Depression Symptoms Among Female Adolescents in Saudi Arabia and Barriers to Seeking Help

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Abstract

Studies have reported a higher prevalence of depression symptoms among adolescents in Saudi Arabia than in many other countries, though all have methodological limitations. This research set out to assess the prevalence of elevated depression symptoms using a more reliable method and to investigate some of the factors that may be associated with it, particularly barriers to seeking help. In Study 1, a systematic review of studies of the point prevalence of elevated depression symptoms in Saudi adolescents was conducted. In Study 2, the prevalence of elevated depression symptoms among adolescent females (aged 13-18 years) living in Unaizah, Saudi Arabia was investigated using the Mood and Feelings Questionnaire, a standardised self-report measure of depression symptoms. To explore barriers to seeking help semi-structured interviews were conducted with three groups of female participants. In Study 3, 16 of the girls who reported elevated symptoms were interviewed. In Study 4, ten of their female caregivers were interviewed. In Study 5 eight female school counsellors in Unaizah were interviewed. It was found that 48.2% of the girls reported elevated symptoms of depression, a high rate compared with many countries. The results of the semi-structured interviews suggested that there were four barriers to seeking help. These were: 1) the students' depression symptoms were not being recognized by themselves, their caregivers, or the school counsellors; 2) the students had no one they could turn to directly for help, as they did not trust the school counsellor; 3) it was difficult for the caregivers and the counsellors to access specialist help because they required the permission of the father; 4) the caregivers had attitudes to mental illness that discouraged them from seeking help. Recommendations include improving the mental health literacy of adolescents, improving the training of school counsellors, and adopting a formal policy of confidentiality for school counsellors.

DECLARATION OF ORIGINAL AUTHORSHIP

I confirm that this is my own work and the use of all materials from other sources has been properly and fully acknowledged.

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DEDICATION

I dedicate this thesis to my parents and my sons Ahmad and Abdulmalik.

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List of Abbreviations and Acronyms

ANOVA	Analysis of Variance
APA	American Psychiatric Association
BDI	Beck Depression Inventory
CBT	Cognitive Behavioural Therapy
DASS-42	Depression, Anxiety and Stress Scales
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, 4th Edition
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
GHQ-28	General Health Questionnaire
ICD-10	Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems
IPT	Interpersonal Psychotherapy
JBI	Joanna Briggs Institute
KSA	Kingdom of Saudi Arabia
MDD	Major Depressive Disorder
MDE	Major Depressive Episode
MFQ	Mood and Feelings Questionnaire
MHA	Mental Health Act
MHS	Mental Health System
MINI-Kid	MINI International Neuropsychiatric Interview for Children and Adolescents
MSPSS	Multidimensional Scale of Perceived Social Support
N	Total Sample Number
n	Subsample Number
NCB	National Children's Bureau
NICE	National Institute for Health and Care Excellence
PDD	Persistent Depressive Disorder
PHC	Primary Health Care Centre
PHQ-9	Patient Health Questionnaire-9
PRIME-MD	Primary Care Evaluation of Mental Disorders
RSES	Rosenberg Self-Esteem Scale
SCL-90-R	Symptom-Checklist-90-Revised
SNMHS	The Saudi National Mental Health Survey
SSRI	Selective Serotonin Reuptake Inhibitor

T-CBT	Transdiagnostic Cognitive Behavioural Therapy
WHO	World Health Organisation

Chapter 1
Introduction

1.1 Statement of the Problem

Depression is a common mental health disorder that affects people of all ages around the world, with almost 264 million people experiencing the condition at any time (World Health Organization, 2020). Estimates of the prevalence of elevated depression symptoms among adolescents in Saudi Arabia are generally high, ranging from 13.1% to 66.0% for males and from 13.9% to 80.2% for females (see section 3.3). However, a systematic review of all these studies carried out in Saudi Arabia (Study 1) found that all of them had methodological limitations including the use of unvalidated measures. The first aim of the present research is to assess the prevalence of elevated depression symptoms among female adolescents using a validated self-report measure of adolescent depression, namely the Mood and Feelings Questionnaire (MFQ). It is important to understand the reasons why the prevalence rates are so high among this age group. Therefore, the second aim is to explore a number of factors that may be related to this, including barriers to seeking help for depression, for which little previous work has been done.

1.2 Defining Depression

Major depressive disorder is considered one of the most common and debilitating psychological disorders (Kessler et al., 2005); according to the World Health Organization (WHO), it is now the foremost cause of disability worldwide (World Health Organization, 2017). Several terms related to depression need to be defined, including *major depressive disorder* and *major depressive episode*. The Diagnostic and Statistical Manual of Mental Disorders versions IV and 5 (DSM-IV, American Psychiatric Association 1994; DSM-5, American Psychiatric Association, 2013) defined major depressive disorder (MDD) in almost the same way with only small changes between them. MDD refers to having one or more major depressive episodes (MDE), and MDE is characterized by anhedonia ("markedly diminished interest or pleasure in all, or almost all activities most of the day, nearly every day"(American Psychiatric Association 2013, p. 160), low mood (and in children and adolescents, irritability), fatigue, change of appetite, sleeping problems, psychomotor retardation or agitation, negative self-evaluation, impaired concentration or indecisiveness, and suicidal thoughts (American Psychiatric Association, 2013). Specifically, in regard to adolescents, to be diagnosed with an MDE, an adolescent must report one of two core symptoms: low mood or irritability, or loss of interest or pleasure (anhedonia), and a

minimum of five symptoms in total, that have been present for at least two weeks (American Psychiatric Association, 2013) and which interfere with functioning or cause distress. Negative self-evaluation can include a feeling of guilt, as well as low self-worth. However, a diagnosis of MDD can only be made if there is no history of hypomania or mania and the MDE is not better explained by a psychotic disorder, such as schizophrenia.

Although DSM-IV and DSM-5 state that depression symptoms in adolescents are almost the same as in adults, it has been argued that depression symptoms may vary with age (Cicchetti & Toth, 1998; Weiss & Garber, 2003). Young children do not generally indicate hopelessness or depressed mood and are more likely to report somatic symptoms of depression (Carlson & Kashani, 1988; Kovacs, 1996; Ryan, 1987; Weiss & Garber, 2003). Anhedonia and psychomotor retardation tend to become more prevalent during adolescence. The experience of anhedonia in adolescence is a predictor for MDD in adulthood (Wilcox & Anthony, 2004). Studies have found that there is a positive relationship between the amounts of distress and anhedonia experienced by individuals (Barlow et al., 2014; Downar et al., 2014; McMakin et al., 2012; Mulder, 2002; Uher et al., 2012). A recent meta-analysis revealed a strong relationship between anhedonia and current suicidal ideation which was independent of elevated depression symptoms (Ducasse et al., 2018).

Persistent depressive disorder (PDD), which includes the condition before known as dysthymia, is a depressed mood that lasts for at least two years. Someone diagnosed with PDD may vary between episodes of major depression and periods of less severe symptoms, but to qualify as PDD, the symptoms must persist for two years (DSM-5, American Psychiatric Association, 2013).

PDD appears to show a less severe symptom profile compared to major depressive disorder. For example, Steer et al. (1987) compared a group of outpatients diagnosed with major depressive disorder with another group diagnosed with dysthymia and found they showed similar results on many of the items in the Beck Depression Inventory (Beck et al., 1961) but that the MDD group indicated having more ideas of suicide and loss of appetite. It should be noted that when the term *'depression'* is used by itself without mentioning what type it is, it often includes PDD or dysthymia, as well as MDD or MDE, and can refer to an individual having elevated symptoms of depression that do not meet the criteria for a formal psychiatric diagnosis.

In brief, the nature of depression is complex and may therefore have complex causes. Several theories of depression have been suggested to understand the aetiology and development of the condition, some of which will be considered next.

1.3 Theories of the Development of Depression

Several theories or models of the development and maintenance of depression have been proposed. This thesis will only consider four which are the most relevant to adolescence, including biological theories, interpersonal theories, cognitive theories and sociocultural models.

1.3.1 Biological Theories of Depression

For many years a variety of biological theories have been proposed to explain the causes of depression. One is that depression is due to a lowered level of noradrenaline (e.g., Narbona, 2014; Schildkraut, 1965), a neurotransmitter that plays an essential part of the nervous system and which is associated with the 'fight or flight' response to perceived danger. Reduction in noradrenaline has been linked to low energy, concentration difficulties, and cognitive ability (Marin & Menza, 2005). A second theory is that depression is caused by a dysfunctional dopamine system; dopamine is a neurotransmitter associated with pleasure, reward and motivational difficulties (Marin & Menza, 2005). A third is that depression is associated with lowered levels of serotonin, another neurotransmitter which plays an essential role in the regulation of important functions, such as appetite, sleep, memory, learning, and social behaviours (Nique et al., 2014).

Studies have shown that depression may be due to inflammation and hyperactivity of the hypothalamic–pituitary–adrenal (HPA) axis (Pariante, 2017). One of the roles of the HPA axis is to regulate the response to stress. Another theory is that depression could be due to certain brain structures, including the hippocampus, amygdala, and frontal lobe, becoming smaller (Whittle et al., 2014).

Sullivan et al. (2000) examined the genetic influence on major depressive disorder by conducting a systematic review and meta-analysis of relevant studies, which included five family studies and five twin studies. They concluded that major depressive disorder is a complex disorder that does not result from either genetic or environmental influences alone but rather from both, although the genetic influences are very strong.

A further topic covered by biological theories is that depression can be related to changes in hormones. In regard to adolescent depression, it has been proposed that circulating hormones due to pubertal changes may be related to escalation in negative affect (Angold et al., 1999; Benjet & Hernández-Guzmán, 2002; Brooks-Gunn, 1988; Crockett & Petersen, 1987; Rierdan & Koff, 1991; Stice et al., 2001).

Although these theories are important, they have limitations. As discussed, genetic factors contribute to depression, but it appears that the higher prevalence in females is not due directly to genetic mechanisms (Piccinelli & Wilkinson, 2000). In support of this, a longitudinal study of twins found that the extent of genetic liability to depression was similar in both males and females who shared the majority of the genetic risk factors (Kendler & Prescott, 1999). As biological theories are not directly relevant to the current research, they will not be considered further.

1.3.2 Interpersonal Theories of Depression

Psychologists have proposed that a major cause of depression in adolescents is conflict in interpersonal relationships (Jacobson & Mufson, 2010). Adolescents with depression symptoms exhibit behaviour that negatively affects their relationship with others, which then elevates further their depressive symptoms (Mychailyszyn & Elson, 2018). In this regard, Sullivan (1953) postulated that a lack of inadequacy of interpersonal relationships may negatively affect the individual's mental health, and Bowlby (1978) argued that emotional distress can result from a lack of interpersonal relationships. Researchers have demonstrated that depressed adolescents showed more interpersonal conflict between parents and peers than non-depressed adolescents (Sheeber et al., 2007).

Interpersonal theories of depression propose that, when an individual has experienced detrimental interpersonal environments, they are inclined to develop styles of interpersonal interaction that subsequently increase the stress in relationships, which then results in having depression (Joiner et al., 1999; Liu & Alloy, 2010). Such depression can then add to the difficulties in the relationship.

Rudolph et al. (2008) placed these theories in the context of adolescence and proposed that as adolescents try to develop more intimate relationships with their peers, including romantic relationships, this process is inhibited by early family disruptions, which hinder the development of adaptive interpersonal behaviours. Rudolph et al. (2000) examined elevated depression symptoms in adolescents in relation to different kinds of stress and concluded that stress related to interpersonal relationships was a better predictor of depression symptoms than other kinds of stress, particularly among females.

There is evidence that adolescent girls are at greater risk of depression than boys. A study suggested that adolescent girls experience higher interpersonal stressors than both younger girls and adolescent boys (Hankin et al., 2007). In addition, during adolescence, girls invest more in intimate peer relationships and are more sensitive to relational conflict than boys

(Larson, 2001; Rudolph, 2002). Studies have shown that MDD is more strongly linked to interpersonal stressors in adolescent girls compared with boys (Hankin et al., 2007; Kendler & Gardner, 2014; Rudolph et al., 2009), suggesting an interaction with sex.

Rudolph et al. (2008) proposed a model in which early family difficulties (e.g., insecure parent-child attachment, parental depression) have a negative impact on the development of positive interpersonal behaviours. As a result, young people have difficulties in their relationships, which then increases their risk of having subsequent depression. The depressive symptoms themselves add to the difficulties of interpersonal functioning, which leads to worsening the condition and making it last longer. In support, there is evidence that adolescents with depression are more likely to experience interpersonal difficulties in their relationships with their family, peers and romantic partners (Garber, 2005; Rudolph et al., 2008). Evidence indicates that one of the strongest predictors of depression in children is poor relations with their peers (Bernaras et al., 2013; Garaigordobil et al., 2017). A longitudinal study was conducted among 3,692 children in the UK to investigate the effect of intentional and frequent harm by peers in childhood (seven to ten years old). It showed that having been a victim of bullying at this age was linked to later depression and emotional symptoms lasting for two years at the age of 11 to 14 (Zwierzynska et al., 2013).

Research has indicated that individuals experiencing elevated depression symptoms are particularly likely to exhibit maladaptive interpersonal behaviours (Coyne, 1976; Hames et al., 2013). Coyne's (1976) interpersonal theory of depression claims that the manner in which mildly depressed people interact with their environment increases the risk that they will have a depressive episode. The behaviours of the depressed person have a negative impact on their relationships with others by evoking negative affect in them and increasing the level of stress and conflict in the relationships. This increases the likelihood that the others will reject them, which maintains their depressed mood (Prinstein et al., 2005).

Coyne suggested a further reason for rejection. Individuals with mild depression tend to repeatedly seek reassurance (Joiner & Metalsky, 2001). Others may often initially provide support and reassurance, but the depressed person does not find this satisfying. Rather, they may question the sincerity of the reassurance, which makes them seek further reassurance. Coyne's theory postulates that the depressed individual seeks more and more reassurance, which increasingly aggravates significant others and ends in them rejecting the depressed individual. Consistent with this, Abela et al. (2006) found that in young people aged six to 14, those having high levels of reassurance seeking reported higher levels of depressive

symptoms following the experience of life stressors than those having low levels of reassurance seeking.

In summary, interpersonal theories have proposed that various aspects of relationships with others contribute to depression, such as conflict or difficulties with family and peers, maladaptive styles of interaction or a lack of good relationships. A different theoretical approach to depression will be discussed next, which is very important and underlies the important treatment of cognitive behaviour therapy.

1.3.3 Cognitive Theories of Depression

According to Beck's cognitive theory (Beck, 1972, 1974), the development and maintenance of depression depends on an individual's negative and distorted thinking. Beck claimed that negative cognitions (e.g., "I am nothing if the person I love does not love me in return"), including beliefs and attitudes, play a causal role in depression. Beck focused on what he called the "primary triad", or "negative cognitive triad", which refers to three main areas of an individual's life: the self, the world, and the future. In regard to a depressed person, the self refers to their way of perceiving themselves negatively, for example, viewing themselves as unworthy (e.g., "I am a loser"); the world refers to their negative interpretations of their daily life (e.g., "The world is bad"); and the future refers to their negative vision of their future life (e.g., "It will never get better"). These dysfunctional beliefs are hypothesised to make an individual vulnerable to depression, and when evoked by stressful life events can make the individual interpret such events in a negative way (Beck, 1991).

Further, Beck's theory asserts that individuals have such thoughts automatically, which are difficult to controlled and occur without warning. As depression symptoms become elevated, these thoughts become more repetitive and disturbing. In severe cases, such thoughts can dominate the individual's thinking and impair their concentration and how they perform normal activities (Beck et al., 1979). In support of this theory, children and adolescents who were diagnosed with depressive disorders were found to have greater negative and distorted cognitions, such as reduced levels of self-worth and higher levels of hopelessness, than nondepressed young people (Asarnow et al., 1987; McCauley et al., 1988). There are similar findings for young people experiencing mild depression who have not been clinically diagnosed with the condition. Those having higher levels of depressive symptoms were found to hold significantly greater dysfunctional attitudes and beliefs (Deal & Williams, 1988).

