

**Mental Health Among Young Women In Saudi Arabia: A mixed Methods**

**Approach**

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## Declaration

I declare that while registered as a candidate for the research degree, I have not been a registered candidate or enrolled student for another award of the University or other academic or professional institution.

I declare that that no material contained in the thesis has been used in any other submission for an academic award and is solely my own work.

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## Abstract

This thesis aims to gain an understanding of the mental health of young women in Saudi Arabia. To achieve this broad aim, this thesis, which encompasses two studies, employs a mixed methods approach. Study 1 is a longitudinal quantitative study that aims to examine the trajectories of university students' mental health—via the change in their mental health and their ability to adjust—by assessing them over three time points during their first year at university. This study also examined whether theoretically relevant determinants, such as trait emotional intelligence (EI), emotional self-efficacy (ESE), social support and loneliness, affected the students' mental health trajectories and adjustment to university life. The results show that the mean level of mental health problems was low and did not change significantly over time, while the adjustment level decreased over the first year of university. The results indicated that even in students with a high adjustment level in the beginning of their university year, the level decreased over time. These results also showed that all the students in the current study face difficulties in adjusting to university. University counselling centres must provide more support to students through programs aimed at identifying the types of issues faced by students throughout their studies and understanding why they are not able to adapt well. This can be achieved by investigating the reasons behind poor adjustment, followed by programs designed to address their needs. In addition, the results show there are distinct classes within the trajectories of mental health and adjustment to university. These different classes are likely to be determined by the range of variables such as trait EI, ESE, perceived social support and loneliness. The results demonstrate that these theoretically and empirically associated variables are important determinants of the trajectories of mental health and adjustment within the Saudi sample. Furthermore, these variables are operate in the same way in terms of being a potential protective factor for mental health in a non-Westernised population.

Study 2 is a qualitative study that builds on, and extends the findings of, the longitudinal research to fulfil the overall objective. This study aims to 1) explore the difficulties that students face during university life which may contribute to the decline in their adjustment level; 2) explore the coping strategies students employ when trying to alleviate the problems and challenges they face; 3) identify the barriers faced by students when attempting to access mental health services; and 4) explore students' perceptions of university counselling centres. Utilising a

sub-sample of the longitudinal study results, the results indicated that students face a range of difficulties at university which may affect their mental health, including issues relating to their studies and university staff. The results show that students use different coping strategies to face their challenges, including both emotionally focused and problem-focused responses, as well as more specific strategies such as turning to religion. In terms of accessing support services when required, either from inside or outside the university, this study highlights some of the issues. Students demonstrated a distinct lack of knowledge about the counselling centre at the university and the services it offers. The study also found that female's students, avoid seeking mental health support from outside resources because of the associated stigma from both their family and society.

These results extend our knowledge and comprehension of university students' mental health and adjustment to university by identifying the academic challenges they face during their university lives, strengthening our knowledge of their coping strategies, and improving our understanding of the barriers that Saudi female students may face when accessing mental health services. A major contribution of this study is to show that context is important when attempting to understand students' mental health, and it offers an explanation of the different factors affecting students' mental health. Mental health services need to take context into account in regard to students, and further research is required to deepen our understanding of the key surrounding issues. Overall, the thesis establishes a new foundation of knowledge regarding the mental health of young women in Saudi Arabia. This thesis also shows that the mixed method approach is useful in understanding students' mental health because it helps to obtain a deeper understanding of the issues and looks at students' mental health from different perspectives. This knowledge will facilitate the development of future research and support programmes to promote the mental health of young Saudi women.

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# CHAPTER ONE: INTRODUCTION AND OVERVIEW OF THESIS

## 1.1.Introduction

There has been a growing interest around the world in the mental health of university students (Macaskill, 2012). A number of studies have noted a marked prevalence of mental health problems among university students, with students in different countries showing increasingly high levels of poor mental health (Adlaf, Demers & Louis, 2005; Deasy et al., 2014; Kulkarni, Gondkar, Singh & Gulunjkar, 2014; Smith, 2011). Moreover, different studies have found that the level of mental health problems among university students is higher than that of the general population. For example, Stallman (2010) found that 83.9 per cent of students reported elevated distress levels, significantly higher than those of the general population at just 29 per cent. This suggests that university students are a very high-risk group with regard to mental health problems., university life appears to exacerbate students' mental health issues, as these problems have been found to be higher among students attending university when compared to their pre-university levels (Andrews & Wilding, 2004; Bewick, Koutsopoulou, Miles, Slaa & Barkham, 2010; Cooke, Bewick, Barkham, Bradley & Audin, 2006). For example, Andrews and Wilding (2004) found that the 9 per cent of students who had shown symptoms of depression prior to attending university became clinically depressed halfway through their university course, with 20 per cent of students also developing clinical levels of anxiety by this stage.

There are a number of explanations for why students suffer from poor mental health. Firstly, while at university students are expected both to do well academically and to create a vibrant social network. The prospect of failure and the drive to do well can each lead to major psychological difficulties (Abu Baker, 1997; Al-Khatib, Awamleh & Samaw, 2012). As well as

these general stresses, a range of individual factors associated with university life have been found not only to be detrimental to students' mental health but also linked to the development of new mental health problems. These factors include attending university for the first time, financial concerns, exam stress, the pressure to perform well academically, and living in a new environment (Aldiabat, Matani & Le Navenec, 2014; Brandy, 2011; Flatt, 2013; Hicks & Heastie, 2008). Finally, MacKean (2011) argues that students are exposed to two sources of transitional stress during their time at university: the stress related to the transition from high school to university and the stress associated with the transition from adolescence to adulthood. Kessler et al. (2003) argue that this period, therefore, is one in which individuals are at significant risk of developing mental health problems.

As a result of this range of evidence, it is hardly surprising that a large number of studies carried out in different countries have focused on the mental health of university students. However, despite the fact that there is a considerable body of research regarding university students' mental health, scant attention has been paid specifically to the mental health of Saudi Arabian university students. Smith (2011) suggests that there is a lack of mental health research that examines developing countries, a situation that is made worse by the fact that few resources have been directed to this subject. Qureshi, Al-Habeeb & Koenig (2013) agree that there are significant gaps left by mental health research studies in Saudi Arabia, which have tended to focus overwhelmingly on health services research and hospital-based epidemiology of mental disorders.

Further research on the mental health of university students in Saudi Arabia is therefore needed for number of reasons. In the first place, there is a paucity of research in the field, meaning that because the issues that affect this population are not well understood, devising programmes, policies, and interventions according to students' needs would be extremely challenging. Hitherto, the majority of intervention programmes in this area have utilised data and recommendations originating from studies conducted in Western countries. As a result, these findings need to be contextualised to Saudi Arabia and its society, and the data must be collected from within this context in order to ensure that any interventions are culturally relevant. Consequently, there is a need for further research on the mental health of university students in Saudi Arabia. Existing research has noted that the symptom patterns, rate of occurrence, and prevalence of mental health problems could differ from society to society due to cultural differences (Al Nzawi, 2012; Tseng, 2003). By studying different factors relating to mental health that are specific to the Kingdom of Saudi Arabia (KSA), deeper insights can be gained regarding the experiences of the country's female students. This would, in turn, help to ensure that more effective programmes and interventions can be established, particularly contextually-adjusted interventions that are more culturally suitable.

Secondly, as the participants of the current study comprise female students from Saudi Arabia, it is important to consider how worthwhile it is to study this student population. Paired with the challenges that all students are expected to face in the course of adapting to life at university, female students within this particular demographic are exposed to specific and different circumstances than those experienced by students from most other nations. Some of the primary reasons for these differences include the conservative nature of the KSA's religious and social context, the country's Sharia-based legal system, and the relative cultural homogeneity within all

social groups in Saudi Arabia (Al Alhareth, Alhareth & Al Dighrir, 2015). Of particular importance is the way in which the customs and practices of the KSA have curtailed women's rights. In addition, notions of religious faith healing relating to mental health, segregation by sex, and the need to have a male guardian present for almost every aspect of their lives may be further sources of problems for these female students. When we consider these aspects of Saudi society and context, the complexity of its women's societal position becomes clear. As a result of the distinctive environment that Saudi women experience and live within, findings and data from other settings, including those of western countries in which most of the research in the field has been conducted, cannot always be directly applied to the KSA.

Although this thesis does not directly study the role of context, it aims to establish that Saudi women need to be studied in their unique situation. Koenig et al. (2014) agree that given the importance of cultural and religious influences in Saudi society today, mental health issues must be understood contextually. Moreover, there is a need to examine the construct of mental health among these students and examine whether variables such as emotional intelligence traits, social support, and loneliness, operate in the same way in terms of being potential protective factors for individuals' mental health in a non-Western population.

In sum, this thesis responds to the need to gain a better understanding of students' mental health and those factors relating to mental health in the general population. It also seeks to address directly the need for contextualized research and aims to bring about an improved understanding of the mental health of students within a Saudi context. A full discussion of the theoretical contributions of this thesis presented in Chapter 6.

## **1.2 Thesis approach**

### 1.2.1 Mixed Methods Approach

This thesis aims to provide a deeper understanding of the mental health of female students in Saudi Arabia, as well as those variables that impact their mental health. To realise this aim two approaches to research are adopted, namely a quantitative and a qualitative approach. By integrating qualitative and quantitative research, this study will benefit from the strengths of each. The use of a quantitative method facilitates the measurement of a specific construct, as well as the exploration of accurate operationalization (Castro, Kellison, Boyd & Kopak, 2010). In this thesis, the quantitative study will focus on the trajectories of mental health problems and adjustment to university. It will also identify the variables that impact these trajectories in order to better understand these constructs in relation to female Saudi Arabian university students.

The quantitative approach also allows group comparisons to be conducted (Castro, Kellison, Boyd & Kopak, 2010), and it will be used not with the only aim of examining the overall mental health trajectory among the sample, but also the individual differences between subgroups of students. Thus, facilitating a more in-depth understanding, it is also likely that there will be differences among students in their mental health problems and adjustment level over time. Furthermore, Castro, Kellison, Boyd & Kopak (2010) argue that the strength of association between variables can be established quantitatively. Meanwhile, the quantitative study will focus on an examination of emotional intelligence traits, emotional self-efficacy, social support, and loneliness, and assess whether these factors act as a possible protection for mental health in a non-Western population. In addition, the study will explore which variables are most strongly associated with effects on female Saudi Arabian students' mental health.

The use of qualitative research is valuable when gathering data on human experiences and narrative recollections. According to Guba & Lincoln (1994), qualitative methodology is particularly useful as it enables researchers to investigate behaviours, emotions, and beliefs within their appropriate and original context. Qualitative data informs researchers about participants' subjectivities, enabling participants to highlight their own concerns unconstrained by the categories the researcher has devised (Sofaer, 1999). This thesis will use a qualitative approach in an attempt to gain insights into the distinctive experiences of Saudi students, specifically through a culturally-sensitive investigation of the perspectives, experiences, and understanding of female students. The use of qualitative methodology represents a decisive means for this thesis to achieve its overarching aim, namely to identify those factors that affect the mental health of female university students in the KSA, as well as ascertaining which factors have the greatest influence. Furthermore, Doyle, Brady & Byrne (2009) indicate that a qualitative approach can be used to explain the information that is generated from quantitative data. In this thesis, the findings obtained from Study 1 (quantitative) have informed some parts of Study 2 (qualitative), thereby facilitating a better understanding and interpretation the former's findings. The relationship between these two studies will be expounded in Chapter 4.

In addition to the advantages and benefits of using both qualitative and quantitative approaches, the utilisation of a mixed methods approach provides a further benefit. Specifically, Johnson, Onwuegbuzie and Turner (2007) point out that a mixed methods approach that combines both components into a single research study increases the breadth and depth of understanding. Using a mixed methods research methodology provides a comprehensive, rich, and practicable approach that offsets the inadequacy of using any single method, while also offering more diverse perspectives to inform the investigation (Bryman, 2006). Collecting different types of information



about female Saudi Arabian students' mental health will help to gain a deeper insight and enable the consideration and addressing of issues relating to students' mental health from different angles; it is hoped that this, in turn, will ultimately lead to an improved overall understanding of students' mental health. As mentioned previously, existing research into students' mental health in the Saudi context is inadequate. This thesis is thus of particular importance and, as it provides different types of data, the mixed method approach especially valuable. It will facilitate an observation of mental health from different perspectives, which will be able to fill the research gap more effectively than using a single research approach.

### 1.2.2. Philosophical position of mixed methods

According to Sale, Lohfeld and Brazil (2002) the fundamental assumptions of both qualitative and quantitative approaches to research are rooted in differing philosophical outlooks. According to Creswell (2003), Lincoln and Guba (1994), and Johnson and Onwuegbuzie (2004), while qualitative approaches are historically considered as akin to interpretive or constructionist philosophical approaches, quantitative methods are generally aligned with a positivist philosophical outlook – as well as, more recently, what has become known as post-positivism - or epistemology. Bishop (2015) explained that generally, a realist position, or belief in the independent existence of a reality that is potentially knowable, is adopted by post-positivist epistemological outlooks. Accordingly, information and epistemological pursuit is facilitated merely through the use of tools, technologies, and instruments used for understanding; hence this approach is classed as enabling objective understanding without bias (Bishop, 2015). This approach maintains that objective measurements are pursuable, if not attainable with certainty, to determine objective behaviours and universal laws. A belief that the world is merely epistemologically understandable via frameworks erected and constructed by people is the outlook

of an interpretivist or constructivist outlook - these generally incorporate a relativist approach, philosophically speaking, hence, knowledge is tied to cultures and social values. Understanding, including the research process itself, is contextual and only subjectively attainable (Bishop, 2015).

In order to rationalise the conflicting paradigms introduced by the mixed methods approach, Creswell and Clark (2007) propose three positions a researcher might consider. The first position is pragmatism, which suggests that despite the philosophical basis of the methodologies utilised, the research question is of paramount importance. The second position is that of multiple paradigms, in which the investigator must acknowledge that the contradictory statements are a natural process that must be accepted but with the knowledge that they cannot be resolved. The final position is to consider mixed methods research as a methodology in and of itself, which allows investigators to deploy the most suitable paradigm for any given occasion.

As explained above, it is necessary for an investigator to adopt an underlying position to justify the methodology utilised. This thesis adopts the pragmatic stance in order to justify the use of mixed methods. This position maintains that process is secondary to the outcomes, and promotes a needs-based approach that is eclectic (Johnson & Onwuegbuzie, 2004). Pragmatism allows the researcher to present arguments for research methods that are rooted in their potential to achieve the aims of the research (Patton, 2002). Further, a pragmatic justification means the researcher directly connects their methodological choice with the intention and character of their research question (Creswell, 2003). Moreover, this approach allows a researcher to examine those questions that cannot be fully addressed by either a quantitative or a qualitative approach in isolation (Armitage, 2007). Similarly, the thesis presented here has multiple purposes: it aims to both contextualise university student mental health, while also responding to a gap in knowledge on the topic within Saudi Arabia. Therefore, the flexibility and practicality of the methodology selected

supports the goals of the research by enabling the researcher to utilise a diverse approaches to achieve their objectives. The intuitive appeal of the pragmatic paradigm is central to this research as it allows for the examination of compelling topics by using appropriate strategies to uncover outcomes without compromising the researcher's principles (Creswell, 2003). This thesis will adopt a pragmatic stance to allow the researcher to investigate different aspects of mental health in relation to female students in KSA, and to highlight a variety of experiences across both studies.

### 1.2.3 Mixed Methods Research Design

Several approaches can be used as part of a mixed-methods research design. According to Creswell, Plano Clark, Gutman and Hanson (2003), these may be categorized into sequential designs and concurrent designs. Collation of research data at or during the same stage is a definitive characteristic of concurrent designs. By contrast, qualitative data and/or quantitative data are collated initially according to sequential designs, after which the other/remaining kind of data are then collated throughout a second stage. According to Creswell (2003), sequential designs can be categorized into three further categories: a) exploratory, b), explanatory and c), transformative. Quantitative data are collated and analyzed, after which qualitative data are collated and analyzed according to type a). At this point, findings can be outlined before the two kinds of data are integrated and brought together, according to Creswell and Clark (2003). Regarding type b), the sequential explanatory type, qualitative data precede quantitative data, otherwise the process is the same as that of type a) (Creswell and Clark, 2011).

For this thesis, the explanatory sequential approach was used - first quantitative data and then qualitative data are collated. Because the identity-specific findings of a quantitative study require further explanation, this design was selected for the current study. Utilisation of this design for this thesis was integral to enabling a fuller understanding of the quantitative research results.

The findings of the aforementioned research, and the information learned as a result concerning the impact on students' mental health throughout their time at university, as well as any related literature, may then be used to structure and develop the qualitative research design.

### **1.3. Thesis objectives**

The overall aim of this thesis is to gain an understanding of the mental health of female university students and related factors within a Saudi context. Whilst this thesis does not focus on the role of context, it extends what we know about the construct of mental health problems, adjustment to university life, and potential protective mental health effects by examining a sample of this population within their context. This overall aim will be achieved through two main studies, each of which has a different specific objective; though together, they contribute to the overall aim of the thesis. Each of these two studies is detailed below.

#### **1.3.1 - Study 1**

This study is a longitudinal quantitative study that investigates the female Saudi Arabian students' mental health trajectories and adjustment throughout their first year at university. The longitudinal design will involve taking multiple measurements of the same variable over a period of time, which Shadish, Cook & Campbell (2002) advise is frequently more robust than cross-sectional approaches. Rajulton (2001) suggests that longitudinal research offers the possibility of a more valid picture of cause and effect over time, as well as revealing the nature of growth and the ability to trace patterns of change. Accordingly, the use of longitudinal data for this study first facilitates an investigation of patterns of change in mental health problems and adjustment to university within the population in question. In addition, this study will investigate whether certain theoretically pertinent factors impact Saudi Arabian students' mental health and their ability to

adjust to university over time; these factors include social support, emotional intelligence traits, emotional self-efficacy, and loneliness. The final stage of the first study will investigate whether the trajectories of mental health and adjustment are linked over time, which is a new avenue of research that has not been examined previously.

This study will contribute new knowledge to the understanding of the construct of mental health problems and adjustment to university among Saudi Arabian female students. Furthermore, it will expand theoretical and empirical evidence concerning social support, trait emotional intelligence, emotional self-efficacy and loneliness, and the relationship between these factors and mental health problems and university adjustment. It will achieve this by examining these factors within the Saudi context, and employing a longitudinal design, which offers better and stronger causal inferences and can paint a more comprehensive picture in this regard.

In summary, this study (and this element of the overall thesis) intends to attain several different objectives, which are:

1. To examine the trajectories of mental health and adjustment to university over the first year of university life.
2. To examine the impact of the theoretically-relevant determinants of emotional intelligence traits, emotional self-efficacy, social support, and loneliness on longitudinal trajectories of mental health and adjustment to university.
3. To examine the relationship between mental health trajectories and adjustment levels experienced over time by Saudi Arabian female students.

### **1.3.2 - Study 2**

This study is a qualitative study that builds on and extends certain aspects of the first study by exploring the difficulties and challenges encountered by university students, and the coping strategies they employ to alleviate difficult experiences. These aspects have been chosen in order to gain a better understanding of female Saudi Arabian students' trajectory of adjustment to university. The second study also examines different complementary aspects, specifically the barriers faced by female university students in Saudi Arabia to receiving mental healthcare, as well as their perception of university counselling center. Obtaining information about these two factors can have considerable implications for the provision of mental health services inside and outside the university. The rationale for studying each of these aspects will be discussed in Chapter 4. In general, exploring the four aspects treated in the second study will help to increase not only our understanding of the mental health of female university students in the KSA, but also our knowledge of the factors that impact their mental health. This study investigates students' mental health from a qualitative perspective as it seeks to address further research gaps. Utilising a sub-sample of the longitudinal study, this section of the thesis aims to:

1. Explore the difficulties that students face during university life.
2. Explore the coping strategies students employ in trying to alleviate problems, as well as the challenges they face.
3. Identify the barriers that prevent students from accessing mental health services.
4. Explore students' perceptions of university counselling center.

## **1.4. Thesis structure**

### **1.4.1 Chapter 2**

This chapter is a literature review for study 1, and is organised into four sections. The first part starts with a general introduction to the study sample. This is followed by a discussion of the mental health of students at university and the prevalence, correlation, and predictors of common mental health problems in different countries. The concluding section considers knowledge gaps as they relate to research into mental health and adjustments of university students.

### **1.4.2 Chapter 3**

This chapter details the method, results, and discussion of a longitudinal study that investigates the trajectories of mental health and adjustment to university of female students during their first year of university life in Saudi Arabia. It also examines whether psychological factors (trait EI, emotional self-efficacy, social support, and loneliness) affect these trajectories over time. Finally, this chapter includes an examination of how mental health and adjustment are linked over time.

### **1.4.3 Chapter 4**

This section includes a literature review of empirical research on a variety of issues relating to students' mental health. This includes the difficulties experienced during their study, coping strategies, barriers to mental health service access, and students' perceptions of counselling services. The concluding section considers knowledge gaps in relation to research into university student mental health.

#### **1.4.4 Chapter 5**

A qualitative study that builds on and extends the findings of the longitudinal research forms the basis of Chapter 5. Thematic analysis is outlined as the approach used for treating the data, and the main results and findings are reported in relation to four principal areas: 1) difficulties that may be experienced by university students; 2) coping strategies used by students to face their challenges; 3) obstacles to accessing mental health services; and 4) students' perception of counselling centres.

#### **1.4.5 Chapter 6**

The thesis concludes by synthesising the findings from both studies and by outlining their major theoretical and practical implications. Their strengths and limitations are also discussed, with final recommendations for future research outlined.



## **CHAPTER 2: LITERATURE REVIEW (1)**

This chapter is set out into three sections, starting with an overview of the background of this study. This is followed by a discussion of the mental health of students at university and how the prevalence of mental health problems correlates to this. The concluding section considers knowledge gaps as they relate to research into mental health and adjustments of university students.

### **2.1. Background of the study sample**

This section provides a cultural framework of SA female students, and presents the importance of studying those students within their own cultural context.

#### **1.2.1 Overview of context Kingdom of Saudi Arabia**

Saudi Arabia is recognized for its oil wealth and leading role in the Islamic and Arabic world (Al-Shahri, 2002). In 1932, Saudi Arabia, the largest country of the Middle East, was founded by King Abdulaziz ibn Saud (1875–1953); it covers approximately four-fifths of the Arabian Peninsula (Al-Showkan, 2012). With Mecca being the epicentre of the Muslim world, the dominant religion in Saudi Arabia is Islam, and Arabic is its official language. The population of Saudi Arabia is 31 million (stats.gov.sa). The country's Basic Law of Governance lifts the Quran (the Holy Book of Islam) and Sunna (Prophet Mohammad's sayings and traditions) to the status of the constitution. As a consequence, religion is influential in many aspects of people's day-to-day lives as well as being central to the kingdom's governance. As a theocracy, religion determines the culture and extends to the legal system (Al-Shahri, 2002). It has a high cultural homogeneity based on tribal and Islamic affiliations and therefore has a unique and complex culture. The societal position of women is clear when considering the influences of religion and customs of Saudi

society. Due to the distinctive nature and context that female Saudi's experience during their daily lives, findings and data from other contexts and settings, including those of Western countries in which most of the research in the field has been conducted, cannot be generalised to apply to KSA. Koenig et al. (2014) agree that given the importance of cultural and religious influences in Saudi society today, mental health issues must be understood in their unique context therefore, there is a need to localize research that focuses purely on Saudi females within their unique contexts. This will provide better understanding of the nature of their mental health and provide data that can reflect their mental health.

### **2.1.2 Women's mental health in Saudi Arabia**

A recent development is that Saudi mental health providers and authorities have started to invest more in the country's mental health system, with the view to promote mental health wellbeing within the kingdom (Al-Habeeb & Qureshi, 2010; Koenig et al., 2014). Given the high profile of Islam, it is unsurprising that the health system is also based upon culture and religion. In examining patients, treating them, and planning health services, culture and religion have to be considered (Koenig et al., 2014). The conservative beliefs and customs that inform Saudi Arabian culture manipulate the lives and health of women in the kingdom (Mobaraki & Söderfeldt, 2010; Rajkhan, 2014). Mobaraki and Söderfeldt (2010) stated that "in this unique country, local interpretations of Islamic laws and social norms can have a negative impact on the health and wellbeing of women" p 1. Women's rights are influenced by these factors and, therefore, impact on her mental health. For instance, the male guardianship system dictates that all female Saudi's, regardless of age, must have a male guardian when out of the home (Al Alhareth, Al Alhareth, & Al Dighrir, 2015). Furthermore, in order to gain access to healthcare and education, Saudi women need approval from one of their male guardians.

Therefore, Saudi women arguably have a limited function in wider society. This situation is exacerbated by the fact that, Saudi has one of the lowest female workforce volumes in the world (Al Alhareth, Al Alhareth, & Al Dighrir, 2015). Public transport is inadequate, and women are not permitted to drive (Alghamdi & Beloff, 2014), limiting women's ability to access mental health services. One possible solution to the issue of inadequate public transport and the ban on driving, is to offer more accessible mental health services by creating counselling centres at universities or schools. An obvious advantage of this strategy, is that women would have access to these facilities during their studies. Yet, Saudi Arabia lags behind other developed countries regarding student counselling (Alotaibi, 2014a; 2014b). Services are limited, which presents further problems for those in need of these services. Although many public and private schools in the country have student counsellors, the standard of student counselling is lacking, with insufficient funding to support student-counselling services, unmotivated counsellors, inadequately trained and/or qualified counsellors, and poor administrative support (Al Osaimi & Alotaibi 2014; Alotaibi, 2014a; 2014b).

In particular, a lack of research is another challenge that adversely affects women, and Saudi Arabia's mental health provision, in general. However, this issue is not unusual in developing countries that do not have the resources to prioritise mental health care (Smith, 2011). Furthermore, whilst there are special psychiatric hospitals and mental health clinics in the kingdom that provide information relating to specific psychological disorders and their characteristic features, there is comparatively little information available regarding the general mental health of Saudi Arabia's population (Qureshi et al, 2013; Koenig et al., 2014). This is particularly problematic as many mental health issues are concealed. Yet, for intervention programmes to be

effective, those working in the field need to have, as a minimum, basic knowledge about the issues that may contribute to mental health in the Saudi Arabian population.

Therefore, it is clear that, coupled with the challenges that all students are expected to face during their first year of university life (such as stress related to the transition to college and academic pressure), students in this demographic are exposed to differing circumstances when compared to those in most other countries. This includes the conservative nature of the KSA's religious and social context (Al Alhareth, Alhareth, & Al Dighrir, 2015). Especially noteworthy is the fact that many of the customs and practices in the KSA have curtailed the rights of women. Additionally, there is a deficiency in adequate student counselling, including insufficient funding to support student-counselling services, unmotivated counsellors, inadequately trained and/or qualified counsellors, and poor administrative support (Al Osaimi & Alotaibi 2014; Alotaibi, 2014a; 2014b). Moreover, there is a dearth of research on young Saudi women resulting in many of their mental health issues being ignored, therefore it is difficult to design relevant intervention programs which adequately meet women's needs.

With these aspects of the Saudi context in mind, it is clear that the societal position of women is complex. As a result, there is a need for further research to be done to gain a deeper understanding of women's mental health including their mental health problems, their ability to adjust to university life, and other factors that relate to their mental health. This focused research will develop an improved understanding and aid in the effective design of university-based counselling centres and the delivery of interventions that target the needs of young Saudi Arabian women.

### **2.1.3 The position of women in education in Saudi Arabia**

Education in the Kingdom of Saudi Arabia is free for both males and females from preschool through to higher education (Arab, 2010). This provision has been available for several years; culture has influenced accessibility to education and females have experienced significant progress in overcoming restricted access. Until the 1960s when the first primary school for girls opened in the capital (Al-Munajjed, 1997), education was informal for both boys and girls. Informal education aimed to impart religious rituals, teaching students how to pray and observe Islamic rules of behaviour. Students learnt the Quran, the Hadith (Prophet Mohammad's narrations) and Sunna (Prophet Mohammad's customary behaviour and opinion of issues drawn from the Hadith; Hamdan, 2005). Since formal public schooling has been available, substantial efforts have been made by the Saudi government to promote the access that girls have to education and to harmonize gender gaps at the different levels of education. These efforts have been fruitful and education levels have risen quickly. In the 1960s, there were just 15 women's institutions, but by the 1970s, this number had grown to 155 (Al Mohsen, 2000). However, females were initially limited to studying the arts and education, with other subjects being only available to males (Al Mohsen, 2000). In 1967, the University of King Abdulazia in Jeddah, allowed women to enrol into economics and in 1978, at the King Faisal University Damman City campus, a women's centre was opened that included schools of agriculture, education, home economics, medicine and nursing. In 1979, the King Saud University in Riyadh opened the first ever university campus for women, offering Arabic, English, history and geography programmes (Hamdan,2005). Just a few years later, the university added colleges of dentistry, medicine, nursing and public administration. In 2014, around the country, there were 46 educational institutes under the patronage of the Ministry of Education offering women programmes in most subjects. The uptake is good and the

number of students continues to rise. Statistics from the Ministry of Higher Education indicate that the numbers of women pursuing tertiary level education have risen substantially. For the 1995–1996 academic year, 93,486 women were enrolled into higher education; in 2005–2006, this number had risen to 340,857 and for the 2009–2010 year, it had reached 422,514. This latter statistic shows that the number of females in higher education surpasses that of males, as for the same year, only 303,128 males were enrolled in higher education. This gap narrowed in 2014–2015, with 681,165 females as tertiary level students, compared to 619, 935 males (Ministry of Education in Saudi Arabia, moe.gov.sa).

These data signal that the government’s efforts to advance education for females have been successful and the women of Saudi Arabia recognize the value of education. It is, however, noteworthy that, while the Ministry of Education was responsible for the education of boys, until 2002, from primary through to tertiary levels, schooling for females was under the remit of the Department of Religious Guidance. This safeguarded the original purpose of educating females; that is to prepare them to be good wives and mothers, and train them for nurturing jobs such as nursing and teaching, as these are deemed suitable and ‘appropriate’ for women (Rajkhan, 2014).

Overall, there has been real progress in providing women with higher education opportunities. The number of universities that have provisions for women have increased and these are offering greater numbers of diverse subjects to study. This is reflected as there are currently more female university students than there are male ones. Therefore, in order to maximise the progression of Saudi women in higher education, it is necessary to provide adequate mental health facilities and programs to help them cope with any issues they may encounter. However, this cannot be achieved without gaining an understanding of their mental health and the factors related

to their mental health. Nevertheless, the minimal research and data available on female mental health in Saudi, makes the development of adequate programs very difficult.

## **2.2 Conception of mental health of SA female university students**

This thesis focuses on the study of the mental health of SA female students within a university campus. The mental health of university students will be studied in this thesis in two ways: 1) the changes in mental health problems (such as depression and anxiety); 2) considering students' ability to join in, fitting in to university life both academically and socially, and institutional adjustment. These concepts will be measured in this thesis and the difference between them will be discussed as follows:

### **2.2.1 Mental health problems**

Considerable debate surrounds current conceptualization within the mental health arena, particularly with regard to terms such as mental health, mental illness or mental disorders, and mental health problems. The commonality between these phrases is that they seek to describe, distinguish and authenticate the different but interchangeable experiences noted by those actively engaging in this field. However, discussions remain ongoing in relation to how these various terms can be best defined. The importance and relevance of this issue for the present thesis is that such terms can be used to help explain and understand the mental health of university students and to better determine the instruments and assessment tools used to measure these different aspects.

According to the World Health Organization (WHO,2001, p1), mental health is defined as“a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”

According to Holmes, Silvestri, and Kostakos (2011) mental wellbeing can be assessed on a continuum upon which it can range from possessing positive mental health at one extreme to possessing mental health issues at the other. Likewise, the United States Department of Health and Human Services (2011) contends that mental health and mental illness should not be deemed to be absolute opposites. Rather, they comprise mere points on a continuum, in the middle of which are the mental health issues from which most people suffer at some point in their lives. This stance confirms the approach adopted by Holmes et al. (2011) who propose that mental health problems do not equate to mental illness due to a significant difference in terms of severity and consequent impact.

Williams (2014) claims that *mental illness* or *ill-health* are terms which describe a spectrum of psychiatric illness such as anxiety or psychosis. These conditions, which can markedly hinder cognitive, emotional or behavioural effectiveness, may be occasioned by either psychosocial or physical causes. Mental illness or disorder can also be a clinical term denoting a condition recognised by the Diagnostic Statistical Manual Four (DSM-IV; American Psychiatric Association, 1994). Such descriptors suggest mental disorders are patterns of psychological or behavioural manifestations that either create distress in sufferers or significantly impair their normal functioning.

Typically, *mental ill health* or *illness* denote recognised clinical conditions such as depression, anxiety or psychosis which can thus refer to various psychiatric conditions characterized by disablement of an individual's normal cognitive, behavioural or emotional functioning (Williams, 2014). The implication of these definitions is that there exists a terminological overlap within mental health. Hence, it is impossible to clearly distinguish between *mental health*, *mental health*



*problems* and *mental health* since they all lie on the same continuum, albeit at diverse points. However, despite this overlap, these terms are all derived from different concepts within psychology. *Mental health* and *mental wellbeing* both focus on a positive state, whilst poor *mental health* and *poor mental wellbeing* denote the opposite. *Mental health problems*, *mental illness* and specific labelled disorders all convey more negative meanings.

Within the psychological literature, the terms *mental health problems* and *mental illness* are both applied to describe potentially identical examples of poor mental health or wellbeing. However, they are not deemed to be synonymous in contexts which include their measurement. The terms *mental illness* or *ill health* are commonly employed to denote a clinical condition which is amenable to formal diagnosis. Such conditions include depression, psychosis and anxiety and may exist with other comorbid psychiatric conditions which result from physiological or psychological causes and impair normal motional, behavioural and cognitive functioning (Williams, 2014). As a result, the assessment of mental illnesses and disorders relies upon DSM-IV categories.

The phrase *mental health problem* can also denote familiar mental health issues, including mild anxiety and depression. Moreover, this term acknowledges that at certain times many people experience mental distress which, whilst personally challenging, does not constitute a diagnosable condition. Nevertheless, as Williams (2014) notes, if such a state persists over an extended period, it may well develop into a recognised mental illness. This explains why the gauging of mental health difficulties relies upon screening tools instead of diagnostic tools.

In this thesis, the term ‘mental health problems’ is used because of its frequent use in psychological literature to describe common mental health problems among university students. This term is thus

used to support the variables measured in relation to the students' mental health used in this study, such as perceived social support and trait emotional intelligence. These variables have been used in literature in relation to the concept of mental health problems more frequently than to mental illness. By using screening tools for common mental health problems, this thesis can thus conceptualize the appropriate reference for students who score low on a mental-health problems scale (GHQ28) as having good mental health, while the term 'students with mental health problems' can be used to describe students who score high on the same scale.

### 2.2.2 Adjustment to university.

Adjustment in general is the most important sign of good mental health because it is linked to so many aspects of a person's life, including affective, educational, social, occupational and marital domains (Hamidi & Hosseini, 2010). Mohammed (2011) explains that adjustment is a behavioural process where individuals are able to balance their particular needs and / or the obstacles within their environment. Adjustment to university life focuses on the functioning of a student in college, their ability to adapt to the college environment and their satisfaction level whilst in college, it is often considered a domain specific form of subjective well-being (Schmidt & Welsh, 2010). Adjustment to university could be described as a multifaceted process catering to a range of demands, (Smojver et al., 2010) including Academic, Social, Personal-Emotional adjustments. Academic adjustment refers to a positive attitude towards the academic performance and goals and quality of their academic achievement (Cohorn & Giuliano, 1999). Social adjustment occurs as a person becomes associated with on-campus groups or social activities (Cohorn & Giuliano, 1999). Emotional-Personal adjustment is concerned with the overall psychological distress a student may experience (Smojver et al., 2010).

