Rosenfield 1997; Hansson 2006). In addition, McGorry (2012) insisted that the integration of primary and secondary mental health services with community mental health services, with respect to the cultural background of the patients, is an important part of providing optimal mental health care.

**Recommendations for Saudi Arabian mental health practice**

Recommendations to improve Saudi Arabian mental health nurses’ practice in dealing with people with mental illness include the following:

1. Based on the result that religion improved the QoL for people with schizophrenia, and stigma diminished it, and as described in chapter 2, that the majority of the nurses in Saudi Arabia are non Saudi Arabian such as people from India and the Philippines who come from different socio-cultural and religious backgrounds, it is vital to provide introductory courses for those nurses about how to understand and deal with Saudi Arabian people with mental illness based on the social, cultural, and religious values of the country. Al-Krenawi (2005) suggested establishing a model that focused on the cultural and religious values and beliefs of Arab Muslims and provided guiding principles for mental healthcare providers who trained in Western universities and are working with Arab Muslim patients. The implication is that such a model would help the nurses to formulate an effective nurse–patient relationship and therefore understand the cultural, social, religious and personal belief factors that affect the QoL for people with schizophrenia in Saudi Arabia.
2. Mental health providers play a significant role in contacting and dealing with people with schizophrenia in Saudi Arabia. Mental health providers who work with people with mental illness need to pay attention to a number of points that might affect the QoL for the people with schizophrenia in Saudi Arabia. Satorius (1998) suggested several interventions that need to be addressed by all mental health professionals who deal with people with mental illness. These actions include 1) examining their personal ability for and attitude toward working with people with mental illness, 2) protecting the rights of people with mental illness, 3) focusing on factors that improve the QoL for people with mental illness, and 4) working effectively with the community to change false perceptions and attitudes toward mental illness.

**Recommendations for Saudi Arabian mental health nursing education**

Based on the results of this study, changes in mental health nursing education are necessary to improve the QoL for people with schizophrenia in Saudi Arabia. Nursing curricula in Saudi Arabia need to include four main directions, as detailed below:

1. Mental health nursing curricula need to focus on how to improve patients’ quality of life, in addition to controlling disease symptoms. Based on the results of this study, such curricula need to be tailored according to the cultural backgrounds of people with schizophrenia in Saudi Arabia.

2. Saudi Arabia is a religious country, and this study showed that religion can improve quality of life for people with schizophrenia. Thus, mental health nursing curricula in Saudi Arabia need to be aware of the positive role of religion in the lives of people with mental illness, as well as on using religious activities and practices to cope with and manage mental illness.
3. Mental health nursing curricula need to focus on reducing the stigmatization of mental health patients through early detection of stigmatization, the development of strategies to diminish it, the education of patients and families to empower them to face stigma, and the increased awareness of the rights of people with mental illness.

4. Mental health nursing curricula need to focus on the role of community mental health providers in planning and running financial, employment, leisure, family, and social support programmes for people with schizophrenia who are mentally stable.

**Recommendations for future research**
Future research should include three main areas, as follows:

1. A replication of the study through the use of longitudinal design to examine the change in QoL for Saudi Arabian people with schizophrenia over time.

2. A replication of the study through the use of multiple centres around the country of Saudi Arabia, this is to get a broader sample more representative of the entire population.

3. As this study arrived at the very important finding that religion helps people with schizophrenia in Saudi Arabia to manage and cope with their illness, another study is required to explore the types of religious activities and practices and the role of the faith healers that positively relate to QoL, in order to plan a religious treatment programme. In addition, there is a need for a study to investigate how religion affects the patient’s medication adherence.
4. This study shows that women reported lower QoL than men, and married individuals (both men and women) reported higher QoL than those unmarried. Therefore, future studies to investigate the relationships between gender and marital status and QoL for people with schizophrenia are recommended.

Conclusion
This study aimed to investigate the QoL for Saudi Arabian people with schizophrenia through the use of a mixed methods approach. The major findings of this study include: 1) religion helps Saudi Arabian people with schizophrenia to cope with and manage their mental illness, which improves their QoL, 2) shame of having a mental illness negatively affects the social engagement of Saudi Arabian people with schizophrenia, limiting their participation in leisure and work activities and therefore diminishing their QoL 3) being female, unemployed, or illiterate or having only primary education is associated with poor QoL, while being married is related to better QoL.

To improve the QoL for Saudi Arabian people with schizophrenia and other mental illnesses, several suggestions were recommended for the Saudi Arabian mental health services, mental health practice, and mental health nursing education. Those recommendations included the importance of the implementation and development of community mental health services and women-focused mental health services, and the integration of professional mental health treatment with religious treatment. In addition, strategies to de-stigmatize people with mental illness in Saudi Arabia should be developed. There is a need to incorporate the QoL concept into the mental health nursing curriculum. Finally, recommendations for future research were made.
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APPENDICES
Appendix A
Documents relevant to literature review
Studies of the QoL for outpatients with schizophrenia in the Arabic world

<table>
<thead>
<tr>
<th>Country</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia, Jordan, Kuwait</td>
<td>Daradkeh and Al Habeeb (2005), Zahid et al. (2009)</td>
</tr>
<tr>
<td>United Arab Emirates, Qatar, Kuwait, Bahrain, Oman, Yemen, Iraq, Sudan,</td>
<td>No published studies were found.</td>
</tr>
<tr>
<td>Syria, Jordan, Lebanon, Palestine, Egypt, Morocco, Libya, Tunisia,</td>
<td></td>
</tr>
<tr>
<td>Algeria, Mauritania, Somalia, Djibouti, Comoros.</td>
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</tr>
</tbody>
</table>

Distribution of articles yielded by searching through four databases from the period of 2000 to 2010

<table>
<thead>
<tr>
<th>Key words</th>
<th>Database</th>
<th>No. of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Saudi*,” “schizophr*,” and “quality of life”</td>
<td>MEDLINE</td>
<td>1354</td>
</tr>
<tr>
<td></td>
<td>CINAHL</td>
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<td></td>
<td>Proquest</td>
<td>827</td>
</tr>
<tr>
<td></td>
<td>ScienceDirect</td>
<td>494</td>
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</table>

Distribution of articles yielded by searching through four databases from the period of 1990 to 2010

<table>
<thead>
<tr>
<th>Key words</th>
<th>Database</th>
<th>No. of articles</th>
</tr>
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<tbody>
<tr>
<td>“Saudi*,” “schizophr*,” and “quality of life”</td>
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<tr>
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<td>CINAHL</td>
<td>104</td>
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<td></td>
<td>ScienceDirect</td>
<td>630</td>
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### Three categories of articles according to themes identified from literature review

<table>
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<tr>
<th>Socio-demographic characteristics and QoL (n= 7)</th>
<th>QoL of people with schizophrenia internationally (n= 9)</th>
<th>QoL of people with schizophrenia cross-culturally (n= 5)</th>
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</thead>
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<tr>
<td>Salokangas et al. (2001)</td>
<td>Duno et al. (2001)</td>
<td></td>
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<td></td>
<td>Bengtsson-Tops and Hansson (1999)</td>
<td></td>
</tr>
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<td></td>
<td>Browne et al. (1998)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B
Documents relevant to the ethical considerations
INITIAL APPLICATION APPROVAL
In reply please quote: HE09/236
Further Enquiries Phone: 4221 4457

12 October 2009

A/Professor Janette Curtis
Ms Amira Alshowkan
25/313 Crown St
Wollongong
NSW 2500

Dear A/Professor Curtis,

Thank you for your letter of 25 September 2009 responding to the HREC initial review letter dated 24 August 2009. I am pleased to advise that the application has been approved.