A further feature of Beck's cognitive theory is that in depressed people their attention is biased to focus on negative aspects in their life (Clark et al., 1999). Further support for Beck's theory comes from a study by Orchard and Reynolds (2018) among adolescents aged 12 to 18, which found that negative self-evaluation was related to diagnosis of depression. In addition, Platt et al. (2017) found negative biases in attention and interpretation were associated with depression among adolescents.

Beck claims that an individual with depression has a negative self-schema, which is an internal representation of themself and the world around them. This influences them to interpret new information in a negative way and to perceive every aspect in their life to work against them; it also affects what they remember later in their life (Disner et al., 2011). As a result, Beck (1967) suggested several forms of cognitive errors exist that are made by individuals with depression and occur when information is interpreted in a negative or pessimistic manner.

The following are just a few examples of cognitive errors. Overgeneralisation refers to the thinking of an individual who is vulnerable to depression and assumes that if a negative situation happens in their life, they will have another same negative situation. Catastrophising refers to when the individual is constantly thinking that the worst possible situation will happen in their life. Selective abstraction means that the individual is only focusing on negative aspects of their life events. Excessive responsibility relates to when an individual thinks they are responsible for any bad situation. Beck's model indicates that more negative information processing errors will be made by individuals with depression, and they will be inclined to experience further negative affect when they face a negative situation in their life (Henriques & Leitenberg, 2002).

1.3.4 Sociocultural Models

The influence of the family has been linked with depression, beyond how family members interact with each other, as covered by the interpersonal theories (section 1.3.2), and this includes enculturation, which refers to when the older generation persuades or puts pressure on the younger generation to embrace their traditional beliefs and behaviours. Lorenzo-Blanco et al. (2012) investigated how family and culture affect depressive symptoms by studying Hispanic students who had been born in the United States. The findings showed that both family conflict and family cohesion played a part. Lengue and Kovacs (2005) noted that children's and adolescents' psychosocial adjustment has been related to parenting style. For example, studies have found that parental warmth such as engaging with the child, expressing

affection, and showing respect and positive concern, is associated with positive adjustment among adolescents (Barber et al., 2005; Heider et al., 2006), whereas weaker parental support is linked with greater depression and anxiety among adolescents (Yap et al., 2014).

1.3.5 Causal Factors Contributing to Depression

The onset of depression can be associated with many factors. Several environmental factors have been implicated, including experience to stressful live events (Goodyer et al., 1990; Pine et al., 2002) and having been bullied (Hawker & Boulton, 2000). According to Goodyer's (2001) review of studies nearly everyone who had a depressive disorder had experienced at least one significant negative life event. Additional factors that may be linked to depression include low education achievement, poorer social support, lower physical activity (Schuch et al., 2016, 2018), and having a parent who has experienced depression (Rice et al., 2002; Tully et al., 2008).

Some specific factors which have been found to contribute to the onset of depression can be related to childhood distress. There is a strong association between depression and having experienced sexual, physical or emotional abuse during childhood (Li et al., 2016). Additional factors have been found to include a child losing a parent (Bifulco et al., 1987; Harris et al., 1986; Li et al., 2016) or having maladaptive parental care (Bifulco et al., 1987; Harris et al., 1986)

1.3.6 The Interaction of Factors in the Development of Depression

Hankin (2006) claimed that no single etiological framework (e.g., biological, interpersonal, cognitive) has the ability to explain the development of depression because it is such a complex, multifactorial syndrome. As many factors are associated with the causes and development of depression, it is important to understand how they interact.

Studies have been carried out to examine genetic–environment interactions and have confirmed that some individuals are genetically predisposed to become depressed when exposed to certain environmental risks (Kendler et al., 2010). One major line of evidence in support is based on molecular genetic studies with adults that have assessed their experience of environmental stressors and how these can be associated with major negative life events, depending on the individual's genetic makeup (Caspi et al., 2003; Grabe et al., 2005; Kaufman et al., 2004; Kendler et al., 2005). A meta-analysis of 54 studies confirmed these findings (Karg et al., 2011) and added that certain genetic factors also interact with maltreatment during childhood and adolescence, recent life events and serious medical conditions. A further study by Lazary et al. (2008) reported that self-reported depression

symptoms were linked to the interaction of stressful life events with genetic factors, suggesting that environmental factors and genetic factors must be considered in their interactions and not alone.

1.4 Epidemiology of Depression Across Cultures

1.4.1 Prevalence of Depression in Adulthood

This section discusses the prevalence of depression across cultures among adults. Studies in respect of adults in Saudi Arabia will be reviewed in section 2.5.3, while studies with adolescents are critically appraised in section 1.5.2.

To assess the prevalence of depression, it first needs to be identified. Levis et al. (2019) observed that depression symptom questionnaires are commonly used as screening tools to identify individuals who have depression symptoms, even though they are not designed to diagnose the condition. They argued that such instruments overestimate the prevalence of depression symptoms, based on the published estimates of sensitivity and specificity (Thombs et al., 2018). Levis et al. (2019) compared estimates of prevalence based on three sets of meta-analyses: those classifying depression using diagnostic interviews, those using depression symptom questionnaires and those combining both. They found that among 81 prevalence estimates, the mean prevalence of depression amongst adults was 31% based on symptom questionnaires, 22% based on combinations, and 17% based on diagnostic interviews. It should be noted that these figures depend on the cut-off adopted in each questionnaire-based study (i.e., higher cut-offs are associated with lower prevalence), and that in general the estimated prevalence is higher than the actual prevalence. Moreover, different self-report instruments can give different estimates of prevalence due to the different assumptions they make about what the symptoms of depression are and the different cut-offs they use. The studies they sampled were based on samples selected from a range of groups and settings, including medical settings. Levis et al. (2019) concluded that the reported prevalence for “depression” or “depressive disorders” may be higher than the actual prevalence of depression, with their findings suggesting the difference may be substantial. In discussing the prevalence of depression, it is therefore necessary to understand how depression was assessed.

Worldwide, the prevalence of depression has been estimated in many studies. A meta-analysis by Lim et al. (2018) aimed to estimate the prevalence of depression from diverse countries between 1994 and 2014. A total of 90 studies were identified from Africa, Asia, Australia, Europe, North America and South America and included 1,112,573 adults. They

included depression identified by self-report instruments and depression diagnosed by structured clinical interviews. A total of 68 studies were based on point prevalence (n=897,061), nine studies on one-year prevalence (n=52,163), and 13 studies on lifetime prevalence of depression (n=163,349). The overall point prevalence of depression was 12.9%, one-year prevalence of depression was 7.2% and lifetime prevalence of depression was 10.8%. The point prevalence was significantly higher for women than men (14.4% compared with 11.5%) and was significantly higher in studies using self-report instruments than interview-based assessment (17.3% compared with 8.5%). However, caution is required in interpreting these results, as the difference between women and men might be explained in part in the following ways. Parker and Brotchie (2010) have pointed out that women seek help for their depression symptoms more than men do and are more likely to be more honest and open in reporting such symptoms than men. Moreover, in regard to the figures for one-year prevalence and lifetime prevalence, women tend to recall their depressive episodes better than men (Parker & Brotchie, 2010).

There were no significant differences between the rates for the different continents. Some reasons for the higher point prevalence (12.9%) compared with lifetime prevalence (10.8%) were suggested by the authors. It might be that failing to remember the symptoms made the participants under-report past depressive episodes. Further, people with depression might have a period of recovery during this period and their better mood may lead them not to remember and report their symptoms. Finally, it is possible that depression was formally diagnosed less frequently two decades ago and some patients who had depression were not diagnosed, resulting in a lower reporting of lifetime prevalence.

The WHO World Mental Health (WMH) Survey Initiative compared the prevalence of major depressive disorder (and other DSM-IV disorders) in 18 countries from every continent (ten developed countries, Belgium, France, Germany, Israel, Italy, Japan, the Netherlands, New Zealand, Spain, United States, and eight developing countries, Brazil, Colombia, India, Lebanon, Mexico, South Africa, Ukraine, and Shenzhen in the People's Republic of China) by conducting coordinated surveys using a common protocol and instrument, the WHO CIDI Version 3.0 (Kessler et al., 2010). As this procedure is systematic and used the same instrument it allows the findings for different countries to be compared directly. The 12-month prevalence estimates of MDE varied from 2.2% in Japan to 10.4% in Brazil, with the midpoint for all countries being 5%. However, Kessler et al. (2010) mentioned the possibility that some individuals with serious physical or neurocognitive impairment did not participate

in the studies they reviewed, meaning they may not have been wholly representative of the population.

Additionally, a few findings for the US will be noted. There the 12-month prevalence rate of MDE among adults was reported to be 6.7% in 2015; the rate among males and females was 4.7% and 8.5%, respectively (NIMH: Major Depression, 2018). Two years later, the rates were a little higher. According to the National Institute of Mental Health, the 12-month prevalence rate of MDD based on DSM-5 among adults was reported to be 7.1% in 2017; the rate among males and females was 5.3% and 8.7%, respectively. Those aged 18-25 years had a higher prevalence rate of MDD of 13.1%.

1.4.2 Sociodemographic Factors Associated With Depression

Most epidemiological studies across cultures have found that gender, age, and marital status are associated with depression, although the studies have mostly been carried out in Western countries (Kessler & Bromet, 2013). After adolescence, females are twice as likely to experience depression as males (Hyde et al., 2008) and this ratio of approximately 2:1 has been found in most countries (Angst et al., 2002; Kuehner, 2003; Van de Velde et al., 2010). Depression is more prevalent among individuals who are separated or divorced than the currently married and the prevalence generally decreases with age (Andrade et al., 2003; Weissman et al., 1996). However, the relationship between age and MDE varied considerably in the 18 countries studied in the WMH surveys (Kessler & Ustun, 2008; see section 1.5.2).

Generally, the estimated lifetime prevalence of depression in the WMH surveys (Kessler & Ustun, 2008; see section 1.5.2) was higher in high-income countries (14.6%) than in low to middle-income (11.1%) countries. Within the high-income countries, low personal income was associated with depression, with the poorest individuals in France, Germany, New Zealand, and the US being about twice as likely to have depression as those having the highest income; however, in the low to middle-income countries, the level of personal income was not associated with depression. Further, it was found that the level of education in the 18 countries surveyed did not show a simple relationship with depression.

Unemployment is a significant factor associated with depression. It has been suggested that unemployment can contribute to the development of depression (Egan et al., 2016; Jefferis et al., 2011) and conversely, depression can result in unemployment, as those with depression find it more difficult to find and keep employment (Buckley et al., 2015; Egan et al., 2016; Wagenaar et al., 2012).

In summary, several demographic factors have been found to be associated with depression, including gender, age and marital status, although such associations may depend on the country or culture.

1.5 Depression in Adolescence

1.5.1 Identification of Depression in Adolescence

The diagnostic criteria for all mood disorders based on DSM-5 are very similar for children and adults, and this includes major depressive disorder (Abela & Hankin, 2008). The only difference is that for children and adolescents, ongoing irritability as well as depressed mood can be a core diagnostic symptom (American Psychiatric Association , 2013). Such similarity of the diagnostic criteria for adults, children and adolescents suggests that the presentation of MDD does not depend on age. However, clinical descriptions of the disorder suggest there may be some differences between adults and young people, as changes in weight and appetite, fatigue, insomnia and unexplained physical complaints are more common in young people (Goodyer & Cooper, 1993; Nardi et al., 2013; Roberts et al., 1995; Ryan et al., 1987). Depression in adolescents is often overlooked, which may be because adolescents in this period show pronounced irritability, moodiness, and fluctuating symptoms, which can confuse recognizing symptoms of actual depression compared with adults (Leaf et al., 1996).

A study by Cole et al. (2011) examined how the manifestation of symptoms among adolescents depended on the severity of their depression. They found that milder depression was associated with concentration problems, feelings of worthlessness/guilt and sleep disturbance but with severe depression, symptoms included psychomotor agitation/retardation, changes in weight and appetite, and suicidal ideation/attempts.

1.5.2 Prevalence of Depression in Adolescence

During childhood, rates of depression are low and similar in both girls and boys (Kessler et al., 2001). The symptoms of depression often first appear in adolescence (Green et al., 2005) and during this period they show a sharp increase; the 12-month prevalence rate increases from 4.5% at age 13 to 8.7% at age 16 (Thapar et al., 2012). By the end of their adolescence about 20% of people will have experienced a major depressive episode (Thapar et al., 2012). Girls start to experience more depression than boys from age 13-15 (Twenge & Nolen-Hoeksema, 2002; Wade et al., 2002), although the caveats noted above regarding self-report may be of relevance.

1.5.2.1 Estimates of Point Prevalence in Different Countries.

Several estimates of the point prevalence of depressive disorder among young people in different countries have been reported. Costello et al. (2006) reported that at any point between 1965 and 1996 4.6% of adolescent boys and 5.9% of adolescent girls met the diagnostic criteria of MDD. A meta-analysis of studies from 27 countries indicated that the point prevalence of diagnosed MDD among children and adolescents aged 6 to 18 years is 2.6% (Polanczyk et al., 2015). A review of 20 studies of young people living in the US, Canada, Sweden, Finland and New Zealand (Johnson et al., 2018) found prevalence rates of elevated depression symptoms amongst young people aged 11 to 19 years that varied from 5.6% to 44.0%. These studies were mainly based on clinical interviews but also included self-report instruments. This is a large range and probably reflects both cultural differences between the samples and methodological issues such as the instrument used and the sampling. Such issues will be discussed in more detail in section 3.3.

As discussed earlier (section 1.5.1), prevalence rates for a formal diagnosis based on interview are generally lower than for elevated depression symptoms indicated by a questionnaire. Some examples of single studies that assessed the point prevalence of depression symptoms using self-report instruments follow.

A survey by telephone using the depression screener (DesTeen) (Pietsch et al., 2011) with a cut-off of 14 was carried out among 988 males (51.6%) and females (48.4%) aged 12 to 17 in Germany. It was carried out by a market research and opinion polling company. The overall prevalence of depression symptoms was 8.2%, with females (11.6%) reporting more symptoms than males (3.1%) (Wartberg et al., 2018). However, 41% refused to take part and it is not clear if they were equivalent to the 59% who did take part. In addition, the use of a telephone survey may have affected their honesty because they may have been wanting to finish the interview quickly (Lavrakas, 2010).

A cross-cultural study was carried among adolescents aged 14 -18 (with mean age of 15.70) from Hong Kong (M=873, F=898) and the US (M=198, F=303) using the BDI-II (Beck et al., 1996). The Hong Kong sample consisted of a cross-section of the high school population and the US sample was from seven schools in an area of Texas. A cut-off of 14 was used (Stewart et al., 2004). The prevalence of depression symptoms was 46% and 34%, respectively, for Hong Kong and the US.

Some further examples using a different measure, the Mood and Feelings Questionnaire (MFQ) with a cut-off of 27 (Costello & Angold, 1988) follow. Among 2,465 adolescents (M= 1,212, F=1,253) aged between 12 and 15 (mean age was 13.7) attending private or public schools in Norway the overall prevalence of depression symptoms was 2.6% and for

females was 3.3% (Sund et al., 2001). Among 3,593 (M= 1,774, F=1,819) students in 6th and 8th grades in Seattle, USA, attending middle schools in different sociodemographic areas, the overall prevalence was 6.5% (Banh et al., 2012). These values are quite low, and it is not clear why this is.

In the UK, a recent study was conducted among 822 young people aged 13 to 18 years old in three public schools in the UK. The prevalence of elevated depression symptoms based on the MFQ was 22%, with 13.7 % for boys and 28.2% for girls (Hards et al., 2020). A possible reason for this higher value could be that the worldwide prevalence has increased since the time of the previous studies.

In summary, the studies using self-report instruments have indicated that the point prevalence of depression symptoms in a variety of countries for both genders ranges from 2.6% to 46%, with females generally showing higher rates than males. This large range may be due to the instruments and the cut-off they used, as well as genuine differences between the samples.

1.5.2.2 Estimates of 12-month Prevalence in the United States.

Many 12-month prevalence studies have been conducted in the United States. According to NIMH in 2017, 13.3% of adolescents aged 12 to17 in the US had at least one episode of MDE based on a national survey, where the rate was higher among females (20%) than males (6.8%) (NIMH: Major Depression, 2020). A study by Merikangas et al. (2010) used a modified version of the structured World Health Organization Composite International Diagnostic Interview among 10,123 male and female adolescents in the US. The 12-month prevalence of MDD or dysthymia among males was found to be 7.7% and among females was 15.9%, showing the commonly reported 2:1 ratio of females to males. The older adolescents showed higher prevalence, with values of 15.4% for the 17-18-year-olds, 12.6% for the 15-16-year-olds, and 8.4% for the 13–14-year-olds.