In this thesis, adjustment to university focuses on the student's ability to meet different demands of university life including academic, social, personal and institutional adjustments as measured by Student's Adaptation to College questionnaire (Baker, Siryk, 1984). It is worth noting that there is some conceptual overlap between the construct of mental health problems and adjustment to university. That overlap appears between the concept of mental health problems and some components of adjustment, specifically Emotional-Personal adjustment, as both of these focus on the psychological distress a student may experience. This should be taken into consideration when studying the association between mental health problems and Emotional-Personal adjustment, which will have high overlap and may contribute to the misinterpretation of the relationship between the two factors, as they measure similar aspects. However, although the concept of mental health problems and adjustment to university share some overlap, it is possible to distinguish between them. As an example, there is a notable difference between mental health problems arising generally, such as depression and anxiety, and those that arise specifically as a result of adjustment. The latter can be the result of academic pressures and demands, including attending classes regularly and completing all work on time. These also differ from the social adjustments required, including finding friends, joining social groups and taking part in university activities. Also, mental health problems refer to mental health state, while adjustments to university refer to a dynamic process that students are involved in to meet different types of demand.

## **2.3 The theoretical framework of SA female university students**

### **2.3.1 Theoretical framework of mental health problems**

Subjective, social and societal elements, along with the influence they exert upon each other, significantly affect mental health problems (Kendler, 2008). Hence, mental health problems should be examined on a number of different levels, including their sociocultural, psychological

and biological dimensions (Sturgeon, 2007), and developing an understanding of students' mental health requires consideration of multiple different factors that may have effects on mental health. To achieve this, this thesis adopts an ecological model that was advanced by Bronfenbrenner (1979) that considers the psychological, social and environmental factors involved.

The ecological model was advanced by Bronfenbrenner (1979) and it considers the psychological, social, and environmental factors involved. This model has been used in many studies to explain various factors that have an impact on the mental health of university students (Byrd & McKinney, 2012; Goodman, 2011; Tran, 2015).

In this thesis, the ecological model is applied in order to gain a greater knowledge of the determinants, which impact upon the mental health of a female university student cohort. The ecological model fits with assumptions and concepts that inform this study; it acknowledges the multiple factors that impact on student's mental health and the complexity of humans, thereby preventing one perspective from gaining all of the answers. This model also has the advantage that it has the ability to consider the impact on the context or environment on a person's mental health, and the interaction between that and other factors. This is important for the current thesis as it considers the importance of students and understanding the mental health of SA female students within their unique culture and environment.

The model assists in examining factors that influence mental health status by dividing them into four levels: personal, intrapersonal, institutional and community. These different levels reflect the fact that multiple factors can impact mental health simultaneously, highlighting the importance of interactions between these levels in terms of affecting mental health (Hidayat, 2014).

The first level is the *individual* or *personal* level, which includes the individual characteristics of a person that can impact their own mental health. As applied to this thesis, this includes trait emotional intelligence and an individual's beliefs about themselves, such as emotional self-efficacy (as described in Study 1), which may affect a student's mental health. This may also extend to other individual differences such as coping skills, (explored in Study 2) .

The second level is the *interpersonal* level. This is comprised of the formal and informal social connections and support provided by family, friends and work. This level applies to perceived social support and loneliness, as used in this thesis, which can have an impact on students' mental health during their university lives.

The third level is *institutional elements*, which encompasses socially based organizational systems and offers a forum through which formal and informal rules and regulations can be operationalized. Goodman (2017) argues that this level can include the entire university setting, including the curricula, provided services, teaching methods and atmosphere. In this thesis, this level represents the students' ability to adjust to the university environment, how their mental health affects this, and how the ability to adjust similarly affects mental health, as considered in Study 1, and perception about counselling in university, which is explored in Study 2.

The fourth level in this model refers to the *wider societal elements*, most notably social and cultural norms, which impact upon mental health. In this thesis, community factors refer to the community context or environment in which the students live in Saudi Arabia. In particular, the term focuses on the way in which the context, including culture and religion, influences mental health among this student cohort. However, it should be noted that this thesis does not directly measure the fourth level, community, which includes factors such as culture and religion, but it takes into consideration the impact of the context on students' mental health and the interaction

between context and others factors from each level. This is really important when seeking an understanding of the mental health problems of students in a society such as the Saudi society, where there are significant cultural and religious impacts. To summarize, the ecological model develops an understanding of the different factors that can affect mental health and breaks these into levels that include personal, individual and interpersonal factors as well as institutional and community factors. This model emphasizes the role of multiple factors and also the importance of considering the interactions between these factors in contributing to mental health.

### **2.3.2 Theoretical framework of adjustment to university**

This thesis used Schlossberg's (1981) theory to understand student's adjustment to university. Schlossberg's transition theory was developed to explain adult transitions; it provides a comprehensive elaboration of the transition procedure while also being beneficial for establishing an understanding of students' experiences. This theory is an applied framework typically drawing upon the extant literature concerned with the transition to university (Cossy, 2014). Schlossberg (1981) described the adaptation process as comprising three separate phases: moving in, moving through and moving on. These three stages are applied in this thesis, and may be used to more effectively understand how Saudi female university students adjust to university life during the first year of university life, which accords with three time points that students assessed their adjustment level during their first year.

This thesis considers adjustment to university life as more comprehensible in accordance with the three stages. The first stage 'moving in, describes students transitioning from one new context to another; in this case, moving from the high school environment, with a limited number of students within a smaller area, to a new environment of university life, which is a markedly different environment with a significant number of diverse students. Ultimately, this stage focuses

on moving away from home, although this is not relevant to female students in Saudi Arabia, given that they are unable to leave their homes until they are married. The next stage of ‘moving through’ means the students must adapt to a new environment, managing changes and complexities arising within this unprecedented context. Subsequently, students can progress to the final stage, namely ‘moving on’. This is the period wherein students’ university adjustment occurs, followed by their adaptation to the original environment. Consequently, it is during this stage that students will comprehensively and successfully integrate into university life.

These three distinct stages will be used to understand the process of adjustment to university life among SA female students during their first year of university life. Employing a longitudinal design, this study will assess the adjustment to university life via three time points: the beginning of the first year, in the middle and at the end of the first year of university life.

Regarding the factors that influence the process of adjustment, Schlossberg’s (1981) theory posits three major sets of characteristics that may affect adaptation: 1) the characteristics of transition, 2) the characteristics of the environment, and 3) the characteristics of individual experience of transition. This thesis is concerned with two of these fundamental factors, namely characteristics of the environment and individual experience of transition, as a means of more effectively comprehending Saudi female university students’ university adjustment.

Firstly, the characteristics of the environment that induce interpersonal and institutional support will be discussed. Schlossberg (1981) explained interpersonal support as including family support alongside the individual’s network of social support. Within this thesis’ context, social support factors represent the interpersonal support factors potentially affecting students’ adjustment to university. Schlossberg emphasized the significance of institutional support, which potentially includes organizational or institutional assistance, social welfare or other support

infrastructure that an individual can turn to for help. In this thesis, the support that students can obtain from university counselling centres is also considered to be a factor affecting students' ability to adjust to university. Students' perceptions of university counselling centres are explored as part of Study 2 as they could potentially affect Saudi female students' adjustment to university, as discussed in Chapter 5. Concerning the significance of interpersonal and institutional support, this thesis analyses the perceived social variables as key factors influencing students' ability to adjust to university life in Study 1.

Secondly, regarding the characteristics of individual experience of transition, Schlossberg (1981) highlights various relevant characteristics such as personality factors, sex, age, life stage, health status and socioeconomic state. This thesis concentrates on psychological competence and health status as the factors potentially affecting adjustment to university among Saudi female university students. As Schlossberg suggested, psychological competence includes personality variables that may influence success and failure during adaptation to transition. Within Study 1, this element is considered to include personality factors such as trait emotional intelligence, and psychological competence such as self-efficacy, which can affect female university students' capacity to adjust to university life. Moreover, Schlossberg stressed the significance of coping skills as psychological competencies shaping the transition, which is explored in greater detail during Study 2.

Additionally, health status was determined to be a further significant variable affecting adaptation. Schlossberg explained that 'the individual's state of health not only affects his or her ability to adopt to a transition, also it may itself be a source of stress' (p. 14). Within the context of this thesis, the mental health status of university students could possibly affect their ability to adjust to university life. Schlossberg noted that poor health may remind the person of their own



mortality, thus having a lasting psychological effect and resulting in gradual decline in energy, ultimately profoundly affecting the individual's coping ability.

In summary, Schlossberg's (1981) theory is applied in this thesis as a means of comprehending female university students' adjustment to university, as well as the factors related to their adjustment. Schlossberg's theory offers an explication of the transition process via three distinct stages, which may be applied to clarify university adjustment among students during their first year in relation to three different time points. On this basis, relevant data about their adjustment level will be collected. Further, this theory identifies different factors that may affect students' ability to adjust, including environmental factors that can represent the level of support a student receives through interpersonal relationships. This can include social support from family and friends, alongside institutional support that may derive from any academic or social organization that students may turn to for assistance – for example, university counselling centres. Moreover, Schlossberg concentrated on the importance of individual characteristics during the transition, such as personality traits and health status – including mental health status – which can play a significant role in students' capacity to adjust to university.

## **2.4 Prevalence and common mental health problems among university students**

### **2.4.1 Depression**

Depression is diagnosed when at least five symptoms of depression are experienced every day over a period of two weeks, when they differ from the individual's normal functioning, and when the individual stops enjoying things they used to find enjoyable or experiences an overall low mood (DSM-IVTR, 2005). Smith (2011) explains that an individual who is experiencing depression can feel worthless, empty, 'blue' or sad, can lose enjoyment in activities, can feel

listless or tired, may feel severe or even delusional levels of guilt, and can experience insomnia or hypersomnia, psychomotor agitation or retardation.

In the empirical literature, a number of studies have reported depression as one important mental health problem experienced by university students, with students in different countries showing increasingly high levels of depression. For example, more than 40% of students in the United States become increasingly depressed during their four years in college, and more than 15% have clinically significant depressive disorders (Kulkarni, Gondkar, Singh, & Gulunjkar, 2014). In an Iranian systematic review study of 35 papers published between 1995 and 2012, Sarokhani et al. (2013) found one in three university students to be suffering from depression.

In Oman, Al-Busaidi, et al. (2011) found that 27.7% of students suffered from depression of different severities. In a Turkish study, 26.2% of university students reported symptoms of depression, with 32.1% of older students reporting depressive symptoms (Bostanci et al., 2005). Although there are many biological and psychological factors that explain depression, Bostanci et al. found specific contributors to depression in an academic context that were highlighted by students include the following: friendship issues, the university having fallen short of their expectations, financial problems, the quality of the education system, and poor on-campus facilities and social activities (Bostanci et al., 2005). In cross-cultural analysis based on a large sample of 2,651 first-year students from universities in Poland, Bulgaria, Denmark and Germany, Mikolajczyk et al. (2008) found that the prevalence of depressive symptoms among male students was 22.8% in Germany, 12.1% in Denmark, 27.3% in Poland and 33.8% in Bulgaria. In a Chinese study, 23.8% of university students were found to have depression (Lei, Xiao, Liu, & Li, 2016), while in a Saudi Arabian study, 21.9% were found to demonstrate symptoms of depression or anxiety, with 9.9% reporting major depressive symptoms, 19.4% reporting other depressive

symptoms and 24.4% reporting any type of depressive symptom (Amr & Amin, 2013). Furthermore, 24.6% of students in Canada were found to demonstrate symptoms of anxiety, with 37.5% reporting a depressive mood (Holmes, Silverstri, & Kostakos, 2011); moderate depression, severe depression and highly severe depression was noted among 37.7%, 13.1% and 2.4% of students in India, respectively (Deb et al., 2016).

#### **2.4.2 Anxiety**

Rachman (2004) defined anxiety as the feeling of trepidation and uncertainty stemming from worrying or pressurized circumstances. Behavioural disruption, anxiety and extreme dread may all be overlapping dynamics, as DSM.5 states. However, prospective and uncertain challenges typically create anxiety, whereas an actual or apparently immediate challenge creates sensations of fear. Although the crossover in these feelings is evident, there are certain distinctions; anxiety is associated with conduct that seeks to avert threats and is cautious, with tensing of muscles a typical physical manifestation, while fear may result in feeling a need to flee, sensing an imminent threat and a spontaneous preparing of the body for a fight or flee reaction.

According to Blanco et al. (2008), anxiety is a common issue among university students and remains the most prevalent of all mental health issues experienced by this portion of the population. This point is supported in the literature, with various researchers highlighting the significance of anxiety as a mental health problem among university students around the world. For example, 65% of undergraduates in the UK reported symptoms of stress and 40% reported a lack of ability to cope and feeling lonely with symptoms of anxiety (Youth Sight, 2013). Anxiety has also been noted among 17.8% of first-year students in South Africa (Pillay, Edwards, Sargent, & Dhlomo, 2001), 21.9% of Saudi undergraduates (Amr & Amin, 2013) and 13% of students in

Australia (Said, Kypri, & Bowman, 2013). Furthermore, 64% of students in Egypt have been found to demonstrate symptoms of anxiety (Wahed & Hassan, 2016), and 38% of female undergraduates in the UAE also found to demonstrate significant anxiety symptoms (Smith, 2011). A Turkish study revealed state anxiety rates of 29.6% and trait anxiety rates of 36.7% among university students (Ozen, Ercan, Irgil, & Sigirli, 2010). Specific sources of anxiety have been found among students that can stem in relation to academia and studying such as examinations, classroom presentations, mathematical skills, language skills and social situations (Ozen, Ercan, Irgil, & Sigirli, 2010; Vitasari, Wahab, Othman, & Awang, 2010).

### **2.4.3 Somatic complaints**

Somatic symptoms are discussed in this section because they are typically associated with mental health issues such as depression and anxiety, and are therefore relevant to the topic of depression and mental health issues among university students. Somatic symptoms can include joint pain, back pain, stomach pain, headaches or hypertension. Individuals who experience one or multiple life-altering or otherwise upsetting symptom(s) that cannot be clinically defined are diagnosed with undifferentiated somatoform disorder (DSM-IV TR, 2000). The American Psychological Association (APA, 2000) explains that somatic symptoms can manifest in the form of mild or significant physical pain that cannot be attributed to a specific ailment. However, as Smith (2010) points out, it is challenging to understand the prevalence of somatic symptoms due to the lack of solid definition and symptomology. Since very few studies have adopted standardized methodologies to examine somatic symptomology, it is even more difficult to measure the precise prevalence of somatoform disorders (Kirmayer & Young, 1998). From the few data available for somatic symptoms within university students population, somatic complaints have been noted among 15% female students in the United Arab Emirates (Smith,

2010); 25.5% of university students in northern Mexico were found to present with somatic symptoms with the most common and worrying symptoms being sleep issues, tiredness, backache, menstrual pain and headaches (González, Landero, & García-Campayo, 2009). Zunhammer, Eberle, Eichhammer, & Busch (2013) noted that there were significant increases in a wide range of somatic symptoms when students were under exam stress.

## **2.5 The impact of mental health issues on University campus**

Mental health issues can have a detrimental impact on students across all levels, affecting peoples' interpersonal relationships and interactions, their cognitive functioning, their emotional state and their physical wellbeing (Kitzrow, 2003). Mental health issues have been shown to have an impact on the students' health, their relationships with others and their academic performance. The latter point has been empirically demonstrated in a number of studies, with a significant correlation found between students' low academic performance and mental health problems (Brackney & Karabenick, 1995; Eisenberg, Gollust, Golberstein, & Hefner, 2007; Field, Miguel, & Sanders, 2001; Khurshid, Parveen, Yousuf, & Chaudhry, 2015). Moreover, a correlation has been found between depressive symptoms and significant interpersonal issues, short-term memory issues, and failure to attend all classes among university students (Brackney & Karabenick, 1995; Heiligenstein & Guenther, 1996). A total of 92% of students with depressive symptoms were found to exhibit issues with peer interactions and absenteeism as well as being unable to graduate. Kitzrow (2003) also suggests that students with more severe mental health problems may be more likely to cause themselves or others harm. Holmes, Silverstri and Kostakos (2011) found examination and deadline-related panic in over 25% of students suffering from anxiety-based mental health issues, and poor attendance and lack of energy among 25% of students with mood

disorders. Additionally, at least 25% of students diagnosed with comorbid symptoms were found to have issues other than problems with concentration. These issues were poor attendance, lack of energy, distractibility and exam- and deadline-related panic.

## **2.6 Factors found to be linked to the mental health of university students**

### **2.6.1 Social support**

Social support is one of the strongest and most consistent predictors of poor mental health (Taj, 2005). Social support has been conceptualised into three principal categories, namely social embeddedness, enacted social support and perceived social support (Barrera, 1986). These distinctions are important as there are different measures for each of these types and the relationship between them is fairly weak (Barrera, 1986; Dunkel-Schetter & Bennett, 1990; Lakey & Drew, 1997). Social embeddedness is defined as social support determined and measured by the size of the network (number of connections that exist between members of a person's social group (Hardesty & Richardson, 2012). Received or enacted social support is the second category. This focuses on the actions or specific behaviours of others as they express support or assistance such as offering suggestions, listening, giving advice, helping with the task, expressing concern (Street & Franklin, 1992). Enacted support measures focus on people's actions during provision of social support. (Streeter & Franklin, 1992). Perceived support concerns the perceived availability and suitability of social connections (Eagle, Hybels, & Proeschold-Bell, 2018). People with high perceived support have a belief that they have someone they can turn to, such as family and friends, to provide quality assistance during times of trouble (Lakey & Cohen, 2000). Measures of perceived social support are determined by a person's own evaluation of their social network, and how confident they are that they can access social support when they need it, the extent to which

that social support will be suitable for the purpose and whether the support will be beneficial (Tracy, 1990).

This distinction between the three social support categories is crucial as various studies have identified major differences between the discrete conceptualisations of social support in terms of their impacts on mental health. For instance, two a meta-analytic aim of which was to investigate the impact of received and perceived social support on mental health, discovered that the extent of the perceived social support was much greater than the effect of the received social support (Chu, Saucier, & Hafner, 2010; Prati & Pietrantonio, 2010). Haber, Cohen, Lucas, & Baltes (2007) agree that all forms of social support emanate from social networks; however, it is only a person's own understanding/perceptions of the support available to them that has a consistent and positive impact on mental health.

It appears that individuals' own beliefs regarding the social support available to them during times of need appears to be more crucial than the size of the social network and the actions carried out in order to seek support. That has been supported by the empirical evidence in this field; therefore, the term 'perceived social support' will be used in this thesis to conceptualize and measure social support.

The extent to which perceived social support and other types of social support affect students' mental wellbeing may be explained using two models present within the literature. The main impact model and stress-buffering model have been created by Cohen and Wills (1985). These models identify the various ways in which social support can impact mental health. Cohen and Wills point out that, according to the buffering model, social support may positively impact mental health since it assumes that support (buffer) protects an individual from the possibly

pathogenic influence of stressful occurrences. The buffering model posits that social support is advantageous when a person finds themselves in a stressful situation (Cohen & Wills, 1985).

The main impact model of social support outlines a direct positive impact of support. The model shows that social support is advantageous all the time, irrespective of whether a person is experiencing stress or not (Cohen & Wills, 1985). Ditzen and Heinrichs (2014) point out that the impact of social support is a direct, positive influence on various health aspects, regardless of the stressors. Cohen and Wills (1985) suggest that the buffering effects and main effects models are specific processes, whereby social support correlates with well-being. Both suggest that mental health is improved through social support, but the buffering effects model considers the way in which social support affects mental health through the reduction of stress. Moreover, the buffering effects model also suggests that when an individual has low stress levels, there is no difference between low and high social support levels on their mental health. Conversely, the main effects model suggests that mental health is positively influenced by social support at all times, even when no stressful event is experienced. Empirical evidence has shown that there is a positive impact on mental health with perceived social support, even individuals who have not experienced stressful events; therefore, this is an advantage of the direct impact model. It is asserted that people have a higher psychological feeling of well being when they receive social support, which is considered a basic human need (House et al., 1988). Therefore, individuals with higher levels of social support have improved mental health in comparison with those receiving low levels of social support (Lakey & Orehek, 2011).

There are two issues associated with the focus of the buffering model on stress reduction as a moderating variable. Firstly, it is difficult to define stress, therefore it is difficult to test the buffering model (Taj, 2005). A stressful event for one individual may not be stressful for another,



therefore, identifying a stressful event is difficult. Secondly, there are numerous variables that influence mental health, but the buffering model only considers stress. Cohen and Wills (1985) explain that mental health is improved with social support as it promotes a sense of self-worth, positive emotions and improved predictability. Problem solving behaviour, self-efficacy and self-esteem are all reinforced by social support. The association between mental health and social support can be explained through the meanings connected to the sentiment of support and integration, including esteem, perceived control and other mediating variables (Uchino, 2004). For these reasons, this study will utilise the main effects model and consider the impact of perceived social support on Saudi Arabian female students. It will consider the ways in which perceived social support has a positive impact on the mental health of the students, irrespective of the type or level of stress experienced. As such, students reporting higher levels of social support should have lower mental health problems and an improved ability to adjust to life in university.

The effect of social support on the mental health of university students is well-documented. For instance, a low level of social support has been linked to anxiety, depression, somatic complaints, and attention difficulties in university students (Teoh & Rose, 2001; Yasin, & Dzul kifli, 2010). Also, students who perceived themselves to be able to access high-quality social support have been shown to be six times less likely to suffer from symptoms of depression (Hefner & Eisenberg, 2009). These results echo that of an earlier study, where mental health issues were found to be lower amongst students who perceived themselves to have greater access to social support at the time of the study compared to the level of access they had in the past (Friedlander, Reid, Shupak & Cribbie, 2007). Further, students with high levels of social support have been reported to be better able to minimise academic stress through social support and coping mechanisms (Rawson, Bloomer & Kendall, 1994). Additionally, social support has been shown to

be a strong predictor of mental health issues amongst university students, as pointed out by Teoh and Rose (2001).

In term of adjustment to university, individuals with social support through the transition from high school to university are likely to adjust better than those with little support (Sommer, 2013). Friedlander et al. (2007) and Tao et al. (2000) both indicated that students believing they had perceived social support adjusted more effectively to their academic requirements, felt personally well-adjusted and were socially and emotionally better adjusted than peers without social support.

Whilst the literature demonstrates the advantages of social support with regards to mental health outcomes in university students, no researchers have specifically explored the way in which social support impacts the mental health of SA female university students over time. This is important in order to develop knowledge which can be applied by the counselling centre and mental health provider. However, this cannot be achieved effectively without gaining full understanding of how that relates to mental health over time.

## **2.6.2 Trait Emotion Intelligence**

An individual's ability to achieve good mental health and overall success depends greatly on their skills at managing emotions, specifically their emotional intelligence (EI) (Sasanpour, Khodabakhshi, & Nooryan, 2012). Hertel, Schütz and Lammers (2009) also indicate that EI can be used as a reliable predictor of personal wellbeing and health. EI can be divided into two distinct constructs: ability emotional intelligence (ability EI) and trait emotional intelligence (trait EI).

The expression 'Emotional Intelligence' was first created by Salovey and Mayer in 1990, and it is this conceptualization of EI that became known as ability EI because it combines concepts

that are central to the fields of both emotion and intelligence (Stys & Brown, 2004). Salovey & Mayer (1990) defined EI as ‘the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge and to reflectively regulate emotions so as to promote emotional and intellectual growth" (p. 10). Thus, according to Mayer and Salovey (1997), EI is made up of emotional perception, emotional facilitation, emotional understanding and emotional management. Emotional perception is the awareness and communication of emotions; emotional facilitation is harnessing emotions to reinforce thought processes; emotional understanding is accurately naming and categorizing emotions, along with being aware that emotions can ebb and flow; emotional management is controlling and dealing with emotions in a way that furthers personal and emotional growth. Given the conceptualization of ability EI as a skill, the construct is operationalized by via performance measures.

The second model of EI is known as the trait EI model. Trait EI sampling sets out to give a full picture of those parts of the personality that are related to emotion (Petrides, Furnham, & Mavroveli, 2003). Petrides, Pita and Kokkinaki (2007) state that trait EI is concerned with identifying a broad range of emotional self-perceptions situated in the lower levels of personality hierarchies. Trait EI is concerned with how people see their own emotional skills and talents, personality traits and behavioural tendencies that shape their capacity to cope well with the pressures and demands exerted by their environment (Petrides, 2011).

Based on the aforementioned material, the two models differ with regards how they conceptualize Petrides (2011) declared that emotional states and personal awareness of oneself assessed by a self-report study are the domain of trait EI. On the other hand, ability EI, commonly known as cognitive–emotional ability, involves cognition and the associated sentiments which are evaluated on the basis of optimal performance.

A thorough examination of the literature demonstrates that these two models are directly related to mental health and, more specifically, exerts a positive influence. Due to empirical and theoretic factors, this study will concentrate on trait EI. There are four reasons for this: First, the correlation between mental health and trait EI is stronger than that of mental health and ability EI, illustrating the greater capability of trait EI to indicate mental health. In 2010, Martins, Ramalho and Morin investigated the influence on mental health of both models by employing cumulative meta-analysis. They discovered that when emotional intelligence was appraised as a trait, the effect on mental health was more notable than in its appraisal as an ability. Second, it is also important to note that there has been wide criticism regarding the challenges caused by ignoring the inherently subjective nature of emotions, as it is not possible to objectify emotional experiences to formulate testing ability EI (Petrides, Furnham, & Mavroveli, 2007). Thirdly, from a theoretical standpoint, Petrides (2010) assumed a hypothetical stance, claiming that the conceptualization of EI as a personality trait allows the model the opportunity to be perceived as a conventional standard in the field of differential psychology, instead of being recognised as a distinct component isolated from the rest of the academic sphere. The use of a trait EI framework allows you access to a broader range of theoretically pertinent constructs, such as mental health problems and adjustment to university.

Finally, operationalisation of ability EI through objective lengthy assessments (Petrides & Furnham, 2001; Roberts et al., 2001) creates a challenge in terms of respondent engagement and drop out. Investigating the functioning of ability EI over a prolonged period of time is likely to result in higher levels of participant drop-outs. The meta-analysis undertaken by Rolstad, Adler and Rydén (2011), established that longer studies concluded with greater numbers of dropouts, suggesting that this can obstruct the performance and sample quality of a longitudinal enquiry. In

contrast, trait EI, which benefits from self-report techniques, avoids this limitation. Whilst this was not a theoretically based reason for selecting trait EI, it was worthy of consideration because of the impact on statistical power.

Thus, trait EI has been the primary focus of this thesis in regard to its influence on mental wellbeing and acclimatization to academic life. A major advantage of trait EI lies in its ability to account for the intuitive quality of emotions and, as such, has a notable impact on mental wellbeing. This corroborates the conclusions reached in various studies pertaining to the correlation between trait EI and mental health. For instance, students scoring higher in trait EI have lower levels of anxiety, somatic symptoms, social dysfunction and depression; and greater perceived problem-solving skills and overall satisfaction with their lives (Balgiu, Tebeanu, & Macarie, 2014; Davis & Humphrey, 2012; Fernandez-Berrocal et al., 2006; Mavroveli, Petrides, Rieffe and Bakker, 2007; Shabani, Hassan, Ahmad, & Baba, 2010; Tsaousis & Nikolaou, 2005)

Trait EI contributes towards the adjustment a student is capable of and affects how they experience this life transition. Positive emotional states are most influential to adjustment (Mohammed, 2011). It is logical that academia-related emotions, such as enjoying learning, pride in achievements or anxiety associated with tests, are likely to emerge within a university setting. For a person to have positive adjustment and move past the experience of negative emotions that will, at some point, arise, they will require good EI (Goleman, 1995). Not only are emotions likely to arise during this transitional period, but they will also influence how well a student is able to perform in their studies (Pekrun, Goetz, Titz, & Perry, 2002). Research indicates that students with higher academic grades had higher trait EI than students with poorer grades (Abisamra, 2000;

Alakaishy, 2003; Parker et al., 2004; Perera & DiGiacomo, 2015; Petrides et al., 2004; Saber, 2016).

High trait EI has been strongly correlated with academic adjustment (Abdalla, Mahyuddin & Uli, 2004; Igbo, Nwaka, Mbagwu, & Mezieobi, 2016; Ishak et al., 2011; Perera & DiGiacomo, 2015; Saber, 2016). Similarly, high trait EI predicts better emotional adjustment and also better adjustment in general (Abdullah, Elias, Mahvuddin, & Uli, 2009; Chen, Lin, & Tu, 2006; Nikooyeh, Zarani, & Fathabadi, 2017; Perera & DiGiacomo, 2015; Punja & Sangwan, 2011; Sulaiman, 2013).

How trait EI impacts mental health can be explained by the fact that trait EI modifies coping effectiveness; specifically, high levels of trait EI amplifies the beneficial effects of active coping and minimizes the effects of avoidant coping to reduce symptomology (Davis and Humphrey, 2012). This ability to adopt such mechanisms was linked to higher emotional competence and a greater feeling of being in control (Mavroveli, Petrides, Rieffe, & Bakker, 2007).

This explanation has support in different studies, For example, Antoniou and Drosos (2017) and Mavroveli, Petrides, Rieffe and Bakker (2007) found trait EI was positively associated with adaptive coping styles and negatively associated with maladaptive coping styles. Similarly, other researchers demonstrate a positive correlation between trait EI and problem-oriented coping styles as well as with positive emotional coping styles, and a negative correlation between EI and negatively emotional coping styles (Noorbakhsh, Besharat, & Zarei, 2010). Other researchers also discovered that students with high trait EI who feel more emotionally capable and in control are better able to utilize more productive coping mechanisms when facing stressful situations, therefore improving their subjective wellbeing (Por, Barriball, Fitzpatrick, & Roberts, 2011). These findings are in line with the work of other researchers; Noorbakhsh, Besharat and Zarei

(2010) found that the connection between stress-related coping mechanisms and trait EI, finding that students who possessed higher trait EI also tended to possess coping styles that were focused on positive emotions and problem-solving, while those low level of trait EI tended to demonstrate more negative emotional coping styles. The researchers asserted that coping mechanisms are impacted by trait EI in terms of the evaluation, facilitation, utilization, regulation and management of personal emotions. Similarly, Por, Barriball, Fitzpatrick, & Roberts, (2011) indicated that students with high trait EI were more likely to experience higher levels of subjective wellbeing when they used effective and active coping mechanisms to manage stress.

In conclusion, it is clear that trait EI can serve a protective function in terms of guarding against poor mental health of university students. Yet, the long-term impact of trait EI on students' mental health is still not well understood. Moreover, whether the acquisition of mental health problems while at university is something that certain students are at greater risk of has not been explored, despite the association between trait EI and mental health being consistently shown in the literature. Because the association between mental health and trait EI over a greater duration is not comprehended in an in-depth manner, mental health service providers and counselling centers in universities utilisation of such information is undermined, yet it should not be overlooked.

### **2.6.3 Emotional self-efficacy**

Bandura (1997) defined self-efficacy as a person's self-perceived capability of planning and performing actions needed to successfully deal with upcoming events. Self-efficacy is believed to govern human behaviour, motivation, cognition and beliefs. This being said, self-efficacy is broken down into numerous subcategories. As Muris (2001) and Kirk, Shutte and Hine (2008) explained, one such subcategory is emotional self-efficacy (ESE), which refers to individuals' recognition of their own emotional processes and structures. Goroshit and Hen (2014) further explain that ESE effectively integrates the concepts of self-efficacy and EI. Thus, those who are

high in self-efficacy demonstrate strong self-regulation and the ability to balance cognitive reflection and emotion.

ESE represents an individual's own perception of their emotional processing ability and capabilities in terms of emotional management, EI and emotional regulation|(ibid) Consequently, as Saarni (1999) points out, ESE manifests in the form of a feeling: the individual feels a sense of efficacy when dealing with their own emotions and the emotions of others. Emotional self-efficacy is different from ability-based EI because it defines the construct as a person's belief in his/her emotional ability, not the ability per se (Kirk, Schutte, & Hine, 2008). Also, ESE is different from trait EI, which includes various dispositional traits as well as emotional self-concept (e.g. Petrides, Pita, & Kokkinaki, 2007). This nomological distinction is important because the ESE perspective implies that a person's belief in his/her emotional ability should be dynamic and enhanced through experiences (Caprara et al., 2008; Kirk et al., 2008), whereas trait EI is typically conceptualized as a relatively stable disposition (Choi, Kluemper, & Sauley, 2013).

So far, however, there has been little discussion about the role of ESE in mental health. From the few studies that have explored the relationship between ESE and mental health, it has been found that mental health can be influenced by ESE. For instance, Schunk (2005) noted that high ESE is associated with greater perceived emotional control, social skills, positive belief systems, academic achievement and life satisfaction, which can all impact mental health. Further, Saarni (1999) asserts that ESE plays a key role in determination to achieve goals, goal-setting and self-confidence, suggesting that key skills are impacted by ESE that have an impact on performance and mental health. Goroshit and Hen (2014) also suggest that those who are high in ESE tend to more easily recognize emotions and consider their own emotions as well as the emotions of others compared to those who are low in ESE. These people are also better equipped



to shift their emotional state and receive negative emotions with acceptance. Additionally, Muris, Mayer, van Lint and Hofman (2008) found that ESE can play a mediating role among pre-teens between behavioural issues and emotional issues. Other research highlights the significant negative correlation between self-efficacy and the symptoms of anxiety, depression, social avoidance and worry among university students, with specific relationships between ESE and anxiety, physical self-efficacy and anxiety, and overall self-efficacy and anxiety (Tahmassian & Jalali, 2011). Research using an ESE scale has identified that high ESE scores correlate with better university adjustment (Nightingale et al., 2013). Low scores on this scale were predictive of an individual meeting the criteria for the low, stable adjustment group, while high scores indicate a person has good emotional management and predict membership to the high, stable adjustment group. These skills are valuable in adjusting when transitioning from high school to college.

To summarize, ESE refers to individuals' recognition of their own emotional processes and structures, which differ from how EI trait. However, few researchers examined the role of how that may impact students' mental health. As ESE is less studied, and seems to be a new concept, it is essential that further research is conducted on ESE to examine how it relates to mental health, particularly in terms of university students and how their level of self-belief regarding their own emotional capabilities can impact their mental health states over time. Such data will help to build knowledge about ESE, which can be used in design programmes to prompt students' mental health in university life. Training students to enhance their emotional capabilities will be possible with such information, with benefits not just in relation to programmes for encouraging students' effective adjustment. Within an educational environment, students have shown to have been assisted by such programmes.

## 2.6.4 Loneliness

It is possible for all humans to experience loneliness at any period in their lives (Bhagchandani, 2017). As humans are sociable beings, loneliness can cause significant stress, impacting both psychological and physical wellbeing (Goosby, Bellatorre, Walsemann, & Cheadle, 2013). Loneliness has been defined as the unwelcome emotional experience when an individual perceives their current social network to be inadequate in comparison to their desired social network (Perlman & Peplau, 1982). Thus, loneliness is the product of disparity between desire and reality in relationships (Vanhalst, 2012). Loneliness, therefore, is a state of mind, rather than the state of being alone. An individual with a large social network who is never alone could still experience loneliness. Feeling unwanted, empty and alone are common descriptions of loneliness, along with a strong desire to gain human contact that is counteracted by a mental inability to initiate such contact (Bhagchandani, 2017).

Despite any age group being capable of experiencing loneliness, the most prevalent reports of the symptoms are in early adolescence (Heinrich & Gullone, 2006; Roedel, Scholte, Verhagen, Goossens, & Engels, 2010). This age bracket is particularly difficult for many individuals as it is an period in which great emphasis is placed on social relationships, with many feeling their relationships define them (Park-hurst & Hopmever, 1999). Moreover, disruptions in the social network are most likely to occur during this time, such as when individuals move from primary to secondary school and are often required to form new social networks. This disruption creates a challenge to their sense of identity and understanding of attachment; however, this typically resolves as they form new relationships. Loneliness can be experienced in a variety of ways, all of which contribute to a decline in mental health. Research has indicated correlations between loneliness and low self-esteem (McWhirter, Besett-Alesch, Horbata, & Gat, 2002), quality of life

(Chipuer, Bramston, & Pretty, 2003) and depression (Aylaz, Aktürk, Erci, Öztürk, & Aslan, 2012; Mssoom & Bajestani, 2016).