Ethics Number: HE09/236
Project Title: A study of the perceptions of quality of life among people with schizophrenia in Saudi Arabia.
Name of Researchers: A/Professor Janette Curtis, Ms Yvonne White, Ms Amira Alshowkan
Approval Date: 1 October 2009
Expiry Date: 30 September 2010

The University of Wollongong/SESIAHS Health and Medical HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in Human Research. The HREC has reviewed the research proposal for compliance with the National Statement and approval of this project is conditional upon your continuing compliance with this document. As evidence of continuing compliance, the Human Research Ethics Committee requires that researchers immediately report:

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforeseen events that might affect continued ethical acceptability of the project.

You are also required to complete monitoring reports annually and at the end of your project. These reports are sent out approximately 6 weeks prior to the date your ethics approval expires. The reports must be completed, signed by the appropriate Head of Unit, and returned to the Research Services Office prior to the expiry date.

Yours Sincerely,

A/Professor Arthur Jenkins
Chairperson
UOW&SESIAHS Health and Medical HREC
December 21, 2009

UNIVERSITY OF WOLLONGONG
Research Services Office
New South Wales, Australia

Re: HE09/236

To whom it may concern,

We would like to inform you that we have no objection that Ms. Amira Alshowkan can conduct her research in King Fahd Hospital of the University, Department of Psychiatry for the partial fulfillment of her PhD study with the project title “A study of the perceptions of quality of life among people with schizophrenia in Saudi Arabia.” We have reviewed the research study protocol and understand that Ms. Amira Alshowkan will recruit subjects through personal visits after subjects have signed the consent form.

Quality of life is an important issue in mental health services. We look forward to participating as a site for this valuable research project.

Thank you very much.

Sincerely yours,

Dr. Mahdi S. Abumadini
Associate Professor & Consultant Psychiatrist
Chairman, Department of Psychiatry
King Fahd Hospital of the University
College of Medicine, Dammam University

President
Saudi Psychiatric Association
Dear Hospital Director

This is a letter to ask permission to undertake research entitled ‘A Study of the Perception of Quality of Life among People with Schizophrenia in Saudi Arabia’. It is conducted by Ms. Amira Alshowkan, a Ph. D. candidate at the University of Wollongong, Australia. The main purpose of this study is to assess the quality of life of those who have been diagnosed with schizophrenia in Saudi Arabia.

Quality of life is an important outcome indicator of mental health, and it is important to consider this in recovery from schizophrenia. The understanding of such a phenomenon would may also result in an increased possibility of recovery and a better life for people with schizophrenia.

The finding of this research will be primarily used for a PhD thesis, and will be published in a scholarly journal article. Moreover, it may provide a basis for future decisions on the development of mental health nursing and the provision of recovery-oriented care for people with schizophrenia.

Approval is sought to undertake research in your hospital by completing the Lancashire Quality of Life Profile (LQoLP) by self-rating and an in-depth interview for some outpatient who diagnosed with schizophrenia. There will be no risk for the participating patient and the hospitals. The identification of respondents and the hospitals will not required in any part of the questionnaires, and the data will be analysed using a statistical analysis, and be reported as a whole.

With this letter, a set of documents including a brief proposal, an outline of ethical consideration (approved by HREC of the UOW), a participation information sheet, a consent form, and LQoLP questionnaire has been attached for further information.

If there are any ethical concerns, you can contact:

The Ethics Officer
Human Research Ethics Committee
University of Wollongong, NSW
+61 2 4221 4457

If you require any further information, please do not hesitate to contact the researcher, Amira Alshowkan at aas882@uow.edu.au

You Sincerely
Re: Invitation for participation in schizophrenia study

Dear Sir/Madam:

This invitation requests your participation in a study conducted by Amira Alshowkan, a Ph. D. candidate at the University of Wollongong, Australia. The main purpose of this study is to assess the quality of life of those who have been diagnosed with schizophrenia in Saudi Arabia.

Quality of life is an important outcome indicator of mental health, and it is important to consider this in recovery from schizophrenia. The understanding of such a phenomenon would may also result in an increased possibility of recovery and a better life for people with schizophrenia.

This research project will address your opinions about quality of life. I would like to arrange an interview with you to discuss your perception of this topic. The interview will take about half an hour. If you are interested in participating, please read the attached research information sheet and consent form, then contact the study investigator.

Thank you for your anticipated participation.

Amira Alshowkan, Study investigator

Email: aas882@uow.ed.au
PARTICIPANT CONSENT FORM

Title:
A Study of the Perception of Quality of Life among People with Schizophrenia in Saudi Arabia

Study investigator:
Ms. Amira Alshowkan (researcher)  Faculty of Health and Behavioural Science, University of Wollongong Australia Email: aas882@uow.edu.au
Dr. Janette Curtis (Supervisor)  Faculty of Health and Behavioural Science, University of Wollongong Australia Ph. +61 2 4221 5056
Ms. Yvonne White (Supervisor)  Faculty of Health and Behavioural Science, University of Wollongong Australia Ph. +61 2 4221 3337

Aim:
By signing this consent I understand that the main purpose of this study is to assess quality of life in people with schizophrenia in Saudi Arabia.

Procedures:
By signing this consent I understand that I will be involved in completing the Lancashire Quality of Life Profile (LQoLP) by self-rating and in-depth interview. The interview shall be conducted by a trained interviewer and will last about 30 minutes. The interviewer will ask you questions about your health and current living situation.

Risk and discomfort:
By signing this consent I understand that there is no risk to me. There is a possible discomfort which is becoming anxious during Interview. To minimize the discomfort, I may ask for suspend the interview, discuss my concerns, or contact the primary nurse or physician and reschedule for interview. If you are unwilling to continue the participation you may terminate participation at any time during the study. All information gained to this point will be delayed.

Confidentiality:
By signing this consent, I understand that the researcher has the right to report unlawful information (crime and legal justice invasion) to the appropriate organization. Otherwise, I am willing to not answer certain question or terminate the interview at any point. I understand that the information obtained will be used to prepare this project and will only be read by the investigator and their supervisors. All of the information I provided will be confidential and no identifying information will be used. Any confidential information
that is collected will be stored according to the Code of Research Practice at the University of Wollongong.

Result of this study:

By signing this consent I understand that the results of the research study may be published but that my name or identity will not be exposed. No hospital and individual information will be shared. I understand that no any information about me including name, birthday, the medical record number, or other identifiers will be disclosed on the data collection sheet. The data collected from this study will remain anonymized.