Another study conducted in the US focused only on MDE among adolescents aged between 12 and 17 years old (Lipari et al., 2016). This was assessed using the National Survey on Drug Use and Health (NSDUH), which asked them about their symptoms of MDE based on DSM-IV. The study revealed that 11.0% of adolescents had an MDE in the past year. A study by Avenevoli et al. (2015) examined the prevalence of MDD among 10,123 adolescents aged from 13-18 years old in the United States. It used the Composite International Diagnostic Interview (CIDI) based on the DSM-IV criteria and found that the

lifetime prevalence of MDD was 11.0%, while the 12-month prevalence was 7.5%. More specifically, the 12-month prevalence for males was 4.6% and for females was 10.7%.

As this thesis focuses on the prevalence among female adolescents in Saudi Arabia, a systematic review of studies of the prevalence of depression among adolescents in Saudi Arabia is presented in Chapter 3.

1.5.3 Causes and Development of Depression in Adolescence

There is evidence that both genes and non-inherited factors are linked with the occurrence of depression in children and adolescents (Rice et al., 2002; Tully et al., 2008). Studies of genetics have indicated that depression in adolescents is moderately inheritable (Rice et al., 2002; Sullivan et al., 2000). The children of parents who have depression are three to four times more likely to have depression themselves than those of parents who do not (Rice et al., 2002). There is evidence that having a parent with a history of MDD is a strong predictor of adolescent depression (Beardslee et al., 1998), although, as noted above, there is likely to be an interaction between shared environment and genetics.

As discussed in section 1.3.5, exposure to stressful life events is a common trigger of depression, including among adolescents. Ge et al. (1994) have found that after the age of 13, adolescents experience a large increase in negative life events and that this increase in stressful events corresponds to an increase in elevated depressive symptoms. Hence, this could explain why levels of depression become higher during this period (Hinken, 2006). Further, as adolescent females show a greater increase in stressors after the age of 13 than males (Ge et al., 1994; Hankin et al., 2004) this could explain the appearance of the sex difference in depression during this period.

Another important factor linked to depression is bullying. Studies have found that those who are the victims of bullying show more symptoms of depression and psychological distress than those who are not (Hawker & Boulton, 2000; Kumpulainen et al., 1998; Kumpulainen & Rasanen, 2000; Mills et al., 2004; Neary & Joseph, 1994; Slee, 1995;van der Wal et al., 2003; Williams et al., 1996). A study has also suggested that even students who only observe bullying are more likely to manifest depression (Rivers et al., 2009).

1.5.4 Impact of Depression in Adolescence

Depression in adolescents is associated with an increased risk of suicide and self-harm, and over a half of adolescents who committed suicide had a depressive disorder at the time of death (Hawton & Heeringen, 2009). Further, depression can result in serious relationship problems and lowered educational achievement (Fletcher, 2008; Lewinsohn et al., 1988), and

an increase in substance misuse, smoking and obesity (Hasler et al., 2005; Keenah-Miller et al., 2007). Depression can also increase the risk of developing physical illnesses such as diabetes mellitus, heart disease and stroke (Whooley & Wong, 2013).

Claybourne et al. (2019) conducted a systematic review of 31 articles investigating the relationship between adolescent depression (symptoms or MDE) and consequent psychosocial effects in adulthood. These included an increased risk of failure to complete secondary education, unemployment, impaired career advancement, lower income, pregnancy and parenthood. Regarding social relationships, depression was a predictor of impairment in the development of stable relationships and social networks.

Further, MDD in adolescence increases the risk by two to seven times that the individual will have depression in adulthood (Fergusson & Woodward, 2002; Johnson et al., 2018; Rueter et al., 1999; Rutter et al., 2006).

1.5.5 Gender Differences in Depression

Looking specifically at gender differences in depression, many reasons have been suggested for why females are more likely to have depression than males, but no single reason appears to provide a full explanation (Nolen-Hoeksema, 2009). Research has suggested that the prevalence difference in gender is the result of interaction between biological, psychological and social factors (Hopcroft & Bradley, 2007; Kuehner, 2003). although, as noted above, accurately determining prevalence across genders is not without challenge. This section will first deal with biological factors, including genetics, then psychological factors and social and environmental factors. Lastly it will look at the role played by Saudi culture.

One of the possible biological reasons is that the hormone levels in men and women are different; in women they change cyclically over a much greater range than in men, which affects brain areas that regulate mood and behaviour (Oldehinkel & Bouma, 2011). Angold et al. (1998) found that depression symptoms among females increase sharply at mid-puberty and that this is more important than the increase in age itself in relation to the gender difference in depression. In the study by Susman et al. (1985) it was found that during puberty the levels of follicle-stimulating hormone were related to negative emotions in females but not males. Angold et al. (1999) reported that higher levels of androgen and estradiol in females during puberty were linked with depression symptoms. Young and Korszun (2010) reviewed several factors that have been proposed to explain the causes of gender differences in depression, including the role played by hormones at puberty, exposure

to trauma during childhood, and differences between males and females in how they perceive stress. They concluded that none of these factors provided an explanation for gender differences in depression.

Genetics is another factor that may be related to gender differences in depression. Overall, findings tend to support this position but there are some exceptions. For example, although two important studies (Kendler et al., 2001, 2006) found that the heritability of major depressive disorder was greater in women than men (40% versus 30%, and 42% versus 29%, respectively), others have shown contradictory findings. Jacobson and Rowe (1999) found that the heritability of depression (measured by self-rated depressive symptoms) was greater in female adolescents than in male adolescents whereas the study by Rice et al. (2002) found there was no difference. Further, Scourfield et al. (2003) found that the heritability of depression was greater in young girls than young boys as measured by parent-rated depressive symptoms but not by self-rated depressive symptoms.

Turning to psychological factors, numerous studies have demonstrated a strong relationship between low self-esteem and depression (Joiner et al., 1999; Kernis et al., 1991; Lewinsohn et al.,1988; Roberts & Monroe, 1992); more specifically, this relationship has also been identified in adolescents in Western countries (e.g., Carbonell et al., 1998; Lee & Hankin, 2009; Overholser et al., 1995; Sowislo & Orth, 2013). In regard to gender differences in self-esteem, many studies have shown that females have lower self-esteem than males (Feingold, 1994; Kling et al., 1999; Orth et al., 2010; Orth et al., 2012; Robins et al., 2002; Shaw et al., 2010; Trzesniewski et al., 2003; Twenge & Campbell, 2001), which might be linked to differences between males and females in how they perceive physical attractiveness (Allgood-Merten et al., 1990; McKinley & Hyde, 1996). The converse quality of body shame has also been linked to the greater increase in depression in girls than boys (Hyde et al., 2008), suggesting that several psychological factors might be operating. Lower self-esteem may also be influenced by factors other than physical attractiveness and pressures on physical appearance. Genetic factors (Kamakura et al., 2001; Kendler et al., 1998; Neiss et al., 2002) and societal issues, such as women being more likely than men to be in poorly paid work that is less rewarding and offers less autonomy (Pugliesi, 1995), can affect levels of self-esteem (Pugliesi, 1995). Cultural factors can also play a part, with some studies suggesting that African American women, for example, may have relatively high self-esteem and other minority ethnic groups show less pronounced group differences than those seen in the White majority (Zuckerman et al., 2016).

Stressful life events are linked to depression and studies have assessed gender differences in relation to such events. A number of studies have suggested that girls experience more interpersonal stressors during adolescence than their male counterparts (Hankin et al., 2015; Rose & Rudolph, 2006; Zahn-Waxler et al., 2008), leading to subsequent depressive symptoms (Liu & Alloy, 2010). A longitudinal study by Hankin et al. (2007) found that girls reported more stress in certain situations, such as interaction with peers, than boys, and the stressors resulted in more depression symptoms in the girls than the boys. In regard to specific kinds of stressors, girls experience more interpersonal stressors, such as from peers, romantic partners, and family members, whereas boys report more stressors related to achievement and self (Gore et al., 1993; Larson & Ham, 1993; Leadbeater et al., 1995; Rudolph, 2002; Rudolph & Hammen, 1999; Towbes et al., 1989; Wagner & Compas, 1990; Windle, 1992). A review by Nolen-Hoeksema (2009) of studies of how people react to stressful life events noted that women are more vulnerable than men because they have less social power, making them more likely to be exposed to traumas such as sexual abuse, which can lead them to feel helplessness. She also suggests that women's social status and roles can result in them experiencing more strains than men, for example, having a full-time job while having to take care of children and being paid less than men.

Studies have suggested that gender differences in depression can also be related to social roles and culture factors. Many societies have norms that put superior value on being male rather than being female (Chandra-Mouli et al., 2018). Female roles may have some limitations linked to shortage of choices and to role overburden, and may undervalue themselves (Piccinelli & Wilkinson, 2000; Stoppard, 2000). Further, it has been suggested that female roles are more stressful and less fulfilling than male roles (Barnett et al., 1987), although most research has been conducted in Western cultures, with less understanding of the part played by female roles in other cultures, such as Saudi Arabia (see Chapter 2).

The way parents bring up their children differently depending on their gender may also contribute to the increased risk of depression among female adolescents. Parents tend to control their daughter's behaviour more than their son's behaviour and have less expectation of their daughter's accomplishment (Nolen-Hoeksema, 2009). Because societies treat boys and girls differently during their development, during adolescence girls tend to learn more undesirable attitudes about themselves, which results in them having negative self-concepts, and which in turn leads to their having negative biases in information processing and a consequent increased risk of depression during this stage (Bone & Lewis, 2020).

In summary, there is no clear evidence to support a single specific factor that accounts for the gender difference in the prevalence of depression, but it appears to be caused by a combination of different factors, such as biological, psychological and social factors.

Turning to Saudi Arabia in particular, it has a very distinct culture that would be expected to increase the risk of depression among females. This culture is described in more detail in Chapter 2 but, briefly, males are dominant over females, and girls are brought up to obey their father's decisions regarding many important aspects of their life, while some mothers can be controlling of their daughter's behaviours. Females require the permission of a male guardian to do many things, such as travelling, getting married and going out. This may lead to girls feeling inferior in themselves and not valuing or empowering themselves. Further, nowadays female adolescents in Saudi Arabia are exposed to social media and have become more open to Western ideas, such as being independent, which conflict with the traditional and societal beliefs. Therefore, it is important to investigate the prevalence of depression symptoms among female adolescents in the very distinct culture of Saudi Arabia.

1.5.6 Treatment of Depression in Adolescence

One recommended treatment for depression among adolescents is cognitive behavioural therapy (CBT) (NICE, 2011 ;Weisz et al., 2006) and it is one of the most effective treatments available (David-Ferdon & Kaslow, 2008). The main goal of CBT is to alter maladaptive cognitions and behaviours that maintain depression in individuals (Weersing et al., 2009). A recent systematic review and meta-regression was carried out to evaluate the effectiveness of CBT for youth with depression (Oud et al., 2019). It included 31 studies with 4,335 participants having a mean age of 14.2 years. The results showed that CBT is effective in decreasing depressive symptoms among young people, both immediately after the end of treatment and at follow-up after 17-39 weeks. Additionally, those adolescents and children having subclinical depressive symptoms who received CBT as a prevention measure showed a 63% reduced risk of having a depressive disorder at follow-up.

Interpersonal psychotherapy (IPT) is another effective treatment for adolescents with depression. Based on the interpersonal theories discussed earlier, it aims to develop interpersonal skills and promote awareness of problems in relationships. Having originally been developed for adults (Klerman et al., 1984), IPT was modified in two ways to treat depression in adolescents, as interpersonal psychotherapy for depressed adolescents (IPT-A), and as a group adaptation for adolescents, IPT-AG (Moreau et al., 1991; Mufson et al., 2004). Two meta-analyses have assessed the value of IPT in treating depression (Cuijpers et al.,

2011; de Mello et al., 2005). Both reviews found IPT to be successful in relieving the symptoms of depression in comparison with placebo/control groups and other methods of treatment, such as CBT or pharmacotherapy, although it was not shown to be more effective than CBT.

Finally, for the sake of completeness, it should be noted that a further treatment recommended for adolescents with MDD is selective serotonin reuptake inhibitors (SSRIs). Evidence has indicated the effectiveness of the combination of SSRI medication and CBT in treating adolescents with moderately severe depression (Brent et al., 2008; March et al., 2004).

1.5.7 Barriers to the Treatment of Mental Health in Adolescents

Avenevoli et al. (2015) observed that during a 12-month period, 39.6% of depressed adolescents living in the US received no treatment. This was based on a nationally representative face-to-face survey of 10,123 adolescents aged 13-18 years. Many studies have revealed barriers that can hinder young people from seeking help for mental illness, including depression, which have been examined in two recent reviews.

Radez et al. (2020) conducted a systematic literature review to identify why adolescents and children do not seek professional help for mental health problems. The authors reviewed research from 30 qualitative and 22 quantitative studies and one mixed methods study. The findings were broadly consistent with an earlier, similar review by Gulliver et al. (2010). Barriers to seeking help included perceived stigma, along with the adolescents' experienced or anticipated embarrassment in seeking help (Barker et al., 2005; Eisenberg et al., 2007; Rickwood et al., 2005; Zwaanswijk et al., 2003). Both reviews confirmed that having limited knowledge about mental health and mental health services was another barrier. For example, many studies revealed that young people did not know where they could go or who they could speak to help them with their difficulties. Young people, especially males, perceived seeking help to be a sign of weakness, and many studies reported that adolescents did not seek help because they wanted to handle their difficulties by themselves. A further issue identified in about one-third of the studies reviewed by Radez et al. (2020) is that young people were unsure if their symptoms were serious enough to seek professional help and some believed that their symptoms would improve without any intervention. A less common barrier related to a reluctance of young people to keep appointments and adhere to recommended treatments.

These barriers extend beyond the adolescents themselves to their families. Reardon et al. (2017) reviewed 44 studies conducted in Western countries, including the UK, US, Australia, and Canada, which also revealed that lack of knowledge and understanding of mental health problems was a barrier among parents to seeking professional help for their children. Boulter and Rickwood **(**2013) interviewed 14 mothers and one father who had obtained psychological help for their children. They reported that parents faced difficulty from their spouses and other family members in seeking help for their children, who were judgemental and critical and dismissed their worries about their children. Furthermore, if the parents do not perceive their child to have a mental health problem, or the symptoms to be bothersome but normal, they will not see any need to seek professional help (Sayal et al., 2003; Teagle, 2002).

Many of the studies reviewed by Gulliver et al. (2010) and Radez et al. (2020) reported that young people did not seek professional help because they doubted its effectiveness. Some said that they would prefer to discuss their mental health issues with family members or friends rather than with professionals. A lack of motivation to seek professional help was another barrier, including among those experiencing anxiety and depression symptoms. Both Gulliver et al. (2010) and Radez et al. (2020) found that the issue of confidentiality is a common barrier that can stop young people seeking professional help. They disclosed that they worried about revealing sensitive topics such as personal information to a person they did not know well. This would inhibit them from talking openly and trusting a professional, although some elaborated that they would be willing to seek professional help if they felt they would not be judged by the practitioner and would be respected by them. Additional barriers to seeking professional help included the expense of the treatment, not being able to find the time, interference with other activities, transportation problems, difficulties in making appointments, the attitudes of staff and the limited availability of professional help (Radez et al., 2020).

Of the studies of adolescents included in the review by Radez et al. (2020), 48% were conducted in North America, 24% in Europe, 20% in Australia but only 8% in Asia. Additionally, a number of studies have investigated barriers to the treatment of mental health illness in the Middle East, including Saudi Arabia, though mainly on adults. As this is important for the present research, these studies are considered in further detail in Chapter 2 (see section 2.5.5).

1.5.8 Qualitative Research on Depression in Adolescents

As three of the studies conducted as part of this thesis use qualitative research techniques, this section provides a background of existing qualitative studies on adolescent depression and compares these techniques with quantitative methods.