Research has also considered the consequence of loneliness over time by studying the impact of loneliness on mental health over time. For example, Qualter, Brown, Munn, & Rotenberg (2010) found that peer-related loneliness during childhood constitutes an interpersonal stressor that predisposes children to adolescent depressive symptoms. Further research has also outlined that social skills deficits, along with depression, suicidal ideation and aggression at age 15 can be predicted by loneliness trajectories in childhood (Schinka, van Dulmen, Mata, Bossarte, & Swahn, 2013). Similar findings by Qualter et al. (2013) were observed among adolescents from 7–17 years. Their results indicated that experiences of high stable and moderate increasing trajectories of loneliness between the ages of 7–17 predicted increased use of health services, depression, lower health based on self-report and increased consumption of alcohol for each individual drinking session when becoming 17. This finding is consistent with Ladd and Ettekal (2013) who found that the highest level of depressive symptoms was observed in adolescents meeting the criteria for stable high or moderate loneliness trajectories between ages 12 and 18. In another longitudinal study, Goosby, Bellatorre, Walsemann and Cheadle (2013) found that adolescents experiencing loneliness have been identified as more likely to have self-rated adult health that is less positive than those not experiencing loneliness, for example, increased metabolic risk factors that contribute to cardiovascular disease and also depression. External factors, such as parental support, do not appear sufficient to offset the development of health problems and adult depression associated with loneliness. Further self-rated health issues emerging following loneliness in adolescence include increased weight or later adult obesity. Thus, it is clear that loneliness in adolescence has significant risk of impacting later adult life.

Other empirical investigations within a student population sample have indicated that depression and decreased subjective wellbeing both strongly correlated with loneliness (Acquah, Topalli, Wilson, Junttila, & Niemi, 2015; Bhagchandani, 2017; Massoom & Bajestani, 2016), and subjective wellbeing could be predicted by reports of loneliness (Acquah, Topalli, Wilson, Junttila, & Niemi, 2015). Further research in student populations has indicated that happiness, self-esteem, sociability and mental balance are lower in lonely students, while students experiencing peer victimization also demonstrated different behaviours to those not experiencing this (Mami & Ghanbaran, 2014).

Loneliness is also found to be an important factor that impacts a student's ability to university life. The university experience is about developing one's own identity and is facilitated by peer relationships. During this period, the feeling of loneliness can be amplified, and this can contribute to poor academic performance (Özdemir & Tuncay, 2008; Rosenstreich & Margalit, 2015). Furthermore, several researchers (Ames et al., 2011; Bugay, 2007; Green et al., 2001; Ozben, 2013) have emphasized that an individual's social networks are significantly re-ordered as they make the transition between secondary school and university, as well as during other significant life developments, which may enhance the chance of suffering from loneliness. Consequently, students within higher education regularly face the issue of loneliness, making it a widespread occurrence and problem (Al Khatib., 2012; Özdemir and Tuncay, 2008; McWhirter, 1997; Ponzetti, 1990; Tümkaya, Aybek, Çelik, 2008; Wiseman, Guttfreund, & Lurie, 1995)

Various issues may be associated with a student's experience of loneliness. Mey (2003) explained that suspicion and pessimism may pervade a student's social experiences and reactions to other people, or perceive loneliness as a flaw in themselves, an indicator of immaturity or feebleness, meaning that loneliness is often misunderstood. Moreover, Özdemir and Tuncay

(2008), as well as Rosenstreich and Margalit (2015), showed how the impact on mental health and the effect on thought as a consequence of loneliness can detrimentally impact upon attainment at university. Additionally, Duru (2008) believed that students' adjustment may be directly and indirectly influenced by social bonds, interactions and networks being eroded or being non-existent, as a result of a greater degree of loneliness during the change to a university context.

Research has shown adjustment to university and loneliness to be significantly correlated, with students' adjustment being detrimentally affected by loneliness (Duru, 2008; Quan et al., 2014; Sadoughi & Hesampour, 2016). Furthermore, Sadoughi and Hesampour (2016) and Duru (2008) explained that transition ability could be estimated on the basis of loneliness. Quan et al. (2014) explain that the feeling of loneliness activates a negative coping style, which will subsequently negatively affect a person's adjustment. An individual's capacity for altering to suit an environment can be detrimentally affected due to a negative coping mechanism being adopted by a student who is lonely. Ultimately, poor mental health of students in a higher educational environment can result from loneliness, which is a pervasive issue. Whilst there has been an array of evidence into the impact of loneliness on mental health at different ages, there is, however, a deficit in research examining effects of loneliness on mental health in university students over time in general and in Saudi context particularly.

## **2.7 Gaps in the current literature review**

Whilst research in this student's mental health is extensive, it is clear that there are still some gaps in our knowledge. Firstly, Saudi Arabian female higher education students' adjustment to and their mental health has not been sufficiently considered within extant literature. Smith (2011) emphasized that the assets available to give greater prominence to mental health care are typically lacking within developing states, which is a rather common issue. Therefore,

contemporary mental health studies in the Saudi Arabian context suffer from a considerable lack of data in this regard (Qureshi et al., 2013). This is particularly problematic as many mental health issues are concealed, yet for intervention programmes to be effective, those working in the field need to have, as a minimum, basic knowledge about the issues that may contribute to mental health in the Saudi Arabian population.

Secondly, there exists a lack of longitudinal studies on the mental health of university students. Existing research has not examined the development of mental health problems during university life over time, or how social support, EI, ESE and loneliness might affect its development, or predict its trajectory over time. To my knowledge, only Bewick, Koutsopoulou, Miles, Slaa and Barkham, (2010), and Cooke, Bewick, Barkham, Bradley and Audin (2006) have researched patterns of mental health among university students over time. While that work is important, there are limitations to these studies. For example, they focus solely on comparing the average score of the sample over time, without considering individual differences within the sample. Furthermore, Bewick et al. and Cooke et al. carried out their work in the UK, and a direct comparison between these participants and students in other parts of the world cannot be drawn: previous research has noted that the symptom pattern, rate of occurrence and prevalence of mental problems may differ across countries and societies as a result of differing cultural and political issues (Al Nzawi, 2012; Tseng, 2003), so the same patterns of mental health may not be evident in other countries. I am particularly interested in students in Saudi Arabia; given the importance of cultural and religious influences in Saudi society presently, mental health issues must be understood in its unique context (Koenig et al., 2014).

Thirdly, regarding adjustment to university studies, there has been extensive research into the impact of social support, emotion intelligence and loneliness on adjustment. There is, however,

little research examining the impact of these factors on student ability to adjustment in university students over time. Moreover, studies examining the trajectories of adjustment to university over time in the UK and US found the patterns of adjustment to be different from country to country (Gall, Evans, & Bellerose, 2000; Nightingale et al., 2013); in light of that finding, it is likely that student experiences in Saudi Arabia are different to those in the UK or the US. What is not yet clear is how female students adjust to university life over time, and what can impact their adjustment.

Fourthly, how mental health states and adjustment to university level are linked over time has not been examined previously. It still remains unclear as to how mental health state trajectories affect students' adjustments to university over time, nor how individual differences can also affect trajectories.

Lastly, quantitative methods have been pervasively adopted for assessing students' mental health within an education context. However, students' mental health needs to be assessed in greater depth, which makes qualitative research beneficial, despite the greater advantages of quantitative approaches. Consequently, utilizing mixed method strategies can avert the deficiencies in qualitative and quantitative strategies, thus enabling a sounder comprehension of students' mental health issues.

It is anticipated that the research for this thesis will contribute towards reducing this empirical gap by studying the trajectories of mental health and university adjustment that students in Saudi Arabia experience in their first year of university. It is hopeful that relationships between mental health and adjustment will emerge throughout that first year. Further, this research will examine the individual differences in the trajectory of mental health problems when controlling trait EI, ESE, social support and loneliness. This research will extend our understanding of these

variables impact student's mental health and their ability to adjust to university over time. Growth mixture modelling is utilized in this study to identify whether it is possible to distinguish students following different mental health patterns and adjustment to university to other students based on risk behaviour. Also, this thesis attempts to cover these gaps by examining the trajectories of mental health and adjustments to university linked over the first year of university life. Finally, this thesis will benefit from using both quantitative and qualitative methods in order to gain more understanding of the mental health of female university students in Saudi Arabia and the factors that may impact their mental health through the implementation of a mixed method approach.



**CHAPTER 3: TRAJECTORIES OF MENTAL HEALTH AND  
ADJUSTMENT TO UNIVERSITY: EXAMINATION IN A SAMPLE OF  
YOUNG WOMEN FROM SAUDI**

This chapter includes a longitudinal study that investigates the trajectories of mental health and adjustment to university over the first year of university life

**3.1 Current Study**

The current study is the first to address the gap in the existing literature regarding whether people follow different trajectories of mental health problems and adjustment to university over the first year of university life in Saudi Arabia. The study aims to:

1. Examine the trajectories of mental health and adjustment to university over the first year of university life and to consider the distinct trajectories between students subgroups.
2. To examine whether several theoretically-relevant determinants—trait emotional intelligence (trait EI), emotional self-efficacy (ESE), social support, and loneliness— can distinguish different mental health problems and adjustment trajectories.
3. To examine the relationship between the mental health trajectories and the adjustment levels experienced over time by Saudi female students.

**3.2. Method**

**3.2.1. Participants and Procedure**

The sample focused on females who were attending female-only universities, as stated by the education system in Saudi Arabia. Participants were recruited via announcements made in the first year during lectures and induction events. Subjects were asked to participate during the first and second week of their first year at university. During the third week, the researcher returned to

the first-year student classes and asked who wished to participate and complete the questionnaires. Questionnaires were distributed at the beginning of these lectures. Students were questioned at Times 1, 2, and 3, where Time 1 was three weeks after the students' arrival at university (baseline), Time 2 was three months after Time 1, and Time 3 was eight months after Time 1. At Time 1, respondents were asked to provide their name and subject to help match questionnaires to individuals at each time point in the study. The data from participants who completed at least two waves of data collection are included in the final analyses; one of those must have been Time 1. Also, the data from participants included in the final analysis were those who provided sufficient information (first and family name and subject) during the three-time points, enabling the researcher to match their data between different time points.

A convenience sampling method was applied. According to Lavrakas and Battaglia (2008), convenience sampling is a specific non-probability sampling method whereby a sample is selected from the wider population as they constitute a convenient data source. It is a form sampling, where the target population meets certain expedient criteria. Dörnyei (2007) has stated that the latter typically includes considerations such as proximity, accessibility, availability and a willingness to participate. This was deemed to be an appropriate method to adopt as the convenience sample possessed features that were similar to those of the target population. For example, they all comprised female students attending SA universities. Furthermore, all those included in the sample were SA citizens, as non-national students are only permitted to enrol in private universities. All students were of a similar age group. Thus, a convenience sample could be expediently acquired for the purposes of undertaking a longitudinal study which used the (GMM) method, and required a minimum of one hundred participants to be allocated to each of the three time points (Curran, Obeidat & Losardo, 2010).

The final sample was as follows: Time 1 (223 students), Time 2 (170 students), and Time 3 (145 students). To ensure that the data associated with attrition are missing randomly, the Missing Completely At Random (MCAR) test was used. The results show that Little's MCAR test was non-significant (Chi-Square = 13.911, DF = 17,  $p = .673$ ), suggesting that data are missing completely at random. Participants in the final sample ranged in age from 18 to 26 years.

The majority of students ( $n = 194$ , 87%) were single and 26 (12%) were married ( $SD = 0.324$ ) and 1% refused to say. With regards to income, 4.5% had income levels lower than 2000RS (low level), 16.6% between 2000 to 5000RS (low to medium level of income), 33.6% between 5000 to 10000RS (medium level), and 41.7% had an income of 11000RS and above (high level).

Participants were given a written information sheet that described the purpose and importance of the study, the data collection procedure, and the measures that will be taken to ensure their anonymity. The participants were asked to acknowledge that their participation was voluntary. They were informed that they can withdraw their participation at any time without explanation. All the participants signed a consent form and completed the questionnaire. The participants also gave the researcher their contact details (phone number and email address) so that they were able to contact me if they had any questions.

### **3.2.2 Measures**

Participants completed the measures of the trajectories of mental health and adjustment to university three times over the first year of university life. The measures of trait emotional intelligence (trait EI), emotional self-efficacy (ESE), social support, and

loneliness were only completed in Time 1.

### **3.2.2.1 Mental Health and Adjustment Trajectories**

#### **3.2.2.1.1 General Health Questionnaire-28 (GHQ-28)**

The General Health Questionnaire-28 (GHQ-28; Golberg and Hillier, 1979) was designed to detect mental health problems and consists of 28 items (see appendix 2). It has four subscales—somatic symptoms, anxiety/insomnia, social dysfunction, and severe depression—for which it uses a Likert-style response option format that ranged from 1 to 4. The global GHQ-28 score was calculated by summing the item scores and dividing this by the total number of items. The mean score for the full scale of 1 to 4 was used, with higher scores representing higher levels of mental health problems. This measure is widely used in research in order to determine the mental health problems in general populations, such as students. The Arabic version used in this study was found to be valid as a screening tool for mental health problems in Saudi society (Alhamad & Al-Faris, 1998). In addition, the reliability for the Arabic version in that study was found 0.88. Also, Cronbach's alpha was 0.88 in this study which makes the Arabic version of GHQ28 reliable amongst female students in this sample.

#### **3.2.2.1.2 The Student Adaptation to College Questionnaire (SACQ)**

The Student Adaptation to College Questionnaire (SACQ) is an instrument of 67 items designed to assess the level of adjustment to university life (see appendix3). This questionnaire assesses four parts of students' adjustment: (1) institutional attachment, (2) personal emotional adjustment, (3) social adjustment, and (4) academic adjustment (Cohorn & Giullano, 1999).

A high number of researchers who have focused on exploring adjustment topics have

utilised Baker and Siryk's SACQ (1989). The SACQ is considered appropriate for the longitudinal study because Baker and Siryk (1989) designed the questionnaire to be suitable for use at any point during students' time at university. For this reason, the SACQ can be utilised to gain insight into students' adjustment at different points during their higher education journey. Internal consistency for this questionnaire is reported to range from .92 to .95 (Amoon, 2008; Asher, 2004; Baker & Siryk, 1999). High levels of validity have been established for SACQ including construct, predictive, and concurrent validity (Baker & Siryk, 1999; Beyers & Goossens, 2002; Feldt, Graham, & Dew, 2011).

There is no Arabic version of this measure, so the validity and reliability of it on the Saudi population has not been examined before. For this reason, a study of this measure was conducted before using it in the current research. The study evaluated the psychometric properties of this measure on Saudi female students, and compared it with English version after translation into Arabic (see Appendix 1 for full study). A method developed by Vanlender (1989) to adapt translated questionnaires in the field of Psychology was used in the study. The Vanlender (1989) process involves different stages as follows: (1) preparation of a preliminary version by using translation-back translation, (2) evaluation and assessment of this preliminary version and the further arrangements, utilizing a committee approach of an experimental version, (3) a preliminary test of the experimental version, (4) assessment and evaluation of validity using bilingual participants, and (5) evaluation of the reliability of the translated version. After conducting these processes on the Arabic translated version, it was found to have high concurrent validity with the English version, and had good reliability with a result of 0.83 for Cronbach's alpha. This means that the Arabic version of the measure is suitable to use with the sample of Saudi students. The Arabic version used in this study based on a five Likert-style response

option format that ranged from 1 to 5. A global SACQ score was calculated by summing up the item scores and dividing by the total number of items. The mean score for the full scale of 1 to 5 was used, with higher scores representing higher levels of adjustment to university. It was proposed that a five-point Likert scale be used when completing the Arabic version of the SAQC, as opposed to the nine-point scale adopted in its English equivalent. The committee involved in translation stages, recommended that this modification be made, as they were of the belief that it was a more suitable and acceptable approach to adopt among this particular SA-based cohort. In addition, the committee suggested that in light of the fact that five other questionnaires were also being administered, a five-point Likert scale would assist in augmenting the response rate and quality of the answers received, while decreasing the degree of annoyance participants may possibly experience. Furthermore, this approach aims to reduce any potential uncertainty. The committee's proposals were actioned, and mean scores of the results were calculated based on values ranging from 1 to 5. Research results demonstrated that a high level of concurrent validity was found to occur between the Arabic and English versions of the SAQC. Similarly, Cronbach's alpha produced a good reliability score of 0.88. Cronbach's alpha was also measured in the sample for the current study, and was found to be .89.

### **3.2.3: Testing differences of trajectories of mental health and adjustment**

#### **3.2.3.1. ESE Scale (ESES) (Kirk, Schutte & Hine, 2008).**

The ESE Scale is a 32-item measure designed to help researchers gain insights into respondents' ESE. More specifically, the ESE Scale measures: (1) the ability to regulate one's own emotions and the emotions of others, (2) the ability to understand one's own emotions and the emotions of others, (3) the ability to think based on emotions, and (4) and the perception of one's own emotions and the emotions of others (see appendix 5). An ESE scale (Kirk, Schutte, & Hine, 2008) was used; participants were required to rate their confidence with respect to each

item in the questionnaire by selecting a number on a five-point scale, with '1' indicating 'not at all confident' and '5' indicating 'very confident'. A global ESE score was calculated by summing the item scores and dividing by the total number of items. The mean score for the full scale of 1 to 5 was used, with higher scores representing higher levels of ESE. In their study, Kirk et al. (2008) demonstrate results where the ESES showed high levels of validity and reliability with internal consistency .96 and re-test being .85. Until now, there had not been an Arabic version of this measure, and the validity and reliability of it on the Saudi population had not been examined before. This measure was also included in the comparison study that was conducted to establish the psychometric properties on Saudi female students of the measures that lack Arabic versions, after translating them into Arabic (see Appendix 1 for full study). The Arabic translated version of the ESF scale was found to have high reliability: the Cronbach's alpha result was .86, and it showed high concurrent validity with the English version. Cronbach's alpha was also measured for the sample in the current study and was found to be .95.

### **3.2.3.1. Trait Emotional Intelligence Questionnaire–Short Form (TEIQue–SF)**

The trait emotional intelligence questionnaire–short form (TEIQue–SF) was used (Petrides & Furnham, 2006) in this study. The TEIQue was designed for the purpose of helping researchers gain a thorough understanding of trait EI. The TEIQue measures respondents' self-perceptions of their sociability, emotionality, self-control, and wellbeing. The short form (TEIQue-SF) has 30 questions aimed towards the effective identification of universal characteristics of emotional intelligence (see appendix 4). Responses to the English version of the trait EI questionnaire are typically made using a seven-point Likert scale, while the Arabic version was modified to use a five-point rating scale. The committee put forward this recommendation for the reasons already cited in Section (3.2.2.1.2) of this study. Consequently, a global TEIQue-SF score was calculated

by summing the item scores and dividing by the total number of items. Mean scores were calculated based on scores ranging from 1 to 5. The Arabic questionnaire generated similarly high concurrent validity and reliability values to the English version, the latter being 0.88 on Cronbach's alpha. Cronbach's alpha score was 0.84 for the current study sample.

### **3.2.3.2. UCLA Loneliness Scale**

The UCLA loneliness scale (Russell et al., 1987) was used; it is a self-report questionnaire that consists of 20 items that examine loneliness (see appendix7). The items are rated on a four-point scale, with '4' indicating 'often' and '1' indicating 'never'. A global UCLA score was calculated in this study by summing up the item scores and dividing by the total number of items. The mean score for the full scale of 1 to 4 was used, with higher scores signifying greater loneliness. The first version of the scale was developed by Russell (1982), using samples of young people and college students. According to Russell et al. (1987), the internal consistency obtained from students' samples was high, with a coefficient alpha of 0.93. Furthermore, evidence for concurrent validity found other measures for The UCLA Loneliness Scale, such as social support, depression and other loneliness scales (Abu-Rasain, 1998). The Arabic version of the UCLA Loneliness Scale is used in the current study, translated by Khadr & Al-Shennawi (1988) into Arabic and tested on 300 Saudi students. Test-retest reliability was found to be high for a one-month period (N= 90, r= 0.86). In addition, the Arabic version has been shown to have concurrent validity with other measures such as depression and neuroticism (Khadr & Al-Shennawi,1988). Cronbach's alpha in this sample was .83.

### **3.2.3.3. Multidimensional Scale of Perceived Social Support (MSPSS)**

The multidimensional scale of perceived social support (MSPSS) was used (Zimet et al., 1988);



this scale is composed of 12 items that are rated on 7-point Likert scale ranging from ‘very strongly disagree’ (1) to ‘very strongly agree’ (7) (see appendix7). A global MSPSS score was calculated by summing up the item scores and dividing by the total number of items. The mean score for the full scale of 1 to 7 was used, with higher scores indicating higher levels of perceived social support. The MSPSS is proven to be valid and reliable (Zimet et al., 1988) with internal consistency of 0.88 and test-retest reliability of 0.85, and high levels of construct validity. The Arabic version (MSPSS), used in this study, was translated by Arab (2011) in order to test its validity and reliability among Saudi female students. Alpha Cronbach was high with 0.94, and concurrent validity was also high between Arabic and English versions (0.99). Cronbach’s alpha was 0.90 in the current sample.

### **3.2.2. Data Analysis Plan**

First, Latent Growth Curve Modeling (LGCM) was used to examine mean level changes in the trajectories of mental health, and adjustments to university over the first year of university life. Second, Latent Growth Mixture Modeling (LGMM) was employed to identify discrete classes of mental health and adjustments to university trajectories (Muthén, 2004). All analyses were conducted in Mplus version 7.4. The LGMM proceeded in three stages. In the first stage, a series of tests were conducted to detect the correct number of latent classes of the mental health and adjustments to university data. The Bayesian information criteria (BIC), Akaike Information Criteria (AIC), Adjusted BIC, entropy, and the Lo–Mendell–Rubin likelihood ratio test (LMR) were used to inform the decision of the number of classes (McLachlan & Peel,2000). Lower AIC, BIC, and adjusted BIC values indicate a more parsimonious model. Entropy is a measure of classification accuracy, with values closer to 1 indexing greater precision (range: 0– 1); the LMR test provides a  $k-1$  likelihood ratio-based method for determining the ideal number of trajectories,

with the low *p* value indicating a better fit to the data. Finally, each group has to represent at least 1% of the total sample (Luyckx et al., 2008) as making the ANOVA comparison will be difficult if the classes are less than 1% of total sample. In the second stage of the LGMM, using the data of membership classes of mental health and adjustment to university, ANOVAs were employed to identify differences between membership classes in each time points and with regards emotional intelligence, ESE, loneliness, and social support reported at Time 1. In the third stage of analyses, chi square tests were used to test how the trajectories of mental health are linked over time.

### **3.4.Results**

Means and standard deviations for all variables are given in Table 1 .Correlations between all variables of interest are displayed in Table 2. The results showed that all the variables of interest were significantly related to each other. Mental health problems were correlated significantly negatively with all variables expect loneliness, which was correlated positively. Adjustment to university was the strongest negatively correlated variable at all three time points ( $r_s = -.60, -.51, \text{ and } -.55$ , respectively). This was followed by trait EI at all three time points ( $r_s = -.55 \text{ to } -.43$ ) and social support ( $r_s = -.43 \text{ to } -.38$ ). ESE demonstrated the weakest correlation with mental health problems compared with the other variables ( $r_s = -.28 \text{ to } -.25$ ). A positive strong and moderate correlation was found between mental health problems and loneliness at all three time points ( $r_s = .52, .42, \text{ and } .39$ , respectively).

Regarding adjustment to university, the results showed a positive correlation with all variables except mental health problems and loneliness. The strongest positive correlation was for trait EI at Time 1 ( $r_s = .55$ ), which was followed by ESE ( $r_s = .46$ ) and moderate social support ( $r_s = .38$ ). At Times 2 and 3, adjustment to university was correlated moderately more with trait E ( $r_s = .32 \text{ and } .34$ , respectively) than with social support ( $r_s = .26 \text{ to } .20$ ), whereas ESE

demonstrated relatively low associations ( $r_s = .21$  and  $.18$ , respectively).

Overall, Trait EI demonstrated the strongest associations with mental health and adjustment to university at all three time points, while ESE had relatively low associations at all three time points. Regarding the association between mental health and adjustment predictors (trait EI , social support, ESE, and loneliness), the results showed that all the predictors were correlated

	Mean	Std. Deviation	Minimum	Maximum
Adjustment to university Time1	3.307	.47003	1.61	4.62
Adjustment to university Time2	3.0709	.44188	1.45	4.29
Adjustment to university Time3	3.0382	.43297	1.57	4.33
General Health Questionnaire Time1	2.0587	.44849	1.32	3.79
General Health Questionnaire Time2	2.0377	.46127	1.39	3.50
General Health Questionnaire Time3	2.1051	.51151	1.29	3.61
Trait EI	3.4661	.50838	1.43	4.53
Perceived social support	4.8651	.86005	1.25	6.58
loneliness	2.1901	.46327	1.25	3.85
Emotional self -efficacy	3.1805	.74619	1.00	5.00

significantly—EI had the strongest relationship with social support ( $r_s = .53$ ) and ESE ( $r_s = .52$ ), while social support showed a weak correlation with ESE ( $r_s = .23$ ). Loneliness showed a strong negative correlation with trait EI ( $r_s = -.66$ ) and social support ( $r_s = -.63$ ) and a moderate negative correlation with ESE ( $r_s = -.31$ ).

*Table (1) Means and standard deviations for all variables.*

Table 2: Correlations between all variables of interest

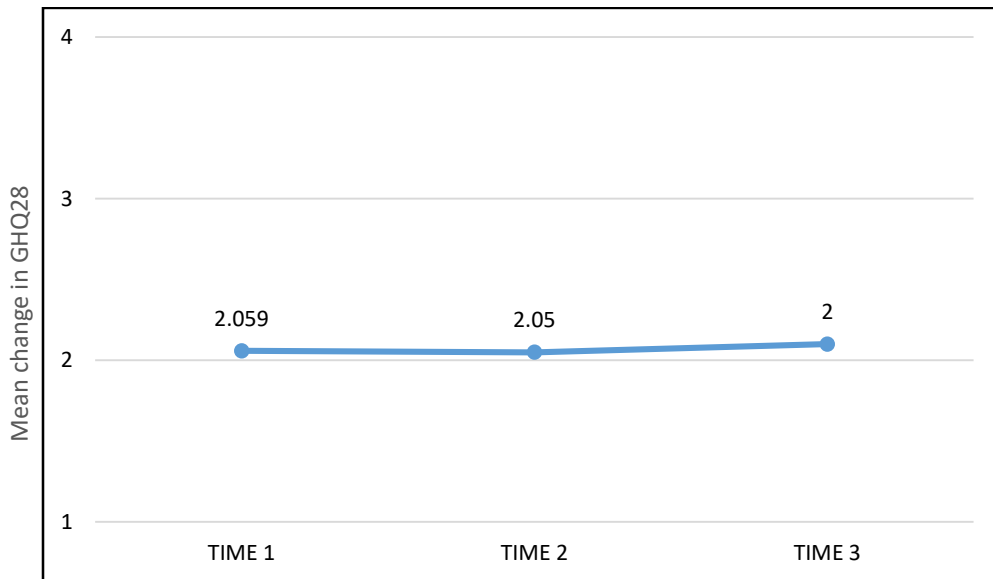
	1	2	3	4	5	6	7	8	9	10
Adjustment to university Time1 1	1									
Adjustment to university Time2 2	.487**	1								
Adjustment to university Time3 3	.584**	.565**	1			*				*
General Health Questionnaire Time1 4	-.600**	-.357**	-.377**	1						
General Health Questionnaire Time2 5	-.516**	-.632**	-.524**	.690**	1					
General Health Questionnaire Time3 6	-.557**	-.463**	-.604**	.631**	.699**	1	..			
Social support 7	.383**	.262**	.206*	-.439**	-.381**	-.386**	1			
loneliness 8	-.559**	-.296**	-.350**	.525**	.421**	.390**	-.638**	1		
Trait EI 9	.555**	.328**	.348**	-.550**	-.430**	-.458**	.529**	-.665**	1	
Emotional self efficacy 10	.468**	.218**	.185*	-.285**	-.257**	-.295**	.232**	-.314**	.525**	1

\*

### 3.4.2 Changes in the trajectory of mental health over the first-year of university life

LGCM was used to examine changes in mean overall mental health (as assessed by the GHQ-28) over the first year. Mean levels was stable over the first year of university life (M intercept = 2.053,  $p < .001$ ; M slope = 0.017; CFI = 0.998; RMSEA = 0.017). In addition, results indicated variance in the intercept (unstandardized estimate = 0.150) and slope (0.012). Figure 1 shows the mean level changes in mental health level over the first-year of university life. An ANOVA test was used to confirm whether there is statistically different over three- time points; the results shows that the level did t not change significantly,  $F(2, 534) = .832, p=.436. \eta^2=0.003$ .

*Figure 1: Mean level changes in mean GHQ28 Scores over the first-year of university life.*

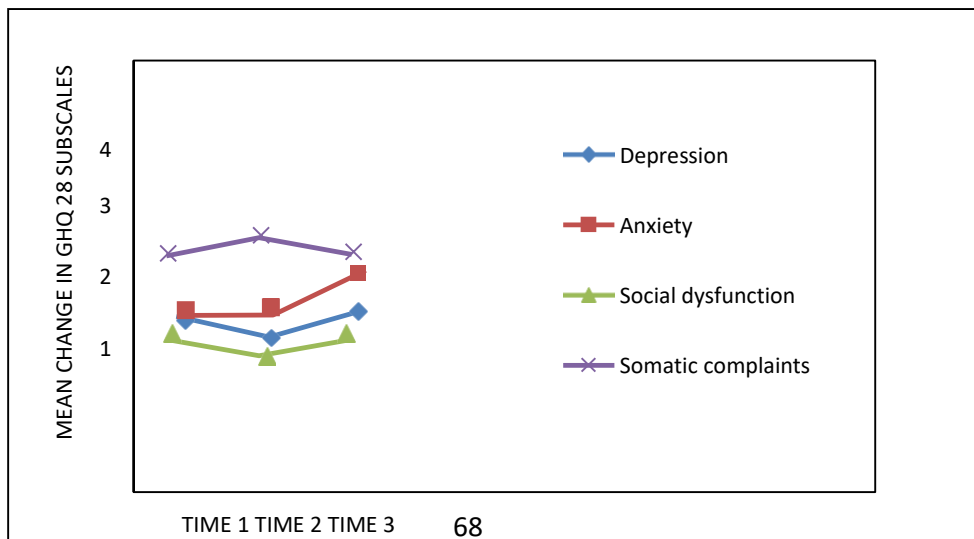


### 3.4.1. Change in individual mental health problems over time

The results obtained from LGCM, which were used to examine mean level changes in specific mental health problems over the first year of university life, show that levels of depression was stable over time with M (1.661) in Time 1 and (1.616) in Time 2 and (1.693) in Time 3.

The anxiety levels of participants were found to increase slightly after eight months at university (from M= 1.987 at Time 1 to M= 2.102 at Time 3). Social dysfunction was initially high at Time 1 (M= 2.413), decreased slightly at Time 2 (M=2.382), and subsequently increased again by the end of the year (M=2.436). Somatic complaints increased in the three-month post-entry period from M=2.172 at Time 1 and M=2.203 in Time 2, but then decreased slightly, albeit continuing to remain higher than at the commencement of university life with M=2.182 at Time. Graph 2 shows the mean change in individual mental health problems over time. Using ANOVA tests to examine whether these changes are significant or not, results show that all the mental health problems did not change significantly over time (Depression:  $F(2,534)=.907, p=.405, \eta^2=0.003$ ; Anxiety and insomnia:  $F(2,534)F=1.037, p=.355, \eta^2=0.003$ ; Social dysfunction:  $F(2,534)=.842, p=.431, \eta^2=0.003$ ; Somatic symptoms:  $F(2,534)=.061, p=.941, \eta^2=0.000$ )

Graph (2) Mean change in individual mental health problems over time



### **3-4-3 Change of mental health problems of subgroups**

Using LGMM, four latent classes of mental health problems (using the mean score of GHQ 28 over the three-time point) were identified. The four classes were identified because they met the criteria as follows: Lower AIC, BIC, and adjusted BIC values indicate a more parsimonious mode. Entropy is a measure of classification accuracy, with values closer to 1 indexing greater precision (range: 0–1); the LMR test provides a  $k-1$  likelihood ratio-based method for determining the ideal number of trajectories, with the low  $p$  value indicating a better fit to the data. Finally, each group has to represent at least 1% of the total sample (Luyckx et al., 2008).

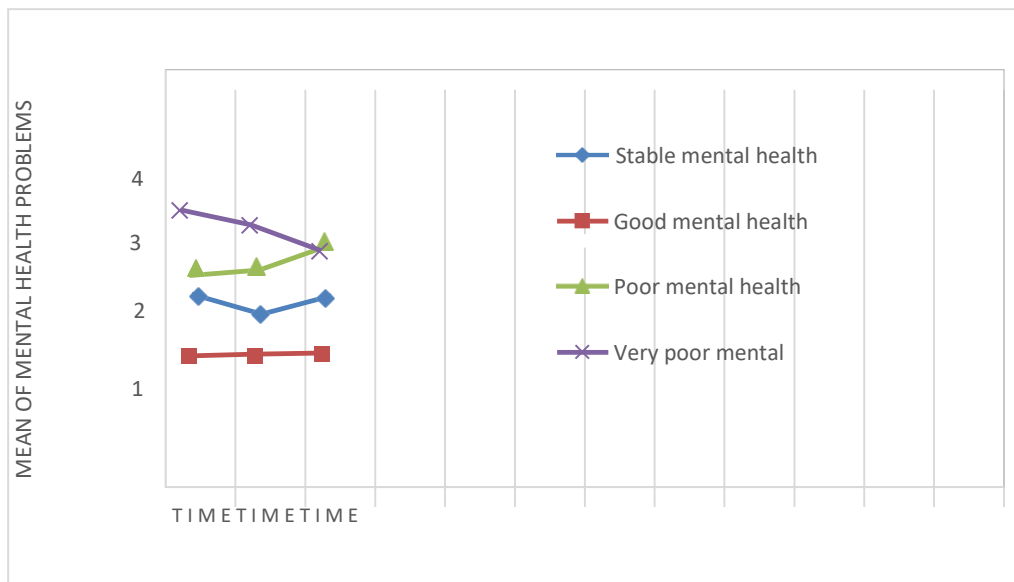
Table (3) summarises those fit statistics for the different models examined. The first class included students with good mental health representing 56.4% of the total sample ( $n=126$ ). Their levels of mental health problems began at the low level, and continue to be low after 8 months, following the arrival at university. The second group of students represents 35.8% of the sample ( $n=78$ ), and their mental health level was stable over the first year of university life. The third group included those with poor mental health beginning university at a medium level of mental health problems, then increasing gradually and represents 5.0% of the total sample ( $n=13$ ). The final group included students with very poor mental health consists of students who began university with high levels of mental health problems at Time 1, who then decreased gradually during the next 3-8 months of university life; this group represents 1.8% ( $n=4$ ) of the total sample. Table 4 shows the four different classes of mental health problem and Graph 3 shows the four different classes of mental health problems.

Table (3): Fit statistics for four classes

Classes	AIC	BIC	Adj. BIC	Entropy	LRT <i>p</i> -value
1	688.391	708.780	689.766		
2	457.628	491.610	459.920	0.880	0.2071
3	294.777	342.351	297.984	0.878	0.0062
4	223.596	298.355	228.636	0.845	0.7095

AIC = Akaike information criterion; BIC = Bayesian information criteria; Adj. BIC = Adjusted BIC (Bayesian information criteria); LRT = Lo-Mendell-Rubin test. AIC, BIC, Adjusted BIC = lower values indicate a more parsimonious model; Entropy = values closer to 1 index greater precision (range: 0-1). The LRT = a low *p* value indicates a better fit to the data.

Graph (3): Four different classes of mental health problems





*Table (4) shows the mean differences and standard deviations of QHG 28 scores among classes.*

	Good mental health	Stable mental health	Poor mental health	Very poor mental health	ANOVA results	Eta squared
N	126	79	12	4		
Time 1	1.77(.2060)	2.292(.2263)	2.849(.2088)	3.621(.2030)	F(4,218) = 186,24 p <.000	0.77
Time 2	1.78(.2694)	2.219(.2831)	2.901(.3692)	3.479(.0206)	F(4,164) =74,88 p <.000	0.64
Time 3	1.801(.2707)	2.276(.3202)	3.135(.2549)	3.231(.0412)	F(4,140) =79,70 p <.000	0.69

\*Mean score for GHQ range from 1 to 4.