Benefits:

By signing this consent I understand that participation in this study provided no direct benefits to me as a result of participating in this study.

Cancellation:

By signing this consent I understand that my participation is voluntary and that rejection to participate will involve no penalty to me or loss of benefits to which I am otherwise entitled. I understand that I may cease my involvement in the study at any time and I am free to leave without any penalty or prejudice to my future treatment.

Concerns:

By signing this consent I understand that If I have any concern about this project I can contact the study Investigator Amira Alshowkan, Associate Professor Janette Curtis or Ms. Yvonne White in the previous mention contact information. Otherwise, I can contact the secretary of the University of Wollongong Human Research Ethics Committee on +61 2 4221 4457 if I have any complaints about the way the research is or has been conducted.

Participant declaration:

I have read and understand the above information and after given an opportunity to have my questions answered, I agree to participate in this study.

_________________________                                            _________________________
Signature of Participant                                                     Date

_________________________                                         _________________________
Signature of Study Investigator                                      Date
PARTICIPANT INFORMATION SHEET FOR NURSES

Title:

A Study of the Perception of Quality of Life among People with Schizophrenia in Saudi Arabia

Study investigators:

Ms. Amira Alshowkan (researcher) Faculty of Health and Behavioural Science, University of Wollongong Australia
Email: aas882@uow.edu.au
Ph. +966 5 6314 7206

Dr. Janette Curtis (Supervisor) Faculty of Health and Behavioural Science, University of Wollongong Australia
Ph. +61 2 4221 5056

Ms. Yvonne White (Supervisor) Faculty of Health and Behavioural Science, University of Wollongong Australia
Ph. +61 2 4221 3337

Aim:

The main purpose of this study is to assess quality of life in people with schizophrenia in Saudi Arabia. The study will recruit 159 people who diagnosed with schizophrenia from out-patient clinics.

Procedures:

The potential participants will be involved in completing the Lancashire Quality of Life Profile (LQoLP) by self-rating and an in-depth interview. The interview will be conducted by the researcher and will last about 30 minutes and will be tape-recorded to be later typed up as a transcript of interview.

Sample of interview questions:

- People differ in how much friendship they need:
  - Do you have anyone who you would call a ‘close friend’?
  - In the past week, have you visited a friend?

- How satisfied are you with:
  - The way that you got on with other people?
  - The number of friends you have?
Role of the Nurses:

The researcher will coordinate with registered nurses in approaching potential participants. Registered nurses will be provided with a research package that includes an information sheet, an invitation to participant, and a consent form. Registered nurses will identify individual who meet study selection criteria and will give them a brief explanation along with the research information package. Potential participants will have until their next appointment at the health facility to decide whether to participate in the research project. If they are willing to participate, they will be contacted by the researcher, on the day of their next appointment, in order to arrange for the interview. The interview will be conducted on the same day of the participant’s appointment at the outpatient clinic and the counseling support will be available if needed.

Risk and discomfort:

The risk to the participant is minimal. The only possible risk is that some of the questions asked about health and life conditions may cause some temporary anxiety. To minimize the risk, participant may request to suspend the interview, discuss his/her concerns, or contact their primary nurse or physician. Potential participants have the right to terminate participation until the time of data entry and analysis. On the other hand, he/she can reschedule for interview if he/she willing to continue participation.

Confidentiality:

The information obtained from the participants will be used to prepare this project and will be known only to the investigator and her supervisors. Tape-recordings will remain confidential, for access only by the researcher and will be destroyed after being typed up. All the information the participants provide will be confidential, and no identifying information will be used. In addition, the research data will be own by the University of Wollongong, Australia.

Cancellation:

Participation is voluntary. If participants decide to not participate or withdraw, there will be no adverse effects or recriminations or loss of benefits to which the participants otherwise entitled. There will be no direct benefits to individual participants. Withdrawal from the study will not affect the health care you receive, or your relationship with health care staff.

Concerns

If participants have any concerns about this project, they can contact the study Investigator, Ms. Amira Alshowkan, Dr. Janette Curtis or Ms. Yvonne White at the previously mentioned contact information. Otherwise, they can contact the secretary of
the University of Wollongong Human Research Ethics Committee at +61 2 4221 4457 if they have any complaints about the way the research is being conducted.

Thank you for your anticipated participation.
PARTICIPANT INFORMATION SHEET FOR PATIENTS

Title:
A Study of the Perception of Quality of Life among People with Schizophrenia in Saudi Arabia

Study investigators:
Ms. Amira Alshowkan (researcher)  
Faculty of Health and Behavioural Science, University of Wollongong Australia  
Email.: aas882@uow.edu.au  
Ph. +966 5 6314 7206

Dr. Janette Curtis (Supervisor)  
Faculty of Health and Behavioural Science, University of Wollongong Australia  
Ph. +61 2 4221 5056

Ms. Yvonne White (Supervisor)  
Faculty of Health and Behavioural Science, University of Wollongong Australia  
Ph. +61 2 4221 3337

Aim:
The main purpose of this study is to assess quality of life in people with schizophrenia in Saudi Arabia. The study will recruit 159 people who diagnosed with schizophrenia from out-patient clinics.

Procedures:
The potential participants will be involved in completing the Lancashire Quality of Life Profile (LQoLP) by self-rating and an in-depth interview. The interview will be conducted by the researcher and will last about 30 minutes and will be tape-recorded to be later typed up as a transcript of interview. The interview will be conducted at the outpatient clinic and the counseling support will be available if needed.

Sample of interview questions:

- People differ in how much friendship they need:
  - Do you have anyone who you would call a ‘close friend’?
  - In the past week, have you visited a friend?

- How satisfied are you with:
  - The way that you got on with other people?
  - The number of friends you have?
**Risk and discomfort:**

The risk to the participant is minimal. The only possible risk is that some of the questions asked about health and life conditions may cause some temporary anxiety. To minimize the risk, participants may request to suspend the interview, discuss their concerns, or contact their primary nurse or physician. Potential participants have the right to terminate participation until the time of data entry and analysis. On the other hand, they can reschedule for interview if they are willing to continue participation.

**Confidentiality:**

The information obtained from the participants will be used to prepare this project and will be known only to the investigator and her supervisors. Tape-recordings will remain confidential, for access only by the researcher and will be destroyed after being typed up. All the information the participants provide will be confidential, and no identifying information will be used. In addition, the research data will be owned by the University of Wollongong, Australia.

**Cancellation:**

Participation is voluntary. If participants decide to not participate or withdraw, there will be no adverse effects or recriminations or loss of benefits to which the participants otherwise entitled. There will be no direct benefits to individual participants. Withdrawal from the study will not affect the health care you receive, or your relationship with health care staff.

**Concerns**

If participants have any concerns about this project, they can contact the study Investigator, Ms. Amira Alshowkan, Dr. Janette Curtis or Ms. Yvonne White at the previously mentioned contact information. Otherwise, they can contact the secretary of the University of Wollongong Human Research Ethics Committee at +61 2 4221 4457 if they have any complaints about the way the research is being conducted.