Qualitative research aims to understand people's experiences and includes several methods to develop this knowledge, such as semi-structured interviews and focus groups. It is inductive in nature, and the researcher investigates the meanings and interpretations of participants' perceptions of events (Gentles et al., 2015; Guba & Lincoln, 1994; Levitt et al., 2017; Strauss & Corbin, 2008). It produces findings that are not based on numbers or statistical procedures but that focus on words (Hughes, 1990), with the researcher trying to understand the meanings that participants make in their lives (Walia, 2015) and can look at participants' behaviours, perspectives, feelings, and experiences (Atkinson et al., 2001).

Myers and Avison (2002) clarified the difference between qualitative and quantitative methods. They mentioned some examples of quantitative methods, such as survey methods and laboratory experiments, which often include developing and testing a hypothesis and predicting the outcome of an experiment (Polit & Beck, 2012). Polit and Beck (2012) have distinguished three types of quantitative research. These are the experimental design, quasi-experimental design and non-experimental design. The experimental design involves controlling conditions in which the experiment takes place (Polit & Beck, 2012) and manipulating one or more variables. The quasi-experimental design involves introducing an intervention and examining how this affects the outcome measures (Polit & Beck, 2012). Finally, the non-experimental design does not involve the manipulation of variables but focuses on observing phenomena that already exist (Polit & Beck, 2012). An important non-experimental method involves using standardized questionnaires to gather numeric information. Quantitative methods can be used to examine the links between variables and results (Polit & Beck, 2012).

Qualitative methods have especially been employed by social sciences researchers to allow them to study social and cultural phenomena, for instance, action research, case study research and ethnography. Unlike quantitative methods, qualitative methods focus on the individual as an individual and their experiences and perspectives (Howitt & Cramer, 2010).

It is important to understand how qualitative research methods relate to epistemology, which is defined as the study of the nature and range of knowledge (Guba & Lincoln, 1994). Qualitative research produces knowledge that is considered to be subjectivist because total objectivity is perceived as unattainable (Smith, 1983; Smith & Heshusius, 1986). Qualitative methods are based on the assumption that the investigator can only give meaning to what

others have told them according to their own interpretations, which are based on their purpose, interests and values (Smith, 1983). From this, the purpose of qualitative research is to gain better understanding of the experiences of participants (Bryman, 1988). The stress of this methodology is on providing a rich description of what is being studied through meanings, interpretations, processes, and contexts (Guba & Lincoln, 1994).

Although there has been a shift in recent years towards increased use of qualitative methods by mental health researchers (Joseph et al., 2009), relatively little qualitative research has investigated depression in adolescents. As already noted, one of the major goals of qualitative research is to explore the experiences and perceptions of participants, which cannot be done by using quantitative methods. Several studies, mainly conducted among Western adolescents, have reported the experiences of depression symptoms using different kinds of analysis. For instance, studies by Dundon (2006), McCann et al. (2012), Midgley et al. (2015), Weitkamp et al. (2016) and Shaw et al. (2009) have described the experiences of adolescents, identifying themes such as withdrawal and isolation, being overwhelmed, irritability and aggression. These studies are described in detail in Chapter 5, which investigates the experiences of depression symptoms among female adolescents in Saudi Arabia (see section 5.1).

Such investigation is important to carry out in view of the very different culture in Saudi Arabia, where no previous studies have been done in this regard and only one study has examined the experience of depression among Middle Eastern adolescents (Dardas et al., 2019). For example, Middle Eastern cultures view that being sad is a sign of being influenced by bad spirits or being punished by God (Abu-Ras et al., 2008; Aloud, 2009; Rassoll, 2000; Weatherhead & Daiches, 2010), or being away from God (e.g., Alrahili et al., 2016). Further, expressing symptoms such as irritation is viewed as being disrespectful to one's parents (see Chapter 2).

Qualitative studies have further explored adolescents' perceptions of the triggers or causes of their depression symptoms and what they reported doing to deal with their symptoms (e.g., Dundon, 2006; Weitkamp et al., 2016). Cairns et al. (2018) explored Australian adolescents' causal beliefs about depression among 25 females and three males aged 15–17 years through the use of focus groups. They found that participants held a variety of beliefs about what causes depression, including one's personality, lifestyle, societal expectations, lack of support from the ones they love, traumatic events such as losing a relative, and stressors, for example, from schoolwork or conflicts in relationships. Biological or genetic causes were infrequently mentioned.

These kinds of studies could not have been carried out using quantitative methods, such as experiments and questionnaires, and were based on interviewing the participants to gather detailed information about their experiences. An important part of the present research is to explore the experiences of depression of adolescent females in Saudi Arabia and the barriers they face in seeking help for their symptoms. A qualitative approach is well-suited to this aim in order to gain more information about these topics. Given the cultural pressures and influences on women in Saudi Arabia (see Chapter 2), individual interviews are an appropriate methodology and thematic analysis will be used to analyse the data. This approach is suitable in dealing with many kinds of data and data collection and it can be used to analyse a range of sample sizes (Clarke & Braun, 2014), and is therefore appropriate to the current investigation where little is known about the experiences of depression in individuals in Saudi Arabia.

1.6 Aims of the Thesis

In light of the issues raised in the previous sections, the research in this thesis has the following three principal aims:

1) To provide a reliable estimate of the prevalence of elevated depression symptoms among a sample of female adolescents in Saudi Arabia; as noted in section 3.3, several studies have indicated high prevalence values for adolescents in Saudi Arabia, but their methodologies have limitations.
2) To identify the barriers to the identification of depression symptoms and seeking help for it in respect of a sample of female adolescents in Saudi Arabia.
3) To investigate the experiences of their caregivers and their perceptions of their daughter's depression symptoms, and the views and experiences of the school counsellors.

1.7 Research Questions

1) What does existing research indicate the prevalence of depression symptoms among adolescents living in Saudi Arabia to be? What is the point prevalence of elevated depressive symptoms among female students living in Unaizah, Saudi Arabia, using a gold standard self-report measure of depression symptoms?

2) A second aim of the research is to investigate how adolescent girls in Saudi Arabia who have elevated symptoms of depression understand and experience their

symptoms, and what they perceive as the causes. Research questions include: What changes have their caregivers noticed in their behaviour and what are the barriers that hindered the caregivers in seeking help? Have the counsellors identified students with depression symptoms and how do they assess them? What are the barriers that the students face in seeking help from the counsellors?

It should be noted that the qualitative methodology used here can only deal with the participants' perceptions of what caused their depression symptoms and not its actual causes, because such causes cannot be truly known using such a methodology. Even so, it is possible that what the participants report about their perceptions of the causes of their symptoms may assist future researchers to develop suitable interventions for those who need help. However, the topic of establishing causality is controversial, and some researchers have argued that some qualitative research can be used to establish causality (e.g., Hamersley, 2008; Maxwell, 2004).

1.8 Outline of This Thesis

Chapter 1 introduced the research by stating the research problem, defining depression, and considering some theories and causes of depression. Then it discussed the prevalence of depression symptoms across the globe and examined depression symptoms in adolescents. Finally, it presented the aims and research questions of this thesis.

Chapter 2 places the research in context by describing some relevant aspects of the culture and religion in the Middle East, including Saudi Arabia. It touches on the school education system in Saudi Arabia and the counselling provided in the schools, followed by the mental health system in the Kingdom. It then offers a review of the literature concerning mental illnesses and their treatment in the Middle East, with a particular focus on depression symptoms, Saudi Arabia and barriers to treatment.

Chapter 3 reports Study 1, a systematic literature review of the studies of the prevalence of depression symptoms among adolescents in Saudi Arabia. It identifies 15 relevant studies, critically appraises them and presents their main findings.

Chapter 4 presents Study 2, which employed a widely supported measure of depression symptoms to estimate the prevalence of depression symptoms among a sample of adolescent girls attending schools in Unaizah, Saudi Arabia.

Chapter 5 describes Study 3, in which a subsample of the participants from Study 2 who reported elevated depression symptoms were interviewed.

Chapter 6 reports Study 4, in which caregivers of participants in Study 3 were interviewed.

Chapter 7 presents Study 5, in which eight school counsellors from Unaizah, Saudi Arabia were interviewed

Chapter 8 offers a general discussion and conclusion of the research. It summarises the research findings and provides a critique of the methodology, along with the personal reflections of the researcher. It discusses the implications of the research, including recommendations for improving the awareness and treatment of depression symptoms among female adolescents in Saudi Arabia and suggestions for carrying out further research. Finally, it assesses the contribution of the research.

Chapter 2
The Context of the Middle East and Saudi Arabia

2.1 Introduction

Chapter 2 has two interlinked purposes. The first is to describe the cultural background of the Middle East, including Saudi Arabia, to place the present research on Saudi female adolescents into context. This is done in section 2.2, section 2.3, and section 2.4. Section 2.3 touches on school education in Saudi Arabia. Schools can play an important role in the mental health of adolescents (Aldridge & McChesney, 2018) and those in Saudi Arabia are in principle in a position to offer help and support, as they employ a school counsellor whose job it is to care for students. Section 2.4 describes the mental health system in the Kingdom, with particular reference to adolescents.

The second purpose is to provide a literature review of mental health and barriers to seeking help in the Middle East. This is necessary because mental illnesses in this region are widely viewed to have supernatural causes and consequently the approach to treatment is often different than in Western cultures. This literature review is presented in section 2.5, after which a summary of the chapter is provided in section 2.6.

2.2 Culture and Religion in the Middle East

2.2.1 The Overriding Influence of Islam

Founded as an absolute monarchy in 1932, Saudi Arabia is "a fully sovereign Arab Islamic State" (Basic Law of Governance, 1992, p. 2) and plays a central role in the Muslim world. Absolute Islam is the official religion of the Saudi population. It not only strongly influences the beliefs and behaviour of many Saudi citizens but also structures and controls their daily life and attitudes (The Embassy of the Kingdom of Saudi Arabia, n.d.). Numerous scholars have pointed out the overriding influence of Islam on Saudi society and the way of life (e.g., Denman & Hilal, 2011).

The principles of Islam are outlined in Appendix 1.

2.2.2 The Importance of the Family

The family can play a critical role in the mental health of Saudi adolescents. If a son or daughter has a mental illness, because of the strong stigma attached (see section 2.5.1) and the importance of upholding the family image, there is a strong inclination to hide the issue to avoid bringing shame on the family and not to seek professional help (see section 2.5.1). Instead, the parents will often seek religious-based approaches to treatment, for example, encouraging their child to pray or read the Quran or visit a faith healer.

The following account of the family is based on the researcher's own experience as a citizen of Saudi Arabia and supported by Evason (2019). The concept of family in Saudi society, including both the nuclear family and extended family, is very important, and the family unit, not the individual, is viewed to be the most important. Saudis are taught to be very loyal to their family, to the point where they put their family's interest before their own. The children are raised to respect and value their parents and elders and will sacrifice their own lives to improve their parents' happiness and wellbeing. Within the family, there are strongly held codes that the relationships should be based on respect and privacy. Members of the family care and support each other, while placing the honour of the family first. If the family has a problem, they will work together on it within the family instead of asking for outside help. It is considered unacceptable to answer back or disobey parents or elders. A significant part of the individual's identity comes from the family and how they have been raised.

Families are patriarchal, being governed by the father, whose decisions regarding the family are generally final. This extends to how the children are raised. The style of parenting is normally authoritarian, although the children are given a considerable amount of care and attention. They are taught the importance of respecting the parents and the rest of the family and honouring its values. When important decisions that involve the whole family are being made, the children are allowed to express their own views, but the father will make the final decision.

2.2.3 The Dominance of Males

Women are taught to obey their fathers, brothers and husband (Evason, 2019). This is linked to the concept of male guardianship in Saudi society. Until very recently, women, no matter their age, legally required the permission of a male guardian to do many things, including opening a bank account, applying for a passport, getting married, accessing services, and receiving higher education overseas and medical procedures (Alhareth et al., 2015; Al-Amoudi, 2017). In law, the woman's guardian is a close male relative (husband, brother or father). Recently, however, the legal requirement for a male guardian was relaxed; for example, a woman aged 21 or older can now travel without a male guardian (Fahim, 2019). Today, liberal families may allow women to choose their own husband and pursue their own career.

By tradition, the wife is chosen for the husband, who is permitted to have up to four wives at the same time. Abortion requires the approval of the husband and is only permitted if a

woman's health would otherwise be at risk (Mobaraki & Söderfeldt, 2010). The lack of employment opportunities and restrictions on their movement mean that many women are financially dependent on their husbands or male guardians. Women's options for divorce and child custody and to leave violent husbands are restricted (Eldoseri & Alsada, 2013). They are further restricted by the husband and family in the extent to which they can be involved in decisions relating to their own marriage (Doumato, 2010).

Saudi society is strongly segregated by gender and forbids the mixing of sexes in public places (Al-Asfour et al., 2017). In schools, the students and staff are either all males or all females. However, the situation in Saudi Arabia is rapidly changing for women. Women can now participate more in society and help men financially in household and other matters (Canfield, 2020). Saudi Vision 2030 was announced in 2016 to expand the Kingdom's economy and bring about significant social and cultural reforms. It led to women being allowed to drive from June 2018 and reduced discrimination against women, including to some extent allowing women to travel without requiring the consent of a male guardian aged at least 21 years old, allowing women to enter arenas for sports events and music festivals, and allowing both sexes to participate in mixed-gender events (Habibi, 2019). Moreover, cinemas reopened to women in 2018 after this was banned for 35 years.

2.2.4 Saudi Female Adolescents

Based on the female researcher's own knowledge and experience as having lived in Saudi Arabia during her adolescence as well as the interviews with the students (see Chapter 5), this section will briefly talk about the context in which Saudi young women and girls live.

The lives of Saudi young women and girls are quite different from those of Western women and girls, generally being more restricted. The important factors influencing their day to day lives are family, culture, tradition, religion and recently, social media. Girls are expected to respect their mother and not to talk back when they disagree with their mother. Mothers teach their daughters about every matter in life, including most importantly religion. They teach them about praying at a young age, which they should be practising by the age of seven to ten, depending on the family.

Mothers can restrict their daughters in many ways and limit their activities. Typically, they may not allow them to talk to foreign men or to have a boyfriend, and only allow them to spend time with other girls who have their approval.

The lives of girls in Saudi Arabia have changed with the development of social media and the internet. Many adolescents use social media and have accounts in Snapchat, Twitter and

Instagram (Radcliffe & Bruni, 2019). They have friends from social media, sometimes from different countries (Payne & Almansour, 2014). In some families adolescent girls are able to do more sport and go to the gym although some families still refuse to allow their daughter to do these activities, depending on the family mentality. Girls read more and are becoming more educated. Recently, Saudi Arabia has developed and established many activities for youth. Going to the cinema, cycling, and youth clubs are now available for adolescents in their free time and to enjoy with their friends. However, this still depends on whether the family allows their daughter to do such activities without supervision.

2.3 School Education and Student Counselling in Saudi Arabia

An outline of school education in Saudi Arabia is provided in Appendix 2. Students attend school for five days in the week from Sunday to Thursday. Typically, the students have to start school at 6:30 am and the school assembly starts at 6:45 am. The first class starts at 7:00 am and recess starts at 9:15 am and ends at 9:35 am. The school finishes at 1:30 or 2:30 pm (Yackley-Franken, 2007).

2.3.1 Care and Counselling in Schools in Saudi Arabia

The Ministry of Education has set out a vision to help all students in schools, which includes providing professional care for them. This is to be achieved by providing guidance services according to the students' personal, social, educational and professional needs and competencies. Among the goals the Ministry has set are the following (Ministry of Education, 2020):

1) Guiding the student and providing them with Islamic guidance in all psychological, moral, social, educational and professional aspects.
2) Discuss the problems the student faces during the study, whether it is personal, social, or educational, and work to find appropriate solutions that help them in educational and psychological compatibility.
3) Educating all elements of the school community about the goals and tasks of guidance and counselling and its role in education.

The following is the current situation for the care and counselling provided in Intermediate and High Schools for girls in Saudi Arabia. Students can visit the school counsellor any time they would like to during a break, or even during a classroom lesson if the matter is urgent. Some students feel more comfortable talking to a teacher rather than the counsellor. The teachers sometimes refer a student to the counsellor or ask their advice about a problem if the student does not want to share it with the counsellor for their own personal reason.