An ANOVA test was performed to establish whether significant differences occurred between each class over the three time points. Results have shown that no mean differences occurred between all three time points for good mental health class,  $F(2,3290) = 492, p < .612 \eta^2 = 0.003$ ; and for stable mental health class  $F(2,177) = 1.324, p < .26 \eta^2 = 0.003$  and for poor mental health  $F(2,26) = 2.125, p < .14 \eta^2 = 0.16$ , and for very poor mental health class  $F(7,4) = 8.571, p < .12 \eta^2 = 0.003$ ). These results show that the level of mental health problems did not change over the first year of university life.

To investigate whether self-report measures taken at Time 1 (Trait emotional intelligence, ESE, loneliness, and social support) can be used to distinguish trajectory classes, (ANOVA) and post hoc analysis were used. The results showed that there were significant differences in the mental health trajectory membership classes in social support:  $F(4, 218) = 17.129, p < .001, \eta^2 = 0.23$ ; trait EI:  $F(4, 218) = 23.762, p < .001, \eta^2 = 0.30$ ; ESE:  $F(4, 216) = 6.239, p < .001, \eta^2 = 0.10$ ; and loneliness:  $F(4, 216) = 19.316, p < .001, \eta^2 = 0.26$ . Trait EI had the strongest effect size regarding the difference between class membership which was followed by loneliness, social support, and ESE. Table 5 shows mean differences of GHQ scores, standard deviations among subgroups in the variables took in time 1.

Post-hoc analyses have shown that students assigned to the good mental health class performed significantly better than others classes in terms of their level of perceived social support. The stable class produced lower scores than the good mental health class, but higher than the poor and very poor mental health classes from a perceived social support perspective. The level of perceived social support among the poor and very poor mental health classes was significantly lower than the other classes.

Further, students assigned to the good mental health class demonstrated significantly higher scores in trait EI and ESE than the other classes. Students in the stable mental health class reported significantly lower levels of trait EI and ESE as compared those in the good mental health subgroup, but significantly higher levels of trait EI and ESE in comparison to the poor and very poor mental health classes. Participants in the latter class demonstrated significantly lower scores in trait EI and ESE as compared to the other classes. Those assigned to the very poor mental health subgroup reported the lowest levels of trait EI and ESE.

In terms of loneliness, students with good mental health reported the lowest levels,

followed by those characterised by stable mental health. Students in the good mental health class were least likely to be lonely as compared to the other classes, with the stable class being the second least likely to experience loneliness. In contrast, students in the very poor mental health class reported the highest levels of loneliness, followed by those assigned to the poor mental health subgroup.

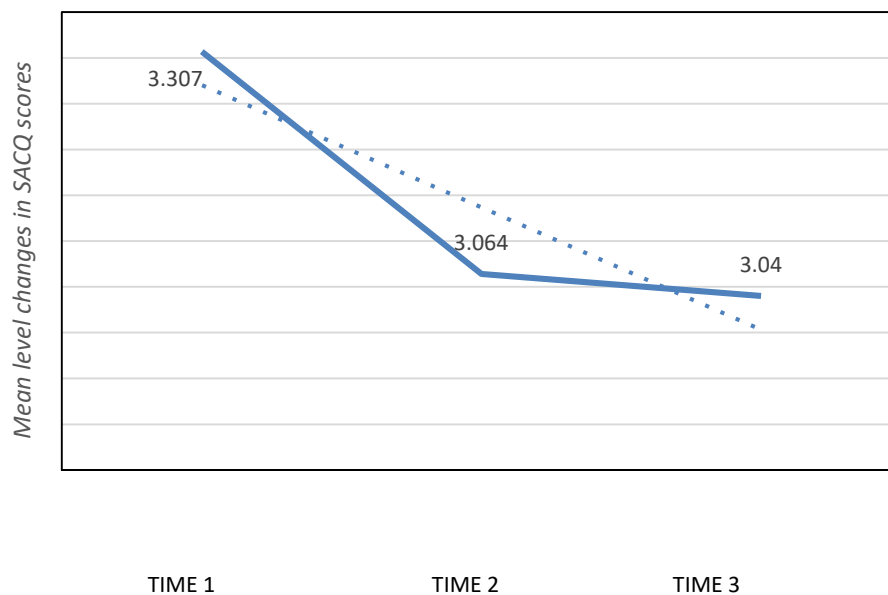
*Table (5) Mean differences of of GHQ scores, standard deviations among subgroups in the variables took in time 1*

	<b>Good mental health</b>	<b>Stable Mental health</b>	<b>Poor mental health</b>	<b>Very poor mental health</b>	<b>Effect size</b>
<b>N</b>	126	79	12	4	
<b>Social support</b>	4.313 (.569)	4.014 (.719)	3.3368(.7629)	2.181 (.220)	0.23
<b>Trait EI</b>	3.657 (.424)	3.312 (.424)	2.912 (.5752)	2.209 (.464)	0.30
<b>ESE</b>	3.3408(.7356)	3.0586(.7066)	2.8687(.5537)	2.0156(.2127)	0.10
<b>Loneliness</b>	2.0177(.3729)	2.3595(.4440)	2.5627(.4429)	3.2750(.2179)	0.26

### 4.3.3 Trajectories of adjustment to university over time

Using LGCM to examine mean changes on adjustment level, result shows that the mean level of adjustment decreased over time (M intercept = 3.275,  $p < .001$ ; M slope = -0.140; CFI = 0.907; RMSEA = 0.004.  $p = 0.0007$ ). In addition, the results indicated variance in intercept (unstandardised estimate = 0.080) and slope -0.020. Graph 4 shows mean level changes in overall adjustment scores over the first year of university life. ANOVA test to examine whether this decrease is significant or not, the results shows that the mean level of adjustment decreased significantly over the three time point  $F(2,533) = 20.331, p = .001, \eta^2 = 0.07$ . Post hoc comparisons indicated that the mean score of time 1 (M=3.307) SD =.470 was significantly different from adjustment score in time 2 (M=3.0709, SD =.44188) and different from time 3 (M=3.0382, SD =.43297)  $p = .001$  while there are no significant different found between time 2 and 3  $p = .522$ .

*Graph (4) shows the mean level changes in SACQ scores from month 1 to month 8 of university*



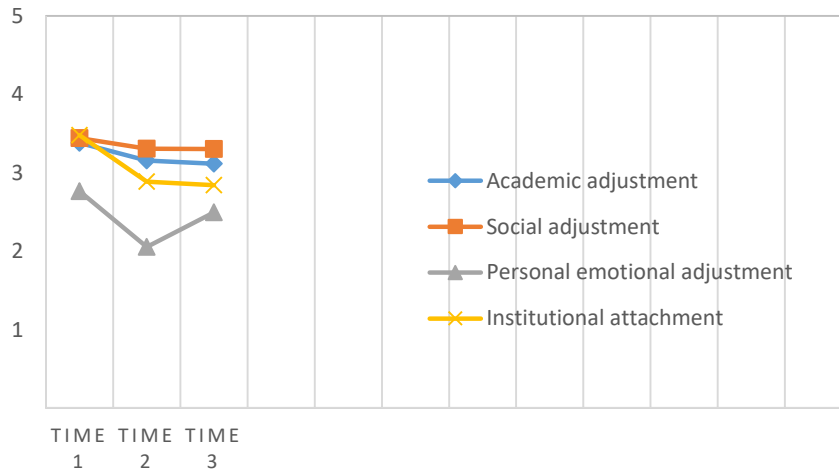
ANOVA was used to determine whether there was significant change in the mean scores of adjustment over the three time points. The results showed that all four dimensions changed significantly over time—academic adjustment:  $F(2, 533) = 16.874, p < .001, \eta^2 = 0.05$ ; social adjustment:  $F(2, 533) = 3.855, p < .02, \eta^2 = 0.014$ ; emotional adjustment:  $F(2, 533) = 10.164, p < .001, \eta^2 = 0.03$ ; and environment adjustment:  $F(2, 532) = 44.360, p < .001, \eta^2 = 0.14$ . The results of the post hoc comparisons are shown in Table 6 where it can be seen that Time 1 was significantly higher than Times 2 and 3, while there was no statistical difference between Times 2 and 3. Graph 5 Patterns of SACQ Scores over the first year of university life of University

*Table (6) shows mean change in adjustment subscales over time*

Adjustment subscales	TIME 1	TIME 2	TIME 3
Academic adjustment	3.382 (3.3822)	3.155 (.50149)	3.116(.48043)
Emotional adjustment	2.767 (.73928)	2.504 (.609840)	2.495(.63821)
Social adjustment	3.433 (.55432)	3.306 (.52823)	3.304(.48676)
Institutional attachment	3.479 (.85383)	2.887 (.63366)	2.842(.65435)

Mean SACQ score range from 1 to 5

Graph (5) Patterns of SACQ Scores over the first year of university life of University.



### 3-4-5 : Change of adjustment level of subgroups

Using LGMM, five latent classes of adjustment were identified because each group represents at least 1% of the total sample (Luyckx et al., 2008) and met the following criteria in number Lower AIC, BIC, and adjusted BIC values indicate a more parsimonious model. Entropy is a measure of classification accuracy, with values closer to 1 indexing greater precision (range: 0–1); the LMR test provides a  $k-1$  likelihood ratio-based method for determining the ideal number of trajectories, with the low p value indicating a better fit to the data.

Table (7) summarizes the fit statistics for different classes.

Classes of	AIC	BIC	Adj. BIC	Entropy	LRT <i>p</i> -value
<b>Adjustment to university</b>					
<b>1</b>	675.966	696.382	677.368		
<b>2</b>	597.103	631.130	599.439	0.976	0.0002
<b>3</b>	533.233	580.871	536.504	0.872	0.0926
<b>4</b>	528.425	589.673	532.629	0.896	0.0834
<b>5</b>	523.860	598.719	528.999	0.888	0.0581

AIC = Akaike information criterion; BIC = Bayesian information criteria; Adj. BIC = Adjusted BIC (Bayesian information criteria); LRT = Lo- Mendell-Rubin test. AIC, BIC, Adjusted BIC = lower values indicate a more parsimonious model; Entropy = values closer to 1 index greater precision (range: 0-1). The LRT = a low *p* value indicates a better fit to the data.

The five classes included a class following a stable adjustment trajectory, and represented 4.6% of the total sample (n= 10). The second class identified followed a low adjustment trajectory t (1.4% of the total sample, n=3) where they reported low levels of adjustment over time, during the first year of university life. The third class is well adjustment class represented 61.5% of the total sample and included 137 students. The fourth class is high adjustment class who their adjustment level gradual decrease over time; this class included 25.7% of the total sample (n=56). The class showed high adjustment at the start of the year, with a noticeable drop after three months; this final group represented 6.9% of the total sample (n=15). Graph 6 shows the five different groups of students following the different trajectories over time. Table 8 shows the mean differences of SACQ scores and standard deviations across groups following different trajectories of adjustment

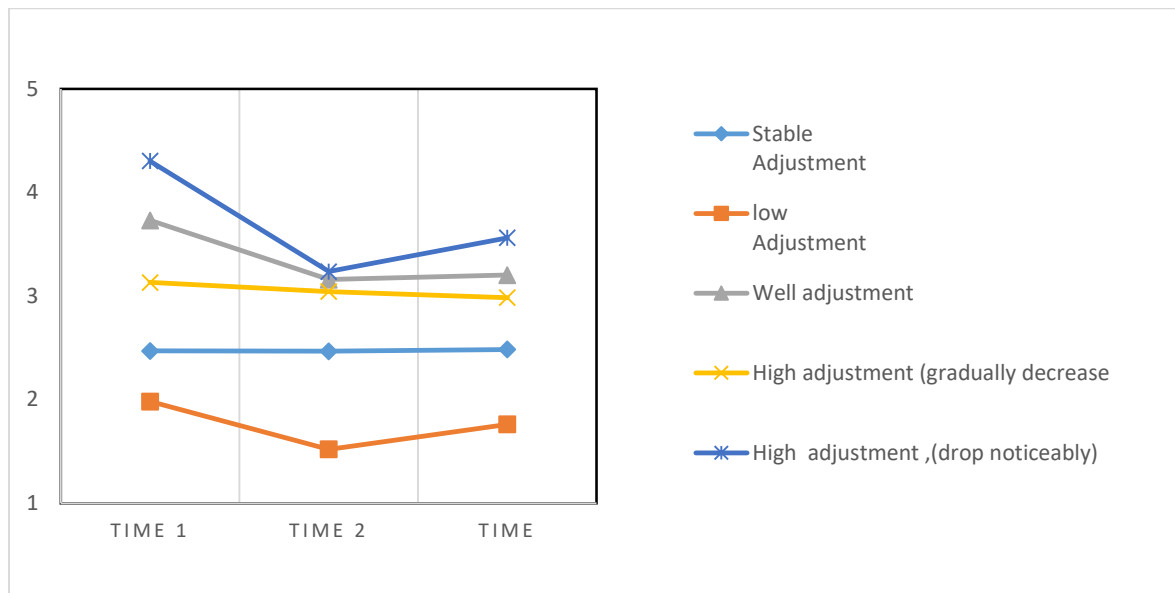
*Table: (8 ) Mean differences of SACQ scores and standard deviations across groups following different trajectories of adjustment.*

	Stable Adjustment	Low adjustment	Well adjustment	High adjustment (gradually decrease )	High adjustment ,(drop noticeably)	ANOVA result	Eta-squared
N	10	3	137	57	15		
Time 1	2.471(.2784)	1.983(.430)	3.731(.208)	3.131(.280)	4.305(.357)	F(4,216) = 145.824,p <.000	0.72
Time 2	2.468(.3737)	1.52(.087)	3.16(.365)	3.043(.383)	3.236(.386)	F(4,165) =18.892,p <.000	0.31
Time 3	2.485(.5109)	1.762(.163)	3.202(.319)	2.985(.359)	3.562(.462)	F(4,140) =19.008,p <.000	0.35

An ANOVA test was performed to establish whether significant differences occurred between each class over the three time points. Results have shown that no mean differences occurred between all three time points for the stably adjusted class ,  $F(2,21) = .326, p=.72, \eta^2 =0.03$  and the low-adjustment class  $F(2,1) = .268, p=.89, \eta^2 =0.030$ . However, significant differences were found to occur between the three time points for the well-adjusted class,  $F(2,313) =6.99, p=.001, \eta^2 =0.04$ , and the high-adjustment class , where the adjustment levels gradually decreased for the former,  $F(2,137) =26.978, p=.001, \eta^2 =0.39$ , while for the high-adjustment class the levels also dropped,  $F(2,36) =20.733, p=.001, \eta^2 =1.15$ . Post hoc analysis shows that in the case of all three subgroups the levels of adjustment in Time 1 was significantly higher than Times 2 and 3. However, no differences were found to occur between Times 2 and 3 for all three classes .



Graph( 6) The five different groups of students following the different adjustment trajectories over time.



### **3-4-5 : Differences of trajectories of adjustment to university over time**

In order to investigate whether the different variables, emotional intelligence, ESE, loneliness and asocial support, distinguished between classes following different trajectories of university adjustment, ANOVAs and post hoc analyses tests were used. The results show that there are significant differences between classes following different trajectories of university adjustment in terms of social support ( $F(4,218)= 21.466, p=000 \eta^2=0.28$ ), loneliness ( $F(4,216)= 23.590, p=.001 \eta^2=0.30$ ), and trait EI ( $F(4,218)= 24.238, p=000 \eta^2=0.31$ ); no differences between the groups were found for ESE ( $F(4,2016)= 8.446, p=.109 \eta^2=0.13$ ).

Post hoc results show that students in the high-adjustment class who subsequently experienced a large decrease in their adjustment levels reported significantly lower levels of loneliness as compared to the other classes. Students in the high-adjustment subgroup whose levels gradually decreased, reported lower levels of loneliness as compared to the other classes, but higher than students who experienced a large decrease. Students in the well-adjusted class reported lower levels of loneliness as compared to students in stable and low-adjustment level subgroups, but higher than students in the high-adjustment subgroups. Students in the low-adjustment subgroup reported the highest levels of loneliness in comparison to both the well-adjusted and high-adjusted subgroups. However, no significant differences occurred between the low-adjustment and stable subgroups in terms of loneliness levels.

Students assigned to the high-adjustment subgroup who experienced a large decrease reported significantly higher levels of perceived social support and trait EI as compared to all other classes. Students in the high-adjustment subgroup, whose adjustment levels decreased gradually,

reported high levels of perceived social support and trait EI in comparison to those in stable, low and well-adjustment subgroups. Students in the well-adjusted subgroup reported higher levels of perceived social support and trait EI than those in the stable and low-adjustment classes, as well as lower scores than other classes. Students in the stably adjusted subgroup reported higher levels of perceived social support and trait EI as compared to the low-adjustment subgroup, where reported scores were lower than other classes. Students in the low-adjustment subgroup reported the lowest levels of perceived social supports and trait EI. Table shows the mean differences and standard deviations in the variables took in time 1 across groups following different trajectories of adjustment

*Table: (9) Mean differences and standard deviations in the variables took in time 1 across groups following different trajectories of adjustment*

	<b>Stable Adjustment</b>	<b>Low adjustment</b>	<b>Well adjustment</b>	<b>High, decreasing gradually</b>	<b>High ,drop noticeably</b>	<b>Eta Squared</b>
<b>N</b>	10	3	137	57	15	
<b>Social support</b>	4.058 (.995)	2.306 (1.685)	4.723 (.725)	5.3031(.69854)	5.516 (.522)	0.28
<b>Trait EI</b>	3.657 (.424)	2.486 (1.183)	3.312 (.424)	5.158 (589)	5.523 (.501)	.31
<b>ESE</b>	2.959(.890)	2.145 (.508)	3.025 (.726)	3.510 (.606)	3.650 (.683)	0.13
<b>Loneliness</b>	2.860 (.492)	3.166 (.236)	2.265 (.411)	1.965 (.347)	1.716 (.2510)	0.30

### **3.4.7 The Relationship between the Trajectories of Mental health and Adjustment to university over time**

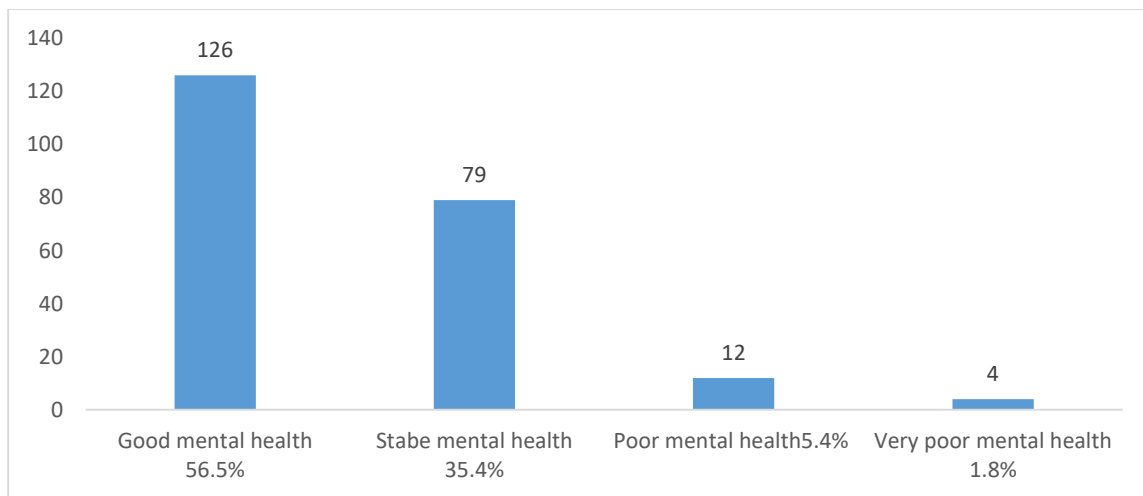
A chi-square test of independence was used to examine the association between membership of trajectories of mental health and those of adjustment to university. Analyses showed that trajectories are linked over time:  $X^2(16, N=223)=127.379$   $p=0.001$ .

A detailed examination of the Crosstabulation data of both trajectories in Table 8 shows that Out of the 126 students who reported good mental health, 1 student (0.4% of the total sample) possessed stable adjustment levels; 65 students (29.1%) possessed high adjustment levels that decreased gradually over time; 47 students (21.1%) possessed well adjustment levels; and, 13 students (5.8%) possessed high, drop adjustment levels. Out of the 79 students who possessed stable mental health, 4 students (1.8% of the total sample) possessed stable levels of adjustment over time; 63 of students (28.3%) possessed adjustment low levels that began as high and then lowered; and, 10 students in the class (4.5%) possessed adjustment levels that stabilised as medium, then decreased over time; 2 students who possessed high, drop adjustment level. Out of the 12 students who possessed poor mental health, 1 student (0.4% of the total sample) possessed stable adjustment level; 3 students' (0.9%) low adjustment level; 8 students (3.6%) followed high then decreased adjustment levels; and, 1 student (0.4%) followed well adjustment level. Out of the 4 students who possessed high mental health levels that gradually decreased, 3 (1.3%) students possessed stable adjustment; and, 1 students (0.4%) possessed low levels of adjustment. Graph 7 shows mental health classes among SA female students sample. Graph 8 shows different adjustment classes within good mental health class

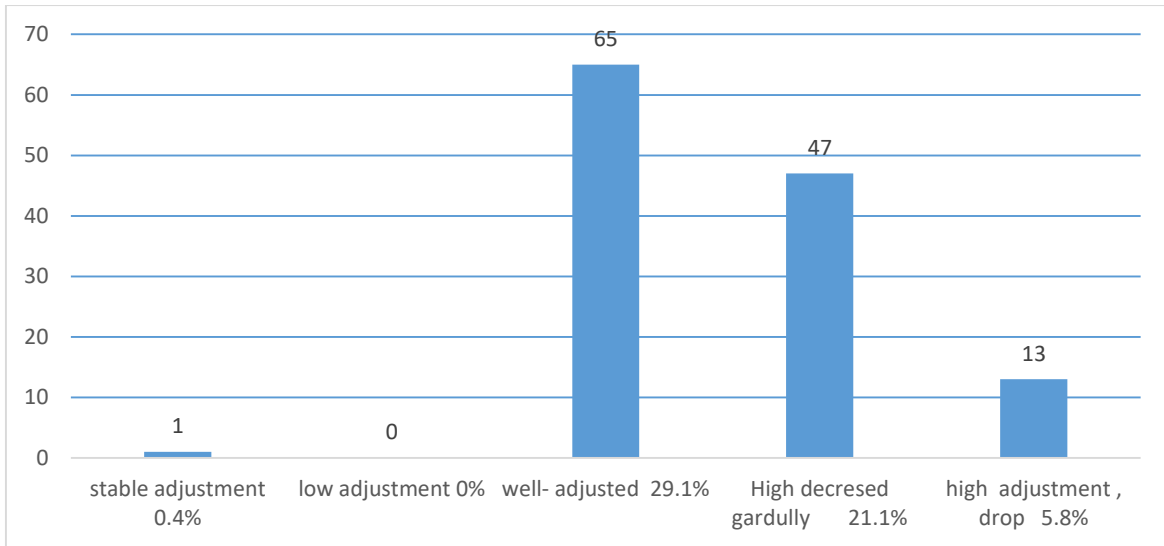
**Table (10): Cross tabulation of Mental health and adjustment classes**

Adjustment classes	Mental health classes				Total	
	Good mental health	Stable Mental health	Poor mental health	Very poor mental health		
Stable adjustment	1	4	1	3	10	
Low adjustment	0	0	2	1	3	
Well adjustment	65	63	8	0	137	
High adjustment (decreasing gradually)	47	10	1	0	58	
High adjustment , drop noticeably	13	2	0	0	15	
Total	N	126	79	12	4	223

*Graph (7) Mental health classes among SA female students sample*



Graph (8) Different adjustment classes within good mental health class



### **3.5.Discussion**

#### **3.5.1.Trajectories of mental health problems**

The current study aims to address the aforementioned gaps in the existing literature on mental health and the adjustment to university by examining both the trajectories of mental-health problems and the adjustment to university of first-year female students in Saudi Arabia. In this study, I set out to address three primary research aims. The study's first aim was to examine the trajectories of mental health problems and of the adjustment process during students' first year at university. This stage also examined whether factors such as social support, trait EI, ESE, and loneliness can distinguish different trajectory classes.

The findings indicate that the mean levels of mental health problems did not change significantly during the first year of university life among female students in Saudi Arabia. These results differ from the findings of earlier longitudinal studies conducted on a sample of UK-based students, which demonstrated that the overall levels of mental-health problems increased following their arrival at university (Andrews & Wilding, 2004; Bewick, Koutsopoulou, Miles, Slaa, & Barkham, 2010; Cooke et al., 2006). These divergent results may have a variety of explanations. For example, the period of the current longitudinal study may have been insufficient to detect changes in the participants' mental health. These findings may serve as a springboard to encourage future researchers to investigate the trajectories of mental health over more than a year.

Arguably, the results can be explained in light of the cultural factors within the SA context, as it is a country which is highly affected by stigma regarding mental health issues. Therefore, this may have an impact upon how much information students provide regarding mental health issues. Additionally, a number of other studies conducted (e.g., Aloud & Rathur, 2009; Amer, 2006; Erickson & Al-Timimi, 2001; Youssef & Deane, 2006), have found that admitting to being affected by mental ill-health is regarded as a source of shame, which, in turn, can have a negative impact on the social status of the

particular family involved.

Further, the results obtained in the current study indicate that students do not all necessarily follow the same trajectories over time. Variations occurred in the mental health status of the students within the different classes. These classifications included students with: a) good mental health; b) stable mental health; c) poor mental health; and d) very poor mental health. The results suggest that mental health issues do not present in the same way for all students, as important differences can emerge between them. It also highlights the importance of understanding students' mental health not only within the context of the entire student sample, but to also consider differences that many occur between the different subgroups.

Significant differences were found between these discrete classes within the study. A diverse range of variables, such as trait EI, ESE, social support, and loneliness were found to influence and determine differences between students in terms of their mental health trajectories. For example, students displaying a good mental health trajectory over the first year of university life reported the highest levels of trait EI, perceived social support, and ESE, and they had the lowest levels of loneliness. In contrast, students exhibiting poor and very poor mental health trajectories reported the highest levels of loneliness and the lowest levels of trait EI, perceived social support, and ESE.

These results suggest that trait EI, perceived social support, and ESE can perform a protective function in terms of reducing the risk of developing poor mental health over the course of a student's university experience. Upon examining the different variables in greater detail, trait EI was found to be the strongest variable to distinguish between the different trajectories the subgroups take in comparison to the other variables. Thus suggesting the importance of trait EI in determining students' mental health and in explaining the differences in mental health that can occur between students.

It should be noted that, although the results highlight that trait EI can perform a protective



function in terms of reducing the risk of university students developing poor mental health, these results may be partly explained by an overlap between mental health and the trait EI construct, as measured by the TEIQue (Petrides, 2009). For example, the TEIQue subscale item, which aims to measure wellbeing, may overlap with the assessment of mental health issues. For example, the results show that the correlation between the two constructs is within the .60 range, which signals a 36% shared variance (Ellis, 2010).

The finding of the present research regarding Trait EI, is in line with those of other studies that found Trait EI to be related to better mental health (Balgiu, Tebeanu, & Macarie, 2014; Davis & Humphrey, 2012; Fernandez-Berrocal et al., 2006; Mavroveli, Petrides, Rieffe, & Bakker, 2007; Shabani, Hassan, Ahmad, & Baba, 2010; Tsaousis & Nikolaou, 2005). Additionally, these results are encouraging regarding the value of EI as a plausible mental-health predictor. The pattern of findings may be explained using the assumption that all students possessing elevated trait EI believe themselves to be emotionally capable and in control, and may, therefore, be more effective at using coping mechanisms to deal with stressful situations, which ultimately improves their individual well-being (Por, Barriball, Fitzpatrick & Roberts (2011). Furthermore, Noorbakhsh, Besharat, and Zarei (2010) asserted that students with higher trait EI also typically used styles which concentrated on positive emotions and problem-solving, whereas those with low EI typically showed more negative emotional coping styles. The researchers suggested that coping mechanisms are effected by EI as far as evaluation, facilitation, utilisation, regulation, and management of personal emotions are concerned.

Regarding social support, the results indicate that students of the good mental health class reported the highest level of perceived social compared with the other classes. Students in poor and very poor mental health had the lowest level of social support. The pattern identified supports the findings of

other researchers, which indicate that social support can lower the risk of students' suffering from mental-health problems (Friedlander, Reid, Shupak, & Cribbie, 2007; Hefner & Eisenberg, 2009), and is in agreement with evidence that social support can be an indicator of a person's ability to cope with mental-health issues (Bolger & Amarel, 2007; Moak & Agrawal, 2010; Toa et al., 2000; Uchino, 2004, 2009). The findings of the present research, which show that social support can explain the variance between students' mental health over time, can be explained using the main-effect model of social support. This model suggests that social support has a beneficial effect by decreasing levels of stress, regardless of whether people are under stress. The model indicates that social support is advantageous at all times, irrespective of whether a person is experiencing stress (Cohen & Wills, 1985). Although the buffer model of social support (Cohen & Wills, 1985) can also be used to understand its effect by studying the mechanism through which social support can affect mental health by reducing stress. However, this study did not focus on studying the mechanism or the moderating variable that linked social support and students' mental health over time. Future research may examine the buffering model to investigate how social support can impact students' mental health by measuring stress and coping as moderating variables.

In addition, loneliness was found to account for a large variance between students' mental health over time. Students in poor and very poor mental health displayed the highest level of loneliness. While students in the good mental health class reported the lowest level of loneliness. These findings indicate that students' levels of loneliness at the start of university life can affect their mental-health status in the long term, serving as an indicator of mental-health status over time. These findings support previous longitudinal research that investigated the effects of loneliness over time and found that loneliness can largely predict mental-health problems (Goosby, Bellatorre, Walsemann, & Cheadle, 2013; Ladd & Ettekal, 2013; Qualter et al., 2013). Arguably, this may be explained by the fact that humans are social beings, and, thus, loneliness can generate a large amount of stress, which ultimately affects psychological

wellbeing (Goosby, Bellatorre, Walsemann, & Cheadle, 2013).

Regarding ESE, the results indicate that high ESE can associate positively with mental health, and it was also found to contribute to the variance between students' mental health. However, that effect of ESE on student's mental health was found to be less than other variables, such as trait EI and social support. The findings of this research align with those of Tahmassian and Moghadam (2011), who discovered that students with high ESE levels experienced less anxiety, depression, worry, and social avoidance than students with low ESE.

### **Summary of findings**

Taken together, the findings of the current study support the theoretical framework of the ecological model, which proposes that multiple factors operating at the individual, interpersonal, and institutional levels are related to overall mental health. In this study, diverse factors at various levels displayed an effect on the mental health of female Saudi university students.. At the individual level, the results show that trait EI and ESE are linked positively with students' mental health. At the interpersonal level, factors such as social support and loneliness also play an important role in students' mental health. In addition, as highlighted by the ecological model, all the factors from various levels interact with one another. Additionally, the results of this study indicate that all the variables of interest, which affect Saudi female university students at various levels, are significantly correlated to one another.

To sum up, results regarding the mental health trajectory of female SA students contribute to our understanding of mental health constructs among this specific cohort. These findings advance our understanding of trait EI, perceived social support, ESE, and loneliness by demonstrating that these theoretically and empirically associated variables are actually important factors, as they determine mental health trajectories among this SA sample. Also, these results build on the existing evidence regarding the way these constructs relate to mental health by demonstrating how their relationships interconnect over time.

### **3.5.2 Trajectories of adjustment to University Life**

This study found that the overall level of adjustment to university was initially high and then gradually decreased in the three-month period after commencing life at university. This pattern continued, with adjustment levels reportedly dropping completely following eight months immersed in university life. These results are in accordance with those reported by Pritchard and colleagues (2007), who discovered that adjustment levels fell throughout the first year of university. Nonetheless, the findings of the current study are opposed by other researches, in which the level of adjustment was initially low and gradually improved throughout the duration of the year. The findings of the present study, as well as that of Gall et al, differ from results found by Nightingale et al (2013) who found adjustment levels to be stable over time. Nightingale et al (2013) found that adjusting to university life in different countries may be the same throughout the initial induction phase, but the manner in which levels can change over time can differ between countries. The adjustment level was found to decrease over time in this study, indicating that students in Saudi Arabia may face multiple challenges when adjusting to the first year of university life, during which, some students were unable to cope. Thus, more research is required to gain a deeper insight into the factors influencing adjustment levels and what causes these to increase or decrease over time. It would be most beneficial to use qualitative research to gain a deep insight into such challenges and issues encountered by students in their first year of university life and determine how this impacts their adjustment ability.

The results indicate that distinct groups of students exist, based on their patterns of adjustment to university life over time, and which can be distinguished in terms of significant differences in trait EI, perceived social support, and loneliness. Trait EI was the factor that generated the largest variance, thus explaining the differences between the ability of female SA students in adjusting to university life. For instance, students assigned to the high-adjustment class, where their adjustment levels decreased or gradually dropped over the course of their first year of university life, demonstrated the highest levels of

trait EI as compared to the other classes. Whereas, students in the low-adjustment class reported the lowest level of trait EI. These results suggest that trait EI acts as a protective in terms of female SA students' ability to adjust during the first year of university life. These findings are in line with results reported by Nightingale (2013), whose study explored adjustment trajectories and discovered that trait EI can be of paramount importance in adjusting to university life over time, with respect to a UK sample population. The current findings extend our understanding of this relationship, as they reveal that trait EI is also an important factor in adjustment amongst female university students in SA. Significantly, the results obtained from this study advance our knowledge of whether individual difference variables, such as trait EI, operate in the same way, in terms of being a potentially protective factor for adjustment in a non-Westernised population.

Perceived social support was also found to explain the unique variance of adjustment to university among Saudi female university students. Students with high levels of perceived social support displayed better adjustment levels over the first year of university life. Although, there was a decrease in their adjustment level in almost all classes, which was found to be lower than students with low perceived social support. This result is in accordance with other researches into mental health, such as studies by Crede and Niehorster (2012), Friedlander et al. (2007), Sommer (2013) and Tao et al. (2000), which have demonstrated that individuals with social support will most likely adjust better than individuals with little social support.

These results contribute to the accumulating body of evidence which suggests that, perceived social support plays a positive and significant role in students' ability to adjust to university life. The current study advances our understanding of the long-term impact of perceived social support on students' mental health over time, which is, to the best of my knowledge, the first study to examine the association between perceived social support and the trajectories of adjustment to university life. Thus,

the current sample used in this research makes a further important contribution to this field of study. The results add to our knowledge of what factors are important and can relate to the mental health of a SA female student cohort.

Regarding the extent to which loneliness affects adjustment over time, the results show that loneliness had a similar strength effect as trait EI, which accounted for 30% of the variance between students in terms of their ability to make adjustments. Therefore, these results suggest that loneliness can be used as an indicator to assess students' ability to adjust to university life over the course of their first year. This is in accordance with the findings of Duru (2008), Sadoughi and Hesampour (2016) and Quan et al. (2014), who found a significant relationship between adjusting to university and loneliness, with students' adjustment being negatively affected by loneliness. Moreover, adjustment ability could be predicted in accordance with loneliness. Such effects have been discussed by Duru (2008), Sadoughi and Hesampour (2016) and Quan et al. (2014), all of whom explain that loneliness encourages a negative coping style, which will subsequently have a negative impact on an individual's adjustment.