Thank you for your anticipated participation.
بسم الله الرحمن الرحيم

التاريخ

المكرم/

حفظه الله

السلام عليكم و رحمة الله و بركاته

والله يحفظكم

و السلام عليكم و رحمة الله و بركاته...

الباحثة/ أميرة الشوكان

بريد الالكتروني: aas882@uow.edu.au
دراسة في فهم جودة حياة الأفراد المصابين بمرض القسام في المملكة العربية السعودية

صحيفة معلومات البحث

الباحثة/ أميرة الشوكان
طالبة دكتوراة، كلية الصحة والعلوم السلوكية، جامعة ولونجنج، إستراليا
البريد الإلكتروني: aas882@uow.edu.au

الغرض الرئيسي من هذه الدراسة هو تقييم جودة حياة الأفراد المصابين بمرض القسام في المملكة العربية السعودية. الدراسة سوف تحتاج إلى مشاركة 159 فرد مصاب بمرض القسام من المتابعين للعيادات النفسية الخارجية. سوف يطلب من المتساءلين في البحث استكمال لحة لاتشير في جودة الحياة (LQoLP) من خلال تقييم الذات ومقاييس المتعامدة. المقابلة سوف تتم من قبل اثنين مديرين وسوف تستغرق حوالي 30 دقيقة. سوف تسجل على أشرطة يتم ترتيبها وتحليلها في وقت لاحق.

المعلومات التي سوف يحصل عليها من المشاركين سوف تستخدم لإعداد هذا المشروع فقط. لن تطلع عليها أحد سوياً الباحثة والمشرفين على البحث. أشرطة تسجيل المقابلة سوف تحفظ في سريان تام لدى الباحثة وسيتم التخليص منها بعد ترشيغها في استمارة جمع المعلومات. جميع المعلومات التي تقدم من المشاركين سوف تكون سرية ولن يتم الإفصاح عن أي معلومات تعرفي للمشاركين.

المشارك في هذه الدراسة البحثية يطعيمه. وأن رفض المشاركة أو الانسحاب لن يترتب عليه أي عقوبة أو فقدان لأي من المزايا المرتاحة للمشارك في البحث. ومساهمة في هذه الدراسة لم تقدم أي منافع مباشرة للمشاركين.

نتيجة المشاركه في هذه الدراسة.

لمزيد من المعلومات حول البحث يمكن للمشاركين الاتصال بالباحثة/ أميرة الشوكان على معلومات الاتصال السابقة الذكر، أو أستاذ مشارك/ جانيت كيرتش يعلى 5056 2 4221 0061 أو السيدة أيفون وايت على 3377 2 4221 0061. بالإضافة لذلك، يمكن الاتصال بسكرتر لجنة حقوق أخلاقيات البحث بجامعة ولونجنج 4457 2 4221 0061 إذا كان لدى شكاوى بشأن طريقة إجراء البحث.
دراسة في مفهوم جودة حياة الأفراد المصابين بمرض الفصام في المملكة العربية السعودية

صيغة الموافقة

الباحث/ أميره الشوكان
طالبة دكتوراه، كلية الصحة والعلوم السلوكيه، جامعة ولونجونج، إستراليّا
البريد الإلكتروني: aas882@uow.edu.au
رقم الهاتف: 6314 7206 +966

الهدف من الدراسة:
من خلال التوقيع على هذه الموافقة، أقر أن الهدف الرئيسي من هذه الدراسة هو تقييم جودة الحياة لدى الأفراد المصابين بالفصام في المملكة العربية السعودية. الدراسة سوف تحتاج إلى مشاركة 159 فرد مصاب بالفصام من العيادات النفسية الخارجية.

الإجراءات:
من خلال التوقيع على هذه الموافقة، أدرك بأنه سوف يتوجب على استكمال لجنة الإنصاف في جودة الحياة من خلال تقييم الذاتي ومقابلة المتعاقد. المقابلة سوف تتمن من قبل أشخاص مدربين وسوف تستمر حوالي 30 دقيقة. المقابلة سوف تشمل أسئلة عن الصحة والوضع المعيشي الحالي.

المخاطر والمضايقات:
من خلال التوقيع على هذه الموافقة، أدرك أنه لا يوجد خطر لي. هناك احتمال وجود مضايقات وهي التوتر خلال المقابلة. وللتنقل من التوتر، يمكنني أن أطلب إيقاف المقابلة ومناقشة مخاوف، أو الاتصال بالممرضة أو الطبيب الرئيسي، وإعادة تحديد موعد لإجراء المقابلة. إذا كنت لا أرغب في الاستمرار في المشاركة يمكنني إنهاء الاشتراك في أي وقت خلال الدراسة. جميع المعلومات التي جمعت حتى هذه النقطة سوف تحتفظ.

السرية:
من خلال التوقيع على هذه الموافقة، أدرك أن الباحثة لها الحق في أن تبلغ عن أي معلومات غير مشروعة مثل التجاوزات الإجرامية والعدالة القانونية للجهات المختصة. على خلاف ذلك، ليس لدى الحق في الإمتثال عن الإجابات على أسئلة معيينة أو إنهاء المقابلة في أي وقت. وأدرك أن المعلومات التي يتم الحصول عليها سوف تستخدم لإعداد هذا المشروع، وأنها سوف تقرأ من قبل الباحثة والمشاركين عليها فقط. جميع المعلومات التي سوف أظل بها سوف تكون سرية ولا ستستخدم أي معلومات تعرفي تدل على المساهمين في البحث. أي معلومات سرية يتم جمعها سوف تحتفظ في سرية تامة.
نتيجة الدراسة:

من خلال التوقيع على هذه الموافقة أدركت أن نتائج هذه الدراسة البحثية يمكن انتُشر ولكن اسمي أو
هوتي سوف تكون مجهولة. المعلومات الفردية والطبية سوف تُحفظ تسريحا. وأفهم أنه لا يوجد أي
معلومات على بما في ذلك الاسم، تاريخ ميلاد، ورقم السجل الطبي، وغيرها من المعلومات سوف تكون
ظاهرة في استمارة جمع المعلومات، البيانات التي تم الحصول عليها من هذه الدراسة سوف تظل مجهولة
المصدر.

الخواند:

من خلال التوقيع على هذه الموافقة أدركت أن المساهمه في هذه الدراسة لم تقدم لي أي منافع مباشرة نتيجة
المشاركة في هذه الدراسة.

الانسحاب:

من خلال التوقيع على هذه الموافقة أدركت أن مشاركتي تطوعية، وأن رفض المشاركة أو الانسحاب لن
يترتب عليه أي عقوبة أو فقدان لأي من المزايا المتناحلي. وأدركت أن بإمكانني إيقاف مشاركتي في هذه
الدراسة في أي وقت، وأن حرف في المغادره دون أي عقوبة أو التأثير على العلاج المستقبلي.