According to Alotaibi (2015), few studies have been carried out on student counselling in Saudi Arabia. Alotaibi (2015) remarked that although many public and private schools have school counsellors, some lacked adequate training, expertise and professional qualifications. Other difficulties identified by Alotaibai (2015) were that no national Saudi student counselling qualifications have been set up and that there is no national Saudi counselling association or organisation and in some schools one counsellor was employed to serve over 1,000 students. Another issue noted by Alotaibai (2015) is that student counsellors may not command the respect and support of other teachers, head teachers, and parent. Alotaibi (2015) suggested that because Saudi people prioritise the family, students and their family do not want student counsellors, who are not family, to be involved with what they may perceive to be private and confidential issues. Alotaibi (2015) also pointed to previous research by Al-Ghamdi and Riddick (2011) indicating that negative perceptions of student counselling by school principals can influence other peoples' views of student counselling. He concluded that the high prevalence of mental health problems such as anxiety and depression symptoms among students in Saudi schools is due in part to the lack of health education programmes to raise awareness.

In order to address these issues, Alotaibi (2015, 2016) urged that investment be made in school counsellors by training them appropriately, and in the provision of health awareness programmes and resources for students. He argued that the students' health would benefit, including reducing the prevalence of depression symptoms. The students and counsellors would be better able to recognize the first symptoms of depression and those experiencing it be referred to a specialist. It would also lead to an increase in the trust of the counsellors by both the students and the parents (Alotaibi, 2016).

Al-Ghamdi and Riddick (2011) examined the perceptions of school principals in regard to the actual role and ideal role for student counsellors in Saudi intermediate girls' schools. They found that the principals had widely varying perceptions about what the role of the student counsellor should be. Alotaibi (2015) observed that this could make it hard for the counsellors to work effectively, being unsure of what their actual role in the school is.

2.4 The Mental Health System in Saudi Arabia

For many Saudi individuals with mental health problems, their first point of contact with the country's mental health system is the Primary Health Care Centre (PHC). These were established in Saudi Arabia in 1989 and provide free medical care for all (they correspond to GP practices in the UK) (Koenig et al., 2014). However, their capability directly to treat

individuals with mental health problems is limited. According to Algahtani et al. (2017), doctors are restricted to prescribing a limited number of antidepressants or to referring individuals to psychiatric hospitals (Koenig et al., 2014).

Individuals have the right to access any mental health care without referral, including specialist psychiatric hospitals, for free (Koenig et al., 2014). This means they can go directly to see psychiatrists at psychiatric hospitals without needing to be referred, and some individuals can access help via emergency services at either general hospitals or psychiatric hospitals, also without referral (Koenig et al., 2014). The rights of individuals with mental health problems in Saudi Arabia are stated in Appendix 3 and the kinds of treatments available are described in Appendix 4.

There is a private mental health care system in Saudi Arabia as well, available to children, adolescents and adults who can afford it. There are about 125 private general hospitals, many of which have psychiatric clinics that offer a variety of services to all people of varying ages, including psychotherapy, psychotropic drugs and rehabilitation (Ministry of Health, 2010; Koenig et al., 2014).

2.4.1 Public Outpatient Facilities

The Ministry of Health directs about 94 public mental health facilities for outpatients, 20 of which are specialised for women and children (Qureshi et al., 2013). Females are more likely than males to use mental health care services in Saudi Arabia and make up about 50% of those in outpatient facilities, while 6% are made up by children and adolescents (Qureshi et al., 2013).

The diagnoses of the patients treated in the outpatient facilities include mood disorders (35%), neurotic, stress-related, or somatoform disorders (36%), schizophrenia (13%), substance abuse (9%), personality disorders (2%), and others (5%) (Qureshi et al., 2013).

2.4.2 Community-Based Facilities

Two kinds of community-based facilities exist for chronic mental health patients in Saudi Arabia, although they do not really provide a service for children or adolescents (Qureshi et al., 2013). First, there are five psychiatric inpatient units providing a total of 0.41 beds per 100,000 population, where patients stay for an average of 30 days. If any children or adolescents are required to be admitted, they have only a brief stay and so these facilities only play a very minor role in the care of young people. Second, there are two community residential facilities in Saudi Arabia, where patients stay for an average of 60 days, but these are not open to young people. If children or adolescents with mental health problems require

long-term, residential care, they are placed in facilities for people with learning disabilities that are under the national supervision of the Ministry of Social Affairs (Qureshi et al., 2013).

2.5 Mental Health in the Middle East: A Literature Review

2.5.1 Mental Health, Religious Beliefs and Stigma in the Middle East

Muslims believe that a mental health problem is either caused by bad spirits (Aloud, 2009; Weatherhead & Daiches 2010), or is a test or a punishment from God (Abu-Ras et al., 2008; Rassoll, 2000). Consequently, it can take the family a long time to consider consulting a professional for help (Dardas & Simmons, 2015). Many Muslim families do not acknowledge that a family member showing signs of mental illness unless they exhibit behaviour that is out of control or dishonourable (Al-Krenawi, 2005). Gilat et al. (2010) stated that when an individual in an Arab family displays signs of mental illness, it is usual to seek help from close members of the family, or those members who have health care occupations, or a religious leader.

Table 2.1

Beliefs about Mental Illness Held by Arabic People (Bener & Ghuloum, 2011)

Belief	Men (%)	Women (%)	P-value
Mental illness is due to possession by evil spirits	34.5	43.5	$p<0.001$
Traditional healers can treat mental illness	37.1	42.3	$p=0.008$
I am afraid to talk with the mentally ill	28.8	39.5	$p<0.001$
I am ashamed to mention a family member with mental illness	25.7	31.3	$p=0.002$
Mentally ill people are dangerous	51.5	58.1	$p=0.001$

A number of studies have investigated attitudes to mental health in the Middle East. Some examples of specific beliefs about mental illness were provided by a large-scale study of 3,300 Arabic people in Qatar (Bener & Ghuloum, 2011) and are presented in Table 2.1, where the proportion of women holding each belief was significantly higher than for men.

The stigma associated with mental illness is strongly evident in Arab cultures (Al-Krenawi, 2005; Fakhr El-Islam, 2008; Nasir & Al-Qutob, 2005) and can play a decisive role in influencing their perceptions and treatment of all mental illnesses, including depression symptoms (Ahmad & Dardas, 2016; Fakhr ElIslam, 2008). The majority of people are afraid to seek mental health treatment for various reasons, including stigma, negative social attitudes and a misunderstanding and lack of awareness about mental health care (Al-Krenawi, 2005; Dawood & Modayfer, 2016). They may seek religious-based treatments instead, as religion plays a critical role in the mental health of the communities. Further, studies in the Middle East have shown that stigma is a greater issue for girls than boys, where for adolescent girls in particular, having a mental health illness can have negative consequences for their marital prospects (Al-Krenawi et al., 2009; Al-Samadi, 1994).

In regard to stigma among adolescents in the Middle East, the research is limited. The study of Gilat et al. (2010), for example, looked at a sample of adolescent males and females living in Israel aged 7th and 11th grade with Arabic or Jewish ethnicity. They found that individuals who experience emotional difficulties are reluctant to engage and use mental health services because of stigma and feared that pursuing treatment could bring further attention to their depression from those around them. A similar study of adolescents in Egypt (Khlaifah, 1999) reported that they held negative beliefs about others with mental health problems, seeing individuals with depression as dangerous and not successful.

Dardas et al. (2016) conducted a systematic literature review of adolescent depression in the Arab region and included a section on stigma relating to depression, citing a further study by Shukair (2012), which it was not possible to access. As cited in Dardas et al. (2016), Shukair investigated 163 Saudi adolescents aged between 17 and 19 and showed that the majority of them had false beliefs and negative attitudes toward professional services, as well as holding the view that mental health problems may adversely affect marital prospects.

In a separate study, Dardas et al. (2017) conducted a school-based survey among a nationally representative sample of 2,349 male and female Jordanian adolescents aged 12-17. They used two scales: the BDI-II (Beck et al., 1996) to assess depression symptoms and the depression stigma scale (Griffiths et al., 2008) to measure the stigma related with depression (two types of stigma: personal stigma, which concerned their personal attitude toward

depression, and perceived stigma, which is how they thought others perceived them). They found that 88% of the adolescents held stigmatizing attitudes towards individuals with depression and although levels of stigma were not significantly linked with the severity of their depression, there was evidence of a relationship with several factors, including being 14 or older, higher father's education, and the absence of current or prior mental health issues.

Further, a recent study was conducted among middle and late adolescents, recruited through social media in Jordan (Al-Shannaq & Aldalaykeh, 2021). A total of 707 (309 females) aged 16 – 24 took the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPH; Fischer & Farina, 1995) alongside measures of suicide literacy and suicide stigma. Negative attitudes among participants regarding seeking psychological assistance were common, although female adolescents held more positive attitudes to seeking help than males. This could be explained by the culture, as seeking help by men can be a sign of weakness among Arab societies. Interestingly, the study also found that the adolescents whose mothers were unemployed had more positive attitudes to seeking help than those whose mothers were employed. A possible explanation is that mothers who are employed are generally better educated and care more about how others perceive them, but they still hold stigma around mental health, therefore, they do not encourage their children to seek help.

In conclusion, the limited research on stigma attached to mental health among adolescents in the Middle East has shown that most held a negative attitude toward depression and seeking help for mental health problems. However, accounts of the experiences of those suffering with symptoms of depression are rare and little is known about how female adolescents in Saudi Arabia cope with their symptoms.

Turning to Saudi Arabia in particular, mental illness has been attributed to many factors related to religion, which is an important underlying psychological barrier to an individual not seeking help or discouraging their using a mental health service. Belief in supernatural causes of mental illness is widely held, even among educated Saudis (Obeid et al., 2012). A study conducted at the King Faisal Hospital and Research Centre, Riyadh (Alrahili et al., 2016) analysed the attitudes and beliefs about depression symptoms in 137 Saudi adults. It revealed that 75% of the participants believed that being disconnected from God is the main cause of depression and 57% believed that black magic and evil are related to depression. Only 30% of participants believed that depression is caused by genetic factors. On the other hand, 87% considered depression to be a medical illness. Such widespread holding of religious-based beliefs about depression does not encourage individuals to access the available professional treatment for it. The situation in Saudi Arabia with regard to stigma is

captured by Algahtani et al. (2017), who observed that seeking psychological or psychiatric services is often equated with “being crazy” (p. 106). Barriers to treatment will be considered further in section 2.5.5.

Abolfotouh et al. (2019) surveyed 340 males and 302 females aged 15-60 years in the city of Riyadh to determine their knowledge, perception, and attitudes toward mental illness and seeking help for it. The study revealed that 87.9% had poor knowledge about the causes of mental illness. Stigma attached to it was evident; 47.5% of the participants would not want others to know they had a mental illness, and 20.7% would feel ashamed if one of their family members had it; 21.7% of participants said they would be afraid to talk to people with mental illness. Two-thirds (66.5%) disclosed having negative attitudes to mental illness.

These studies have investigated individual Saudi communities but there are similar findings for Saudi people who had a diagnosed mood disorder (bipolar disorder or major depressive disorder) reported by AlAteeq et al. (2018). Their study found that of the 43 participants with major depressive disorder, 42% thought that people would think less of them if they knew they had a mental illness, 42% reported that they had been teased, bullied or harassed because they had a mental illness, and 51% tried to avoid situations that may be stigmatising for them (the findings for those with bipolar disorder were similar).

Of concern, stigma is also held by the mental health workers themselves in Saudi Arabia towards their patients with mental health problems. Using semi-structured interviews Alyousef (2017) studied ten participants, including a psychiatrist, psychologist, social worker, and mental health nurse (six female and four male) and concluded that even these professionals held stigma associated with the diagnosis of mental health problems, although they tried to eliminate this in their interactions with the patients. The participants disclosed that they felt anger toward the patients and that they avoided having a personal relationship with individuals with mental health problems.

A similar study by Saad et al. (2019) examined the stigmatising attitudes towards patients of all levels of physicians at King Abdullah Medical City, Jeddah, one of the major hospitals specializing in mental illnesses in Saudi Arabia. It was concluded that the physicians held a relatively high stigmatising attitude towards the patients.

However, these findings should be put into context. A recent systematic literature review examined the stigmatizing attitudes of primary care professionals towards patients with mental illnesses (Vistorte et al., 2018). It covered studies conducted in Australia, Brazil, Canada, Finland, Hong Kong, Israel, Spain, Switzerland and the United States, and concluded

that such attitudes were common among physicians in primary care settings, being higher than those held by other mental health professionals.

2.5.2 Mental Illnesses in Saudi Arabia

Several studies have assessed the prevalence of the most common mental illnesses in Saudi Arabia. Between 2012 and 2014, Alosaimi et al. (2017) conducted a cross-sectional study at major hospitals in the Kingdom among 443 inpatients (M=252, F=191) and 762 outpatients (M=379, F=383) aged 18 years and older who were pursuing psychiatric help. The study indicated that the most common mental illnesses diagnosed among inpatients were schizophrenia (55.8%), bipolar disorder (23.3%) and major depressive disorder (7.2%) and the most common mental illnesses diagnosed among outpatients were major depressive disorder (29.3%), schizophrenia (28.9%), generalized anxiety disorder (15.6%) and bipolar disorder (11.5%).

Abumadini (2019) conducted a retrospective study of all adult Saudi patients diagnosed with a mood disorder, who had attended the psychiatric outpatient clinic at King Fahd Hospital of the University, Al Khobar, Saudi Arabia between 1982 and 2011. Patients with psychiatric comorbidity were excluded, leaving 142 males and 198 females who were between 18 and 90 years old, with 42.4% aged 18–30 years. Based on the Structured Clinical Interview for the International Statistical Classification of Diseases – 10th revision (World Health Organization, 1993), the study found that the most common mood disorder was depression (72.9%), followed by bipolar disorder (11.2%), dysthymia (9.1%), and adjustment disorder (6.8%). Of those with depression, 59.7% were women but there was no relationship with age.

Al-Shehri et al. (2012) investigated the prevalence of depression symptoms and anxiety in patients at ten randomly chosen Primary Health Care Centres in Eastern Saudi Arabia in 2010. The participants were 741 Saudi males and 81 non-Saudi males aged over 18 who were attending the centre for any reason, whether or not related to mental health. They used the Arabic version of the Primary Care Evaluation of Mental Disorders (PRIME-MD) (Al-Shehri et al., 2012). This revealed that the prevalence of depression was 32.8%, composed of 22.9% mild depression (cut-off = 5), 7.4% moderate depression (cut-off = 10), 2.1% moderately severe depression (cut-off = 15) and 0.5% severe depression (cut-off = 20). The prevalence of anxiety was 22.3%, with a breakdown of 17.0% mild anxiety (cut-off = 5), 4.3% moderate anxiety (cut-off = 10) and 1.0% severe anxiety (cut-off =15).

These studies were based on samples taken from clinics or hospitals rather than the general population. A survey of mental health problems among the general Saudi population was conducted in 2016 in collaboration with Harvard University (Altwaijri et al., 2020). A nationally representative sample of 4,004 participants between the ages of 15 and 65 completed the Saudi version of the Composite International Diagnostic Interview (CIDI 3.0; Kessler & Üstün, 2004). It was found that 34.2% of the population had been diagnosed with a mental health problem at some time in their life. Major depressive disorder was the third most common, with 6.0% being diagnosed (M=3.1%; F=8.9%), after separation anxiety disorder (11.9%) and attention-deficit/hyperactivity disorder (8.0%). Details are presented in Appendix 5.

2.5.3 Depression in Saudi Arabia

A number of studies have estimated the point prevalence of depression symptoms in Saudi adults based on a variety of survey methods and these are summarised in Table 2.2. The prevalence of depression symptoms has also been investigated among Saudi adolescents and these studies are reviewed in detail in Chapter 3.