Taken together, the results regarding adjustment to university support can be understood within the context of the transition theory of Schlossberg (1981), who explained that individuals adapt to change differently. Additionally, the same person may react differently to different types of changes or may react differently to the same type of change at different times in his or her life. Applied to the current study, the results indicate that Saudi female university students adjust to university differently. Additionally, distinguishing between trajectory classes likewise suggests that students react to the same situation differently. In addition, the results obtained from this study can be understood in light of the factors that Schlossberg (1981) identified as affecting adaptation. These include characteristics of the individual, among which trait EI was found to be a key factor impacting a student's ability to adapt to university. Also, the current study supports the importance of the characteristics of pretransition and posttransition environments. These include the concept of interpersonal support systems as identified by Schlossberg

(1981), who stated that these factors are essential for successful adaptation. Interpersonal support systems are composed of intimate relationships, the family unit, and one's network of friends. Applied to this study, the results show that perceived social support and loneliness can play an important role in explaining the differences Saudi female university students display in their ability to adjust to university life. This research advances understanding of whether individual difference variables such as trait EI, operate in the same way in terms of being a potential protective factor for adjustment in a non-westernised population

### **5-3.3 The Relationship between mental health and adjustment trajectories over time**

The findings from the examination of the relationship between mental health problems and adjustment to university life over time demonstrated that students with good mental health reported different patterns of adjustment. While initially, students with good mental health reported high adjustment levels, they decreased gradually or dropped over their first year at university. This was also true of well-adjusted or stably adjusted subgroups. These results suggest that even students with good mental health may, over time, experience some difficulties in adjusting to life at a university. The findings can also be understood from the perspective of the two different constructs that were used in the current study to investigate the mental health of university students: 1) changes in terms of mental health problems; and 2) adjusting to life at the university from an academic and structural perspective. Thus, these two constructs can be individually examined to assess the mental health of university students.

These results extend the current body of knowledge regarding the state of female university student's mental health. Additionally, the study's findings add to the literature relating to the mental health of university students, concentrating specifically on the relationship between mental health and adjustment to university life. It is imperative that studies investigate this relationship, as it is an important aspect of a student's success at a university. Significantly, these findings can be interpreted to suggest

that any form of intervention aimed at promoting the mental health of university students during their first year, has the potential to positively influence their adjustment trajectories, over time. Furthermore, an intervention or preparation programme to enhance a student's ability to adjust to university life must consider all students, even those with good mental health. Therefore, counselling centres in Saudi Arabia should consider the mental health trajectory of students and how it impacts their ability to adjust to life at a university.



## **CHAPTER 4: LITERATURE REVIEW (2)**

### **4.1 Introduction**

The following chapter is comprised of the literature review for study 2, namely, this thesis's qualitative component. The purpose of Study 2 was to explore four dimensions of mental health in university students, each identified and selected in accordance with the findings of Study 1, as well as the literature relevant to students' mental health. When combined with the longitudinal study previously carried out, this research will provide an in-depth understanding of mental health among university students and the factors that may affect their mental health. Furthermore, this study will contribute to current absence of literature pertaining to the mental health of an understudied population: female Saudi Arabian university students. The four key areas reviewed are: difficulties faced by female university students in Saudi Arabia, coping mechanisms typically used by students to face their challenges, barriers in accessing the relevant mental health services, and students' perception of counselling centres at university. How these four areas are linked to the longitudinal study, and the extent to which both pieces of research aid in achieving the overall aim of the research, can be explained in the following way:

As far as the exploration of difficulties faced by students is concerned, the findings of the longitudinal study indicate that, the level of adjustment to university was high at the onset of the university year. Subsequently, the level decreased after the first three months of university life, and this decline continued until the end of the first year. This result differs from those of other longitudinal studies, which found the level of adjustment increased towards the end of the first year (Gall et al., 2000), whereas the others found that the level of adjustment stabilises gradually (Nightingale et al., 2013). Potentially, these findings can explained by the possibility that there are various challenges or difficulties associated with university life. Students are faced with these challenges but are unable to manage them.

For example, different pieces of research (Aldiabat, Matani, & Le Navenec, 2014; Brandy, 2011; Flatt, 2013; Hicks & Heastie, 2008; MacKean, 2011) have found that the challenges faced by students during university life can affect a student's mental health and the extent to which they are able to adjust. The challenges faced by Saudi female university students are not yet known, nor is the extent to which these challenges impact their mental health or ability to adapt to life and university. The first stage in helping students to overcome these difficulties is to identify and explore the nature of these problems. After this has been conducted, researchers and practitioners can then develop interventions to address the issues based on the research findings.

The results from Study 1 suggest that trait EI and perceived social support can be protective factors against poor mental health. Previous studies have shown that these variables influence the student's coping effectiveness (Antoniou & Drosos, 2017; Davies & Humphrey, 2012; Petrides, Rieffe, & Bakker, 2007). Thus, this suggests that coping is a mediator variable that influences the mental health of students. Moreover, as coping ability is predictive of mental health, the coping strategy adopted by SA female university students is extremely significant. However, the methods used in study 1 provided insufficient depth or detail on the coping mechanisms used by SA female university students. As such, this qualitative study will focus on the coping strategies adopted by SA female students during challenging periods of university life. Although previous studies have been conducted in this field, to date, no study has considered the Saudi Arabian context. Indeed, the culture, values, norms, and beliefs of a nation can have an impact on the appropriateness of the coping response (Lazarus & Folkman, 1984). Therefore, as stated by Arab (2011), it is vital that we understand the coping strategies used by students within their cultural context, due to the cultural influences impacting coping response.

Regarding barriers in accessing the relevant mental health services, previous studies have shown that there is a higher risk of developing mental health problems amongst university students (Eskin et al., 2016). However, even when mental health services are available, previous research has indicated that

students fail to utilise these services (Eisenberg et al., 2007; Wang et al., 2000; Wu et al., 2007). Whilst low levels of mental health issues were reported by the students in Study 1, it is considered worthwhile to further explore the barriers to mental health service access for the following reasons. Firstly, the low levels of mental health problems recorded may have been inaccurate due to the study period being too short to detect the real situation, or students may have hidden their actual mental health problems due to the stigma surrounding mental health issues. In fact, this behaviour is commonly seen within the general population. Furthermore, it is worth considering that, even if the students were not displaying any negative impacts on their mental health at the time of the study, this does not mean that they will not suffer from mental health problems in the future. Moreover, all of the data gathered from Studies 1 and 2 focuses on the mental health of female SA students, which aims to guide mental health providers through the development of targeted mental health services. However, this cannot be achieved if there are barriers that prevent the students from accessing these services. Previous studies have shown that there are numerous factors that influence students and prevent access to mental health services. As yet, the factors influencing the decisions of SA female students has not been discovered. Therefore, the barriers to access mental health services for SA female university students will be considered in more detail. The lack of detail arising from Study 1 will be addressed, as it is considered critical to enhance our understanding of this issue, in order to enable the development of accessible mental health services and counselling services within universities and which students are willing to use.

Literature pertaining to the mental health of university students has identified that counselling centres are of paramount importance in aiding students in addressing their mental health issues and to adapt to university life. The results of Study 1 found that, for the majority of students, their difficulties adjusting fluctuated, becoming high then decreasing over time. Counselling is beneficial for students in many respects, including reducing their psychological stress, improving psychological resilience and creating a setting conducive to enhancing the students' academic performance. It can also help them to

remain at university and improve their academic achievement. Ultimately, it can improve their entire student experience (Al-Banna, 2001; Alotibai, 2015; BACP, 2012; Biasi, Patrizi, Mosca, & De Vincenzo, 2017; Connell, Barkham, & Mellor-Clark, 2008; McKenzie, Murray, Murray, & Richelieu, 2015).

In the Saudi Arabian context, no research is available that directly explores students' perceptions of counselling in national universities. The few studies that do exist have focused on counselling in the school setting (for example, the work of Al-Ghamdi & Riddick, 2011 and Alotabi, 2014a; 2014b; 2015). For this reason, researching counselling at a university level is highly worthwhile, as it may have theoretical and practical implications for students' mental health. Specifically, it could help counselling centres in terms of evaluating their services for students, to help them improve upon any weaknesses. It may also create a fundamental basis upon which future research can be conducted.

On the basis of the preceding arguments, this chapter will review following topic

## **4.2 Difficulties during life**

University years can be the most stressful event an individual confronts during their academic life, because it creates a broad range of challenges on many levels, including emotional, psychological and intellectual (Rodgers and Tennison, 2009). Certain features of university life have a distinctly negative impact on students' mental health and can be connected to the development of mental health problems at a later stage; for example, financial issues, the stress associated with sitting examinations, and the pressure to excel academically (Aldiabat, Matani, & Le Navenec, 2014; Brandy, 2011; Flatt, 2013; Hicks & Heastie, 2008). The first step which needs to be taken to improve students' wellbeing and mental status is to identify and recognize the issues they face at university. Once this is done, it might be possible to work with some of these factors to support the student learning experience and environment, which in turn may positively impact on mental health. In a bid to gain a fuller picture of the difficulties which face university students, a number of studies have set out to identify the challenges which students need to cope with, and to discover the impact these have on their lives.

In one study, Kupferman (2014) noted that students in the USA have a specific set of problems that contribute to increased feelings of loneliness: fierce academic pressure and competition (with important consequences), far less academic support than they enjoyed at high school, and staff who are less engaged with students than high school teachers and counsellors – a situation which can result in estrangement and loneliness as students move from the familiar school environment into what can appear to be an indifferent world. Hernandez (2002), Nunez (2005) and Urquhart and Pooley (2007) have all evidenced the difficulties higher education students have faced, and mentioned the dearth of assistance from tutors and fewer social bonds with them, the need to cope with unprecedented poor achievement, resolving issues with flatmates, making friends. Ultimately these studies identify multiple practical, social and emotional factors which may reduce mental health.

In additional studies, time management has also been found to cause significant difficulties and burdens. As Van der Meer., et al. (2010) found, tutors were perceived by students as having little regard for the various assignments they have to complete, with learners facing specific difficulties in self-guided learning and time management, resulting in problems with staying on top of assignments. Van Dermeer et al. (2010) noted that students are uncertain of how to regulate their work burden, even if they anticipated it. As Ang and Huan (2006) explained, tutors and family members can sometimes place a burden of anticipation on students, while they will also have their own aims and hopes, which all contributes to academic pressure.

In another study among 1455 US university students, fifty-three per cent stated that they were depressed following the start of their courses, believing that their learning challenges were the major cause (Furr et al., 2001). Rickerson et al. (2004) listed an array of challenges facing university students, such as apprehension over sitting an examination leading to physical and emotional incapacity to go through with the process. Further difficulties are: adhering to hand-in dates, the ordering of assignments in terms of priority, as well as their management, the general examination process, dealing with several

responsibilities at once, as well as time pressures. Academic factors contributing to pressure and mental health problems was an additional issue identified by Thawabieh and Qaisy (2012). Ultimately, this concerned anxiety over educational attainment and discontentment with the general higher education context. Physical pain, fatigue and insomnia were all difficulties identified by students as stemming from such variables.

In conclusion, the existing literature has identified academic concerns as contributing to significant difficulties and burdens among higher education students. Self-directed learning, inability to cope with unprecedented poor attainment, challenges with time management, strong competition and expectations of success are all examples of academic difficulties. Furthermore, the shortage of assistance and help provided by tutors, a lack of strong bonds with their tutors and a general absence of assistance from university staff are further challenges. Moreover, challenges in finding new friends, social isolation and economic difficulties can compound the problems faced. Ultimately, apprehension and concern over educational attainment can contribute to various psychosocial issues. Physical discomfort, fatigue and insomnia are just some of the health challenges that can result. Even so, the mental health of Saudi women students and the specific challenges that they are may face with an academic context remain largely unexplored.

### **4.3 Coping strategies**

According to Arnett (2000), the majority of young people find university life stressful. This is may be their first experience of having to take responsibility for their own actions, finding a social role, meeting academic standards, deciding on a future career path and getting ready for adult life. Faced with so many stresses and issues, students frequently resort to a number of coping strategies in order to manage their challenge and problems. This ability to devise a way of dealing with various forms of stress can help to decrease stress and safeguard their mental wellbeing (Mahmoud, Staten, Hall, & Lennie, 2012; Struthers, Perry, & Menec, 2000; Wang & Miao, 2009). Tao, Dong, Pratt, Hunsberger and Pratt (2000)

have determined that coping strategies are key to helping students deal with problems and life challenges and become integrated into a new setting, with its many stressful elements.

Coping strategies can be defined as behaviours and mental constructs which individuals embrace in order to overcome, accept or minimize events which they consider stressful (Sreramareddy et al., 2007). In their model of stress and coping, Folkman and Lazarus (1984) state that coping is an ongoing process of modifying thinking and behaviour in order to handle particular external or internal pressures, which are seen as exhausting or going beyond what the individual is able to deal with. The authors add that, according to their model, most coping strategies can be divided into two categories: the problem-focused or the emotion-focused. The former approaches the problem by maximizing the amount of information available in a bid to change views and make the individual more knowledgeable about the situation they are facing – which is seen as a problem that can be resolved, or an issue which demands direct action or a decision. This is dissimilar to the emotion-focused strategy, which sets out to minimize the amount of effective damage caused, but stops well short of redefining or changing the event in question. Emotional coping strategies include: blaming oneself, asking others for emotional backing and support, self-delusion and attempting to make light of the threat and see it as less damaging than is the case. Berjot and Gillet (2011) sum up the difference in these coping strategies by noting that emotion-focused strategies see problems as a threat, whereas problem-focused strategies view them as a puzzle, a challenge which can be overcome.

The literature shows that both problem and emotion-focused strategies have strong links with mental health and overall levels of wellbeing, but they are not equally effective. This has been verified by studies which examined university students, where individuals attempted to safeguard their state of mind and wellbeing by choosing a coping strategy – not all of which worked. For example, Molapsi (2009) found that for university students, coping by avoiding facing the problem and withdrawing into one's shell did not impact positively on individuals' wellbeing, and often led to depression. This finding

is similar to Bouteyre, Maure and Bernaud's (2007) study that determined the problem-focused coping strategy was effective in preventing depression while the emotion-focused strategy was a noteworthy forecaster of imminent depression. Deasy et al (2014) concluded that students use a range of coping strategies when they are under stress, including the seeking of emotional support from others, a problem-solving approach and escape-avoidance. Escape-avoidance is clearly connected to a high level of psychological suffering and can come in the form of substance abuse – tobacco, alcohol, drugs – or eating disorders (Deasy et al., 2014). A number of studies – Leong et al. (1997) Struthers, Perry and Menec (2000) and Pierceall and Kim (2007) – have demonstrated that the best way of integrating into university life is to be proactive and use the problem-focused strategy when faced with problems. They found individuals who do so have far fewer problems settling into university life and maintaining a healthy academic record and good relationships.

While problem-focused coping is advantageous and protects against poor academic and social functioning, in a recent study, Jensen, Forlini, Partridge and Hall (2016) found that the most widely used coping strategy in terms of university students was emotion-focused coping, specifically avoidance coping. This strategy is suitable for coping with any sources and types of stress which cannot be controlled and concentrates on minimizing the disagreeable emotions precipitated by the stressor in the short-term. Many students who use this emotion-focused avoidance-coping technique do find a degree of relief from whatever is causing them stress by simply concentrating on the feelings the stressor is creating (Snooks, 2009; Taylor, 2012 ). Since this approach works in the short-term, and makes students feel better, they tend to go back to it next time a similar tension enters into their lives (Jensen et al., 2016). Nevertheless, as noted by Fischer (2009), Leong, Bonz and Zachar (1997) and Molapsi (2009), these avoidance-coping strategies have a number of major side-effects, including depression, negativity, a drop in overall mental and emotional health and create a pattern of issue-avoidance. Kariv and Heinman (2005) and Pritchard et al. (2007) agree that students are inclined to adopt emotion-focused coping strategies



and practise avoidance techniques. Their conclusions are in line with the majority of research studies, which assert that university students use emotion-focused avoidance-coping strategies far more frequently than problem-focused strategies.

One of the variables which have been shown to have a major impact on coping strategy choices is gender. Doron et al. (2009), Frydenberg and Lewis, Madhyastha, Latha and Kamath (2014), Ptacek, Smith and Dodge (1994) and Ramya and Parthasarathy (2009) are all in agreement that female students prefer using emotion-focused coping strategies when faced with stressful situations, and turn to family and friends for emotional support and suggestions on how to act. Male students are far more likely to use problem-focused coping strategies than their female counterparts.

In reference to existing literature, coping strategies play a fundamental role in the mental health of students and their adjustment to university life. Interestingly, in accordance with such studies, not all coping strategies are equally effective at helping students to overcome their challenges. Considering that students during university years' experience immense pressure, they must be equipped with effective coping strategies to surmount such challenges during this period of their life. Furthermore, culture shapes the coping strategy that people use. Consequently, it is crucial to understand such SA female student coping strategies, how they help students to overcome challenges. Nevertheless, studies investigating coping strategies among female university students in Saudi Arabia are lacking. It is important to have a deep understanding of the coping strategies applied by SA students since the cultural background influences the type of coping used, and these are linked to their mental health and their ability to adjust to university life. Gaining an understanding of the different coping strategies used by this sample will be the first step in ensuring that all students are equipped with the appropriate skills to face university life, especially considering not all coping strategies are equally effective. The objective of these results is to inform future interventions for similar groups of students.

#### **4.4 Barriers to mental health services**

Mental health problems and symptoms of clinical significance are highly prevalent among young adults and adolescents, yet few of them seek help from mental health services (Wang et al., 2000; Eisenberg et al., 2007a; Wu et al., 2007). Eisenberg et al. and Wu et al. argue that the necessity for mental health services is usually disregarded by young adults, even by those showing symptoms of depression, anxiety and alcohol abuse who would clearly need such services. Moreover, as reported by Eisenberg et al. (2011), the proportion of students who received treatment for their diagnosed mental health conditions was just one-third. As suggested by Pietruszka (2007), it is necessary to identify and comprehend both the advantages of young adults of college age using mental health services as well as the barriers hindering them from doing so, so that service providers can offer improved assistance and ensure that individuals are comfortable in resorting to professional help to treat their mental health conditions if they need.

Previous studies have identified a wide range of barriers preventing young adults from using mental health services, with the stigma surrounding mental health being one major barrier highlighted by studies conducted in numerous countries such as Australia (Aisbett, Boyd, Francis, Newnham and Newnham, 2007; Barker, Olukoya and Aggleton, 2005; Boyd et al., 2007; Jorm, Wright and Morgan, 2007; Pedersen and Paves, 2014; Rickwood, Deane, Wilson, & Ciarrochi, 2005). According to Gary (2005), in the context of mental health, stigma represents discrimination, ostracization, avoidance and rejection of individuals with mental health problems on the basis of a series of negative attitudes, beliefs, perceptions and behaviours. Stigma often manifests as perceptions that people suffering from mental health problems lack competence and will-power and are incapable of taking care of themselves; such perceptions could foster the development of negative attitudes (Corrigan, Edwards, Green, Diwan, & Penn, 2001; Read and Law, 1999).

Additional barriers hindering young adults from seeking help for mental health conditions have also been proposed in the literature. Sawyer et al. (2000) conducted a mental health survey among 4500 young adults in Australia and found that the barriers mentioned most commonly were the high cost of mental health services, lack of knowledge regarding service access, requests for help that went unanswered so the individuals took it upon themselves to deal with their problems, long waiting times to get service access, attendance refusal, long distance to travel to access services, perceptions about lack of treatment efficiency and fear of the reaction of family and friends. In addition, Fox, Rovnyak and Barnett (2001) reported that among individuals living in rural areas, the difficulty of accessing mental health services, in terms of time, transport and cost, were the main barriers to service use. Other studies indicated that confidentiality was the main barrier keeping young adults from using mental health services (Donald et al., 2000; Wilson & Deane, 2002).

In their survey among high school students, Wilson, Rickwood, Ciarrochi and Deane (2002) identified anticipated shame and embarrassment, time or financial limitations, and the fear of being misunderstood or being subjected to pressure by mental health providers as the main barriers that were cited. Several studies proposed ignorance about mental health services as another barrier keeping young adults from using these services (Barker, Olukoya and Aggleton, 2005; Rickwood, Deane, Wilson, & Ciarrochi, 2005; Rickwood, Deane and Wilson, 2007). Further, other significant barriers to attendance at mental health services were identified to be the belief held by individuals that they could deal with their issues on their own, emotional limitations, and negative perceptions of mental health services (Rickwood, Deane, Wilson, & Ciarrochi, 2005; Rickwood, Deane and Wilson, 2007).

Based on the review of studies among university students, Vidourek, King, Nabors and Merianos (2014) found that stigma was the major barrier hindering individuals from using mental health services; individuals stated that they were embarrassed, afraid of being considered 'crazy', or they simply refused to believe they had any mental health problems. Meanwhile, Eisenberg, Downs, Golberstein and Zivin

(2009) observed that perceived stigma made students less likely to talk about their mental health issues because they were embarrassed and afraid of what others would say if they sought professional help.

In addition to stigma, university students were found to be prevented from using mental health services by lack of insurance, refusal to seek help, and a desire to avoid having to take drugs (Vidourek, King, Nabors and Merianos, 2014). The six main barriers to using mental health services that were identified by Eisenberg et al. (2011) in their research on university students were self-reliance in managing mental health issues, time limitations, doubts about the efficiency of the services in solving their problems, beliefs that stress was common and that the issues would go away on their own, financial limitations, and fear of others reaction.

Besides the above-mentioned factors, Mowbray et al. (2006) proposed a lack of confidence in mental health providers as an additional barrier to the use of mental health services among students. Individuals might perceive professionals working in mental health clinics on campus as disagreeable and hostile, while the time that they had to wait to access the services might be discouraging as well. Lin (2001) carried out research among university students in Taiwan and identified the primary barrier as being reticence to access mental health services owing to the perception of the lack of severity of problems, supportive social circles, self-reliance in addressing problems, embarrassment of talking about their issues, and/or uncertainty about confiding in professionals.

The barriers preventing female university students in Saudi Arabia from accessing mental health services have not been investigated so far. Nonetheless, some barriers may be conjectured. For instance, use of mental health services may be particularly difficult for female individuals since they are not allowed to drive in Saudi Arabia and public transport is inadequate (Al-Ghamdi and Beloff, 2014). Furthermore, unavailability of female professionals may also hinder females from seeking help, either due to their own refusal or that of their male guardian to consult a male professional (al-Shahri, 2002). It is thus clear that knowledge of barriers to the use of mental health services in Saudi Arabia is necessary

and the lack of it constitutes a significant gap in the current mental health research in Saudi Arabia (Qureshi et al., 2013).

#### **4.4 Students' perceptions of university counselling centres**

Counselling can be of great significance for students in many ways, such as by limiting psychological distress, enhancing psychological resilience and developing a setting conducive for improving students' academic performance (Al-Banna, 2001; Alotibai, 2015; Connell, Barkham & Mellor-Clark, 2008; McKenzie, Murray, Murray & Richelieu, 2015). The British Association for Counselling asserts that key goals of specific counselling relationships can vary in accordance with clients' needs. Some examples of aspects that they may focus on include developmental concerns, addressing and resolving specific issues, decision making, dealing with stress, enhancing personal insights and understanding, and managing feelings of inner conflict or improving individuals' relationships with others. It is the counsellor's responsibility to enable the client to achieve such things, but simultaneously respect the clients' values, personal resources, capacity and self-determination in doing so (The British Association for Counselling, 1993).

With particular reference to the university counselling centres in general, the service's fundamental objective is to aid students in dealing with life in college. Counselling centres have many services available to the learning community, such as individual, group and couple therapies, to aid with a variety of issues, from chronic mental illness to more common adaptations to student life, crisis interventions, consultation services for faculty staff and students and finally, outreach and education services for the university community (Al-Banna, 2001; Nelson, 2003). Moreover, Buchanan (2012) points out that the counselling services offered by universities provide students with guidance and support in order to limit stress and are typically the first mental health services experienced by young adults. If students do not receive such services, either because of the aforementioned barriers or because

services are simply not available, then it is likely that their problems will not be clinically addressed until later in their lives.

Research evidence has offered insight into the ways in which university counselling centres can help students throughout their university life. An example of this was Connell, Barkham, and Mellor-Clark's (2008) research, which investigated data from seven UK student counselling services that applied the Clinical Outcome in Routine Evaluation (CORE) System. This system assesses depression, anxiety, trauma, physical issues, close interpersonal relationships, general subjective wellbeing, general day-to-day functioning and risk to self and others during a routine assessment of their services. The findings showed counselling to be effective, with 70% of clients whose outcome measures were accessible showing significant improvement between the onset of therapy and period after therapy according to the Clinical Outcome in Routine Evaluation. Nonetheless, according to the ratings of depression and anxiety given by practitioners both before and after therapy, the students who showed the greatest improvement were those who completed a counselling course.

More recently, in 2016, Murray, McKenzie, Murray, and Richelieu found evidence supporting the effectiveness of university counselling interventions. They assessed 305 students from a large British university counselling service. Following counselling intervention, a great improvement in the CORE Outcome Measure scores was seen in 63% of the students, with only 2% showing signs of deterioration. Furthermore, of the sub-group of students whose initial score fell within the clinical range, 49% demonstrated a clinically significant change.

These results are similar to those of Biasi, Patrizi, Mosca and De Vincenzo (2017), who discovered that there were positive, statistically-supported improvements in students who had successfully completed therapy and undertaken three months of follow-up sessions. To be precise, there was a significant improvement to issues relating to anxiety, depression, withdrawal tendencies, somatic issues, attention, hyperactivity, aggression and transgression.

The British Association for Counselling & Psychotherapy (BACP, 2012) carried out a large investigation on 5,537 students from 65 British universities and FE. It was revealed that more than 75 % of students involved who had undertaken counselling had been aided by the counselling received, either in terms of helping them to remain at university, improving their academic attainment, enhancing their overall student experience. Furthermore, this research highlighted some factors that showed counselling to be unhelpful, although these were, for the most part, related to service characteristics, particularly the limited number of sessions offered, waiting time to start therapy, insufficient early or late appointments available to suit students working or individuals living far away, sessions that were not long enough, and the public nature of the waiting area. Some students pointed out factors such as the counselling approach as being unhelpful, such as the lack of direction from the counsellor, inadequate focus on developing solutions or active coping strategies, lack of emotional containment when sessions ended, and counsellors using too much of 'just listening' approach. The negative issues highlighted in this research were in line with the findings of other studies. For instance, Yorgason, Linville and Zitzman (2008) studied the knowledge level and uptake of mental health support services in US universities. They discovered that many students did not even know that the services existed, and some of those who did know of its existence still lacked specific and relevant information about them. Furthermore, several students stated that the information they did receive did not offer adequate detail to help them to refer themselves to the service. Rosenthal et al. (2006) found similar results when investigating students in an Australian university with students showing poor knowledge or understanding of the counselling services. For example, they were unsure of how to make an appointment, did not know where the service was located and were unaware that the service was free. Moreover, there were numerous cases in which students were not aware of the service's existence. Similar findings were obtained by Strepparava et al. (2015) when investigating the same phenomenon among university students in Italy. However, they discovered that only a small amount actually undertook the counselling process. Strepparava et al. pointed out that

there may have been numerous reasons for this, such as students' overestimation of their own ability to deal with problems, a tendency to be in denial about problems, failure to attend the preliminary consultation, a desire to avoid the perceived stigma of using mental health services and a lack of awareness regarding such services.

Although some studies have investigated the development of counselling centres for students and the role played by counselling in the context of Saudi Arabia, such studies are limited in number, and in any case, focus on school communities rather than universities. Alotaibi (2015) found that different factors affect students' counselling in Saudi Arabia to those that are of relevance in other countries, as Saudi Arabia is less established and still developing in this respect. These factors included an absence of incentives and funding both from the government and the schools themselves. Furthermore, although many Saudi public and private schools do provide student counsellors, however, those that there are often have inadequate professional qualifications, training or expertise (Alotaibi 2014a; 2014b). Understaffing is also an issue for Saudi student counselling; for instance, it is possible that there will be one student counsellor for 1000 or more students. In Saudi Arabia, there are no student counselling qualifications that can be achieved, and there are also no national student counselling associations, societies or organizations in the country like the UK's BACP (Alotaibi, 2015). Moreover, Alotaibi (2014a; 2014b;; 2015 ) highlighted that practical and culture issues play a huge part in influencing the development of student counselling in schools in Saudi Arabia. Practical issues may concern aspects such as lack of funding for such services, insufficient administrative support and unmotivated counsellors. Alotaibi also indicated that student counsellors do not often receive support from other teachers or parents.

A further issue relating to counselling students in Saudi Arabia is the negative perceptions of student counselling by headteachers, which often has a significant negative effect overall on how other individuals perceive student counselling in Saudi Arabian schools (Al-Ghamdi & Riddick, 2011). In other words, if the principal does not understand the importance of student counsellors in schools, then



it is incredibly difficult for student counsellors to work effectively because they may be uncertain of their role and importance. In accordance with issues faced by student counsellors, Al-Ghamdi and Riddick (2011) thus advised that awareness of counselling services must be increased by all school stakeholders if the overall quality of counselling services is to be improved in schools in Saudi Arabia.

Although the above research demonstrates examples of studies into counselling in Saudi schools, there is no research available that directly investigates the role, experiences of and awareness of students counselling in Saudi universities. For this reason, this is an area that requires further extensive research in order to improve the lives of students in both psychological and educational aspects.

#### **4.5 Gaps in the current literature**

Although research has identified various difficulties, coping strategies and barriers relating to mental health services among university students in many countries, there is yet to be any research that focuses specifically on females in the Saudi Arabian context. The primary aspects to address are the nature of the difficulties experienced, coping strategies and barriers to mental health services. Furthermore, no studies have yet explored the role or students' experiences of student counselling centres in Saudi universities and thus this is another area that requires further research in order to improve student life for Saudi students from both psychological and educational perspectives.

The present research will thus attempt to obtain a comprehensive insight into four issues among female Saudi students: nature of the difficulties experienced, coping strategies, barriers facing the mental health service and the student perception about counselling centres in Saudi Arabia. Such students will likely have information that could really aid in encouraging the development of student counselling. The findings can be used for further research and by counselling centres to develop effective interventions for students.

## **CHAPTER 5: QUALITATIVE EXPLORATION OF MENTAL HEALTH ISSUES IN SAMPLE OF YOUNG WOMEN IN SAUDI ARABIA**

This chapter includes a qualitative study that aims to cover the gaps regarding four areas in the literature that were previously discussed in chapter four. These issues are all important for our understanding of the mental health of university students. The four key areas that were explored are: difficulties faced by female university students in Saudi Arabia, coping mechanisms typically used by students to face their challenges, barriers in accessing the relevant mental health services and the students perception of university's counselling centres .

### **5.1 Research questions**

The present study seeks to address the following research questions:

1. What difficulties face Saudi female university students during university life?
2. What coping strategies have students used to face their challenges or problems?
3. What are the barriers to accessing to mental health services among such students, if there are any?
4. What are these students' perceptions about the counselling centre in their university

### **5.2. Methodological approach**

The current study adopted a qualitative approach. There are two overarching reasons for selecting a qualitative design: firstly, due to the aim of thesis; and secondly, due to certain aims of this element of the thesis. Regarding the first overarching reason, the rationale can be separated into two further issues: on the one hand, the ability that qualitative designs have to comprehensively examine people's accounts

of their experiences in particular situations and environments; and on the other hand, the ability that qualitative designs, when combined with quantitative designs, have to facilitate the collection of a complementary data type, which in this thesis, will enable the researcher to triangulate and further illuminate the factors that affect university students' mental health. Regarding the second overarching reason, the rationale can again be separated into the following issues: firstly, the fact that qualitative designs provide a "thick description", primarily because they deepen the broad understanding offered by quantitative designs; secondly, that qualitative designs can identify the processes which result in particular outcomes; and thirdly, that qualitative data can illuminate individuals' perspectives, perceptions, and attitudes.

Regarding the ability that qualitative designs have to inform researchers' understanding of the "whole person" within their natural environment (Gelo et al., 2008), contextualisation of subjective experiences is a key intention for researchers who are implementing these approaches (Crowe, Inder, and Porter, 2015). Although the four main issues examined in this research project have been investigated in Western countries, research in the KSA is scarce. Therefore, a qualitative study in this area represents an attempt to gain insight into the distinctive experiences of Saudi students, especially through a culturally-sensitive investigation of female students' perspectives, experiences, and understanding. As such, conducting a qualitative study represents a significant approach to achieve the overarching aim of this thesis, namely, to identify what factors affect the mental health of female university students in the KSA, and to ascertain what the main influencing factors are.

In regard to the issue related to the first overarching reason for selecting a qualitative design, it is important to note that, alongside quantitative data and quantitative analysis, collection and analysis of qualitative data can provide a different perspective of the factors that affect Saudi university students' mental health. By considering these two types of data together, a comprehensive sense of the research

issue can be gained, more complete than either one in isolation (Johnson, Onwuegbuzie & Turner, 2007). This will aid in accounting for the research gap, especially as the existing research in this field is limited.

In terms of the first issued related to the second overarching reason, it is worth noting the importance of the “thick description” outlined by Geertz (1970), which qualitative inquiry facilitates. In particular, as noted by Palinkas et al. (2011), qualitative initiatives are valuable ways to aid in interpreting the broad results from quantitative research. Hence, qualitative elements are incorporated into this study to complement the quantitative elements. This issue is directly relevant for the first two aims of the present dissertation, which involve determining what difficulties female university students in the KSA encounter over the course of their university life, and alongside this, to identify the main coping strategies they employ. As such, qualitative research will aid in understanding why the level of adjustment to university life among these students has been found to decline over time.

As previously noted, an important strength of qualitative research designs is that can provide greater detail regarding people’s experiences of a process which result in particular outcomes, something that is rarely possible with surveys or experimental research (Maxwell, 2004). Due to this advantage of qualitative research, it will be possible to achieve the second aim of the present dissertation. Based on the results from the first study, trait emotional intelligence (EI) is a crucial factor that informs mental health. In particular, the findings suggest that when individuals have high trait EI, their coping strategies are likely to be more effective, thereby positively affecting their mental health. As such, it is reasonable to suggest that coping strategies play a useful part in reinforcing students’ mental health, and so conducting a qualitative study will aid in determining whether this indeed accurate.

The final reason for utilising a qualitative design alongside a quantitative design in this research, stems from the fact that it illuminates the perspectives, attitudes, and experiences of the sample group.

Primarily, this is due to the fact that qualitative data informs researchers as to the subjectivities of the participants, enabling participants to highlight their own concerns, unconstrained by the categories devised by the researcher (Sofaer, 1999,p 1105). Therefore, qualitative data are expected to supplement the researcher's awareness of university students' perceptions of counselling services, as well as the obstacles that exist in terms of students' access to necessary mental health services. Providing the opportunity for participants to speak openly about this issue is expected to increase the sensitivity of this research to the students' perspectives, attitudes, and experience.

### **5.3. Method**

#### **5.3.1 Participants**

In the current study, 15 female Saudi university students were selected randomly from those students that participated in the longitudinal study. The randomisation method employed the use of Excel to choose 15 students at random to take part in the study. Therefore, once the first 15 students had been identified by the researcher, each received emails inviting them for further participation in the research. Students who had not replied to the email after one week were sent a further email as a reminder, and if the second email was still not responded to, it was assumed that the participant had declined to proceed any further. Following this, other students were randomly selected using Excel. This process was applied until a final sample comprised of 15 students had been recruited. Notably, positive responses were not obtained from the first 15 participants, since only 4 accepted the original invitation to participate. The number of students who declined to participate by the time the 15-participant sample had been recruited amounted to 17. It is also worth mentioning that no students who agreed to participate subsequently withdrew or failed to attend the interviews. (Appendix 9 displays participant information)

### **5.3.2. Data collection**

This study used interviews that had been arranged with each participant via Skype. Interviews were utilised as a data collection method in this thesis for several reasons. First, for qualitative designs, interviews can provide a more thorough understanding of the perceptions and experiences of the participants (Taylor and Bogdan, 1998). Therefore, the use of interviews in the qualitative component of this research will aid in illuminating the hardships encountered by Saudi university students at university, their coping strategies, and their perception towards university counseling centres. Second, as noted by Patton (1990), interviews provide valuable opportunities for researchers to engage with participants' opinions and experiences in a real-world setting. Hence, the use of interviews represents a useful way to engage deeply with the participants through suitable questions. Finally, interviews can facilitate the collection of data that is specific to a certain cultural context, and when the participants interact openly with the researcher, this can aid the study by inferring additional details from their personal comments (Arksey & Knight, 1999). Since the participants in this research are Saudi students, the distinctive context represents a suitable opportunity to utilise interviews to collect data in a sensitive manner.