لمزيد من المعلومات:

من خلال التوقيع على هذه الموافقة أدركت أنه إذا كان لدي أي استفسار حول هذا المشروع، يمكنني الإتصال
بالباحث/ أميرة الشوكان على معلومات الاتصال السابقة الذكر، أو أستاذ مشارك/ جانيت كيرتيس على
5056 24221 0061 أو السيدة/ ايفون وابي على 3373 24221 0061. بالإضافة لذلك، يمكنني
الاتصال بسكرتير لجنة حقوق أخلاقيات البحث بجامعة ولونجونج 4457 24221 0061 إذا كان لدي
شكوى بشأن طريقة إجراء البحث.

إقرار:

أقر بأنني قد قرأت وفهمت المعلومات الواردة أعلاه، وبعد أن أتيحت لي الفرصة للرد على أسئلتي، أنا
أوافق على المشاركة في هذه الدراسة.

_________________________                                         _________________________
توقيع المشترك 
التاريخ


_________________________                                        _________________________
توقيع الباحث 
التاريخ
Appendix C
Lancashire Quality of Life Profile-European Version
Lancashire Quality of Life Profile - European Version

Center

Clinet study number

Interviewer's code

Date

If the client declines to be interviewed, please state the reason(s) and stop here:

Starting time: .........................

---

1  Client's personal details

1.1  Age (years)

1.2  Gender

   1 Male
   2 Female

1.3  Ethnic group

   a) Saudi Arabian  b) Arabic background  c) Other

1.4  Age on leaving full-time education (years)

---

2  General well-being

2.1  Can you describe how you feel about your life as a whole today? (LSS: 1-7)

---

3  Work/education

3.1  Do you have a job?

   Yes = 1   No = 2   Don't know = 3

3.2  If yes, what is your occupation?

........................................................................................................................................
........................................................................................................................................

167
3.3 How many hours per week do you work?

3.4 How much money are paid weekly (groos)?

   How satisfied are you with: (Life Satisfaction Scale 1-7)

3.5 you job (or sheltered employment; occupational or industrial therapy; studies)

3.6 the amount of money that you make

3.7 being unemployed or retired (if appropriate)

4 Participation in leisure activities

   In the past fortnight, have you: Yes = 1   No = 2   Don't know = 3

4.1 been out to play or watch sport?

4.2 been out shopping?

4.3 been for a ride in a bus, car or train other than to go to and from work?

4.4 watched television or listened to the radio?

4.5 In the past year, have there been times when you would have liked
to have had more leisure activity but were unable?

   How satisfied are you with: (Life Satisfaction Scale 1-7)

4.6 the amount of pleasure you get from things you do at home?

4.7 the amount of pleasure you get from things you do outside home?

4.8 the pleasure you get from radio or TV?

5 Religion

5.1 What is your religion now?

   1 Protestant   4 Muslim   7 None
   2 Roman Catholic   5 Hindu
   3 Jewish   6 Other

5.2 How often have you attended religious services in the past month?

   How satisfied are you with: (Life Satisfaction Scale 1-7)
5.3 your religious faith and its teachings (or with the absence of them)
5.4 the frequency that you attend Muslim services (includes no attending)

6 Finances
6.1 What is your total weekly income? 
6.2 Which, if any, state benefits do you receive?
6.3 In the past year, have you been turned down for any state benefits for which you have applied? Yes = 1 No = 2 Don't know = 3
6.4 About how much money per week do you need to be able to live as you would wish?
6.5 During the past year, have you ever lacked the money to enjoy everyday life? Yes = 1 No = 2 Don't know = 3
   How satisfied are you with: (Life Satisfaction Scale 1-7)
6.6 how well-off you are financially?
6.7 the amount of money you have to spend on enjoyment?

7 Living situation
7.1 What is your current residence? 1 Hostel 2 Boarding out 3 Group home 4 Hospital ward 5 Sheltered housing 6 Private house (owner-occupied) 7 Private house (rented) 8 Flat 9 None
7.2 How long have you lived there? (months)
7.3 How many other people live there?
7.4 Do your family live here too? Yes = 1 No = 2 Don't know = 3
7.5 In the past year, have there been times when you wanted to move or improve your living conditions but were unable to do so? Yes = 1 No = 2 Don't know = 3
   How satisfied were you with: (Life Satisfaction Scale 1-7)
7.6 the living arrangements here?

7.7 the amount of independence you have here?

7.8 the amount of influence you have here?

7.9 living with the people who you do?

7.1 the amount of privacy that you have here?

7.11 the prospect of living here for a long time?

7.12 the prospect of returning to live in a hospital? (if applicable)

8   Legal and safety

     In the past year, have you been: Yes= 1  No= 2  Don't know= 3

8.1 (a) accused of a crime?

8.1 (b) assaulted, beaten, molested or otherwise a victim of violence?
      (rate only if there has been physical contact)

8.2 In the past year, have there been any times when you would have liked
      police or legal help but were unable to get it?

     How satisfied are you with: (Life Satisfaction Scale 1-7)

8.3 your general personal safety?

8.4 the safety of this neighbourhood?

9   Family relations

9.1 What is your current marital status?
     1 Married/living with a partner
     2 Single
     3 Widowed
     4 Divorced
     5 Separated
     6 Other

9.2 How many children do you have?

9.3 How often do you have contact with a relative?
     1 Daily
     2 Weekly
     3 Monthly
     4 Annually
9.4 In the past year, have there been times when you would have liked to participated in family activities but were unable?  
Yes = 1  No = 2  Don't know = 3

How satisfied are you with:  
(Life Satisfaction Scale 1-7)

9.5 your family in general?

9.6 the amount of contact you have with your relatives?

9.7 your marriage? (if applicable)

10 Social relations

People differ in how much friendship they need  
Yes = 1  No = 2  Don't know = 3

10.1 Would you say that you are the sort of person who can manage without friends?

10.2 Do you have anyone who you would call a 'close friend' (who knows you very well)?

10.3 Do you have a friend to whom you could turn for help if you needed it?

10.4 In the past week, have you visited a friend?

How satisfied are you with:  
(Life Satisfaction Scale 1-7)

10.5 the way that you get on with other people?

10.6 the number of friends you have?

11 Health

During the past year have you:  
Yes = 1  No = 2  Don't know = 3

11.1 seen a doctor for a physical illness?

11.2 seen a doctor for your nerves?

11.3 been in hospital for your nerves?

11.4 taken medication for your nerves?

11.5 Do you have a physical disability that affects your mobility?
11.6 How old were you when you were first admitted to a psychiatric hospital/ward (if appropriate)

11.7 In the past year, have there been times when you wanted help from a doctor or other professional for you health but were unable to get it?

Yes = 1  No = 2  Don't know = 3

How satisfied are you with your general state of health? (Life Satisfaction Scale 1-7)

11.8 How satisfied are you with how often you see a doctor?

11.9 How satisfied are you with your nervous well-being?

During the past month, did you ever feel:

Yes = 1  No = 2  Don't know = 3

11.10 pleased about having accomplished something?

11.11 that things were going your way?

11.12 proud because someone complimented you on something you have done?