Table 2.2

Estimates of Point Prevalence of Depression Symptoms in Saudi Adults

Citation, study area and date of study	Number and type of participants	Age (years) Mean (SD)	Measure used and cut-off	Prevalence (% age)
Al-Shammari et al. (1993) Riyadh, date not stated	N=411 M=122, F=289 New patients attending Primary Care Centres	Range=16-65 28.7 ±11.0. M=34.7 ± 12.6 F= 26.1± 9.1	Arabic version of the HADs Cut-off=11	38.9%

Al-Shammari & Al-Subaie (1999) Various regions, 1994-1995	N=7,970, M=4,938 F=3,032 Patients attending Primary Health Care Centres.	Range≥60 Mean= 68.8± 7.7 M=69.1±7. F=67.7 ±7.7	The GDS Cut-off= 11	30.6% M=33.1% F=48.7%
Abumadini (2003) Khobar, 2002-2003	N=632 New patients attending the Psychiatric Outpatient Department Clinics	Range <10->80 Mean=35.96±14.76	ICD-10	19.3%.
Abdelwahid & Al-Shahrani (2011) Sharurah, 2010-2011	N=272, M=116, F=156 Systematic random sample of patients eligible for medical care in SAFH.	Range=18-60 Mean =29.9±7.1	PHQ-9 Cut-off=5	12% M=20.7% F= 5.8%
Al-Shehri et al. (2012) Dammam and Al-Qatif cities,	M=822 Saudi (90.1%) and non- Saudi	Range≥18 Mean not stated	Arabic version of PHQ-9 Cut-off =5	32.8%

2010	males (9.9%) attending Primary Health Care Centres for any reason			
Amr et al. (2013) Al-Hassa city, 2007-2011	N=412, M=247, F=165 Patients attending the outpatient clinics	Range=60-84 Mean=66.6±12.4	The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I).	26.3% M=21.8% F=32.1%
Al-Qadhi et al. (2014) Riyadh city, 2012	N=477, M=161, F=316 Patients who attended Primary Care Centres for regular visits	Mean=38 ±12	PHQ-2 and PHQ-9 Arabic version Cut-off =5 (Includes mild depression)	49.9%
Alamri et al. (2017) Jeddah, 2016	N=200, M=82, F=118 Patients in a medical hospital	Mean=70.2±8.1	PHQ-9 Cut-off=5 And clinical interview based on DSM-5	PHQ-9=27.5% M=25.6% F=28.8% DSM=12.0% M=11.0%

				F=12.7%
Alosaimi et al. (2017) Riyadh Zulfi Jeddah Dammam Aljouf Abha, 2012-2014	N=1,205 n=443 inpatients, M=252, F=191 n=762 outpatients, M=379, F=383 Adult psychiatric patients	Inpatients mean=37.4 ± 12.0 Outpatients= 38.4 ± 13.6	Clinical interview based on DSM-IV-TR criteria.	Inpatients 7.2% Outpatients 29.3%
Al Rashed et al. (2019) Al-Ahsa city, 2015-2016	N=5,170 M=2,122, F=3,048 Visitors to the city's three biggest shopping malls	Range=18->65	Arabic version of PHQ-9 Cut-off not stated	8.6% F=9.7%, M=7.2%
Al Balawi et al. (2019) Tabuk, 2018-2019	N=384, M=90, F=294 Patients visiting the Primary Health Centre	Range=20-40	Arabic version of PHQ-9 Cut off=5	74.0%
Aldabal et al. (2015) Al Khobar city,	N=680, M=250, F=430	Range=19-80 Mean= 33.1 ± 11.3	Arabic version of PHQ-9 Cut-off =5	43.0%

2010	Visiting four Primary Health Care Centres	

Note. Some studies give only overall prevalence. HADS= Hospital Anxiety and Depression Scale; GDS=The Geriatric Depression Scale; ICD-10= The 10th Edition of International Classification of Mental and Behavioral Disorders; PHQ-9= Patient Health Questionnaire.

As can be seen in Table 2.2, the reported prevalence of depression symptoms varied from 7.2% to 74.0%. It is interesting to note that the use of the clinical interview based on DSM-IV by Alosaimi et al. (2017) gave a value of 7.2% for inpatients, which seems low for a sample of psychiatric inpatients, but it is not clear why this was, as other studies using the clinical interview gave values of 19.3% and 26.3% for both genders. The PHQ-9 gave values which ranged from 12% to 74.0% in clinical settings. As would be expected, however, when the PHQ-9 was used among a general population, visitors to three shopping malls, the estimated prevalence was lower, i.e., 8.6% (Al Rashed et al., 2019).

Some studies reported sociodemographic factors that were significantly associated with elevated depression symptoms although the findings were mixed, and it is difficult to draw any firm conclusions. For example, being single rather than married was found to be associated with depression symptoms by Aldabal et al. (2015) and Al Balawi et al. (2019) whereas no association was found Abdelwahid and Al-Shahrani (2011) and Al-Qadhi et al. (2014). Depression symptoms were associated with financial difficulty or low income in Al Balawi et al. (2019) and Aldabal et al. (2015) but not in Al-Qadhi et al. (2014). In a similar vein, depression symptoms were associated with employment status in Aldabal et al. (2015) but not in Al-Qadhi et al. (2014). Even gender produced mixed findings. It is generally accepted that being female is associated with greater risk of depression (Hyde et al., 2008), and this was found by Al-Qadhi et al. (2014) but not by Abdelwahid and Al-Shahrani (2011). This may be because the sample size was very small.

2.5.4 Limitations of Mental Health Care in Saudi Arabia

There are numerous obstacles in dealing with mental health illnesses in the primary care setting in Saudi Arabia – which directly serves the community – that need to be addressed to provide better treatments and detection. These include the shame and stigma associated with

mental health problems (Al-Qadhi et al., 2014; Pridmore & Pasha, 2004) and a number of further problems, which will now be discussed.

Several studies have highlighted high rates of undiagnosed mental illness among those attending primary care settings in Saudi Arabia (AlHadi et al., 2017; Al-Haidar, 2003; Becker, 2004; Koenig et al., 2014). Koenig et al. (2014) suggested the skills of physicians in diagnosing mental health problems are poor and Becker (2004) called for primary care physicians to be given additional psychiatric training and simple screening instruments for identifying mental illnesses. Echoing this, AlHadi et al. (2017) declared there is an urgent need to provide clinical instruments at primary care clinics to improve and develop the assessment of psychological disorders.

Another critical issue is a failure to provide any treatment, illustrated by two studies. Al-Haidar (2003) undertook a retrospective review of 109 cases who had been referred to the child and adolescent psychiatric consultation at King Khalid University Hospital, including 46 children under 12 years old. A total of 29% of these referred cases had not received a psychiatric diagnosis, and more than half did not obtain any treatment such as psychotropic medication. Moreover, the majority (55%) did not receive any psychotherapy. Al-Haidar (2003) suggests that this is probably because the paediatric ward setting was inappropriate for carrying out some interventions, or because the physical condition of the patients was not suitable. This might also be explained by the Saudi culture, which may view some symptoms to be physical rather than psychological and therefore not require psychological treatment (Algahtani, et al. 2017).

The Saudi National Mental Health Survey (SNMHS) is a nationally representative epidemiological survey conducted face-to-face among households. Al-Habeeb et al. (2020) investigated the treatments of mental illnesses lasting for 12 months among 4,004 Saudi citizens aged 15 to 65 who were included in the survey. The WHO Composite International Diagnostic Interview (CIDI) was employed to generate diagnoses based on DSM-IV criteria. Fourteen percent of those with a DSM-IV/CIDI disorder received any professional treatment over the 12 months. Of those with major depressive disorder, 13% received any treatment. The authors concluded that the unmet need for treatment of such disorders in the Kingdom is high and requires insight into how barriers to treatment (see section 2.5.5) can be reduced, as well as policy changes.

Although in Saudi Arabia individuals have the right to access any mental health care directly (see section 2.4), in practice access to psychotherapy is a problem. It is rare for Primary Health Care Centres or psychiatrists to refer individuals to a psychologist for

psychotherapy (Algahtani et al., 2017) and it is not generally feasible for individuals to refer themselves for psychotherapy, except via private hospitals or clinics, even though the law allows this (see Appendix 3). Algahtani et al. (2017) point out that this restriction hinders access to treatment and therefore prolongs the suffering of patients, which is particularly problematic as many psychologists consider that patients often view psychological services, including psychotherapy, to be less stigmatizing than psychiatric services and more beneficial for treatment.

In regard to adolescents, Saudi Arabia has not focused on addressing their general health care requirements. AlBuhairan and Olsson (2014) studied 153 physicians and 79 nurses at four hospitals in Saudi Arabia, 82% of whom reported having contact with adolescents in the clinical setting, to assess their knowledge, attitudes, and training regarding adolescent health care. Their findings revealed that many lacked adequate knowledge and training. Only 54% claimed having adequate knowledge regarding the health care needs of adolescents; only 39% of the physicians and 53% of the nurses had been trained in adolescent health; and only 59% responded being comfortable with the clinical management of patients aged 12–18 years. Moreover, 82% reported an interest in acquiring further skills and knowledge concerning the health care of adolescents.

2.5.5 Barriers to the Treatment of Mental Illness Among Middle Eastern Cultures

There is a shortage of information about the barriers that hinder adolescents from seeking treatment. However, several studies have explored this matter among adults, and will be discussed next.

2.5.5.1 Shame and Stigma Attached to Seeking Professional Treatment. As discussed in section 2.5.1, the majority of people in Arab countries are afraid to seek mental health treatment for a variety of reasons, including stigma, negative social attitudes, the shame brought on the family, and a misunderstanding and lack of awareness about mental health care (Al-Krenawi, 2005; Dawood & Modayfer, 2016). There can be stigma associated with visiting an institution that provides help for mental health illnesses and this becoming known to others. In Kuwait, a country with a similar cultural background to Saudi, Almazeedi and Alsuwaidan (2014) noted that there is a strong stigma linked to attending its main treatment provider, the Psychological Medicine Hospital. They explained that many individuals refused to be referred to this institution because they would be labelled as mentally ill, which would damage their social reputation.

Specifically, in relation to depression, in the Middle East, there is considerable evidence that stigma is a fundamental barrier to seeking professional treatment for the condition (Al-Krenawi, 2005; Al-Krenawi et al., 2004; Al-Krenawi et al., 2000; Coker, 2005; Eapen et al., 1998; Lecomte et al., 2008; Ozmen et al., 2004; Savaya, 1995; Saxena et al., 2011).

2.5.5.2 Not Knowing the Mental Health Services Available in Saudi Arabia. Lack of awareness about the mental health services available in Saudi Arabia is a further barrier to treatment, as explored by Mahmoud (2019). He recruited 2,796 males and 2,848 females to understand the barriers that affect Saudi people's willingness to seek psychiatric help when needed. A large proportion (87%) did not have knowledge of the services provided by the mental health facilities.

2.5.5.3 Further Attitudinal and Structural Barriers to Seeking Treatment. It was noted in section 2.5.1 that Abolfotouh et al. (2019) reported that 67% of their sample had negative attitudes to mental illness and 48% would not want others to know they had a mental illness, among other negative findings. Abolfotouh et al. (2019) found that their attitudes to professional treatment were perhaps more positive than might be expected: 48% reported they would perceive professional help as an effective solution, 50% would feel comfortable discussing personal problems with a professional, and 44% would access professional help in the case of a serious emotional problem. However, over half the participants (55%) reported negative attitudes to help-seeking behaviour, while only 5% reported positive attitudes. This small percentage indicates the need to raise the awareness and mental health literacy among the Saudi population.

Alangari et al. (2020) investigated barriers to the treatment of mental illnesses based on the Saudi National Mental Health Survey, 2011-2016. This survey found that only 14% of those with a DSM-IV or CIDI disorder lasting for 12 months received any professional treatment during that period. Of the remainder who received no treatment, 51% perceived that they needed no help. Almost all (99%) of the other 49% who did perceive the need for treatment reported various attitudes that hindered them seeking help, while 10% reported structural barriers. In regard to the attitudinal barriers, 82% wanted to deal with the problem by themselves, while 14% perceived that their condition was not severe and 9% considered the services were ineffective. In respect of the structural barriers, 9% reported barriers concerning availability and 7% indicated barriers related to financial needs, followed by 6% regarding transportation and 6% inconvenience. Women were significantly more likely than

men to report structural barriers, which may reflect their dependence on men, as discussed in section 2.2.3.

In summary, this literature review has identified many barriers to seeking treatment for mental illnesses among Middle Eastern people. These include:

1) The shame and stigma attached to having a mental illness or having a family member with mental health problems.
2) The consequent shame and stigma of seeking professional help for it, which could signify that the individual is "crazy". There can be a fear about it becoming known to others if an individual has visited an institution that provides help for mental illnesses.
3) The belief that professional help is not appropriate for treating a mental illness, which should be dealt with instead by other methods, including those based on religious beliefs.
4) Lack of knowledge about the mental health services available.
5) Attitudinal barriers, including wanting to deal with the problem by oneself, perceiving that the condition is not severe enough for treatment and considering the services were ineffective.
6) Structural barriers, including lack of available treatment, lack of finance, difficulty with transportation and inconvenience.

2.6 Summary

The chapter describes the Saudi context of the present research, which differs from that in Western cultures. Section 2.2 points out the very strong influence of Islam on Saudi society, including the central place of the family rather than the individual, the dominance of males over females, and the segregation of males and females in public places, including schools. Female adolescents are typically much more restricted than their Western counterparts, although this is changing. Section 2.3 touches on the school education system in Saudi Arabia and describes the role of the school counsellor in helping students. Section 2.4 sets out the mental health system in Saudi Arabia, with particular regard to adolescents. Section 2.5 presents a literature review of mental health in the Middle East and Saudi Arabia. It discusses the existence of widespread beliefs that mental illness is due to supernatural causes or is a punishment from God. It provides estimates for the prevalence of common mental illnesses in Saudi Arabia, including depression symptoms. It identifies many barriers that hinder Saudi people from seeking professional treatment for mental illnesses.

Chapter 3

Study 1: Systematic Review of Prevalence Studies of Depression Symptoms in Saudi Adolescents

3.1 Introduction

The prevalence of depression symptoms among adolescents has been reported in many studies carried out in Western countries, as described in section 1.5.2. Furthermore, the severe impact it can have on adolescents was noted in section 1.5.4. However, the culture in Saudi Arabia is very different from Western countries, as discussed in Chapter 2.

Only one systematic review has attempted to evaluate the prevalence of depression symptoms among the Saudi population (Alibrahim et al., 2010). It included adults as well as adolescents but only identified three studies, which reported prevalence rates of depression symptoms for elderly patients of 39% (Al-Shammari & Al-Subaie, 1999), adult patients of 35.7% (Becker, 2004) and school students, with males reported as 55% and females 49% (Abdel-Fattah & Asal, 2006). Since Alibrahim et al.'s (2010) review, a number of prevalence studies of depression symptoms in Saudi adolescents have been published and consequently there is a need for an up-to-date review.

Prevalence is concerned with the proportion of existing cases in a population. This contrasts with incidence, which is concerned with the proportion of new cases in a population. There are three commonly used ways to assess the prevalence of elevated depression symptoms. The 12-month prevalence is when participants report experiencing their symptoms for any period of more than two weeks in the past 12 months. Lifetime prevalence is when participants report any depression symptoms during their lifetime, while point prevalence is when participants report experiencing symptoms at a specific point in time (e.g. that day, often in regard to the previous two weeks). Other estimates of prevalence may include a specified and brief period (i.e., one or two weeks).

The point prevalence of depressive disorder among young people in different countries has been described in section 1.5.2. A review of 20 studies of participants aged 11-19 living in the US, Canada, Sweden, Finland and New Zealand (Johnson et al., 2018) found prevalence rates of elevated depression symptoms varying from 5.6% to 44.0%. These studies ware mainly based on diagnostic clinical interviews and also self-report instruments. Estimates based on diagnostic clinical interviews are generally lower than those using self-report instruments. There are two methods to assess the prevalence of mental health problems, including depression: the diagnostic interview and self-report questionnaires. Researchers

frequently use self-report questionnaires as this method can lead to recruitment of greater numbers of participants in less time and with a lower cost. Appropriately recruiting and training interviewers can incur financial costs, as well as the costs associated with conducting interviews.