According to Bryman (2004), the main types of interviews for research projects in the social sciences, each marked by a different structure and level of control for the researcher, are the following: firstly, structured interviews, which are relatively inflexible data collection methods where pre-made questions are posed to the participants, most being closed-ended (Berg, 2007); unstructured interviews, where typically unplanned and open-ended questions are posed to participants, and minimal limitations are placed on how the participants should respond (Gubrium & Holstein, 2002); and finally, semi-structured interviews, which utilise a combination of closed-ended and open-ended questions to strike a balance between the structured and unstructured types. Given the flexibility for follow-up questions that characterises semi-structured interviews, paired with the benefits of advanced planning in terms of the

questions that will be asked (i.e., in the form of an interview guide, which serves as a schematic presentation of the topics and questions that the interview will examine) (DiCicco-Bloom & Crabtree, 2006), semi-structured interviews were selected for the qualitative data collection in this study.

According to Edwards and Holland (2013), semi-structured interviews are effective choices, when the interviewer already possesses a relatively clear idea of the topic and issues they intend to discuss with the interviewees, and when the interviewer aims to collect data in an adaptable manner. While an interview guide is developed before the interviews are conducted, semi-structured interviews enable the interviewer to respond flexibly to the responses provided by each participant (Adhabi & Anozie, 2017). Such interviews can be conducted one-to-one or in groups, but the in-depth nature of the former means that these are the optimal choice for most researchers when collecting qualitative data (DiCicco-Bloom & Crabtree, 2006). With these considerations in mind, namely, of the flexible, open-ended, and in-depth nature of one-to-one semi-structured interviews, the decision was made to employ this interview type, since this was identified as the most effective way to achieve the aim of thesis. In particular, this data collection method was recognised as the key approach to illuminating contradictory and nuanced perceptions, attitudes, and experiences regarding the issue of university students' mental health. Another noteworthy point to emphasise regarding semi-structured interviews, is that they are beneficial for exploratory research projects, especially when a set of pre-codes cannot be prepared in advance (that is, due to the lack of knowledge in the targeted topic area) (Fox, Hunn, and Mathers, 1998). Since the existing literature is scarce pertaining to the four gaps in the literature identified previously, the use of semi-structured interviews represents a viable approach.

It is also worth emphasising that the opportunities for highly-sensitive and effective quality data collection provided by semi-structured interviews is another reason why they were chosen for the qualitative component of this thesis (Green & Thorogood, 2011; Richie and Lewis, 2005). The questions

contained in an interview guide can be posed in any order, thus enabling the interviewers to draw attention to areas they feel are important, and to make independent judgements regarding the significance of each proposed topic area (Green and Thorogood, 2011; Richie and Lewis, 2005). Since the area of discussion is characterised by a high level of sensitivity, especially issues such as the obstacles to mental health services and perceptions of university counselling services, the participants will be given the opportunity to rest and also ask prompting questions.

Once the decision was made to conduct semi-structured interviews, an interview guide was established (see Appendix 8), which outlined the structure of each interview, and the relevance of the interviews for the dissertation's research questions, aims, and objectives (Ryan, Coughlan, & Cronin, 2009). It should be noted that, for this dissertation, when designing the interview guide, the results from the quantitative phase, outlined in Chapter 4, were taken into consideration. As for the nature of the schedule itself, this was as follows, and it was designed in line with the recommendations of Legard, Keegan, and Ward (2003): firstly, an introduction, in which interviewees are informed of the aim of the research, as well as certain formalities (e.g., that the interviews will be recorded); secondly, opening questions, which are non-threatening, relaxed, and fairly straightforward (Ryan, Coughlan, & Cronin, 2009), and which focus on the collection of issues such as the participants' demographic and sociodemographic characteristics (e.g. in this study questions such as "what are you studying?" were used ); thirdly, core questions, focusing on in-depth data collection for each aim, and making full use of follow-up questions (Legard, Keegan, & Ward, 2003); this section in the current interview guide covered four primary areas: the students hardships in the course of university life; the main coping strategies utilised to overcome challenges, as well as the barriers to mental health services; the part played by university counselling centres; and, the students' perceptions of their university's counselling services and finally, concluding remarks, where the interviewer asked participants whether they have any further



comments, and finishes by thanking them for their participation. Interviews were conducted in Arabic as this was the participants' first language. The interviews ranged in length from 38 to 46 minutes.

### **5.3.3 Analytic procedure**

Thematic analysis (TA), a method used for discovering, analysing and reporting patterns, or themes within data (Braun & Clarke, 2006), was applied in this study. The primary reason this method has been selected is its flexibility, that is, to each context, of thematic analysis, paired with its accessibility, in that it does not depend on specialist knowledge (Braun & Clarke, 2006). Thematic analysis can be tailored to each implementation context, thereby offering a significant level of practical assistance for mixed methods designs. Another reason that thematic analysis is flexible stems from the way in which the coding and analysis processes can be either inductive (data-driven) or deductive (theory-driven). As a result, researchers can ensure that the thematic analysis process is aligned with their research questions. In the case of inductive approaches, data should be coded without considering predetermined codes, thus conforming to a data-driven strategy in which the emerging themes may not be closely related to the interview questions (Braun & Clarke, 2006). By contrast, deductive approaches to the thematic analysis instead structure the process around a theoretical framework, often derived from the extant and related literature. One of the characteristics of deductive, theory-driven thematic analysis is the way in which the entire data set is often not considered, and the research question itself plays a key role in identifying the themes derived from the non-statistical data (Braun & Clarke, 2006). While the richness of the resultant thematic analysis tends to suffer from a theory-driven approach, it facilitates a clearer, deeper engagement with certain elements of the data (Braun & Clarke, 2006).

With the above considerations in mind, thematic analysis represents a flexible tool that is beneficial for this thesis, especially given the choice between deductive or inductive thematic analysis.

In this case, the deductive approach was chosen as it will enable the researcher to engage more deeply with issues that emerge from the quantitative phase. As such, information can be identified that is tailored to the research questions and objectives, thereby aiding in drawing a connection with the literature review of students' mental health, as well as the main results of the longitudinal study.

As previously noted, the accessibility of thematic analysis, which stems principally from the negligible requirement for advanced knowledge (Braun & Clarke, 2006), is one of its defining strengths, and this is an important fact given that it will be the first time I have used the approach. It is also worth noting that, because thematic analysis is simply a data analysis technique as opposed to being an overall technique for conducting qualitative research, its accessibility will allow the research to gain straightforward data from the mixed methods design used in this thesis.

The process of analysis applied in this study was in accordance with the stages expounded by Braun and Clarke (2006) as follow: The initial stage was to absorb each of the interviews in a more in-depth manner by transcribing them, reading the resulting script several times, taking initial notes, then writing down any ideas that emerged in response to increased familiar of the interview contents. Subsequently, a series of codes were generated by coding the data line-by-line (a sample of the coding transcripts is presented in Arabic and English in appendix (10) and (11)). Once all the data had been coded in this manner, abstract codes were produced. Following this process, the abstract codes that were relevant to the research interest were grouped together in order to identify themes associated with the research questions. Next, the themes and sub-themes were identified and then reviewed by comparing them in relation to the coded extracts and comprehensive data set; this ensured that all relevant data were associated in the first instance with the individual codes, then with the themes and sub-themes. At this stage, I discussed the findings with my supervisor in order to enhance the reliability of the data. During the review stage, certain themes were found to be a better fit and associated with other research questions.

For example, the theme 'prefer to turn to religion' was a candidate theme originally classified under 'barriers to mental health services' but when reviewed with the entire comprehensive data set it was found to fit better with 'coping strategies for mental health problems' rather than 'barriers to mental health services'.

Following this, the themes and sub-themes were defined and named. During this stage, the explanation that emerges from the analysis is told in relation to each highlighted theme, with its categorisation and characterisation clarified. Finally, in order to evidence and illustrate the themes, reference is made to the transcripts for each theme and sub-theme.

#### **5.3.4 Ensuring Data Quality: Trustworthiness and Ethical Considerations**

The purpose of this section is to provide an overview of the measures taken to heighten the trustworthiness and credibility of the research. For the most part, these measures were concerned with ensuring that the data collection and analysis procedures were transparent, comprehensive, and systematised.

The methodological soundness of the research was assured by considering the quality criteria for trustworthiness and transparency in qualitative research (Guba, 1981). Specifically, these criteria include credibility, dependability, and confirmability. In the case of credibility, credible research projects are those in which the “truth value” of the participants is reflected (Lincoln & Guba, 1985). Whilst dependability is considered the degree of alignment that exists between the participants’ perspectives and the way in which these are represented by the researcher (Tobin & Begley, 2004). In addition, confirmability is a measure of the degree to which the researcher’s findings and interpretations can be traced back to the data themselves (Tobin & Begley, 2004). There are five key ways in which the credibility of this research project was enhanced: According to Shenton (2004), it is always necessary

for researchers to develop an awareness of the culture of the participants prior to initiating data collection. Therefore, it is worth noting that, in this qualitative research project, the researcher and the participants all came from the Kingdom of Saudi Arabia (KSA), and thus shared the same culture and society. Additionally, I have served as a psychologist for a university's counselling centre, thus I have an in-depth and personal understanding of the research issue, namely, mental health among university students and the nature of university environments. With these issues in mind, the credibility of the research was improved because the researcher was familiar with the participants culture, and the research topic itself (Ashworth, 1997). Furthermore, since the dynamic social world usually imposes its meanings on the research, often countering the researcher's initial expectations, the nature of the researcher's background had a positive effect on the credibility of the research (Ashworth, 1997). It is also important to recognise that in some cases, interviewing or observing participants can transform the lived experience of the researcher, especially in terms of becoming more like the participants. This can serve to close the distance between the researcher and the participants, thus safeguarding against a situation in which the research fails to interpret the participants' reality. Therefore, in this study, it is reasonable to conclude that the researcher's interpretation is reflective of the reality of the participants, and thus, can be considered credible (Ashworth, 1997)

As noted by Tobin and Begley (2004), transparent, orderly, and well-documented research procedures can aid the degree to which a research project is credible. Therefore, for this qualitative study, all relevant research processes were documented, including the rationale, the selection of the research approach, the justification of the study's aims, the data collection methods, the data analysis techniques and sampling strategy, and each stage involved in the thematic analysis outlined by Braun and Clark (2006). A probability sampling strategy, namely, simple random sampling, was used to recruit the sample, thereby promoting the sample's representativeness for the target demographic, as well as the

even distribution of unclear influences within the sample (Preece, 1994; Shenton, 2004). This is particularly notable given that most qualitative research designs draw on purposive sampling strategies. Due to this decision, bias in the construction of sample was mitigated significantly (Shenton, 2004).

The use of several data sources and methods permits triangulation (Padgett, 2008), which itself promotes the credibility of a research project. As outlined in greater detail in Section 5.2, multiple sources were used to illuminate any given issue, and therefore, this arguably improved the credibility of the research. (5) Discussion of the study's findings against those reported in the existing literature, thus determining the level of consistency that exists between the two sets of data, can also enhance credibility (Shenton, 2004). The results of the current study are discussed in light of other findings reported in the existing literature; which is presented in Section 5.3.

As previously noted, dependability is a measure of the degree to which the reported research findings are consistent with the actual attitudes, experiences, and perceptions of the participants (Lincoln & Guba, 1985). Importantly, dependability is a key criterion for evaluating the quality and suitability of the research process (Mertens & McLaughlin, 2004). According to Polit et al. (2006), Shenton (2004) and Streubert (2007), readers can be assured of the dependability of a qualitative research project when adequate details regarding the research design and its implementation are given. In this research project, a holistic survey of the selected qualitative research design was presented in Section 2, along with a discussion of how it aligned with the study's aim. Additionally, a full account of the data collection, data analysis, and sampling procedures was provided, which also presented the rationale for utilising thematic analysis.

Regarding the issue of confirmability, it was stated above that a research project's confirmability is a reflection of the degree to which its findings have clearly been produced as a result of the data

collected (Tobin & Begley, 2004). With this in mind, demonstrating the confirmability of a qualitative study requires that the research substantiates the process by which their interpretations and findings were arrived at. According to Koch (1994), one of the priorities of all researchers should be to outline the rationale for every decision made over the course of the research process, and notably, this recommendation was conformed to in Section 5.3.2; 5.3.3. In particular, the justification for using semi-structured interviews for data collection, as well as thematic analysis to explore the data, was introduced.

Lastly, given that this qualitative research project was concerned with collecting data from human participants, a range of ethical considerations had to be taken into account, each with concrete implications for the techniques and procedures adopted throughout the research (Cohen et al., 2007). Therefore, the researcher carefully considered issues of voluntary and informed consent, anonymity, and data confidentiality, ensuring there was no violation of the participant's human rights and conforming to recognised ethical standards (Patton, 2002). In the current study, an information sheet was sent to participants describing the purpose and importance of the study, the data collection, and the procedures taken to ensure their anonymity. The participant was also asked to acknowledge that their participation is voluntary. Participants were informed that they may withdraw from participation without explanation within 48 hours of the interview. All participants were asked to sign the consent form and return it prior to the interview.

## **5.4 Result**

### **Theme 1: Study-related Difficulties**

When students asked about whether there are any challenges they face during their study, students reported one or more difficulties associated with their study work.

*"My personal life combined with the numerous assignments and projects increased pressure during my study and, as a result, I became more tense and worried" (Weaam).*

*"There were many assignments where I found myself feeling very pressured and tired, and even though I managed to complete them, I did not achieve the required grade." (Nada)*

*"That put me under pressure all the time and affected my motivation to study. I reassured myself, I even thought of stopping studying at university for one term and completing the course later." (Jenan)*

*"Time pressures are great, particularly during test periods. This leads to feelings of stress and frustration, especially if I achieve poor grades" (Asma )*

## **Theme 2: University Staff-Related Difficulties**

This theme concerns the reported difficulties that many students have faced with regards to dealing with the academic staff during their studies.

*"I attempted to approach lecturers in their offices when I needed assistance but unfortunately their response was typically unhelpful. Sometimes they gave me a general explanation or directed me to other sources, but they did not provide a clear or adequate answer to my query" (Jenan)*

*"I am a hardworking student in general, but the requirements are high and the subjects are difficult, and the university environment exacerbates the situation. The university lecturers do not cooperate with the students during exam periods. We are still assigned many duties, which causes us as students to feel enormous pressure, and the lecturers refuse to consider our circumstances" (Norah)*

*"In my experience, the lecturers are not sympathetic. I have type one diabetes, and on one occasion, my blood sugar level dropped during an exam, causing me to lose focus. I tried to finish quickly, and unfortunately, I got bad marks. I asked the lecturer later if I could sit another exam, explaining what had happened and providing a medical report, but she refused my request and was uncompromising." (Rima)*

*"Some lecturers allocate many assignments and tests, thus increasing the course difficulty." (Maram)*

### **Theme 3: Asking for Assistance from Others**

Many participants identified a family member, such as a parent, or a friend, who they could approach to seek advice when dealing with a challenging situation.

*"Gathering more than one opinion from others helps me to solve my problems. Hence, if I happen to consult with someone who provides misguided advice, I will be able to compare a variety of perspectives to identify the solution to my issue" (Rima)*

*I value my Mother's opinion over others as I feel that their views will be different, and thus distracting. In consulting my mother, I know we share similar views, and therefore will better clarify my thoughts" (Maram)*

*Maram . also stated that " Privacy is very important to me and as a result I would be reluctant to make my problems known to the entire world, so I prefer to discuss my problems with my mother"*

*"I love to consult people who support me I usually like to confer with my father because he is understanding and helpful. He is the person who taught me to see things*



*from different perspectives. He always advises me offering solutions from different viewpoints" (Joana)*

*Joana also, comments that, "I believe family members are more trustworthy and impervious to other external influences they are also more likely to espouse similar attitudes towards resolving various problems".*

#### **Theme 4: Coping with Difficulties Single Handedly (self-help approach)**

Three sub-themes emerged from this coping style, (adoption of a rational problem-solving approach, avoidance techniques, and turn to religion).

##### **4.1 Problem-focused Coping Style**

Some students adopted a rational problem-solving approach as a coping strategy for overcoming challenges.

*"Usually I try to think carefully about problems and write down positive and negative sides to my solutions or decisions to the problems. I have used this method recently, which helps me a lot" (Areej)*

*I try to read about a problem to understand and discover its aspects, and this helps me to solve it. For example, I did not want to take the subject that I study in university, but I thought I should accept it and started reading about it and looking for areas. And, actually, when I read more about it, I really liked it, and I loved exploring aspects of the subject that I was not aware of". (Shahad)*

*"I usually sit with myself and try to see the problem rationally. I do not exaggerate things and do not underestimate them. I try not to ask anyone for help because I like*

*relying on myself. I do not like to depend on anyone, and I think this makes my personality stronger, I mean, when I depend on myself" (Sana)*

## **4.2 Avoidance**

Another coping strategy that emerged from the data is avoidance. Some students explained that when they were confronted with problems, they would avoid dealing with these problems.

*"I try not to think about the issue and occupy myself with another activity"*  
(Weaam)

*"I try alternative activities to distract myself, such as sleeping or shopping, which helps me to divert [myself] somewhat from the problem" ( 'Norah)*

*Some students were conscious that a strategy like avoidance did not particularly help them and actually led to negative feelings. " Occasionally I feel unable to cope well with a problem or problems that have existed for a long time" (Asma,)*

*"I become emotionally drained and continue to worry for long periods of time"*  
(Tahani)

## **4-3- Turning to Religion**

On encountering mental health-related difficulties, some students described turning to religion as coping strategy, such as praying or reading the Quran (the Islamic sacred book).

*"I would ask help from my god by praying or duaa to help me overcome any difficult situation that I face". (Amal)*

*"It is possible to turn to prayer and reading the Quran. This may be my first action if I do not feel better ultimately, I can go to a psychiatrist, but it will definitely be the last solution" (Sana )*

## **Theme 5:stigma**

### **5.1. Family stigma**

Some interviewees reported that their families can be barriers to them accessing mental health services when required.

*"In my case, my mother is adamant that I will not see a psychiatrist. She believes that I am not 'crazy', as one must be to use such services. She even refused to let me enter the psychology department because she thinks that it would affect my mind " (Joana)*

*"I know that even if I am happy to attend psychotherapy, people around me such as my family will not accept this. This will certainly prevent me from going to a psychiatrist". (Reem)*

*I think it will be difficult and take a long time to tell my family that I have a mental health problem. In fact people accessing mental health services do not share this information due to the negative attitudes towards the practice" (Weaam )*

### **5.2. Societal Stigma**

Students described that societal stigma in the form of negative attitudes and beliefs about mental health problems in society would prevent them from going to mental health services.

*“people will not see that I have a certain problem. They will think that I am mentally ill and mentally ill person will not be accepted in our society. They will be sad, and viewed as a mentally ill for the rest of their life. For this reason, if people access mental health services, they will not disclose this to others ” (Rima)*

*It may be difficult for me to go to a psychiatric clinic. It will be difficult for me to tell anyone around me except for my family, which I think may understand, but people outside the family it will be difficult and they will look at me as a psychopath and I do not like the pity of one” (Jenan )*

### **Theme 6: Lack of knowledge about the Counselling Centre Service**

Students were asked questions about their perceptions of the counselling centre at university and almost all the participants in the interview study expressed a lack of knowledge and understanding about the services the centre offered

*“I do not know if there are any psychological counselling services within the university” (Shahad )*

*Unlike at school, where the services were publicised, I cannot recall seeing any information or announcements about the centre at university. I do not know if the university even offers psychological services”.(Asma)*

*“I remember one time I did see adverts on the wall about the counselling centre but I don’t know anything about their services.” (Aree)j*

## **5.5 Discussion section**

### **5.5.1 What difficulties do Saudi female university students face during university life?**

#### **Theme 1: Study-related Difficulties**

Students who participated in this study were asked to describe the difficulties or challenges that they encountered at university in relation to their studies. Some of the respondents mentioned difficulties associated with certain periods of study, including exam periods. Other students stated that they routinely experienced these problems during their studies. The students listed numerous problems associated with the pursuit of their studies. These included factors such as the large number of assignments, an extremely heavy workload, and the fear of failing to attain adequate marks in exams. Students found the university day long and tiring, and this affected the quality of their home life. Students have reported that they experienced difficulties with time pressure and time management during their university studies, especially during the exam period.

It should be noted that, all of the participants reported at least one or two difficulties. A number of students routinely experienced some difficulty while others reported that issues only occurred during a particular time such as the exam period. These difficulties seem to have a significant impact on the mental health of students. The students explained how these difficulties impacted their mental health by making them experience anxiety, stress, and frustration. Additionally, these issues have also had an impact on the physical health of these individuals. They reported feeling tired or even exhausted by their situation.

In addition, these difficulties seem to have an impact on the student's academic lives. The interviewees described how their motivation to study and their academic achievements were affected as they attained poor grades. It is important to note that, although the majority of students who reported

such difficulties were all in good mental health as study 1 illustrates, they did report difficulties regarding their ability to adjust. The majority of students reported a high adjustment level which then decreased over time. This suggests that students face difficulties in meeting the academic, social, and institutional demands.

These results were consistent with Kupferman's (2014) finding that students had difficulty meeting the social and academic demands placed upon them, including meeting deadlines and coping with the pressure to succeed academically. In addition, results obtained from this theme are in agreement with the findings of Haggis (2006), Prescott and Simpson (2004), Smith (200), and Yorke and Longden (2007) who found that students' concerns pertaining to time-management, self-study, and effective organisation may result in other problems such as being unable to meet deadlines, poor grades, and being unable to work effectively. Together, the prospect of failure and the drive to do well can lead to major psychological problems (Abu Baker, 1997; Al-Khatib, Awamleh & Samawi, 2012).

Furthermore, many difficulties that students may experience in this particular society and context were not mentioned by any of the participants. For example, fasting for Ramadan while studying. In addition, none of the students reported difficulty with the university rule forbids them from leaving campus before 12 pm without permission from a male guardian, which is a rule at all schools and universities in Saudi. Furthermore, none of the students mentioned problems with transportation as they cannot drive (when the study was conducted the ban of was still in effect, however, since June 2018, it has been legal for women to drive. Although, many families do not allow their daughters to drive. Being denied the right to drive can present a significant problem for many young women in Saudi. This restriction can affect a woman's ability to commute to their university. Local custom is that male relatives drive females to their segregated schools or hospitals and collect them later. This is also the case at university

(Mobaraki, & Soderfeldt, 2010). This makes it hard for women to accept opportunities to study at locations far from their families and homes.

The reason why none of the students in this study reported these difficulties can be explained by the fact that the students did not find these issues difficult to manage as they are a part of their routine life. For example, female students in Saudi are not allowed to leave without a male guardian from the time they start primary school. Consequently, it seems to be an accepted part of their life and they may not view this as a problem. Alternatively, the students may not have been open enough to describe all their difficulties. In a society like Saudi, male guardians are a sensitive subject which the students may have chosen to avoid discussing. In addition, the students may not want to appear as if they are against male guardians.

## **Theme 2: Staff-related Difficulties**

This theme indicates that students do not find it easy to get help from their lecturers and professors, and this negative experience influenced their views of university life. The majority of the students who participated in this study stated that, they did not receive the help they needed from the staff or found the staff unhelpful and indifferent to their needs. In addition, some participants reported that the lecturers demonstrated a lack of understanding towards them when they attempted to explain their difficulties. The lecturers often take a 'no excuses' approach. A notable feature is that the students who did not report such difficulties with the staff still did not mention any positive aspects of their communication

The findings of this research are in accordance with those of McLoughlin (2012), who discovered that students experience issues with university staff because they are never as accessible or available as expected. It is important to note that no students in this research reported any positive points as far as

dealing with staff is concerned. Therefore, it is crucial to investigate these difficulties. This result is consistent with Arzy, Davies, and Harbour (2006) who found that university students were shocked at faculty members' lack of guidance and personal interest in them. Furthermore, Vandermeer, Jansen, and Torenbeek (2010) revealed that university students in Holland indicated that assistance and help from professors is significantly lacking.

Some students stated that the university staff showed little sympathy and understanding of individuals' lives and situations and did not take medical conditions into consideration when they were made aware of them. Unfortunately, the universities in Saudi Arabia has no policy regarding students with chronic conditions, therefore, the staff may not consider their impact. In addition, the staff's lack of empathy for students with special medical needs may be due to the fact that they are not aware of the problem and the impact it has on students. These issues need to be addressed by the university by providing policy information for staff regarding students with medical conditions.

### **5.5.2 What are the Coping Strategies That Students Use to Face Their Challenges?**

Two broad themes have emerged from the research questions, namely, engaging in help-seeking behaviours which involve enlisting the support of others, or, alternatively, adopting a self-help approach by tackling challenges singlehandedly. The latter may be further subdivided into three coping styles, which include: using problem-focused approach, avoidance, and turning to religion.

#### **Theme 3: Asking for Assistance from Others**

In this theme, the majority of students reported turning to others for help and advice as a coping strategy. Students turn to others to help them to reach a solution in different ways, gather different opinions, and compare different perspectives. However, none of the students mentioned obtaining the



solution from others directly, but used their thoughts, views, and advice to help them see the problems from different perspectives and reach their own solution. The majority of students commented that they would turn to family members and offered different reasons for doing so, such as shared viewpoint, helpfulness, understanding, trust, and privacy. The majority of participants mentioned a mother or sister, but Joana was one of the only the students who mentioned their father as the person they turned to when they have a problems. Few students mentioned asking for help from friends and explained why they preferred to turn to family members for help. Generally, they prefer to turn to family for help and advice because of the confidentiality that comes with familial support. In addition to confidentiality, privacy was another reason why students would seek help from their family. The nature of Saudi society may explain why privacy and trust are important to students when asking for help from others. “In Saudi Arabia, privacy is heavily valued within all family structures, and family reputation is well protected” (Mutua, & Sunal, 2012: p 212). In Saudi society, self-image and family honour is of the upmost importance, and it is considered the responsibility of women to protect their family’s reputation. Discussing their problems with others may break that privacy, which may affect their family’s reputation. In contrast, discussing those issues with a family member will ensure their privacy is protected. Additionally, these findings underline the central role occupied by the family in Saudi Arabian culture. This may also be a reflection of the pivotal role the family plays in Saudi Arabian society, characterised by extremely influential parental involvement and a strict upbringing within the home. That involvement includes asking for help and advice from the family when in need.

These findings support previous research into coping among university students, which also found that in times of stress and pressure, university students prefer to talk to family and friends (Pierceall and Kim, 2007) which is a form of emotion-focused style (Ogen, 2004). Moreover, these results also support a large number of studies which have found that female students, in contrast to male students,

are more likely to discuss their problems and emotions with family and friends, as a way of both managing and finding solutions to the problems they are facing (Brougham, Zail, Mendoza, & Miller, 2009; Day & Livingstone, 2003; Doron et al., 2009; Madhyastha, Latha, & Kamath 2014; Matheny, Ashby, & Cupp, 2005; Ptacek, Smith & Dodge, 1994; Ramya & Parthasarathy, 2009; Tamres et al., 2002).

Additionally, the results emphasise the significance of providing and engaging students in programmes aimed at enhancing their coping capabilities, while also offering support programmes to families, because they seem to play a pivotal role in supporting students. Furthermore, so that a better comprehension of students' coping methods can be ascertained, an understanding of families' perspectives of the various challenges they are being faced with is necessary, as well as identifying the coping strategies from their perspective. Moreover, it is essential to understand the socialisation methods within families, because they appear to play a central role in students' coping strategies. Also, students emphasised the importance of privacy and trust. All of these factors should be considered when planning and providing any programmes to assist students in terms of coping strategies.

#### **(Theme 4) Dealing with problem single-handedly (self-help approach)**

##### **4.1 Problem-Focused Coping Style**

Participants stated that they would employ a problem-focused coping strategy by taking a step back to review the problems they faced, collecting extra information, devising a range of potential solutions and attempting to work out the outcomes of each solution. A number of students in this study used various techniques to solve their problems, but taking time to analyse problems helped them understand relationships between different problem aspects, which led them to clearer solutions. Another technique mentioned by students was researching the problems they faced to find more information about

how others had solved the same problems, which helped them uncover hidden aspects to their problems and gain a greater understanding, allowing them to identify the best solutions to their problems.

Students who reported using this coping strategy were in the good mental health class, as found in as found in study 1, which may be explained by their adoption of a problem-focused style. This finding was consistent with studies that focused specifically on student populations and reported that the use of certain problem-solving methods is more likely to lead to favourable results, including health gains and fewer adverse consequences, and to promote resilience or positive adaptation to adverse events (Dunkley et al., 2000; Endler & Parker, 1990; Leong et al., 1997; Sasaki & Yamasaki, 2007). This finding also reflects Bouteyre et al.'s (2007) results, which determined that a problem-focused coping strategy correlated to positive outcomes in students' wellbeing and the prevention of mental health problems, such as depression.

In addition, some students discussed positive effects associated with the adoption of a problem-focused coping style, which allowed students to take their time to carefully assess the challenges confronting them. For example, Sana viewed her method of problem solving as a strength of her personality, which made her more confident in applying this strategy. This problem-orientated coping technique is productive and highly lauded because individuals take a direct approach to resolving existing problems, thereby strengthening their belief that they can control their external environments to some extent (Denovan & Macaskill, 2013). These positive outcomes mentioned by students when applying the problems focused approach, are in line with other studies focusing specifically on a student population which has reported that problem-solving methods are more likely to lead to favourable results, including health gains and fewer adverse consequences and more likely to promote resilience or positive adaptation to an adverse event. (e.g., Dunkley et al., 2000; Endler & Parker, 1990; Leong et al., 1997; Sasaki & Yamasaki, 2007).

Moreover, these findings are consistent with Pierceall and Kim's (2007) and Struthers et al. (2000) research, who demonstrated the positive effects of this coping strategy during university life. They found individuals who use these problem-focused strategies have thus far had fewer difficulties settling into university life, while also being able to maintain a healthy academic record and positive relationships. This finding also reflects Bouteyre et al.'s (2007) results, which determined that the problem-focused coping strategy was correlated to positive outcomes with respect to students' wellbeing, assisting with the prevention of mental health problems such as depression.

As students in this study mentioned some positive outcomes of using this coping strategy, for further research in the Saudi context there is a need to promote its positive effects and to develop a better understanding of what impact this coping strategy has on overcoming the challenges of university. It can also affect issues such as mental health and wellbeing, adjusting to university life and academic success. This can be accomplished through qualitative and quantitative research. Also, further intervention could integrate this coping strategy into teaching students coping skills to assist Saudi students in overcoming difficulties during their time at university as well as life and life challenges. This can also be provided by a counselling centre and mental health workers.

## 4.2 Avoidance

The result obtained from this theme illustrates that avoidance is another coping style reported by some students. Furthermore, students elaborated by describing how they try to ignore or try to stop thinking about their problems by engaging in other activities in order to avoid dealing with existing challenges. University students experience an array of difficulties during university life, while avoidance as a coping mechanism is associated with negative outcomes in relation to students' mental health. When participants were asked whether they found coping strategies to be beneficial for solving their problems, they were mindful of certain negative aspects of adopting these strategies. Students reported negative effects of avoidance as 1) being unable to cope with problems, 2) problems existing for a long time, 3) being emotionally drained and 3) being worried. When discussing negative effects, students were aware of the negative impact of using avoidance. This could be explained by the fact that avoidance provides immediate relief from stressful problems, as suggested by Snooks (2009) and Taylor (2012). Similarly, Jensen et al. (2016) argued that because this approach is effective in the short term, students feel better and tend to resort to avoidance the next time they face a similar degree of tension in their lives. This explains why the tendency for this behaviour is so prevalent.

The findings pertaining to the negative effects of avoidance correspond with findings from two other studies by Fischer (2009) and Leong, Bonz and Zachar (1997), both of which found that an avoidant coping style is maladaptive, meaning it can result in poor attitudes, withdrawal from usual activities and a tendency to avoid difficult situations. Furthermore, the negative effects of avoidance mentioned by some students in this study agreed with those found in other studies that associated avoidance with negative outcomes in relation to students' mental health, such as increased stress, depressive symptoms, and inability to overcome challenges (Holahan et al., 2005; Penland, Masten, Zelhart, Fournet, & Callahan, 2000; Pritchard et al., 2007).

Additional efforts are required from university counselling centres to carry out interventions, in order to facilitate students' adoption of more successful coping strategies that will ultimately make a positive contribution to their mental wellbeing. Additionally, adjustments to interventions that seek to strengthen students' adaptive coping skills should result in better psychological adjustment, while also contributing to students' academic success.

### **4.3 Turn to religion**

Turning to religion was an additional coping strategy reported by the students. Some of the participants related that drawing on their religious beliefs was a choice they made to manage or confront their difficulties. They reported that they would carry out religious activities, for example praying or reading the Quran (Islam's sacred book). There are a wide range of different potential coping strategies which differ in applicability according to the problems being faced. This also means that students would prefer to regard religion as a way of coping with mental health issues. However, there is further research to be conducted in this area in order to understand why some individuals would choose religion as a means by which to deal with mental health problems, particularly while using other coping strategies to face their problems or life challenges. However, there is need for further research to be conducted in this area in order to understand why some individuals would choose religion as a means by which to deal with mental health problems, particularly while using other coping strategies to manage the difficulties they face.

Turning to religion as a coping strategy may be explained by the fact that Saudi society is strongly influenced by the Islamic religion, the moral codes of which, continue to wield a significant impact on individual actions, thus potentially explaining this finding. Therefore, religious beliefs among the Saudi population have a powerful effect on every single aspect of daily life, with wider repercussions such as an

effect on mental health service uptake (Algarni, 2002; Al-Saggaf, 2004; Al-Shahri, 2002; Koenig & Al Shohaib, 2014; Koenig et al., 2014).

These results can be understood in light of other evidence which suggests that people from Muslim backgrounds are more likely to use religious coping techniques than individuals from other religious groups (Barron, 2007). Furthermore, some students stated that their religion would be their first choice if they experienced any mental health problems, and a psychological service would be their second, or even their last choice.

Some of the participants seem to believe that it would help them in overcoming their difficulties. Additionally, the students explained that they would turn to a psychologist only if they felt that religion is not effective for them, but turning to religion would be their first option. These results are consistent with the studies carried out by Loewenthal et al (2001) who stated that, Muslims believed more strongly than practitioners of other religions in using religious coping methods, and would have recourse to religious practices rather than seeking psychiatric or psychological assistance ( Barron,2007; Loewenthal et al, 2001) Students appeared to have faith in the power of religion as a means of tackling their mental health problems.

It should be noted that some students who have reported using problem focused strategies and seeking help from others as coping strategies for their problems in general, such as Sana and Rima, also stated that they would turn to religion to address mental health problems. There are a wide range of different potential coping strategies which differ in applicability according to the problems being faced. Thus, this means that some students would prefer to regard religion as a way to cope with mental health issues.

As religious beliefs have a crucial role in terms of how Saudi students tackle their problems, this dynamic should not be neglected by counselling centres, psychiatric care services, and other student service providers in Saudi Arabia. Religious dynamics need to be assessed in order to comprehend the challenges

faced by students. It is possible that during the design of intervention programs for students, certain religious aspects could be included in the programmes provided to them, because many studies have confirmed the effectiveness of religious programmes in addressing various challenges, including psychological problems ((Carver, 2002; Cass & Moore, 2006; Eltaiba, 2003; Ano & Vasconcelles, 2005; Koenig et al., 2001).

### **5.3.3 What are the barriers to accessing mental services among Saudi female students?**

#### **Theme 5: Stigma**

##### **5.1 Family stigma**

Some interviewees reported that their families can be barriers to them accessing mental health services when required. These students claimed that their family would be the primary barrier in preventing them from accessing mental health care. Students attributed this to family members being unwilling to support them in help-seeking behaviour and, as a result, this would hinder their ability to access services of a psychological nature. Although some students have stated that they would seek help from their family as a coping strategy such as Joana, they mentioned that their family would prevent them from accessing a mental health service if they experienced mental health problems. Therefore, there may be a qualitative difference between the problems, which may link to the reason why some students who reported different coping methods would turn to religion. Also, stigma may be cited as a further reason as to why an individual would turn to religion as opposed to accessing mental health services. Certain students such as Norah and Reem, explained that they do not share their family's perspectives and feelings, because they do not believe they are acting in their own best interest.