11.13 particularly excited or interested in something?

11.14 on top of the world?

11.15 too restless to sit in a chair?

11.16 bored?

11.17 depressed or very unhappy?

11.18 very lonely or remote from other people?

11.19 upset because someone criticised you?

11.20 very upset because you were not included in plans?

12 Self-concept

How satisfied we are with ourselves is also a very important part of our lives. Do you agree that the following statement apply to you?

Yes = 1  No = 2  Don't know = 3

12.1 You feel that you are a person of worth, at least on an equal plane with others

12.2 You feel that you have a number of good qualities
12.3 All in all, you are inclined to feel that you are a failure
12.4 You are able to do things as well as most others
12.5 You feel you do not have much to be proud of
12.6 You take a positive attitude towards yourself
12.7 On the whole, you are satisfied with yourself
12.8 You wish you could have more respect for yourself
12.9 Your certainly feel useless at times
12.10 At times you think you are no good at all

---

13 **General well-being**

During the course of this interview, we have discussed many of the conditions of your life and how you feel about them. Might we try and sum them up now?

13.1 Can you tell me how you feel about your life as whole? (Life Satisfaction Scale 1-7)

13.2 This is a picture of a ladder. I would like you to imagine that the bottom of the ladder represents the very worst outcome that you could expect to have had in life. The top represents the very best outcome you could have expected.

Please mark (x) where on this ladder you would put your life at present.
(Ask client to mark ladder)

---

Best possible outcome

Worst possible outcome
13.3 How happy has your life been overall?  
1 Very happy  
2 Pretty happy  
3 Average  
4 Not happy  
5 Don't know

13.4 Can you name any thing(s) that would improve the quality of your life?  
1  .........................................................................................................................
2  .........................................................................................................................
3  .........................................................................................................................

14 Final remarks  
Thank you for having spoken to me in such an honest and open way about your life.

14.1 We may wish to contact you again in future, perhaps next year. Would you be willing to be interviewed again?  Yes= 1  No= 2  Don’t know= 3

Thank you very much for you cooperation.

Finishing time: ..............................................

15 Interviewer comments

Before filing this questionnaire or proceeding to the next interview, please complete the following section while your impressions of both the client and the setting for the interview are still fresh in your memory.

15.1 How long did the interview take? (Time in minutes)  

15.2 How reliable or unreliable do you think the client's responses were?  
1 Very reliable  
2 Generally reliable  
3 Generally unreliable  
4 Very unreliable

15.3 Please complete the QUALITY OF LIFE UNISCALE now. Mark with a (x) the appropriate place within the box to indicate your rating of this person's present quality of life.

Lowest quality applies to someone completely dependent physically on others, seriously mentally disabled, unaware of surroundings and in a hopeless position.
**Highest** quality of life applies to someone physically and mentally independent, communicating well with others, able to do mosty things, enjoying pulling their weight, with a hopeful yet realistic attitude.

Thank you for your help

**The Life Satisfaction Scale**

1. Can't be worse
2. Displeased
3. Mostly dissatisfied
4. Mixed (about equally satisfied and dissatisfied)
5. Mostly satisfied
6. Pleased
7. Can't be better
Lancashire Quality of Life Profile-European Version after modification

Center

Clinet study number

Interviewer's code

Date  

If the client declines to be interviewed, please state the reason(s) and stop here:

Starting time: ............................

1  Client's personal details

1.1 Age (years)

1.2 Gender

   1 Male
   2 Female

1.3 Ethnic group

   a) Saudi Arabian  b) Arabic background  c) Other

1.4 Age on leaving full-time education (years)

2  General well-being

2.1 Can you describe how you feel about your life as a whole today? (LSS: 1-7)

3  Work/education

3.1 Do you have a job?  Yes = 1  No = 2  Don’t know = 3

3.2 If yes, what is your occupation?

3.3 How many hours per week do you work?
3.4 How much money are paid weekly (groos)?

How satisfied are you with: (Life Satisfaction Scale 1-7)

3.5 you job (or sheltered employment; occupational or industrial therapy; studies)

3.6 the amount of money that you make

3.7 being unemployed or retired (if appropriate)

4 Participation in leisure activities

In the past fortnight, have you:  Yes = 1  No = 2  Don't know= 3

4.1 been out to play or watch sport?

4.2 been out shopping?

4.3 been for a ride in a bus, car or train other than to go to and from work?

4.4 watched television or listened to the radio?

4.5 In the past year, have there been times when you would have liked to have had more leisure activity but were unable?

How satisfied are you with: (Life Satisfaction Scale 1-7)

4.6 the amount of pleasure you get from things you do at home?

4.7 the amount of pleasure you get from things you do outside home?

4.8 the pleasure you get from radio or TV?

5 Religion

5.1 What is your religion now?

1 Protestant  4 Muslim  7 None
2 Roman Catholic  5 Hindu
3 Jewish  6 Other

5.2 How often have you attended congregational prayers in the mosque in the past month? □

How satisfied are you with: (Life Satisfaction Scale 1-7)
5.3 your religious faith and its teachings (or with the absence of them)

5.4 the frequency that you attend Muslim congregational prayers (includes no attending)

6 Finances

6.1 What is your total weekly income?

6.2 Which, if any, state benefits do you receive?

6.3 In the past year, have you been turned down for any state benefits for which you have applied?  Yes = 1  No = 2  Don't know = 3

6.4 About how much money per week do you need to be able to live as you would wish?

6.5 During the past year, have you ever lacked the money to enjoy everyday life?  Yes = 1  No = 2  Don't know = 3

How satisfied are you with:  (Life Satisfaction Scale 1-7)

6.6 how well-off you are financially?

6.7 the amount of money you have to spend on enjoyment?

7 Living situation

7.1 What is your current residence?  1 Private house (owner-occupied)

2 Private house (rented)

3 Flat

4 Hospital ward

5 None

7.2 How long have you lived there? (months)

7.3 How many other people live there?

7.4 Do your family live here too?  Yes = 1  No = 2  Don't know = 3

7.5 In the past year, have there been times when you wanted to move or improve your living conditions but were unable to do so?  Yes = 1  No = 2  Don't know = 3

How satisfied were you with:  (Life Satisfaction Scale 1-7)

7.6 the living arrangements here?
7.7 the amount of independence you have here?
7.8 the amount of influence you have here?
7.9 living with the people who you do?
7.1 the amount of privacy that you have here?
7.11 the prospect of living here for a long time?
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How satisfied are you with: (Life Satisfaction Scale 1-7)

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8.4 the safety of this neighbourhood?

9 Family relations

9.1 What is your current marital status? 1 Married/living with a partner
2 Single
3 Widowed
4 Divorced
5 Separated
6 Other

9.2 How many children do you have? [ ]

9.3 How often do you have contact with a relative? 1 Daily
2 Weekly
3 Monthly
4 Annually
5. Less than annually
6. Not appropriate/don’t know

9.4 In the past year, have there been times when you would have liked to participated in family activities but were unable? Yes = 1  No = 2  Don’t know = 3

How satisfied are you with: (Life Satisfaction Scale 1-7)

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Yes= 1  No= 2  Don't know= 3

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11.8 your general state of health?