However, the prevalence of depression symptoms can be overestimated by using self-report methods. To determine prevalence from a self-report measure of symptoms, researchers often rely on a 'cut-off' value, a score above which is taken to indicate the presence of a disorder such as depression. Whilst setting low thresholds to ensure appropriate sensitivity (e.g., identifying all of those with a given condition; see also Thombs et al., 2018) can be valuable, the proportion of participants scoring above a cut-off value can be much greater than the true prevalence value. For example, Rotenstein et al. (2016) conducted a meta-analysis of studies of medical students and found that 27% of participants across 183 studies were classified as having depression. Only one of these studies used a validated diagnostic interview, reporting a lower prevalence of 9%. Dawes et al. (2016) compared the assessment of depression in 34 studies using screening questionnaires with six studies using a validated diagnostic interview. They found an average of 19% of patients had depression as indicated by the self-report questionnaires, whereas only 7% to 8% had depression as indicated by diagnostic interviews.

A further issue is that participants might not disclose their feelings honestly in a diagnostic interview, but may more readily do so on a self-report questionnaire (Krumpal, 2013; Moum, 1998; Oei & Zwart, 1986; Okamoto et al., 2002). An additional reason is that clinical interviews often adopt more strict criteria to identify a depressive disorder rather than depressive symptoms, which are often the target of assessment with self-report measures (Krebber et al., 2014).

The main aim of this chapter is to provide an up-to-date systematic review of studies reporting the prevalence of elevated depression symptoms among adolescents in Saudi Arabia, including a critique of the methodologies used.

To the researcher's knowledge, no systematic review of studies examining the prevalence of depression symptoms in adolescents in Saudi Arabia has been conducted since the publication of Alibrahim et al. (2010), which only included one study. In the light of this research gap, this review has two main objectives: 1) to identify studies reporting on rates of depression symptoms among Saudi adolescents; and 2) to critically review the methods used in each study.

3.2 Systematic Literature Search

3.2.1 Search Strategy

A systematic literature search was conducted with multiple databases, i.e., PsycINFO, PubMed, SCOPUS, and Web of Science as well as the Saudi Digital Library (SDL). It covered all the relevant literature published in the English and Arabic language from January 1950 up to July 2020, and an update was carried out in October 2020. Reference lists of related studies and previous reviews were also consulted. The search was carried out using various combinations of the following key terms: depression AND prevalence OR incidence AND adolescence OR adolescent AND Saudi Arabia. The title and abstract of each study identified was read. As the prevalence of elevated symptoms of depression was the main objective in the literature search, articles that concerned the association between depression and other diseases or mental illness, such as epilepsy, diabetes or autism, were excluded. Further, studies that did not specify the instrument used to assess severity of depression or did not report the prevalence of depression symptoms were excluded. It should be noted that although adolescence usually includes the ages of 10 and 11 (World Health Organization, 1965), these ages were excluded because middle schools in Saudi start from the age of 12, and most of the previous studies only included middle and high schools.

3.2.1.1 Inclusion Criteria.

To be eligible to be included in this review studies had the following characteristics:

1) Assessed prevalence of elevated symptoms of depression or depression in Saudi Arabia (depression could be assessed in any reliable way, for example by clinical interview or self-report instrument).
2) Available as full text.
3) Available in the English or Arabic language.
4) Participants were adolescents (actually aged between 11 and 20). Chronological age was not used as an inclusion (or exclusion) criterion. See section 3.3.2.2.

3.2.1.2 Exclusion Criteria.

Exclusion criteria were as follows:

1) Studies assessing attitudes and beliefs towards depression.
2) Programmes or interventions to reduce or treat depression.
3) Association between depression and other mental health disorders, developmental disorders, or physical health problems.

3.2.2 Assessment of Methodological Quality

The methodological quality of ten studies was assessed independently by three raters (the researcher and two PhD Psychology students, S.K., and Y.B.), using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Studies Reporting Prevalence Data (Munn et al., 2015); S.K. had already published a systematic literature review and therefore had relevant experience of critical appraisal methods. Any differences of opinion were reviewed with the supervisor, Professor Shirley Reynolds, who is a clinical psychologist with experience of systematic literature reviews, and an agreed rating was given. Five further studies found when the search was updated (October 2020) were only evaluated by the researcher due to constraints resulting from the COVID pandemic.

Methodological criteria included the following nine criteria in the JBI Critical Appraisal Checklist for Studies Reporting Prevalence Data

1) Was the sample frame appropriate to address the target population?
2) Were study participants sampled in an appropriate way?
3) Was the sample size adequate?
4) Were the study subjects and the setting described in detail?
5) Was the data analysis conducted with sufficient coverage of the identified sample?
6) Were valid methods used for the identification of the condition?
7) Was the condition measured in a standard, reliable way for all participants?
8) Was there appropriate statistical analysis?
9) Was the response rate adequate, and if not, was the low response rate managed appropriately?

3.3 Results

This section describes the literature search, reports on the quality assessment of each study, and presents a summary of each article in tables.

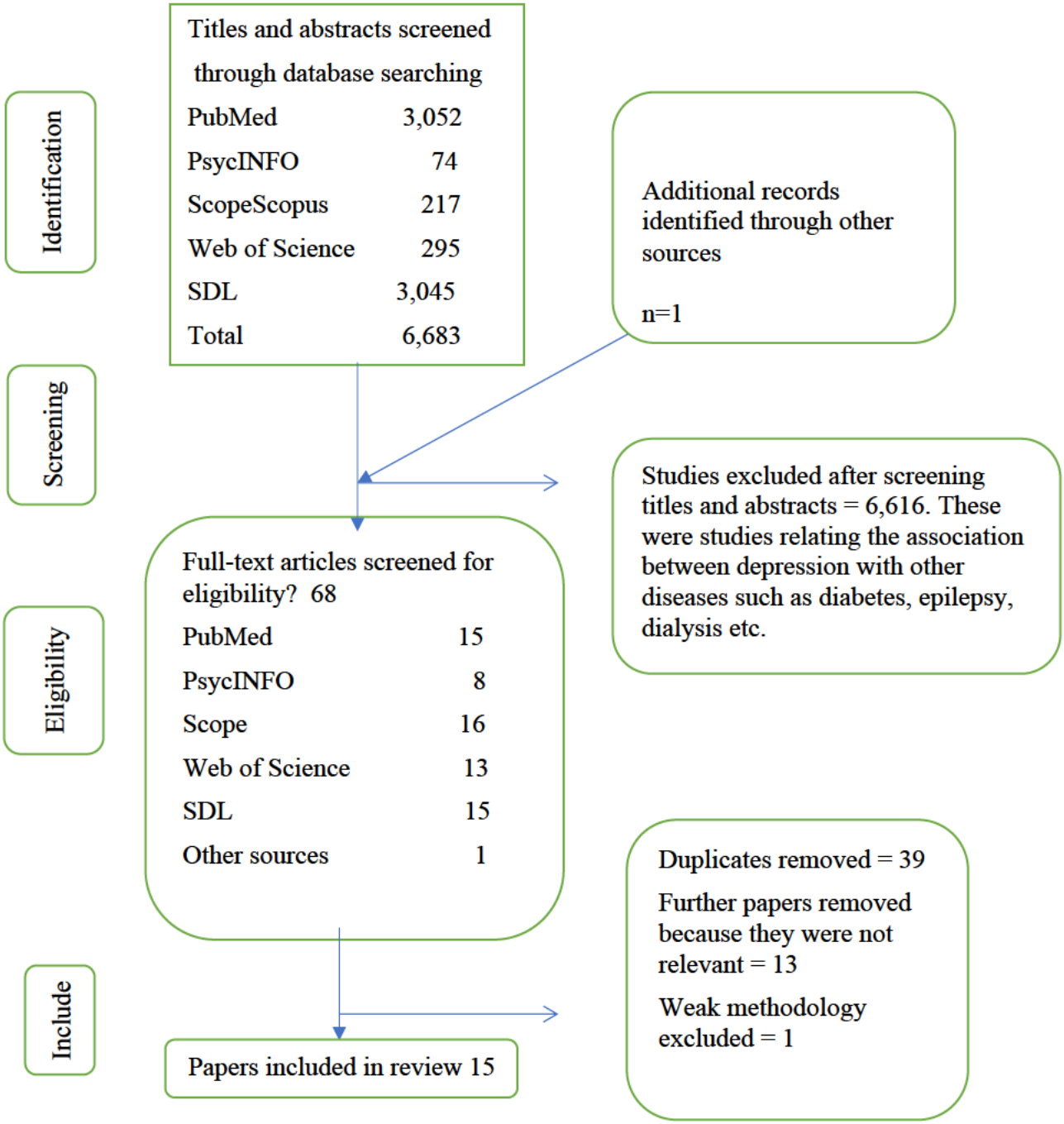
3.3.1 Selection of Studies

The selection process is shown in Figure 3.1, based on the PRISMA guidance. The initial search identified 6,683 studies. An additional study was found by the author checking references in papers. These were screened by reading the title and abstract and 6,616 studies were excluded, leaving 68 for full-text review. After removing 39 duplicates, 29 full texts were reviewed. Of these 13 were excluded, leaving 16 studies. These 13 were excluded after reading the full texts, typically because they did not investigate the prevalence of depression symptoms or they investigated the association between depression and anxiety, or between

depression and other physical or mental disorders. One study of the 16 was excluded because, although it reported the prevalence of depression symptoms, this was assessed using only two questions which referred to having continual depression in the past 12 months (Albuhairan et al., 2015). This left 15 studies that examined the point prevalence of depression amongst adolescents in Saudi Arabia.

Figure 3.1

Selection Process of Studies in the Review



3.3.2 Critical Appraisal of Studies

This section offers a critical appraisal of the 15 studies identified. First it discusses each of the nine JBI criteria listed in section 3.2.2 as they apply to these studies. Criterion 6, the methods used to identify depression symptoms, is dealt with in greater detail, given its importance for the current research. Following this, some conclusions are presented. Details of the studies are presented in Table 3.1.

Table 3.1

Studies of Prevalence of Depression Symptoms Among Adolescents in Saudi Arabia

Citation and study area	Participant composition	Age (years)	Measure	Cut-off	Prevalence
Ahmed & Alrowialy (2015) Riyadh city	M: 227, F: 104	M=16.72	SCL-90-R	Not stated	All=28.4 M=14.9 F=57.7
Mahfouz et al. (2009) Abha city	M: 1,007, F: 545	Range 14-19 M=17.35 ± 1.11	SCL-90-R	T≥61	M=13.1 F=13.9
Al-Gelban (2007) Abha city, Aseer region	M: 1,723	Range 15-19 M=16.8 (SD ±1.3)	DASS-42	Not stated	M=38.2
Al-Gelban et al. (2009) Abha city, Aseer region	F: 545	Range 14-20 M=17.13 (SD ±1.12)	DASS-42	10	F=41.5
Hakamy et al. (2017) Jizan city	M:350, F:402	Secondary school age	DASS-42	10	All=50.0
Alenazi et al. (2019) Arar city	M: 375	Range 16-19 M=16.8 ±0.8	DASS-42	Not stated	M=56.3
Abdel-Fattah & Asal (2006) Taif city	M: 306, F: 184	Range16-20 M=17.3 ± 1.0	BDI-II	19	All=33.4 M=29.4 F=40.2
	F: 1,028	Range 15-19	BDI-II	Not stated	F=30.0

Raheel (2015) Riyadh city					
Desouky et al. (2015) Taif city	F: 1,024	Range 15-17	BDI-II	26	F=42.9
Al-Marri & Al-Qahtani (2017) AlKhobar City	F: 500	Range 15-19 M=16.6 SD ±0.95	BDI-II	14-17 yrs=26 18-19 yrs=21	F=23.8
Marasa & Mandura (2019) Jeddah city	F: 372	Range 14-19	BDI	17	F=43.6
Alswat et al. (2018) Taif city	M:394, F:116	Range 12-18	PHQ-9	5	All=68.9
Alharbi et al. (2019) Al-Qassim region	M: 553, F:692	Range 13-19	PHQ-9	5	M=66.0 F=80.2
Almodayfer & Alatiq (2015) Riyadh city	M: 58, F: 71	Range 11-17 M=14.8 SD ±2.7	MINI-Kid	n/a	All=6.2
Alatiq et al. (2017) Riyadh city	F: 692	M=16.9 SD ±0.05	MINI-Kid	n/a	F=30.0

Note. The prevalence figures for Alharbi et al. (2019) were calculated by the author. SCL-90-R=Symptom Checklist-90-Revised of which the Depression subscale was used; DASS-42=Depression, Anxiety and Stress Scales of which the Depression subscale was used; BDI-II=Beck Depression Inventory; PHQ-9=Patient Health Questionnaire; MINI-Kid=Mini International Neuropsychiatric Interview.

3.3.2.1 JBI Criterion 1. Was the Sample Frame Appropriate To Address the Target Population?

The target population were adolescents in the local community, either of one gender or both genders, depending on the study. Fourteen of the studies used schools to sample

the adolescents and stated their ages. There are generally two types of schools in Saudi Arabia: public and private. If the study sampled from both types, it was given a score of 1 but if it only sampled from public schools, it was given a score of 0 (Table 3.2). The remaining study by Al-Modafer and Alatiq (2015) used a sample based on adolescents in a selected community of Saudi professionals in Riyadh City, so as it was not representative of the community, it was given a score of 0.

3.3.2.2 JBI Criterion 2. Were Study Participants Sampled in an Appropriate Way?

Eleven of the studies stated the method of sampling, which was considered appropriate, and so were given a score of 1 (Table 3.2). However, two studies (Alatiq et al., 2017; Al-Modafer & Alatiq 2015) were based on subsamples of a screened population that were not selected randomly, and two further studies (Alharbi et al., 2019; Alswat et al., 2018) did not state the method of sampling, so these studies were given a score of 0. Although Ahmed and Alrowaily (2015) stated that they used "stratified convenient sampling" (p. 64), it was not clearly described, so this study was given a score of 0. It should be noted that the samples were selected by using the search terms "adolescent" or "adolescence", not age, and that two of the samples included a few participants who were 20 years old. These were included in the review as the education system in Saudi Arabia can continue to teach students aged 20 if they have, for example, failed their assignments and are planning to retake them. It was a limitation of this methodology that using the search terms "adolescence OR adolescent" was rather vague (that is, they were not operationalised). For example, including additional search terms (such as "youth" or "young people") which are also used to refer to this age range, would have provided a broader search range. Consequently, this review may have missed some published studies that existed, a limitation which should be considered in future reviews.

3.3.2.3 JBI Criterion 3. Was the Sample Size Adequate? The sample size affects the precision of the estimate of the prevalence; the greater the sample size, the more confident we can be that our estimate is close to the actual prevalence in the total population. A power calculation (using the formula in Munn et al., 2015) suggests that assuming a population prevalence of elevated depression symptoms of 25%, an accuracy of estimation of 4%, and a confidence interval of 95%, a minimum sample size of 451 is required. These values follow the same values used by Raheel (2015). Therefore, it was decided that any sample size above 451 was adequate and studies that had a sample size of over 451 were given a score of 1 for criterion 3 in Table 3.2. Studies with fewer than 451 participants were scored 0.

The smallest sample (N= 104) by Ahmed and Alrowiali (2015) found that 60 (57.5%) participants showed elevated symptoms of depression. With 95% confidence limits the true population value lies between 47.6% and 67.3%, which is not considered to be precise enough. The largest sample (N= 1,028) was reported by Raheel (2015), who found that 308 (30%) reported elevated symptoms of depression, i.e., 95% confidence limits were 27.2% to 32.9%.

3.3.2.4 JBI Criterion 4. Were the Study Subjects and the Setting Described in Detail?

According to this criterion, the researcher(s) should describe their sample in sufficient detail to allow other researchers to determine whether it is similar to the population of interest to them. Consequently, it was considered that each study should state the gender and details of the ages of the participants and their setting. Two of the studies were given a score of 0 because they did not state the ages in sufficient detail. Alswat et al. (2018) included participants aged between 12 and 18, and Al-Gelban et al. (2009) included participants aged between 14 and 20 but neither study stated how many of each age took part or any descriptive statistics (e.g., mean).

3.3.2.5 JBI Criterion 5. Was the Data Analysis Conducted With Sufficient Coverage of the Identified Sample?

This criterion requires that all the subgroups in an identified sample should be included. Studies that did not include certain subgroups of adolescents, for example, those with psychiatric disorders or intellectual impairments or chronic medical illness, were given a score of 0. Further, the study by Alatiq et al. (2017) was given a score of 0 because it only included Saudi students and the study by Ahmed and Alrowialy (2015) was given a score of 0 because the method of sampling was poorly described.