Some students such as Reem, admitted to being reluctant to discuss attending the psychologist with their family, stating that introducing such challenging conversations would entail a long and arduous process. Lack of parental consent may be identified as a further barrier to accessing psychological support. While students reported having an open and positive attitude towards help-seeking themselves personally, they claimed that their family would impede them from accessing the support of a psychologist. These results demonstrate how important the family role is in influencing students' decision to seek help from mental health services. This is particularly the case for females, who must obtain permission from their family before leaving the home.

The findings emerging from this theme concur with other studies, whereby stigma is the primary reason as to why mental health-related issues remain predominately undisclosed within Saudi Arabian culture (Abu Ras, 2003; Abudabbeh & Aseel, 1999; Al-Subaie & Alhammed, 2000). The disclosure of such difficulties within a family would be deemed to have an adverse effect. Furthermore, attending mental health services would not only be regarded as a means of stigmatising the individual in question, but this shame could also extend to the wider family network (Abudabbeh & Aseel, 1999; Abu Ras, 2003; Al-Subaie & Alhammed, 2000). This may explain why some families refuse to recognise or accept the notion that a close relative would seek access to psychological health services.

Moreover, this theme can be understood in the context of results of multiple studies (e.g., Aloud & Rathur, 2009; Amer, 2006; Erickson & Al-Timimi, 2001; Youssef & Deane, 2006) which have found that admitting to being affected by mental ill health is regarded as a source of shame and in turn, this can have a negative impact on the social status of the particular family involved. As a result, it may lead to a lack of acceptance of the fact that the young person requires professional mental health treatment, thus acting as a deterrent to them availing of this crucial support option. Maintaining a position of high standing within society is of vital importance within this culture.

More efforts must be made in this regard to change the negative attitudes toward mental health issues and toward people attending such services. Support programs must be provided to students, parents, and community members in order to reverse the negative attitude that exists within society. This can be achieved by mental health providers and university counselling centres.

## **5.2. Societal Stigma**

This sub-theme indicates that social stigma seems to be another barrier to accessing mental health services among students in this study. Those participants who discussed this, believed this typically manifests in judgmental and negative attitudes prevailing within the community, thus creating a barrier to accessing services. Such public misperceptions are prevalent within Saudi society. For example, some students such as Lamia, mentioned that the negative attitude in society makes attending psychological services difficult, particularly due to a fear of being shunned by the community, as well as a general fear around “madness”. Other students stated that fear that a mentally ill person will not be accepted in society, and will be treated as mentally ill for the rest of their life stops them from seeking help. Some students explained that they have fears about what others may think, and this will create difficult situations for them. Whilst other students fear that if they tell anyone about their problems they may be viewed with pity. Students such as Nada, related how negative perspectives of people in society may also mean that other people stay away from a person who is suffering from mental health problems, because there is stigma attached to such issues.

This result is similar to the study undertaken by Khalil (2017) who reported that Saudi Arabian society is characterised by a poor knowledge of mental health-related issues, along with the adoption of negative attitudes and a stigmatised approach towards those experiencing such difficulties. The results of the current study are also in agreement with other studies (e.g., (Pedersen & Paves, 2014; Quinn et al.,

2009 Vidourek, King, Nabors, & Merianos, 2014), which found that societal stigma is a primary deterrent and is apparent in the reluctance to engage in mental health care for fear of a potentially negative reaction from others, or more specifically, being described as ‘mad’. These results are also consistent with three further studies (i.e., Aggarwal, 2012; Martin, 2010; Kessler et al., 2001), whereby students downplayed their requirement to access support in order to reduce the likelihood of stigma and any potentially negative perceptions by others.

In summary, societal stigma can be deemed a major problem that requires resolution, because as a barrier to accessing mental health services it may affect university students who require assistance due to difficulties faced during university life, as well as because of their age. Additional efforts must be made in order to introduce programmes that seek to enhance mental health awareness and alter societal stigma surrounding such problems. This will make the situation much simpler for students who are trying to deal with mental health issues. These programmes may be provided by university counsellors or health care providers. Consequently, reluctance to disclose their help-seeking behaviours, as well as fear of others’ reactions, can prevent some individuals from seeking psychological support services.

### **5.3.4 What is the student’s perception of the counselling centre in university?**

#### **Theme 6: Lack of knowledge about the Counselling Centre Service**

All of the interview participants expressed a lack of knowledge and understanding regarding university counselling centres. As a result, they were unable to benefit from the services offered by the centres. It is noticeable that only two students mentioned seeing an advertisement about the counselling centre, but they stated that they had never used it and were unaware of the services it provided. This may indicate that students did not feel the need to explore the range of services on offer, despite the fact that all of them have experienced difficulties with adjustment to university as found in study 1, with their

adjustment decreasing over time. Arguably, it could also be that students had a negative attitude toward accessing mental health support and related it to stigma as identified in other themes.

The lack of information regarding the counselling centre and about the services that were provided consisted with Yorgason, Linville, and Zitzman's (2008) study, which found students were either completely unfamiliar with such services, or if they were aware of their existence, they lacked any specific relevant information pertaining to them. In addition, some students claimed that the information they did receive was not sufficiently detailed to assist them in self-referring to the service. In accordance with the present results, Rosenthal et al. (2006), discovered similar findings among students in an Australian university, with participants revealing that they had poor knowledge or understanding of the counselling services. For instance, they did not know how to make an appointment, were unfamiliar with where the service was located and did not realise that support was available free of charge.

Overall, all of the students in this study reported having poor knowledge of the counselling centre and as a result they were unable to benefit from the services offered. Although all the students in this study reported being in good or stable mental health, it is important for students to be aware of the centre so that they can access it when needed. Students may experience mental health problems at any time during the course of their studies, so these services should be available for them in their time of need. Furthermore, all the students in the current study experienced a decrease in their adjustment level over time, so the counselling centre could provide them with help, support, and a programme to enable them to better adjust to university life. Lack of knowledge can mean that students miss a great opportunity to deal with adjustment difficulties, which may have a resulting negative effect on their mental health, as well as failing to enable them to adjust positively to life at university. In addition, a counselling centre can play an important role for students in this particular context, as it can be located within the campus, so students can easily access this service without the need for permission from a male guardian or their family. In

addition, this location means that students do not need to have transport to the centre, as well as helping to avoid stigma from both their family and society more broadly. A university counselling centre has real potential to help those students, but they cannot benefit from it unless they are aware of its existence and of the type of support available. These potential problems are consistent with the research of Alotaibi (2014a; 2014b; 2015), who highlighted problematic issues such as counselling centres not having an established understanding of educational contexts. Many of the other issues Alotaibi encountered resulted from a lack of funding for such service, including a dearth of administrative support, unmotivated counsellors, and insufficient training. Although Alotaibi reported these problems in relation to the counselling centre in a Saudi school, the current study results may also be better understood in light of his results. The university counselling centre may suffer from very similar issues to the school counselling centre in Saudi, such as a lack of awareness of its existence and the services offered, as well as the positive role that counselling services can play within a university setting.

## **5.6 Conclusion**

This qualitative study highlights the various mental health-related issues that female Saudi Arabian students in this study have to contend with. It focuses on the various challenges they typically encounter within the education system, which may influence their mental health. This study also outlines the various coping techniques that students use to deal with their challenges they are faced with, for example, help-seeking behaviour, using a problem-focused approach, avoidance, and turning to religion. Furthermore, this research has clearly demonstrated that stigma, both from a family and societal perspective, can present an obstacle to students accessing psychological services, when required. It has also shown that students were unaware of the dedicated counselling service provided by the university, on campus and free of charge. Consequently, they will be less likely to avail of these services, should the need arise.

## **CHAPTER 6: GENERAL DISCUSSION, IMPLICATIONS AND CONCLUSIONS**

This chapter summarizes the findings of the two studies. It discusses the theoretical and practical implications of the findings, the strengths of the thesis and the limitations of the research. Finally, some suggestions for future research are advanced.

### **6-1 General discussion**

This thesis adds substantially to our understanding of the mental health of university students and also extends the literature on emotional intelligence (EI), emotional self-efficacy, social support and loneliness. It also contributes to the literature on female university students in Saudi Arabia regarding different aspect of their mental health; these are issues that have not been examined before.

#### **6.1.1 Main findings**

The aim of this thesis is to gain a greater understanding of the mental health of female university students in Saudi Arabia and the factors relating to their mental health during their time at university. This research used a mixed method approach, utilizing both qualitative and quantitative techniques, in order to understand the mental health of young Saudi women from different perspectives and also to obtain different types of information to help to address the gaps in the research.

Study 1 assessed the mental health of university students via the change of mental health problems and the students' adjustment of levels by assessing them over three time points during their first year of university life. The results show that the mean level of mental health problems was low and did not change significantly over time. These results are different from other longitudinal studies using UK samples which have found that the mean level of mental health problems increases over time (Andrews & Wilding,2004; Bewick, Koutsopoulou, Miles, Slaa, & Barkham, 2010; Cooke,

Bewick, Barkham, Bradley, & Audin, 2006). There are at least several explanations for this: first, SA female students may be in general good mental health. Second, there is a difference of culture and contextual factors given that the study was conducted in Saudi Arabia. For example, it is possible that SA students were not open enough to provide truthful information about their mental health as result of stigma. Results obtained from Study 2 may support that explanation. Study 2 shows that SA students reported negative attitudes and a stigmatized approach towards those experiencing such difficulties from their family and society as a whole, particularly due to a fear of being shunned, as well as a general fear around mental health problems being labelled as madness. In the Saudi context, studies have found that admitting to being affected by mental ill health is regarded as a source of shame, which, in turn, can have a negative impact on the social status of the particular family involved (Aloud & Rathur, 2009; Amer, 2006; Erickson & Al-Timimi, 2001; Youssef & Deane, 2006).

Another result obtained with regards to mental health problems was the identification of discrete growth classes of mental health. Different classes identified included students with a) good mental health, b) a medium-level of mental health, c) poor mental health and d) very poor mental health. There are no significant changes in mental health among the four classes over the first year of university life.

The study also found that when the different mental health classes were compared in terms of mean levels of trait EI, ESE social support and loneliness, significant differences emerged between all classes . Specifically, students in the good mental health class who followed a trajectory of good mental health over their first year reported higher levels of EI, perceived social support and ESE, along with the lowest level of loneliness compared with others groups. In contrast, students in the poor or very poor mental health classes reported low levels of trait E, social support and ESE, as well

as the highest level of loneliness amongst all classes. Of the different variables, EI had the largest effect size in explaining the difference between different mental health classes, followed by social support, whereas ESE had the least effect in explaining the difference between mental health classes. This pattern of findings highlights that these theoretically and empirically associated variables are important determinants of the trajectories of mental health in the Saudi sample, contributing to our understanding in different ways. First, it advances our knowledge of the mental health of Saudi university students by identifying discrete growth classes. Doing so will help determine the differences between these students, leading to a greater understanding of their mental health. Furthermore, the results suggest that EI, social support, ESE and loneliness operate in the same way in terms of being potential protective factors for mental health in a non-Westernised population. This result likewise adds to existing knowledge, as such potential protective factors were found to be linked to students' mental health with the use of a longitudinal design; this clarifies our understanding of the long-term impact of these factors and the change in mental health over time.

Regarding the adjustment to university, results obtained show that the adjustment level decreased over the first year of university, is different from other longitudinal studies on adjustment to university beside the UK sample (Gall, Evans & Bellerose, 2000; Nightingale et al, 2013). This result may be explained by the fact that the students in this study face challenges and difficulties which affect their ability to adjust and which subsequently contribute to the decline. Results obtained from Study 2 confirm this as the study found that those students faced a range of difficulties and challenges during university life, which may contribute to that decrease. In particular, students described problems with their assessments, the demands of the course in terms of structure and workload, and their relationships with staff. Students stated that they are becoming more stressed and worried as result of these difficulties, which is having an impact on their personal lives. They also explained how work-related pressure had a negative impact on their motivation to



study and their decision to stay in university. These findings support previous studies that have found that these difficulties and challenges are linked to poor mental health and adjustment outcomes among university students (Aldiabat, Matani & Le Navenec, 2014; Brandy, 2011; Flatt, 2013; Hicks & Heastie, 2008; MacKean, 2011).

Latent class analysis of adjustment trajectory identified five classes beside the adjustment level. These five classes included a group following a stable adjustment trajectory, a low adjustment trajectory, a trajectory characterized by initial high adjustment that then decreased gradually (this group represented the highest number of students), a trajectory characterized by a medium-adjustment level with a gradual decrease over time and finally a high adjustment at the start of the year, with noticeable drop after three months after arriving at university. These results suggest that not all female students adjust to university in the same way. There are significant differences between them, which agrees with other studies that found different patterns of adjustment among students. This result also can be understood within the context of the transition theory of Schlossberg (1981), who explained that individuals adapt to change differently. Additionally, the same person may react differently to different types of changes or may react differently to the same type of change at different times in his or her life.

In addition, results suggest that EI, social support and loneliness were the factors that explained the differences between SA female students in their ability to adjust to university. Results found that students with high EI and perceived social support had a better ability to adjust to university while students with low EI and perceived social support, and a high perceived level of loneliness reported a low level of adjustment over time. Regarding ESE, ESE did not distinguish the adjustment classes, therefore, these findings suggest that ESE is not important than EI for adjustment to university among Saudi female university students. This supports the argument that ESE and EI are conceptually

distinct (reference) as only EI was identified as important for SA students' adjustment.

With regard to theory, the identification of the trajectory of adjustment, distinct adjustment classes and protective factors of university adjustment contributes to a greater understanding of the nature of adjustment construct within the Saudi context.

Study 2 also helps us better understand adjustment to university, and mental health in study 1. The results obtained from Study 2 indicate that there are differences between female university students in their coping strategies for dealing with challenges encountered at university, and these coping strategies may contribute to the differences in mental health and adjustment to university that were found among female students in Study 1.

With regards to the type of coping strategy adopted by students, these were varied and included asking help from others, being problem focused and avoidance as well as more specific strategies such as turning to religion. Overall, the use of a specific coping strategy was found to be influenced by the Saudi culture, which is influenced by the importance of family in that society, and religion. For example, the majority of students who reported asking for help from others as a coping strategy stated that they preferred to turn to a family member rather a friend in order to gain advice and help. Reasons mentioned include the perception of privacy and there is trust related to the family member.

Turning to religion was another coping strategy that was found to be tied to the context. Students explained that they would turn to religion to face their mental health problems rather than go to a psychologist. As the Saudi context has been highly influenced by religion this result can be understood in light of that. This suggests that further understanding of the mental health of Saudi students need to be considered within their unique context as this context was found to influence

different aspects of their mental health.

The final factor found in this thesis that impacts on the mental health of female university students in Saudi was the students' ability to benefit from psychological services both inside and outside university when needed. In terms of inside university, the results show that there is a lack of knowledge about the university counselling centre and the services it offers to students within the university. Students were unaware of the counselling centre at the university and did not even know of the existence of these services. As found in Study 2 and in existing literature, students were found to face a range of challenges and difficulties during their university life, and were especially likely to develop mental health problems during university years (Kessler et al., 2003). Therefore, counselling centre services can be of particular benefit to students during their university life by limiting their psychological distress, enhancing their psychological resilience and developing a setting conducive for improving students' academic performance (Al-Banna, 2001; Alotibai, 2015; Connell, Barkham & Mellor-Clark, 2008; McKenzie, Murray, Murray & Richelieu, 2015). An absence of information and knowledge regarding counselling centres and the services provided by them prevents students from receiving any of the benefits that may positively impact their mental health and adjustment to university. This suggests that if students were aware of and understood the utility of such services, they would be able to benefit from them and show better adjustment levels. In this regard, universities may be required to reassess the organization of their mental health services. The Ministry of Higher Education, as well as counselling centres in Saudi universities, must offer guidance to students regarding the available services. Every student must be informed of these services during their induction at the beginning of their university life and throughout their studies. The counselling centre must provide support to students.

Regarding accessing to and benefitting from mental health services outside university, results

obtained from Study 2 suggest that stigma from family and society can prevent female university students from accessing mental health services outside university when they need to. While students reported having an open and positive attitude towards help-seeking personally, they stated that their families and communities were largely prejudiced against mental health services, thus creating a barrier to accessing these services. This result is in line with Khalil (2017), whose study revealed that the Saudi Arabian society is characterized by a poor knowledge of mental health-related issues, along with the adoption of negative attitudes and a stigmatized approach towards those experiencing mental health-related difficulties. Although the study clearly demonstrates the existence of a stigma surrounding mental health services, it also documents that the students themselves typically held an open and positive attitude towards help-seeking, which is an encouraging basis from which to address this problem.

It is essential that this stigma is addressed in order to remove the barrier preventing university students from accessing the assistance they require to cope with difficulties faced during university life, as well as those they face because of their age. Programmes intended to heighten public awareness about mental health problems and reduce familial/social stigmas must be put in place. This can be achieved by implementing programmes within educational environments and via the media. Such programmes must be offered to students, families and communities. These programmes should aim to change the negative attitude that exists within society surrounding mental health problems and to make life easier for individuals experiencing mental health problems. Such programmes can be carried out by counsellors in universities and by health care providers.

## 6.2. Theoretical Implication

The first theoretical implication of this thesis is that context is important in understanding the mental health, and it offers an explanation of the different factors affecting students' mental health. In this study, different results found may be explained in the context of Saudi culture. For example, in Study 2 stigma from family and society could be a barrier to students accessing help for mental health problems and, turning to religion and family as coping strategies. In addition, results were found to be different compared to other countries; for example, the low level of mental health problems in Study 1 was low and did not change, also the level of adjustment was decreased over time. These results differ to previous UK studies (e.g., Gall, Evans & Bellerose, 2000; Nightingale et al, 2013), which confirms the important of studying each context separately. This leads to the need for localized theories that explains what happens in these particular contexts. There is also a need to facilitate the development of more appropriate and cultural-based theoretically driven interventions.

Another major contribution for the study 1 is the identification of the trajectories of mental health, the different class of mental-health among students, which all contribute to a greater understanding of these constructs within the Saudi context. The different protective mental health factors found in relation to mental health and adjustment trajectories is another important contribution for current thesis. The results regarding these factors advance our understanding in a different way. First, they contribute to the accumulating evidence that suggests EI, social support, ESE and loneliness play significant roles in students' mental health problems and their ability to adjust to university life. In addition, using the LGM method in this thesis advances the field of EI, social support, ESE and loneliness traits by showing how these factors distinguish and explain the differences in mental health problems and the ability to adjust to university among Saudi female

students. Using the longitudinal design of Study 1 means we are more able to suggest what the causal order might be between these different factors (such as EI, social support and loneliness traits and students' mental health). It also advances our understanding about these potentially protective factors in relation to students' mental health and adjustment to university over time.

Other theoretical implications for the current study is that EI, social support, loneliness traits operate in the same way in terms of being a potential protective factor for mental health in non-Westernized population as well. With regards to ESE, the results support the argument that ESE and Trait EI are conceptually distinct as only trait EI is important for Saudi students' adjustment.

A further theoretical contribution of the thesis comes from using a mixed method approach. This is useful in understanding students' mental health as it helps to obtain a deeper understanding of mental health and looks at students' mental health from different perspectives. For example, results obtained from a qualitative study help to understand the processes by which students' mental health take place. It shows how the context is useful in actually offering an explanation to different outcomes found in the quantitative study.

This thesis supports the ecological conceptual framework that mental health can be affected by multiple factors such as personal factors (EI traits, ESE and coping strategies), Interpersonal factors (social support, loneliness), institutional factors (lack of knowledge of the counselling centre, difficulties during university life) and community factors (cultural impact on students such as the stigma and religion)

The findings regarding adjustment to university support the theoretical framework (Schlossberg, 1981) that success at transition depends on characteristics of the individual (EI traits,

ESE and coping) and the characteristics of pre- and post-transition environments (e.g. difficulties during university life, lack of knowledge of the university counselling center ).

Additionally, this thesis has extended our knowledge and comprehension of university students' mental health by identifying the academic challenges facing students during their university lives and strengthening our knowledge of their coping strategies while also improving our understanding of the barriers that Saudi female university students may face while accessing mental health services. These issues have previously been unexamined in this context. As a result, this thesis makes a major theoretical contribution to the field considering many mental health issues remain concealed; however, the effectiveness of intervention programmes demands a minimum basic knowledge about the issues that may contribute to mental health in the Saudi female student population.

The significance of this study is founded on the distinct lack of information and knowledge regarding factors affecting the mental health of students in Saudi Arabia. As such, the identification of these factors will contribute to building a foundation of knowledge that can be used in the development of programmes to promote the mental health of female students and strengthen the aspects benefitting their mental health. This knowledge may also be useful to launch further research for the identification of factors affecting mental health, and, moreover, link these to the factors inferred in the results of this study.

Another theoretical contribution for the current thesis is that using Vallerand's (1989) methodology for cross-cultural validation is a useful method with translated questionnaires. The translation of questionnaires following Vallerand's steps used in this thesis shows good validity and reliability in the pilot study. Further evidence of reliability and validity can be obtained from study 1, which had a large sample (223 students). The three measures had good reliability in study

1, ranging from .84 to .95. The translated questionnaires were found to correlate with the other measures used in study 1. For example, the translated trait EI score correlates negatively with mental health problems and the loneliness scale in the questionnaires, offering further evidence of concurrent validity. In addition, they were able to find results similar to the findings that come from original questionnaires. It has been found that these questionnaires were able to distinguish between students in mental health and adjustment levels. These results suggest that Vallerand's (1989) method is useful in adapting questionnaires in psychology

Additionally, this thesis has extended our knowledge and comprehension of university students' mental health by identifying the academic challenges facing students during their university lives, strengthening our knowledge of their coping strategies, while also improving our understanding of the barriers that Saudi female university students may face while accessing mental health services. These issues that have previously been unexamined in this context. As a result, this thesis makes a major theoretical contribution to the field considering many mental health issues remain concealed; however, the effectiveness of intervention programs demands a minimum, basic knowledge about the issues that may contribute to mental health in the Saudi female student population

### 3.5. Practical Implications

In practical terms, the result from this thesis indicates that context is important. Researchers should understand that treating mental health with one approach does not work for everyone. An understanding of this concept will lead to the gathering of data that can be used to facilitate the development of more appropriate and culturally-driven interventions.

The results of this research may be used to improve mental health issues amongst students within a university setting by helping to establish effective intervention programs aimed at improving student's mental health and helping them to adapt to university life.



Student's mental health can alter over time, and this is determined by individual differences between subgroups throughout the initial year of university life. It is crucial that counselling centres understand the importance of individual differences between students, and that assessments are designed and conducted in accordance with the student's needs. Such interventions are intended to improve students' mental health, aid in stress management and develop coping skills.

Counselling centres must provide further support to students through the provision of programs aimed at identifying the types of issues faced by students throughout their studies and understanding why they are not able to adapt well. This is achieved by investigating the reasons behind poor adjustment, and this can be followed by programs designed to address their needs.

The findings indicate that interventions designed to promote positive psychological attitudes could be largely influential in helping students to cope with adjusting to university life. This may be a useful means of facilitating the development of interventions to facilitate smoother transitions. university. The development of these skills could be incorporated into university induction or transition programs, or offered as optional courses.

Results concerning students how mental health states and their ability to adjust linked over time have shown that the counselling centre must consider that students' ability to adapt will be impacted if students are suffering with mental health problems. Thus, to improve their ability to adjust and help them pursue a better university life, the centres must consider students' mental health and endeavour to implement programs to help students deal with such issues. It is also crucial to consider that, when creating a program to improve students' levels of adjustment, the mental health must not be ignored. Counselling centres must take into account both sides of students when designing the intervention programs to improve mental health. This may ultimately be reflected in their ability to adjust.

Also, trait emotional intelligence and emotional self-efficacy have been found to be highly important in determining students mental health and their capacity to adjust over time. Such factors can be included in counselling programs, as students can be taught to develop. Various researchers (including Murray, Jordan & Ashkanasy, 2006; Nelis et al, 2009; Pool & Qualter, 2012) have found that improvements to emotional intelligence can be made by using emotion-focused teaching intervention. Considering ESE was identified as having an impact on the trajectories of mental health amongst university students, counselling centres can integrate ESE interventions into their programs to encourage students and motivate their belief in their own emotional ability to change. Moreover, findings regarding loneliness and social support show that these two factors largely influence student's mental health and their ability to adjust to university over time. This knowledge can be applied by universities and counselling centres to promote student social engagement in university. Some interventions could concentrate of teaching general psychosocial skills and support for students using existing networks. Counsellors can improve individuals' skills by relating to them and offering opportunities for interaction. Such examples of support can be implemented alone or into existing programs for students. Students must be encouraged to engage in the social activities throughout the university and programs can attempt to provide activities that cater for the interests of all students, giving students the opportunities to change courses and interact with other students. Ultimately, the most effective solution is to encourage students to integrate. The evident importance of social support indicates that students must be encouraged to develop, maintain and use support networks (Mattanah et al., 2010). Creating mentoring schemes, and urging students to join university societies is a potential way to enable positive and supportive relationships to develop, and this should hopefully improve student's mental health.

The findings pertaining to difficulties that students face during their studies that were revealed during the qualitative research can be used by counselling centre staff .The Ministry of Higher Education

in Saudi Arabia to develop programs which help such students to overcome these issues. Useful strategies include time managements skills and coping strategies. Furthermore, every effort must be made to make sure that students are prepared for these challenges, and this can be achieved by ensuring that they receive the necessary support mechanisms in terms of academic and pastoral guidance from tutors. They must also be taught the generic competencies that are fundamental to academic skills. Programs must be created in accordance with students' needs. The findings of the present research show that, in addition to teaching students time management skills and how to manage stress, they must also be taught about the challenges.

Moreover, it is important to minimise unnecessary stressors that affect students, which might be achieved by creating a positive learning environment and providing necessary support required by such students. This will allow them to reach their full potential. Staff must also understand how different pressures affect their students, and this can be achieved through the counselling services, who can promote students' mental health by implementing an effective program for students and university staff that will ultimately create a better learning environment, and this will help them to improve their mental health and academic success.

There are various barriers to mental health services for female university students. Programs that intend to heighten public awareness about mental health problems and to reduce familial/social stigmas must be put in place. This may be achieved by implementing programs within educational environments and via the media. Such programs must be offered to students, parents and society. These programmes attempt to change the negative attitude within society that exists surrounding about mental health problems and to make life easier for individuals experiencing mental health problems. Such programs can be carried out by counsellors in universities and by health care providers.

The result that was obtained regarding stigma in this context raises the need consider it when conducting research about mental health. Stigma may affect whether participants are comfortable in providing data about their health, which may lead to inaccurate data. A society that suffers from stigma should take different steps to ensure that participants' responses are not affected by it.

Results pertaining to the role of counselling centres in Saudi Arabia indicate a distinct lack of knowledge regarding the services they offer. Nevertheless, the findings presented in studies 1 and 2 provide information that is able to facilitate counselling centres in developing programs able to promote the mental health of university students, assist them in experiencing a stable adjustment trajectory and overcome highlighted challenges during university life. On the contrary, an absence of information and knowledge regarding counselling centres and the services provided by them prevents this student cohort from receiving any benefits. In this regard, universities may be required to reassess the organisation of their mental health services. The Ministry of Higher Education, as well as counselling centres in Saudi universities must offer guidance to students regarding the available services. Every student must be informed of these services during their induction at the beginning of their university life and throughout their studies. The counseling center must provide support to students. This is particularly challenging, but counselling centres are required to do so, as evidence suggests (Al-Banna, 2001; Alotibai, 2015; Connell, Barkham, & Mellor-Clark, 2008; McKenzie, Murray, Murray, & Richelieu, 2015), such counselling centres are beneficial in improving students' mental health and academic attainment.

### **6.3. Thesis strengths**

Study 1 is the first to examine the growth patterns of mental health problems and adjustment, and also related factors, across the first year of university life amongst female university students in Saudi Arabia. It is also the first to examine the impact of social support and loneliness on the growth patterns of mental health problems and adjustment amongst university students in general. The findings from this study offer further evidence for the association between these variables over a period of time with a unique sample. Such research can inform intervention strategies for university students across this time period.

The foremost strength of this thesis is the use of a mixed methods approach. Unlike the majority of previous studies in this area, which have applied quantitative methods of investigation, this thesis benefits from incorporating the qualitative method and thus a greater in-depth understanding of the mental health issues. Using the mixed method approach to achieve the overall aim of this thesis helps to overcome the disadvantages of using either quantitative or qualitative methods alone.

Further strengths of this thesis in relation to Study 1, a key strength is the longitudinal design; the application of this type of study in investigating mental health problems and adjustment over time allows the use of growth mixed modelling which enables investigation of individual differences in the sample. This method not only examines the average change over time for the total sample but measures the change in the paths at the sub-group level and not the total population as a whole. Therefore, it takes into account individual differences between sample members and classifies them on this basis, thus, providing a more accurate understanding of the levels of change in the mental health and adjustment pathways. Additionally, this method provides a more accurate understanding of the effect of different variables at the level of these subgroups over time.

As such, contrary to the majority of previous literature that apply more quantitative methods for investigation, this thesis benefits from the qualitative method, allowing it to gain a greater in-depth understanding for mental health which makes qualitative research beneficial. As such, contrary to the majority of previous literature that apply more quantitative methods for investigation, this thesis benefits from the qualitative method, allowing it to gain a greater in-depth understanding for mental health which makes qualitative research beneficial.

Finally, using the mixed method approach to achieve the overall aim of this thesis facilitates it to overcome the disadvantages of using quantitative and qualitative methods alone.

#### **6.4. Thesis Limitations**

Several limitations of the thesis must be considered. The first is that the variables in this thesis (mental health problems, Adjustment to university, trait EI) are oblique constructs, resulting in an overlap between some constructs, which may lead to inflated correlations from conceptual overlap. There is overlap between mental health problems and adjustment constructs, and the way that they are measured. For example, a person's adjustment to university life overlaps with the emotional and personal adjustment subscales that were focused on general psychological distress and its somatic symptoms. This overlaps with the concept of mental health problems. This overlap may explain the high correlation between them, as the Pearson coefficient was found to be .60, which indicates 36% shared variance. In addition, there is an overlap between mental health and the construct of the trait EI measured by TEIQue (Petrides, 2009). For example, the TEIQue subscale component that aims to measure wellbeing may overlap with the measure of mental health. Taken together, despite the overlap, there is still enough to determine that the adjustment to university life and onset of mental health problems are different psychological constructs.

The second limitation concerns the self-reporting measures for obtaining data for the study<sup>1</sup>. The

findings are based on self-reported information, which have the potential for reporting bias due to respondents' interpretation of questions, or their desire to convey their emotions in a particular manner, or due to an inaccuracy of responses and a lack of proper duration of symptoms, which are necessary to establish a definite diagnosis with confidence. This limitation is relevant with respect to the subjective assessment GHQ-28; Golberg and Hillier, 1979, (SACQ, Baker & Siryk, 1989) and Loneliness Scale (Russell et al., 1987). However, these limitations do not apply to the trait of EI and emotional self-efficacy (ESE), because they have to be assessed through self-reports, as they are people's own perceptions of themselves.

Certain limitations are apparent with respect to sample size. Attrition in a quantitative study has always been an issue; for the present study, it cannot follow up on the students over a long period of time, which means that later adjustments and similar developments are omitted. However, attrition does not affect the statistical power of study 1 because GMM the required sample has no less than 100 students (Curran, Obeidat & Losardo, 2010).

Another limitation of this thesis concerns the causal ordering in study 1. Although longitudinal research can offer a better understanding of causal order, pre-university baseline measures of the constructs would be necessary to make stronger causal inferences in this regard. Another limitation is regarding the control of socio-demographic variables for the sample. Study 1 did not control such variables. However, although these variables are important to consider, they seem less important for Saudi university students. For example, all the students are females, so controlling for gender is impossible. Furthermore, the students in Saudi universities are all of a young age, between 18 to 26 years, with mature students most enrolled only in online courses so they are not attending campus classes. Compared with other factors, the income level may be less important

for Saudi society, as almost all of the participants are in the same economic level.

Other limitation is that the measurements used in study 1 were tested in the pilot study (using Vallerand's (1989) methodology for cross-cultural validation before using them in the longitudinal study) and were tested using a small number of participants. Vallerand determined that a size of between 20 and 30 was best, which was the sized used in the pilot study, but further research should employ a larger sample to confirm the validity and reliability of these measures in a Saudi context. With regards to the translated measures used in this study, their concurrent validity has been tested only between Arabic and English visions, making their validity limited. Further investigation may identify convergen, structural and Predictive validity in the Saudi context. Further, future research may take different steps in the process of translation and adaptation these measures. For example, Epstein, Santo and Guillemin (2015) suggest that involving more than one translator in the process is advisable to provide a mix of perspectives, rather than single translators that were used in the pilot study. Some authors recommend that translators can have some training in test construction, especially in item writing and becoming familiar with both cultures (Hambleton & Kanjee, 1995). Also, involving professionals and lay people, rather than back translations, as recommend by McKenna & Doward (2005) could be useful in using in future research.

## **6.5. Future Directions**

Concerning the exploration of longitudinal trajectories of mental health and adjustment that was undertaken in this study, further useful developments in this direction would be to investigate these trajectories through to the end of the students' degree courses. Future research may also consider including a sample of the male Saudi student population, in order to compare sex differences. In addition, given the diversity of student subgroups' substantially different trajectories with respect to mental health and adjustments, research should also endeavour to



analyse the extent to which different variables or factors affect these variations and trajectories, thus enabling a prediction for different groups. These are distinct subgroups, and future research will need to replicate and further validate these groups, and determine whether they apply to different populations.

In order to develop our understanding of the role of emotional intelligence in mental health adjustment to university over time, additional research is necessary also to determine how ability EI is correlated with these trajectories. This would also allow a comparison with this thesis' findings regarding the effect of trait emotional intelligence in relation to these trajectories and understand whether skills follow the same pattern as traits.

Research in the general area of student mental health could be substantially enhanced by incorporating qualitative methods into research protocols. Studies may focus on the application of qualitative methods to better understand different challenges and difficulties encountered by students during their second and third years at university. Also, future quantitative research may aim to further understand the relationship between these difficulties and different mental health problems; for example, which specific challenges encountered by university students attributed to depression or anxiety. Furthermore, the sources of such challenges may also be identified through further studies using mixed method approach. In addition, in reference to the findings of study 2, which identifies a prominent role for stigma, interventions may be placed for students and their families. Importantly, such students and their families can be educated about mental health issues as a means to change any negative attitudes towards this condition and encourage young adults to seek help from mental health services. Moreover, additional research is required to explore students' mental health challenges and needs from a counsellors' perspective, with the role of university counselling in Saudi Arabia requiring additional investigation to enhance our

understanding of these issues and identify further issue that may affect students' mental health.

## **6.6 Conclusion**

This thesis improves our knowledge of the mental health of female students in Saudi Arabia and is a significant contribution to the field. The result shows that the overall level of mental health problems was low over the first year of university life, and the level of adjustment to university decreased over time. Result indicated there are important individual differences between student subgroups following different trajectories of mental health and adjustment to university life. These trajectories are likely to be determined by a range of individual variables, such as the trait of EI, perceived social support, ESE, loneliness (study 1), coping strategies (study 2) and external factors, such as academic difficulties, not accessing services for support, as result of lack of knowledge about counselling resources at the university and stigma from family and society (study 2) are other factors. Future research will need to empirically investigate these possible associations.

Overall, the findings from this thesis make a substantial theoretical and empirical contribution to the field of student mental health, and the mental health of women in Saudi Arabia. The findings extend current knowledge about the factors that may impact the mental health of university students in general. This knowledge will facilitate the development of future support programs for students affected by mental health issues.

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## Appendix (1)

### **Evaluation of the psychometric Properties of three translated measures on Saudi population**

#### **1. Introduction**

This section describes a study that assessed the levels of validity and reliability of a set of three commonly used Western questionnaires for a group of Saudi Arabian female respondents before using them in the main study. Three questionnaires that would be useful in the PhD component of the work that had not been translated into Arabic were translated from the English language into the Arabic language. Maneesriwongul & Dixon (2004) argued that it is crucial that translated instruments are properly tested for reliability and validity because it provides evidence for validity and quality of

translated instruments. That helps in trying to guarantee that cultural factors are responsible for the findings obtained through cross-cultural research studies rather than translation errors.