11.9 how often you see a doctor?

11.10 your nervous well-being?

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(Ask client to mark ladder)
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5 Don't know  

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1 .........................................................................................................................................  
.........................................................................................................................................  
2 .........................................................................................................................................  
.........................................................................................................................................  
3 .........................................................................................................................................  
.........................................................................................................................................  

14 Final remarks  

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Thank you very much for you cooperation.  

Finishing time: ..................................................  

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place within the box to indicate your rating of this person's present quality of life.  

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<table>
<thead>
<tr>
<th>Lowest quality</th>
<th>highest quality</th>
</tr>
</thead>
</table>

Thank you for your help

The Life Satisfaction Scale

1. Can't be worse
2. Displeased
3. Mostly dissatisfied
4. Mixed (about equally satisfied and dissatisfied)
5. Mostly satisfied
6. Pleased
7. Can't be better
Appendix D
Amended Arabic Version of Lancashire Quality of Life Profile
- European Version
المركز  
رقم الهوية  
رمز المراجع  
تاريخ المقابلة  

إذا رفض المراجع إجراء المقابلة، يفضل توضيح السبب ثم توقف عن المواصلة.

زمن بداية المقابلة  

الجزء 1: معلومات المراجع الشخصية  

1.1 عمر المراجع هو (بالسنوات):  

1.2 نوع المراجع هو:  

1.2.1 ذكر  
1.2.2 أنثى  

1.3 الخلفية العرقية للمراجع هي:  

1.3.1 (أ) سعودي  
1.3.2 (ب) غير سعودي (بدون)  
1.3.3 (ت) عربية  
1.3.4 (ث) خليجية أو أخرى  

كم عمر المراجع عندما ترك التعليم النظامي؟
الجزء 2: الرفاهية العامة

هل تخبرني كيف تشعر عن حياتك اليومية بوجه عام (الاختيارات: 1-7) LSS

2.1

الجزء 3: العمل / التعليم

نعم=1، لا=2، لا أدرى=3

هل لديك وظيفة؟

3.1

إذا كانت الإجابة "نعم" ما هي وظيفتك؟

3.2

كم ساعة تشغيل خلال الأسبوع؟

3.3

كم تتفق من المال أسبوعياً (الإجمالي)؟

3.4 LSS

إلى أي درجة أنتم متفقين بـ..... (الاختيارات: 1-7)

ووظيفتك؟ (أو وظيفة المлежа، العلاج العملي أو الصناعي، الدراسات)

3.5

كمية المبلغ الذي تتقاضاه؟

3.6

إذا كنت لا تعمل (عاطلًا) أو متقاعساً (إذا كان يطبق عليهم)

3.7

الجزء 4: المشاركة في الأنشطة الترويجية

في الأسبوعين الأخيرين، هل ........ نعم=1، لا=2، لا أدرى=3

4.1 .... خرجت للعب أو مشاهدة رياضة ما؟

4.2 .... خرجت للتسوق؟

187
4.3 خرجت في رحلة مستخدماً "حافلة"، سيارة أو قطار لغرض غير النقل من وإلى العمل؟
4.4 شاهدت التلفزيون أو استمعت للراديو؟
4.5 خلال السنة الماضية، هل كان لديك وقت أردت قضاءه في أنشطة ترفيهية ولكنك لم تستطع؟
4.6 إلى أي درجة كنت مقتنعاً (الخيارات: 1-7) لمجتمع المتعة التي تلتقي بها من الأشياء التي تؤديها بالفعل؟
4.7 إلى أي درجة كنت مقتنعاً (الخيارات: 1-7) من الأشياء التي تؤديها خارج المنزل؟
4.8 المتعة التي تلتقي بها من الاستماع للراديو أو مشاهدة التلفزيون؟

الجزء 5: الديانة

5.1 ما هي دينك الحالية؟ (لا توجد)
(1) مسيحي
(2) كاثوليكي روحي
(3) يهودي
(4) مسلم
(5) هندي
(6) ديانة أخرى

5.2 ما مدى حضورك لصلاة الجماعة في المسجد خلال الشهر الماضي؟

الجزء 6: التمويل

6.1 ما هو دخلك الأسبوعي الإجمالي؟
6.2 إذا كنت تلقي مساعدات حكومية، ما نوعها؟
ج.最长的居住

7.1 مكان إقامة المراجع الحالي: 
(1) منزل خاص (مالك المنزل) 
(2) منزل خاص (إيجار) 
(3) شقة 
(4) جناح مستقل 
(5) لا يوجد 

7.2 ما المدينة التي تقي منها في سكنت الحالي؟ 
7.3 كم عدد الذين يسكنون معك؟ 
7.4 هل عائلتك تسكن هنا أيضاً؟ 
7.5 خلال السنة الماضية، هل رغبت في الانفصال أو تحسين طروفك المعيشية ولكن لم تستطع القيام بذلك؟
إلى أي درجة أنك متعلق بـ (الاختبارات: 7–1) (LSS)

☐ 7.6  باترنيبات المعيشية هنا؟

☐ 7.7  هل في الاستقلال الذي تتمتع به هنا؟

☐ 7.8  هل لديك التأثير الذي لديك هنا؟

☐ 7.9  هل للأشخاص الذين تسكن معهم؟

☐ 7.10  هل تتمتع بالخصوصية التي تتمتع بها هنا؟

☐ 7.11  إمكانية العيش هنا لفترة طويلة؟

☐ 7.12  إمكانية الرجوع إلى العيش في المستقبل؟ (لو ينطبق عليك هذا الوضع)

الجزء 8: الأمن والمناوجات القانونية

نعم=1 ، لا=2 ، لا أُجري=3

☐ 8.1  (أ) اقتصاد بارتكاب جريمة ما؟

☐ 8.1  (ب) حدث تهديد، أو ضرب، أو تعرض، أو كنت ضحية للعنف؟

(تقسيم ذلك يعتمد على وجود جسمى فقط)

☐ 8.2  خلال السنة الماضية، هل هناك وقتًا كنت تخاف فيه من الشرطة أو المساعدة القانونية والذين لم تستطع الحصول عليها؟

إلى أي درجة أنك متعلق بـ (الاختبارات: 7–1) (LSS)

☐ 8.3  السلامة العامة التي تتمتع بها؟

☐ 8.4  سلامة المنطقة المحيطة؟
الجزء 9: العلاقات العالمية

9.1 ما هي حالتكم الاجتماعية حاليًا؟
(4) متزوج / أعيش مع شريكي
(5) مطلق
(6) متزوج / أعيش مع شريكي
(7) أخر
9.2 كم من الأطفال لديكم؟
9.3 ما مدى الاتصال مع قريب لك؟
(4) سنوي
(5) أقل من سنويًا
(6) غير ملامح / لا أدرى
9.4 خلال السنة الماضية، هل كان لديكم الرغبة في أن تشارك في الأنشطة العالمية ولكن لم تستطع؟
نعم=1 ، لا=2 ، لا أدرى=3
9.5 إلى أي درجة آت مشغوم بـ... (الاختيارات: 7-10)

(se 5)

9.5 ..... بعلاقتك على العدوم؟
9.6 ..... محجم الاتصال مع أقربًا؟
9.7 ..... برؤواكم (أنا كنت متزوجًا)؟

الجزء 10: العلاقات الاجتماعية

9.8 يختلف الناس في حجم العلاقة التي يتحلىونها:
نعم=1 ، لا=2 ، لا أدرى=3
9.9 هل تقول بأنك واحد من الأشخاص الذين يديرزون حياتهم بدون أصدقاء؟
هل لديك شخص ما تصفه "الصديق المقرب" (يعدك أنه يعرفك جيدًا)؟ 10.2
هل لديك صديق تلجأ إليه للمساعدة عند الحاجة؟ 10.3
خلال الأسبوع الماضي، هل زرت صديقاً لك؟ 10.4
إلى أي درجة أنت متفق بـ …… (الخيارات: 7-1) (LSS)

بطرقتية التي تنسجم فيها مع الآخرين؟ 10.5
عدد الأصدقاء الموجودين لديك؟ 10.6

الجزء 11: الصحة

تنبيه: لا أدى = 3

خلال السنة الماضية، هل

قابلت الطبيب نتيجة مرض عضوي؟ 11.1
قابلت الطبيب نتيجة مرض عضوي؟ 11.2
دخلت المستشفى نتيجة نزيف عضوي؟ 11.3
هل تناول الدواء لمعالجة أعصابك؟ 11.4
هل تعاني من عجز بدني أثر في حركتك؟ 11.5
كم كان عمرك عندما دخلت المستشفى النفسي لأول مرة (بالسنوات) (إذا كان ذلك ينطبق عليك) 11.6
خلال السنة الماضية، هل هناك وقتاً طقيت فيه المساعدة من الطبيب أو اخصائيين آخرين نتيجة وضعك الصحي ولكن لم تحصل عليها؟ 11.7
إلى أي درجة أنت مقتعب في الشهور الماضية؟ (الخيارات: 7-11)

11.8 مخالبك الصحية عمومًا؟

11.9 مخالبك الطبيعية؟

11.10 مخالبك العصبية؟

خلال الشهر الماضي، هل شعرت:
نعم - 1، لا - 2، لا أتذكر - 3

11.11 بال Điتسية عند انزجار شيء ما؟

11.12 بالأشباه تسرب على وجهك؟

11.13 بالفخور لأن شخصًا امتدحك على شيء آخر؟

11.14 بالإثارة أو الرغبة في شيء ما؟

11.15 بالكل على قصة العالم؟

11.16 بعدم الإرهاق الشديد عند الجلوس على الكرسي؟

11.17 بالملل؟

11.18 بالاكتئاب أو عدم السعادة؟

11.19 بالوحدة أو الانعزال عن الآخرين؟

11.20 بالانزعاج بسبب انفجار شخص ما؟
الجزء 12: تصور الذات

درجة اقتساما بأنفسنا هو أيضا جزء مهم في حياتنا. هل توافق على أن الامور التالية تنطبق عليك:
نعم=1  لا=2  لا أدرى=3

- تشعر بأنك شخص جدير بالاحترام على الأقل في مستوى الآخرين (12.1)
- تشعر بأنك تمتلك عدد من الصفات الجيدة (12.2)
- عموما، تميل إلى الشعور بأنك شخص قابل (12.3)
- تستطيع أن تؤدي الأشياء كما يؤديها الآخرون (12.4)
- تشعر بأنك لا تملك ما يجعلك فخورا بنفسك (12.5)
- تتخذ وضعا إيجابيا نحو نفسك (12.6)
- عموما، أنت مرتاح مع نفسك (12.7)
- تعني لو كنت احتراما زائدة لنفسك (12.8)
- بالتأكيد، ومن وقت لآخر، تشعر بأنك عدم المانحة (12.9)
- من حين إلى آخر تعتقد بأنك سيء تماما (12.10)

الجزء 13: الرفاهية العامة

خلال فترة المقابلة، أنت وأنا ناقشنا حالات كثيرة عن حياتك وكيفية الاحساس بها.
هل تستطيع تلخيصها الآن؟

- هل تحب بقيتك لحياتك عموما؟ (الاختيارات: 1-7) (13.1)
13.2 
أفضل نتائج تتوقعه في حيتك.

لو تفضلت، هل يمكنك وضع علامة (+ ) في مكان ما من السلم يمثل حيتك؟

(اطلب من المراجع أن يضع العلامة على السلم)

أفضل النتائج المتوقع

13.3 
كم هي سعيدة حياتك بوجه عام؟
1) سعيد جداً
2) سعيد إلى حد ما
3) متوسط
4) غير سعيد
5) لا أدر

هل بإمكانك ذكر شيء ما (أو أشياء) قد يؤدي إلى تحسين جودة حياتك؟

13.4
الجزء 14: ملاحظات أخيرة

شكراً على الحديث معي عن حياتك بطريقة آمنة وصريحة

من المحتمل أن ترغب في الاتصال مرة أخرى في المستقبل، ربما في السنة القادمة. هل ترغب في إجراء المقابلة مرة أخرى؟
نعم=1  لا=2  أدنى=3
شكراً جزيلاً على تعاونك

زمن الانتهاء:

الجزء 15: تعليقات المقابلة

قبل وضع هذا الاستبيان في ملف أو الانتقال إلى المقابلة النهائية، هل يمكنك اكتمال الجزء التالي ملاحظاتك عن كل من المراجع ومكان المقابلة حاضرة في ذاكرتك؟

كم من الزمن استغرق المقابلة؟ (بالدقيقتين)

15.1

إلى أي درجة يمكنك الوثوق أو عدم الوثوق من إجابات المراجع؟

1) موثوق جداً
2) موثوق جداً
3) غير موثوق بها أو موثوق بها
4) غير موثوق بها (كما ي匿名)

المستنتاج

من فضلك، أكمل المقياس الملونة لجودة الحياة الآن من فضلك، ضع علامة (X) في المكان المناسب في المصفوفة لتوضيح تقييمك لجودة حياة المراجع الحالية:
- جودة الحياة الأدائي تتعلق على شخص يعتمد تماماً جسدياً على الأشخاص، أو فاضراً عفنياً، أو غير ملء بالحيوية حول وفاقد للأمل
- جودة الحياة الأعلي تتعلق على شخص مستقل عقليا وجسدياً قادر على التواصل جيداً مع الآخرين ويوفر أعمالاً متميزة ويوفر
- وزنه على وضع حقيقية وفعلاً بالأمل

جودة
بدأ
 عالية

شكراً لمساعدتك
لا يمكن أن يكون أسوأ من ذلك
غير موثوق
غير متقين غالبا
مختلف وتباين عادي في القناعة وعدم القدوة
متقين غالبا
مرتاح
لا يمكن أن يكون أحسن من ذلك