The process of cross-cultural adaptation includes a combination of both the translation of language and the adaptation of cultural factors (Beaton, Bombardier, Guillemin & Ferraz, 2000). In the case of cross-cultural research, a questionnaire instrument must be appropriately translated and culturally adapted in order for it to be suitable to use with a different population – from a different culture – than its initial target population (Valmi, Sousa & Wilaiporn, 2010) Effectively, the translation of a questionnaire should be thought of as a pilot study that seeks to understand the suitability of the questionnaire in relation to its intended group of respondents (Arab, 2010).

In order to fulfill such an aim, a method that has been developed by Vanlenderand (1989) to adapt translated questionnaires in the field of Psychology was used in the current study. Over the

years, the area of cross-cultural translation has been enhanced greatly by Vanlender's model and this methodology has proved important in cross-cultural translation (Antunes, 2012; Arab, 2010; Banville, Desrosier & Volet, 2000; Borsa & Bandeira, 2014; Chen et al, 2002; Hasani, MacDermid, Tang & Kho, 2015 ; Jones & Kay, 1992 ; Maneesriwongul & Dixon, 2004; Neves & Pimenta, 2012; Sherman et al., 1992; Sperber, 2004; Walker et al., 1990; Wells et al., 2001).

The method advocated by Vanlender (1989) consists of more than mere translation (Arab, 2010): it provides the opportunity to take into consideration the unique features of the culture in which the questionnaires were disseminated. The Vanlender (1989) process involves different stages, which are as follows: (1) preparation of preliminary version by using translation-back translation, (2) evaluation and assessment of this preliminary version and the further arrangement, utilizing a committee approach, of an experimental version, (3) preliminary test of the experimental version, (4) assessment and evaluation validity, using bilingual participants, and (5) evaluation of the reliability.

## **2. Research Aims and Research Questions**

The current study aims to evaluate three commonly-used Western questionnaires in terms of their reliability and validity as translated instruments for a Saudi Arabian female population. The three questionnaires included in this study are (1) Emotional Self-Efficacy Scale Kirk et al.'s (2008), (2) Student Adaptation to College Questionnaire (Baker & Siryk, 1989), and (3) Trait Emotional Intelligence Questionnaire – Short Form TEIQue-SF Petrides and Furnham's (2006). The following three research questions are presented as part of this study in order to meet the overall research objective, which is to evaluate the reliability and validity of commonly-used Western questionnaire measures when distributed amongst female Saudi participants.

Q1: How relevant are the translated questionnaires to female students in Saudi Arabia?

Q2: To what degree are the three translated questionnaires valid for use with female students in Saudi Arabia?

Q3: To what degree are the three translated questionnaires reliable for use with female students in Saudi Arabia?

### **3. Method**

#### **3.1. Procedure**

There are five steps involved in the methodology of this study, which seek to assess the reliability and validity of the three Western questionnaires in relation to Saudi students. These are in line with the methodology detailed in Vanlenderand (1989). First, translation and back-translation are carried out on the original questionnaires in order to produce an initial questionnaire for testing. Second, this initial version of the questionnaire is examined and assessed by a panel of PhD holders in order to determine any changes that need to be made. At this stage, the experimental questionnaire is generated ready for testing. The third stage involves conducting preliminary tests on the experimental version, through the use of a random survey explain that the purpose of this phase is to allow the study respondents to offer feedback on any unclear or otherwise problematic items. Forth step is evaluation the validity of translation version using bilingual participant .The Fifth stage is an evaluation of the reliability of translated questionnaires.

## **3.2.Measures**

### **3.2.1.Emotional Self-Efficacy Scale (Kirk., Schutte & Hine, 2008)**

Emotional Self-Efficacy Scale is a 32-item measure designed in order to help researchers gain insight into respondents' emotional self-efficacy. Specifically, the Emotional Self-Efficacy Scale measures (1) the ability to regulate one's own emotions and the emotions of others, (2) the ability to understand one's own emotions and the emotions of others, (3) the ability to think based on emotions, and (4) and the perception of one's own emotions and the emotions of others. Kirk et al (2008) in their study, demonstrated results where the ESES showed good validity and reliability with internal consistency (0.96) and reliability which was also good at,  $r(26) = 0.85$ ,  $p < .0001$ .

### **3.2.3.The Student Adaptation to College Questionnaire (SACQ) (Baker & Siryk, 1989)**

The SACQ is an instrument of 67 items designed to assess how well students have managed to transition from living at home to living at university. This questionnaire assesses three parts of students' adjustment: (1) institutional attachment, (2) personal emotional adjustment, (3) social adjustment, and (4) academic adjustment (Cohorn & Giullano, 1999). High scores represent high levels of adjustment to university. A high number of researchers who have focused on exploring adjustment topics have utilised Baker and Siryk's SACQ. The SACQ is considered appropriate for the longitudinal study that forms part of this PhD component of the thesis because Baker and Siryk (1989) designed the questionnaire to be suitable for use at any point during students' time at university. For this reason, the SACQ can be utilised to gain insight into students' adjustment at different points during their higher education journey. Internal consistency for this questionnaire is reported to range from .92 to .95 (Asher, 2004 ; Amoon, 2008; Baker & Siryk, 1999). Good reliability and validity have been established for SACQ including construct, predictive, concurrent validity (Baker & Siryk, 1999 ;Beyers & Goossens, 2002; Feldt , Graham, & Dew, 2011; Rice, Cunningham, & Young, 1997).



### **3.2.4. Trait Emotional Intelligence Questionnaire–Short Form TEIQue-SF; (Petrides & Furnham, 2006)**

The TEIQue was designed for the purpose of helping researchers gain a thorough understanding of emotional intelligence. The TEIQue measures respondents' sociability, emotionality, self-control, and wellbeing. The short form (TEIQue-SF) has 30 questions, which are aimed towards the effective identification of universal characteristics of emotional intelligence. Farzam Memar (2007) investigated a sample to ascertain validity and reliability for the Trait Emotional Intelligence Questionnaire, TEIQue, where internal consistency and test-retest both showed scale reliabilities of 0.71 and 0.76 and good concurrent validity with other emotional intelligence questionnaires.

## **4. Result**

### Translation and Psychometric Properties of three Questionnaires

#### *i. The production of an initial questionnaire using back-translation*

This stage is geared towards ensuring that both the original and back-translated versions of the questionnaire express the same content. It is typically at this stage that any ambiguous translations are highlighted. Therefore, this stage is often used to ensure that the questionnaire is translated to the highest degree of accuracy (Jones & Kay, 1992; Chen et al., 2002 ; Idvall et al., 2002; Maneesriwongul & Dixon, 2004; Walker et al., 1990; Wells et al., 2001) The three questionnaires (The Adaptation to College Questionnaire, the Trait Emotional Intelligence Questionnaire–Short Form, and The Emotional Self-Efficacy Scale) required translation from English to Arabic so that Saudi students could understand them.

An English-speaking professional translator with a PhD in English was chosen to translate each of the questionnaire items into the Arabic language. Back translation (from Arabic to English) was carried out by a different professional English translator. A native speaker who is an English teacher at language Academy in UCLan who was not involved in the initial translation matched the original English items with the new translations to check their accuracy. A perfect match indicates that the translation measures used are adequate. In this way, the researcher tries to ensure that the translation of the three questionnaires could be conducted to the highest quality so as not to impact the results of the study. During this stage of process perfect mating has been optioned between the original and back-translation version.

*ii. Preliminary evaluation and production of experimental questionnaire under the committee approach*

The accuracy of the translated items was assessed by a different individual to the two professional translators who translated and back-translated the initial questionnaires. The researcher was satisfied that the questionnaires had been translated to a good standard based on the assessment of the individual assigned to evaluate the translations' accuracy, with no errors being highlighted. However, the evaluation and production of the questionnaires was also considered by a committee, to ensure, further, that they were fit for purpose. A six-person committee of Psychology PhD holders was recruited via invitations sent through Shagra University's Psychology department. They were from different subjects including Educational Psychology, Social Psychology, Health Psychology, and Measurement & Evaluation. This committee was then assigned to the assessment of the translated questionnaires. Each individual was requested to evaluate each item and highlight any ambiguities or irrelevant content. The committee was also asked to provide feedback on ways to improve the

questionnaires if necessary. Based on the feedback from the evaluation committee some changes were made to each questionnaire, these included changing some grammatical words, the use of simpler language and altering some of the informal words also, the committee recommend use respondents a 5-point scale for the items scale instead to a 7-point scale for and for TEI and SAQC questioners .

*ii. Random survey testing on the experimental questionnaires*

Vallerand who (1996) suggests that since no statistical testing occurs during this stage, the quantity of participants involved in the testing process is somewhat irrelevant. However, the sample should still be representative of the intended population. Banville, Desrosier & Volet (2000) explain that the purpose of this phase is to allow the study respondents to offer feedback on any unclear or otherwise problematic items. Because the sample for the study should be representative of the target population, the sample included only female Saudi students. Therefore, a total of 30 female students who were participating in Shagra University's School of Education were invited to take part in the testing stage. As part of their involvement in the testing stage, students examine the translation questionnaires that had been revised by the committee for the accuracy of expression and were asked to note any unclear or confusing items, and any areas that could be improved upon in order to produce more accurate and clear questionnaires. No items were excluded according to their feedback.

*iv. Evaluation of the Validity of the translated questionnaires*

According to Maneesriwongul & Dixon (2004), many cross-cultural research studies have enlisted the help of bilingual participants to evaluate translated instruments. A number of researchers, including Sousa and Rojjanasrirat (2011), Banville & Pauline (2000) and Hambleton

& Kanjee (1993), support this approach to determining the validity of cross-cultural content within translated questionnaires. When bilingual participants are invited into cross-cultural research studies, concurrent validity can be examined for the original and translated measure. When a strong correlation exists between a measure that has already been validated and a measure that is being tested, this is an indicator of concurrent validity (Berg & Latin, 1994). Banville, Desrosier & Volet (2000) suggested in this stage of validated approach participant should be between 20 to 30. In this study, 30 bilingual participants were invited to evaluate the concurrent validity of the English and translated Arabic questionnaires. Participants were asked to complete both versions of questionnaires in the same time. The following section presents the two methods employed for the comparative analysis of the two questionnaire formats:

- A Pearson correlation will be seen between the scores provided by the individual participants, in both the Arabic and English versions (a great degree of similarity is again indicative of a similarity between the statements).
- Paired t-tests will identify the nature of the differences when the Arabic and English versions. It is important to note that the non-significant differences indicate similarity between the statements. Using two tests to compare Arabic and English versions will allow for better comparison and provide a clear vision about the translated questionnaires. Based on the scores of these respondents, the researcher was able to evaluate the concurrent validity of the instruments and found that the total English questionnaire score was significantly correlated with the total translated Arabic score. Further, non-significant differences were found between the English version and Arabic version.

**Table 1: Pearson correlation between English and Arabic vision**

Scales	correlations	No of items
The Student Adaptation to College Questionnaire (SACQ) (Baker & Siryk, 1989)	0.98**	67
The Trait Emotional Intelligence Questionnaire–Short Form TEIQue-SF; (Petrides & Furnham, 2006)	0.99 **	30
The Emotional Self-Efficacy Scale (Kirk et al., 2008)	0.99**	32

Correlation is significant at (0.01) level

**Table 2: Main differences between English and Arabic vision.**

Scales	versions		t	sig
	English M(SD)	Arabic M(SD)		
The Student Adaptation to College Questionnaire (SACQ)	3.3115(.31766)	3.3125(.31718)	.494	.625
Trait Emotional Intelligence Questionnaire(TEIQue-SF)	3.7122(.57618)	3.7077(.5795)	-.366	.717
The Emotional Self-Efficacy Scale (ESE)	3.3297(.4736)	3.3239(.46601)	1.212	.235

*Table 3: Cronbach's alpha test for English and Arabic .*

<b>Scales</b>	<b>Alpha (Arabic vision )</b>	<b>(Alpha English version)</b>
The Student Adaptation to College Questionnaire (SACQ) (Baker & Siryk, 1989)	.83	.82
Trait Emotional Intelligence Questionnaire–Short Form TEIQue-SF; (Petrides & Furnham, 2006)	.88	.89
The Emotional Self-Efficacy Scale (Kirk et al., 2008	.86	.85

## **1. Conclusion**

Since cross-cultural research findings must be free from the influence of translation errors, it is essential that translated questionnaires are tested for quality and validity. Thus, this study was successful in answering the three key research questions and addressing the overall aim of the research: to test the reliability and validity of the translated questionnaires. These results show that the three translated measures are valid and reliable among female students in Saudi Arabia, which makes them suitable for use in the PhD study. This examination requires the use of reliable and valid measures of these constructs, so successful translation of those measures into Arabic is an important step in the examination of mental health and adjustment trajectories.

## Appendix 2: General health Questionnaire

### THE GENERAL HEALTH QUESTIONNAIRE (GHQ-28) David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, *over the past few weeks*. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

---

Have you recently

A1	been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2	been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3	been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4	felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5	been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6	been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7	been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
<hr/>					
B1	lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2	had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3	felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4	been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5	been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6	found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7	been feeling nervous and strung-up All the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

---

Have you recently

C1	been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2	been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3	felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4	been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5	felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6	felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7	been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

---

D1	been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2	felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3	felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4	thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5	found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6	found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7	found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

---

A	B	C	D	Total
---	---	---	---	-------



## Appendix (3) Students adaption to college Questionnaire

### Student Adaptation to College Questionnaire (SACQ)

Robert W. Baker, Ph.D. and Bohdan Siryk, M.A.

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

ID Number: \_\_\_\_\_ Sex:  F  M Date of Birth: \_\_\_\_\_

Current Academic Standing:  Freshman  Sophomore  Junior  Senior

Semester:  1  2  Summer or Quarter:  1  2  3  Summer

Ethnic Background (optional):  Asian  Black  Hispanic  
 Native American  White  Other

#### Directions

Please provide the identifying information requested on the right.

The 67 statements on the front and back of this form describe college experiences. Read each one and decide how well it applies to you at the present time (within the past few days). For each statement, circle the asterisk at the point in the continuum that best represents how closely the statement applies to you. Circle only one asterisk for each statement. To change an answer, draw an X through the incorrect response and circle the desired response. Be sure to use a hard-tipped pen or pencil and press very firmly. Do not erase.

In the example on the right, Item A applied very closely, and Item B was changed from "doesn't apply at all" to "applies somewhat."

Example											
A.	*	*	*	*	*	*	*	*	*	*	*
B.	*	*	*	*	*	*	*	*	*	*	X

Applies Very Closely to Me       Doesn't Apply to Me at All  
 ←-----→

1. I feel that I fit in well as part of the college environment. ....	*	*	*	*	*	*	*	*	*	*	*
2. I have been feeling tense or nervous lately. ....	*	*	*	*	*	*	*	*	*	*	*
3. I have been keeping up to date on my academic work. ....	*	*	*	*	*	*	*	*	*	*	*
4. I am meeting as many people, and making as many friends as I would like at college. ....	*	*	*	*	*	*	*	*	*	*	*
5. I know why I'm in college and what I want out of it. ....	*	*	*	*	*	*	*	*	*	*	*
6. I am finding academic work at college difficult. ....	*	*	*	*	*	*	*	*	*	*	*
7. Lately I have been feeling blue and moody a lot. ....	*	*	*	*	*	*	*	*	*	*	*
8. I am very involved with social activities in college. ....	*	*	*	*	*	*	*	*	*	*	*
9. I am adjusting well to college. ....	*	*	*	*	*	*	*	*	*	*	*
10. I have not been functioning well during examinations. ....	*	*	*	*	*	*	*	*	*	*	*
11. I have felt tired much of the time lately. ....	*	*	*	*	*	*	*	*	*	*	*
12. Being on my own, taking responsibility for myself, has not been easy. ....	*	*	*	*	*	*	*	*	*	*	*
13. I am satisfied with the level at which I am performing academically. ....	*	*	*	*	*	*	*	*	*	*	*
14. I have had informal, personal contacts with college professors. ....	*	*	*	*	*	*	*	*	*	*	*
15. I am pleased now about my decision to go to college. ....	*	*	*	*	*	*	*	*	*	*	*
16. I am pleased now about my decision to attend this college in particular. ....	*	*	*	*	*	*	*	*	*	*	*
17. I'm not working as hard as I should at my course work. ....	*	*	*	*	*	*	*	*	*	*	*
18. I have several close social ties at college. ....	*	*	*	*	*	*	*	*	*	*	*
19. My academic goals and purposes are well defined. ....	*	*	*	*	*	*	*	*	*	*	*
20. I haven't been able to control my emotions very well lately. ....	*	*	*	*	*	*	*	*	*	*	*
21. I'm not really smart enough for the academic work I am expected to be doing now. ....	*	*	*	*	*	*	*	*	*	*	*
22. Lonesomeness for home is a source of difficulty for me now. ....	*	*	*	*	*	*	*	*	*	*	*
23. Getting a college degree is very important to me. ....	*	*	*	*	*	*	*	*	*	*	*
24. My appetite has been good lately. ....	*	*	*	*	*	*	*	*	*	*	*
25. I haven't been very efficient in the use of study time lately. ....	*	*	*	*	*	*	*	*	*	*	*
26. I enjoy living in a college dormitory. (Please omit if you do not live in a dormitory; any university housing should be regarded as a dormitory.) ....	*	*	*	*	*	*	*	*	*	*	*
27. I enjoy writing papers for courses. ....	*	*	*	*	*	*	*	*	*	*	*
28. I have been having a lot of headaches lately. ....	*	*	*	*	*	*	*	*	*	*	*
29. I really haven't had much motivation for studying lately. ....	*	*	*	*	*	*	*	*	*	*	*
30. I am satisfied with the extracurricular activities available at college. ....	*	*	*	*	*	*	*	*	*	*	*
31. I've given a lot of thought lately to whether I should ask for help from the Psychological/ Counseling Services Center or from a psychotherapist outside of college. ....	*	*	*	*	*	*	*	*	*	*	*
32. Lately I have been having doubts regarding the value of a college education. ....	*	*	*	*	*	*	*	*	*	*	*
33. I am getting along very well with my roommate(s) at college. (Please omit if you do not have a roommate.) ....	*	*	*	*	*	*	*	*	*	*	*

**PLEASE TURN THE FORM OVER NOW AND COMPLETE STATEMENTS 34 THROUGH 67.**

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	Applies Very Closely to Me ←	Doesn't Apply to Me at All →
34. I wish I were at another college or university.....	* * * * *	* * * * *
35. I've put on (or lost) too much weight recently.....	* * * * *	* * * * *
36. I am satisfied with the number and variety of courses available at college.....	* * * * *	* * * * *
37. I feel that I have enough social skills to get along well in the college setting.....	* * * * *	* * * * *
38. I have been getting angry too easily lately.....	* * * * *	* * * * *
39. Recently I have had trouble concentrating when I try to study.....	* * * * *	* * * * *
40. I haven't been sleeping very well.....	* * * * *	* * * * *
41. I'm not doing well enough academically for the amount of work I put in.....	* * * * *	* * * * *
42. I am having difficulty feeling at ease with other people at college.....	* * * * *	* * * * *
43. I am satisfied with the quality or the caliber of courses available at college.....	* * * * *	* * * * *
44. I am attending classes regularly.....	* * * * *	* * * * *
45. Sometimes my thinking gets muddled up too easily.....	* * * * *	* * * * *
46. I am satisfied with the extent to which I am participating in social activities at college.....	* * * * *	* * * * *
47. I expect to stay at this college for a bachelor's degree.....	* * * * *	* * * * *
48. I haven't been mixing too well with the opposite sex lately.....	* * * * *	* * * * *
49. I worry a lot about my college expenses.....	* * * * *	* * * * *
50. I am enjoying my academic work at college.....	* * * * *	* * * * *
51. I have been feeling lonely a lot at college lately.....	* * * * *	* * * * *
52. I am having a lot of trouble getting started on homework assignments.....	* * * * *	* * * * *
53. I feel I have good control over my life situation at college.....	* * * * *	* * * * *
54. I am satisfied with my program of courses for this semester/quarter.....	* * * * *	* * * * *
55. I have been feeling in good health lately.....	* * * * *	* * * * *
56. I feel I am very different from other students at college in ways that I don't like.....	* * * * *	* * * * *
57. On balance, I would rather be home than here.....	* * * * *	* * * * *
58. Most of the things I am interested in are not related to any of my course work at college.....	* * * * *	* * * * *
59. Lately I have been giving a lot of thought to transferring to another college.....	* * * * *	* * * * *
60. Lately I have been giving a lot of thought to dropping out of college altogether and for good.....	* * * * *	* * * * *
61. I find myself giving considerable thought to taking time off from college and finishing later.....	* * * * *	* * * * *
62. I am very satisfied with the professors I have now in my courses.....	* * * * *	* * * * *
63. I have some good friends or acquaintances at college with whom I can talk about any problems I may have.....	* * * * *	* * * * *
64. I am experiencing a lot of difficulty coping with the stresses imposed upon me in college.....	* * * * *	* * * * *
65. I am quite satisfied with my social life at college.....	* * * * *	* * * * *
66. I'm quite satisfied with my academic situation at college.....	* * * * *	* * * * *
67. I feel confident that I will be able to deal in a satisfactory manner with future challenges here at college.....	* * * * *	* * * * *

Appendix (4)

TRAIT EMOTIONAL INTELLIGENCE QUESTIONNAIRE: SHORT FORM

Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from ‘Completely Disagree’ (number 1) to ‘Completely Agree’ (number 7).

1	Expressing my emotions with words is not a problem for me	1	2	3	4	5	6	7
2	I often find it difficult to see things from another person’s viewpoint	1	2	3	4	5	6	7
3	On the whole, I’m a highly motivated person	1	2	3	4	5	6	7
4	I usually find it difficult to regulate my emotions	1	2	3	4	5	6	7
5	I generally don’t find life enjoyable	1	2	3	4	5	6	7
6	I can deal effectively with people	1	2	3	4	5	6	7
7	I tend to change my mind frequently	1	2	3	4	5	6	7
8	Many times, I can’t figure out what emotion I’m feeling	1	2	3	4	5	6	7
9	I feel that I have a number of good qualities	1	2	3	4	5	6	7
10	I often find it difficult to stand up for my rights	1	2	3	4	5	6	7
11	I’m usually able to influence the way other people feel	1	2	3	4	5	6	7
12	On the whole, I have a gloomy perspective on most things	1	2	3	4	5	6	7
13	Those close to me often complain that I don’t treat them right	1	2	3	4	5	6	7
14	I often find it difficult to adjust my life according to the circumstances	1	2	3	4	5	6	7
15	On the whole, I’m able to deal with stress	1	2	3	4	5	6	7
16	I often find it difficult to show my affection to those close to me	1	2	3	4	5	6	7
17	I’m normally able to “get into someone’s shoes” and experience their emotions	1	2	3	4	5	6	7
18	I normally find it difficult to keep myself motivated	1	2	3	4	5	6	7
19	I’m usually able to find ways to control my emotions when I want	1	2	3	4	5	6	7
20	On the whole, I’m pleased with my life	1	2	3	4	5	6	7
21	I would describe myself as a good negotiator	1	2	3	4	5	6	7
22	I tend to get involved in things I later wish I could get out of	1	2	3	4	5	6	7
23	I often pause and think about my feelings	1	2	3	4	5	6	7
24	I believe I’m full of personal strengths	1	2	3	4	5	6	7
25	I tend to “back down” even if I know I’m right	1	2	3	4	5	6	7
26	I don’t seem to have any power at all over other people’s feelings	1	2	3	4	5	6	7
27	I generally believe that things will work out fine in my life	1	2	3	4	5	6	7
28	I find it difficult to bond well even with those close to me	1	2	3	4	5	6	7
29	Generally, I’m able to adapt to new environments	1	2	3	4	5	6	7
30	Others admire me for being relaxed	1	2	3	4	5	6	7

## Appendix (5)

### EMOTIONAL SELF-EFFICACY SCALE

Please rate how confident you are that, as of now, you can do the following  
 After reading each item please indicate your response by marking the appropriate number Not at all confident  
 2.A little confident 3 Moderately confident 4 Quite confident 5.Very confident

1	Correctly identify your own negative emotions	1 2 3 4 5
2	Help another person change a negative emotion to a positive emotion	1 2 3 4 5
3	Create a positive emotion when feeling a negative emotion	1 2 3 4 5
4	Know what causes you to feel a positive emotion	1 2 3 4 5
5	Correctly identify when another person is feeling a negative emotion	1 2 3 4 5
6	Use positive emotions to generate novel solutions to old problems	1 2 3 4 5
7	Realise what causes another person to feel a positive emotion	1 2 3 4 5
8	Change your negative emotion to a positive emotion	1 2 3 4 5
9	Correctly identify your own positive emotions	1 2 3 4 5
10	Generate in yourself the emotion another person is feeling	1 2 3 4 5
11	Know what causes you to feel a negative emotion	1 2 3 4 5
12	Regulate your own emotions when under pressure	1 2 3 4 5
13	Correctly identify when another person is feeling a positive emotion	1 2 3 4 5
14	Get into a mood that best suits the occasion	1 2 3 4 5
15	Realise what causes another person to feel a negative emotion	1 2 3 4 5
16	Help another person to regulate emotions when under pressure	1 2 3 4 5
17	Notice the emotion your body language is portraying	1 2 3 4 5
18	Use positive emotions to generate good ideas	1 2 3 4 5
19	Understand what causes your emotions to change	1 2 3 4 5
20	Calm down when feeling angry	1 2 3 4 5
21	Notice the emotion another person's body language is portraying	1 2 3 4 5
22	Create emotions to enhance cognitive performance	1 2 3 4 5
23	Understand what causes another person's emotions to change	1 2 3 4 5
24	Help another person calm down when he or she is feeling angry	1 2 3 4 5
25	Recognize what emotion you are communicating through your facial expression	1 2 3 4 5
26	Create emotions to enhance physical performance	1 2 3 4 5
27	Figure out what causes you to feel differing emotions	1 2 3 4 5
28	Regulate your own emotions when close to reaching a goal	1 2 3 4 5
29	Recognize what emotion another person is communicating through his or her facial expression	1 2 3 4 5
30	Generate the right emotion so that creative ideas can unfold	1 2 3 4 5
31	Figure out what causes another person's differing emotions	1 2 3 4 5
32	Help another person regulate emotions after he or she has suffered a loss	1 2 3 4 5

Appendix (6)

**Multidimensional Scale of Perceived Social Support** (Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the “1” if you **Very Strongly**

**Disagree** Circle the “2” if you **Strongly**

**Disagree** Circle the “3” if you **Mildly**

**Disagree**

Circle the “4” if you are **Neutral**

Circle the “5” if you **Mildly**

**Agree** Circle the “6” if you

**Strongly Agree**

Circle the “7” if you **Very Strongly Agree**.

- |     |  |   |   |   |   |   |   |   |     |
|-----|--|---|---|---|---|---|---|---|-----|
| 1.  | There is a special person who is around when I am in need.           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO  |
| 2.  | There is a special person with whom I can share my joys and sorrows. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO  |
| 3.  | My family really tries to help me.                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 4.  | I get the emotional help and support I need from my family.          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 5.  | I have a special person who is a real source of comfort to me.       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO  |
| 6.  | My friends really try to help me.                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |
| 7.  | I can count on my friends when things go wrong.                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |
| 8.  | I can talk about my problems with my family.                         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 9.  | I have friends with whom I can share my joys and sorrows.            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |
| 10. | There is a special person in my life who cares about my feelings.    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | SO  |
| 11. | My family is willing to help me make decisions.                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fam |
| 12. | I can talk about my problems with my friends.                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fri |

Appendix (7)

*UCLA Loneliness Scale*

INSTRUCTIONS: Indicate how often each of the statements below is descriptive of you.

C indicates "I often feel this way"

S indicates "I sometimes feel this

way" R indicates "I rarely feel this

way"

N indicates "I never feel this way"

1. am unhappy doing so many things alone .	O S R N
2. I have nobody to talk to .	O S R N
3. I cannot tolerate being so alone	O S R N
4. I lack companionship	O S R N
5. I feel as if nobody really understands me	O S R N
6. I find myself waiting for people to call or write	O S R N
7. There is no one I can turn to	O S R N
8. I am no longer close to anyone	O S R N
9. My interests and ideas are not shared by those around me	O S R N
10. I feel left out	O S R N
11. I feel completely alone	O S R N
12. I am unable to reach out and communicate with those around me	O S R N
13. My social relationships are superficial	O S R N
14. I feel starved for company	O S R N
15. No one really knows me well	O S R N
16. I feel isolated from others	O S R N
17. I am unhappy being so withdrawn	O S R N
18. It is difficult for me to make friends	O S R N
19. I feel shut out and excluded by others	O S R N
20. People are around me but not with me	O S R N

Appendix (8): interview Schedule

<b>Questions</b>	<b>Prompt questions</b>
<b><i>Describe the nature and extent of problems encountered in university life</i></b>	
what course you are on?	
What is the best thing about university life?	
What is the most difficult/challenging aspect of university life?	
What did you find to be most helpful in helping you to deal with difficult/challenging aspect?	
Could you describe what challenges you might face regarding the academic aspects of your experience as a student?	For example, do you find studying is difficult? Or do you find keeping up to date with your academic work difficult? How do you keep yourself motivated? How do you manage your time
Tell me about your friendships, are you satisfied with the number of friends that you have?	
Do you find it easy to make friends in university?	
Do you take part in the social activities provided by the university?	If yes, then do these activities make you feel better? What kinds of activities do you enjoy the most?
If you have problems what kind of support do you get?	Who do you turn to for help with solving your problems?
<b><i>Describe strategies employed to cope with problems</i></b>	
What are the steps that you follow to solve your problems?	The first step? The next?

---

What are the positive aspects of the steps you have just mentioned?

---

---

What are the negative aspects of the steps you have just mentioned?

---

***Describe any barriers faced when trying to seek help in overcoming difficulties.***

---

Would you seek psychological help if you have problems?

---

If not, why?

---

Do you think people who get help for mental health problems would be stigmatised?

---

If yes or no, then why?

---

If you have mental health problems do you find it hard telling people that you have mental health problems?

---

If yes, why?

---

***Describe the support received from the counselling centre***

---

Have you received any kind of help from the counselling centre?

---

If yes, how would you describe those services?

---

Have you received any information during your studies of where to go if you need help?

---

Have you seen any advertisements from the counselling centre about the services provided for students?

---

Do you think counselling centre at university are okay, or should they do anything differently?

---

Is there anything you want to add that I have not covered ?



## Appendix (9)

### Participants information (Qualitative study)

Name	Mental health class	Adjustment class	Subject	Age
Nada	Good mental health	High adjustment level, then decreased over time	Special education	20 years
Jenan	Good mental health	High adjustment level, then decreased over time	English language	22 years
Waeaam	Stable mental health	High adjustment level ,then decreased over time	low	20 years
Shahd	Good mental health	High adjustment level then decreased over time	Special education	23 years
Limia	Good mental health	High adjustment level, then decreased over time	Islamic studies	19 years
Asma	Stable mental health	High adjustment level, then decreased over time	Math	20 years
Areej	Good mental health	High adjustment level ,then decreased over time	Childhood Studies	23 year
Norah	Good mental health	High adjustment level, then decreased over time	English language	20 years
Rima	Good mental health	High adjustment level then decreased over time	Art	22 years
Tahini	Good mental health	High adjustment level then decreased over time	library and information science	21 years
Maram	Good mental health	High adjustment level then decreased over time	English language	22 years
Joana	Good mental health	High adjustment level then decreased over time	Islamic studies	20 years
Sana	Good mental health	High adjustment level then decreased over time	Psychology	23 years
Amal	Good mental health	High adjustment level then decreased over time	English language	21 years
Reem	Good mental health	High adjustment level then decreased over time	Special education	23 years

Appendix (10) sample of coding (English)

Abstract coding	Quotations	Coding line by line
<p>Going to psychiatrist last option</p> <p>Using religion methods first option</p> <p>Turn to psychological services only if the problem serious, other solutions are ineffective</p> <p>Negativity and pity towards mental health patients visiting psychological services</p>	<p>Would you seek psychological help if you have problems?</p> <p>Silence) This depends on the problem. I would not immediately visit a psychiatrist; for example, this will be the last option. I would try alternative solutions first</p> <p>What are these solutions?</p> <p>It is possible to turn to prayer and reading the Quran. This may be my first action if I do not feel better ultimately, I can go to a psychiatrist, but it will definitely be the last solution.</p> <p>Why would you consider visiting a psychological therapist as a last option?</p> <p>I feel there are alternative options to face psychological problems, I think I would go to psychological services for example if I feel my problem is serious only and if the other solutions do not work.</p> <p>Do you think people who get help for mental health problems would be stigmatised?</p> <p>Yes, I think the negative aspect is the look of pity towards mental patients that receive psychotherapy. I have noticed that when people mention someone with a mental health problem or a person with a psychiatric illness, they are spoken about negatively and pitied</p>	<p>Not going to psychological services immediately , Make it last option , try others solution</p> <p>Using Quran and pray is first option, If not feel better go to a psychiatrist. Going to psychiatrist last option</p> <p>Have others option to face mental problems rather than mental health services. Going only if the problem is serious, alternative solutions are ineffective</p> <p>Negativity and pity towards mental health patients visiting psychologist ,Talk negatively and pitied about people with mental problems or mental illness ,</p>

Appendix (11) Sample of coding (Arabic transcription)

Line by line سطر بسطر	Quotations	Abstract coding ملخص الاكواد
<p>عدم الذهاب مباشرة للعلاج النفسي جعله اخر الحلول تجربه حلول اخرى اللجوء الى الرقية اول خيار إذا لم يتحسن بعد الرقيه الذهاب لطبيب نفسي الذهاب للمعالج سيأخذ وقت طويل</p> <p>وجود فرص اخرى لمواجهة المرض غير ا العلاج النفسي للذهاب للمعالج فقط اذا المشكلة خطيره وعدم جدوى بقيه الحلول</p> <p>نظرة سلبية نظره الشفقة تجاه من يعانون من المرض النفسي التحدث عن المرضى بشكل سلبى</p>	<p>هل من الممكن ان تلجأين لخدمات العلاج النفسي لو شعرتي أنك بحاجة لذلك يعتمد على المشكلة لا اعتقد أني سأذهب مباشرة مثلا سيكون اخر خيار سأحاول تجريبه حلول اخرى ماهي هذه الحلول الاخرى ممكن الجا للرقية الشرعية من الممكن ان يكون هذا اول شيء أفكر به ممكن إذا لم اشعر بتحسن ممكن اروح طبيبي نفسي ولكن بالتأكيد راح يكون اخر خيار. اعتقد ان الذهاب لطبيب نفسي سيأخذ وقت طويل مني</p> <p>لماذا الذهاب لطبيب نفسي او مقدمي الرعاية النفسية سيكون اخر حل بالنسبة لك.. اقصد ما لسبب وراء ذلك؟</p> <p>اشعر ان لدي فرص اخرى غير الذهاب لطبيب نفسي لمواجهة المشكلات النفسية اعتقد ان سأفكر في الذهاب إذا شعرت ان مشكلتي خطيره او ان الحلول الاخرى لم توتي بنتيجة</p> <p>هل تعتدين ان الأشخاص الذين يطلبون المساعدة النفسية يعانون من وصمه العار؟</p> <p>نعم بالتأكيد اعتقد ان الجانب السلبي في ذلك هو نظره الشفقة للمرضى النفسيين هذا ما لاحظته عاده على سبيل المثال الناس عندما يتحدثون عن المرضى النفسيين او من يعانون من مشكلات نفسيه فانهم يتحدثون بشكل سلبى كما لو انهم يشعرون بالأسف تجاههم فهذا ما ينظرون لهم عاده</p>	<p>الذهاب للعلاج النفسي اخر خيار استخدام الرقية اول خيار الذهاب للعلاج النفسي اخر خيار ويأخذ وقت طويل</p> <p>وجود فرص اخرة لمواجهة المشكلات النفسية غير العلاج النفسي الذهاب للعلاج فقط إذا المشكلة خطيره او عدم جدوى بقيه الحلول</p> <p>وجود نظره سلبية تجاه من يعانون من مشكلات سلبية كنظره الشفقة</p>