3.3.2.6 JBI Criterion 6. Were Valid Methods Used for the Identification of the Condition?

This assessment first requires a detailed examination of the instruments used to identify the depression symptoms in the adolescents and whether they had been validated for use on Saudi adolescents. Five instruments were used to assess the symptoms of depression in the studies identified in this review:

1) The Beck Depression Inventory Scale (BDI-II)
2) The Depression subscale of the Arabic version of the Symptom-Checklist-90-Revised (SCL-90-R)
3) The Patient Health Questionnaire (PHQ-9)
4) The Depression subscale of the Depression, Anxiety and Stress Scales (DASS-42)

5) The MINI International Neuropsychiatric Interview for Children and Adolescents (MINI-Kid)

The following subsections describe these five instruments and assess their validity for use with adolescents, with particular reference to Saudi Arabia and other Middle East cultures. Then the important issue of the choice of cut-off is considered, and finally, the assessment of the 15 studies on criterion 6 is made.

The Beck Depression Inventory Scale (BDI-II). The Beck Depression Inventory (BDI-II) is a self-report questionnaire, which contains 21 items that measure both symptoms and features of depression. The test takes approximately 5 to 10 minutes to complete. It was designed to correspond to the DSM-IV criteria for major depressive disorder (Beck et al., 1996) and is suitable for people aged 13 and over. The BDI-II has no absolute cut-offs, but the following ranges are suggested by Beck et al. (1996) as guidelines: minimal depression= 0–13, mild depression = 14–19, moderate depression = 20–28, and severe depression = 29–63. The two-factor structure of the BDI-II has been widely supported and comprises a somatic-affective factor (12 items) and a cognitive factor (9 items) (Beck et al., 1996). Beck et al. (1988) cited a number of studies that have examined the concurrent and discriminant validity of the BDI-II in a variety of samples, including psychiatric and non-psychiatric patients, suicide attempters and cancer patients, and depressed alcoholics and nondepressed alcoholics.

The Arabic version of the BDI-II was first established in Egypt by Ghareeb (2000) with 3,172 male and female employees, psychiatric patients, university students and high school students. It was found to have good reliability, with internal consistency of α coefficients ranging from 0.79 to 0.88, and test-retest reliability coefficients ranging from $r = 0.74$ to 0.77. Ghareeb (2000) suggested that the Arabic BDI-II can be used for those aged 15 and older. Al-Musawi (2001) assessed the BDI-II among 200 male and female university students with mean age of 23 years in Bahrain. He reported an alpha coefficient of $\alpha = .84$, which is high, and test-retest reliability over two weeks to be $r = .75$, which indicates moderate consistency over time.

Although the BDI-II has been translated into the Arabic language and provides a solid support for depression symptoms it has only been tested among college students and high school students who are 15 and older. Alansari (2006) tested the internal reliability of the Arabic version of the BDI-II in male and female undergraduates from 18 Arabic-speaking countries. Alpha coefficients varied between .82 and .93, indicating good internal consistency. Abdel-Khalek (1998) calculated the alpha coefficients among 190 male and 190

female undergraduate students from Egypt, Saudi Arabia, Kuwait, and Lebanon. He reported the values for these countries, respectively, to be .77, .82, .89, and .67. The studies by Abdel-Khalek (1998) and Ghareeb (2000) included translating the original English version into standard Arabic language and back to English to establish the validity of the Arabic BDI-II.

In conclusion, the Arabic version of the BDI-II appears to be a robust measure of depression symptoms in adolescents, although it has not been tested on adolescents younger than 15.

The Depression, Anxiety and Stress Scale (DASS). The Depression, Anxiety and Stress Scale (DASS) is a self-report instrument which contains 42 items that measure depression, anxiety and stress, each of which has 14 items (Lovibond & Lovibond, 1995). Each item is answered using a simple Likert scale (Never = 0, Sometimes = 1, Often = 2 and Almost Always = 3). The authors state the following cut-offs for the depression scale: 0-9 = Normal; 10-13 = Mild; 14-20 = Moderate; 21-27 = Severe; and 28+ = Extremely Severe. Lovibond and Lovibond (1995) showed that the DASS has good convergent and discriminant validity when compared with other instruments, including the BDI-II. Of the studies included in the present review that used the DASS, only the Depression subscale was chosen.

The DASS has been translated and adapted to the Arabic language (Moussa et al., 2017). The Arabic version was evaluated on an Australian immigrant sample (N=220) aged 18 years and older and it was found to be appropriate for people from a variety of Arabic-speaking countries, with the depression sub-scale having high internal consistency, $\alpha = 0.93$ (Moussa et al., 2017). The DASS was validated by comparing it with data from the English version. This process included the back-translated Arabic version being reviewed in detail by seven trained Arabic-speaking mental health professionals, and then conducting a factor analysis on the Arabic version which showed similar factor loadings to the English version. However, this evaluation only involved those who are 18 and older and therefore it is uncertain whether it is suitable for adolescents. Further, the study by Moussa et al. (2017) did not discuss the choice of the cut-off or provide any other measures of reliability, such as test-retest reliability.

Patient Health Questionnaire (PHQ-9). The Patient Health Questionnaire-9 is a self-report screening instrument which contains nine items and is used to detect depression (Spitzer et al., 1999). Each item is scored from 0 to 3 and so the total can range from 0 to 27. The cut-offs for the PHQ-9 are 5 for mild depression, 10 for moderate, 15 for moderately severe, and 20 for severe depression (Kroenke et al., 2001). The PHQ-9 has good reliability and construct validity (Kroenke et al., 2001).

The PHQ-9 was adapted into Arabic by Becker et al. (2002) based on 431 patients who were seeing a primary care physician. Of the 431, 173 male and female patients aged 18-80 took a semi-structured clinical interview and completing the translated version of the PHQ-9. The interview was the SCID-R, which is based on DSM-III-R criteria (American Psychiatric Association, 1987). The translated PHQ-9 was found to be valid for identifying depression; it was found that it had a sensitivity of .62 and specificity of .95 based the SCID-R interview. It was also checked by translating it into English and then back into Arabic by one primary care physician and two Saudi psychiatrists. Recently, AlHadi et al. (2017) established the validity of the PHQ-9 among 731 Saudi university students with mean age of 21.3 years. They found it to have an internal consistency α of 0.86. However, they did not investigate the test-retest reliability of the PHQ-9 and suggested that this should be done. To the author's knowledge, the PHQ-9 has not been validated among Saudi people younger than 18 years old.

Symptom-Revised Checklist-90. The SCL-90-R is a multidimensional questionnaire aimed at assessing a wide range of psychological problems (Derogatis, 2000). Each of the 90 items is rated on a five-point Likert scale of distress, ranging from not at all (=0) to extremely (=4). The questionnaire normally takes between 12 and 20 minutes to complete (Derogatis, 2000). It assesses nine different dimensions, including depression, which has 13 items. It assesses nine different dimensions, including depression, which has 13 items. Only the Depression dimension was included in this review. The depression scale has been shown to demonstrate good internal consistency ($\alpha = 0.82$), and the overall 90 items have adequate test-retest reliability (r between 0.68 and 0.80; Derogatis, 2000). For clinical purposes the SCL-90-R scores are changed to standard T-scores (varying from a minimum of 30 to a maximum of 80) by referring to the test manual (Holi, 2003).

No details of the Arabic version could be found. This is of concern because this instrument gave a much lower prevalence rate than the DASS when it was used with a very similar sample (see section 3.3.2.6), suggesting that it may not be appropriate for use among this age group.

MINI-Kid. The MINI International Neuropsychiatric Interview for Children and Adolescents (MINI-Kid; Sheehan et al., 2010) is a structured psychiatric interview that takes from 15 to 50 minutes to conduct (Leffler et al., 2015). It assesses the major child and adolescent disorders based on DSM-IV and ICD-10 criteria, covering all of the symptoms that are listed for major Axis I diagnostic categories and for suicidality. It has been validated against other structured interviews, including the English version of the Structured Clinical Interview (SCID-P) and the English and Arabic versions of the Composite International

Diagnostic Interview (CIDI) on an Egyptian sample (Ibrahim et al. 2002, cited in Al-Modayfer & Alatiq, 2015). It was not possible to access this thesis to scrutinise details of the study. Unfortunately, the two studies that used the MINI-Kid interview only used the parents' version and did not interview the adolescents themselves. The authors cited no studies to indicate that the parents' observations of their children's symptoms would be reliable. This makes it difficult to evaluate the validity of these two studies, so they were given a score of 0 in Table 3.2.

The Reporting and Choice of Cut-Off. In assessing the prevalence of depression symptoms using self-report instruments, the choice of the cut-off is important, for a lower cut-off will lead to higher reported rates. Five of the 13 studies that used self-report instruments did not state the cut-off that was used to identify participants with elevated symptoms of depression (see Table 3.1). This makes it difficult to evaluate the accuracy of the estimated prevalence.

The choice of cut-off was sometimes a problem within a study; for example, Al-Marri and Al-Qahtani (2017) used different cut-offs for the BDI, depending on the age of the participants. Some studies stated that they included individuals who had mild depression symptoms (i.e., Alenazi et al., 2019; Al-Gelban, 2007; Al-Gelban et al., 2009; Alharbi et al., 2019; Al-Marri & Al-Qahtani, 2017; Alswat et al. 2018; Hakamy et al., 2017), while two excluded participants who had mild symptoms of depression (Abdel-Fattah & Asal, 2006; Desouky et al., 2015). Marasa and Mandura (2019) included individuals who had ‘’borderline' levels of clinical depression and other authors did not make an explicit statement about how they estimated elevated depression symptoms (Ahmed & Alrowialy, 2015; Mahfouz et al., 2009; Raheel, 2015). It should be noted that Desouky et al. (2015) chose a cut-off of 26 on the BDI-II, which is above the range of 14-19 regarded as mild depression by Beck et al. (1996), although they referred to this level of symptoms as 'mild'.

None of the studies discussed why they chose the cut-off they did (Abdel-Fattah & Asal, 2006; Al-Marri & Al-Qahtani, 2017; Desouky et al., 2015; Marasa & Mandura, 2019). The study that validated the Arabic version of the BDI-II (Ghareeb, 2000) did not recommend a cut-off.

Four studies used the DASS to estimate prevalence of elevated depression symptoms in their sample. Of these only two (Al-Gelban et al., 2009; Hakamy et al., 2017) stated that they used a cut-off (of 10). Two studies used the SCL-90; of these Mahfouz et al. (2009) used a cut-off of T≥61, while Ahmed and Alrowialy (2015) did not state the cut-off that they used.

In conclusion, it was decided to give a score of 1 if the self-report instrument had been validated on Arabic adolescents and the cut-off had been stated. In the case of the two studies that used the MINI- Kid interview, these were given a score of 0 as only the parents were interviewed. This resulted in only four of the 15 studies being given a score of 1 in Table 3.2, all using the BDI-II.

3.3.2.7 JBI Criterion 7. Was the Condition Measured in a Standard, Reliable Way for All Participants? Regardless of the validity of the instruments used to assess depression symptoms, this criterion refers to whether it was carried out in the same way for all the participants. A score of 1 was given to all the studies because all the participants took the same self-report instrument, or in the case of the two interview studies, all the interviewers were trained psychiatrists (Al-Modafer & Alatiq, 2015; Alatiq et al., 2017).

3.3.2.8 JBI Criterion 8. Was There Appropriate Statistical Analysis? This criterion states that the confidence interval of the prevalence estimate should be reported. A score of 1 was given if this was done, otherwise a score of 0 was given, which was the case for 12 of the studies in Table 3.2.

3.3.2.9 JBI Criterion 9. Was the Response Rate Adequate, and If Not, Was the Low Response Rate Managed Appropriately? Each study should report the response rate, which refers to how many agreed to take part. Therefore, a score of 1 was given if they reported the response rate (only four studies, where the response rate ranged from 93.4% to 98.2%), otherwise a score of 0 was given in Table 3.2.

3.3.2.10 Conclusions of Appraisal.

Table 3.2 summarises the assessment of the quality of the final 15 studies selected for inclusion based on the JBI Critical Appraisal Checklist. The two studies rated highest on these criteria achieved a score of 1 on eight of the nine criteria: Desouky et al. (2015) and Al-Marri and Al-Qahtani (2017). Both studies used the self-report BDI-II which was the only instrument that has been validated for use on Arabic adolescents, although Al-Marri and Al-Qahtani (2017) stated two different cut-offs for different age groups without explaining the reason. The lowest rating (2/9 criteria) was achieved by one study: Ahmed and Alrowialy (2015). On the important issue of the validity of the method, only four studies were given a score of 1. It can be argued that the JBI criteria should give more consideration to the validity of the method, as only one of the nine criteria looked at this. Nearly all of the studies achieved a score of 1 for two criteria: the sampling frame and the reliability of the measurement, and therefore these criteria did not distinguish the studies much.

Table 3.2

Quality Assessment of Final 15 Studies Based on JBI Critical Appraisal Checklist

Study	Criterion Number									Percentage
	Sampling frame	Sampling method	Sample size	Subjects' description	Sample coverage	Validity of method	Reliable measurement	Response rate	Statistical analysis	
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Ahmed & Alrowialy (2015)	0	0	0	1	0	0	1	0	0	**22%**
Mahfouz et al. (2009)	1	1	1	1	1	0	1	0	0	**67%**
Al-Gelban (2007)	1	1	1	1	1	0	1	0	1	**78%**
Al-Gelban et al. (2009)	1	1	1	0	1	0	1	0	0	**56%**
Hakamy et al. (2017)	0	1	1	1	0	0	1	0	0	**44%**
Alenazi et al. (2019)	1	1	0	1	0	0	1	0	1	**56%**
Abdel-Fattah & Asal (2006)	1	1	1	1	1	1	1	0	0	**78%**
Raheel (2015)	1	1	1	1	0	0	1	1	0	**67%**

Desouky et al. (2015)	1	1	1	1	1	1	1	0	1	**89%**
Al-Marri & Al-Qahtani (2017)	1	1	1	1	1	1	1	0	1	**89%**
Marasa & Mandura (2019)	0	1	0	1	1	1	1	0	0	**56%**
Alswat et al. (2018)	1	0	1	0	0	0	1	0	0	**33%**
Alharbi et al. (2019)	1	0	1	1	0	0	1	0	0	**44%**
Al-Modafer & Alatiq (2015)	0	0	0	1	0	0	1	1	0	**33%**
Alatiq et al. (2017)	1	0	1	1	0	0	1	1	0	**56%**

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Note. 0 = No or unclear. 1 = Yes.

3.3.3 Estimates of Prevalence of Depression Symptoms in Saudi Adolescents

The prevalence findings are summarised in Table 3.2, which shows a considerable difference in the estimates. It can be seen that the rates for males vary between 13.1% and 66.0%, while those for females vary between 13.9% and 80.2%. There could be several explanations for this variation. It could be explained by the timing of the study, as a study by Weinberger et al. (2018) found that the prevalence of depression among young people in the US increased significantly from 6.6% in 2005 to 7.3% in 2015. It could also be explained by the region of the sample or the validity of the measure. Further, sociodemographic factors could be a reason (see section 1.4.2); however, this is difficult to examine because some of the studies did not report this in sufficient detail to allow further analysis.

As the "general applicability" of prevalence findings from one area to another is questionable (Boyle, 1998, p. 39), it should be noted that we cannot be sure whether any of the samples were representative of Saudi Arabia in terms of its demographics, as none of the studies provided information about how their area of study related to demographics of Saudi Arabia as a whole, although some studies did provide some information about demographics, such as the parents' financial status, education, occupations, etc. All were restricted to individual cities or regions in Saudi Arabia and relied on types of stratified random or stratified convenience samples. Furthermore, none of the studies employed strategies to adjust for differences within samples, for example, by the use of mathematical weighting to adjust the sample to better match the target population.

Four studies included both genders. One study found no difference between males and females (Mahfouz et al. 2009), two studies found moderate differences of 14.2% (Alharbi et

al., 2019) and 10.8% (Abdel-Fattah & Asal, 2006) and one study found a large difference of 42.8% (Ahmed & Alrowialy, 2015). These results are consistent with the general finding that depression is more prevalent among females (Hyde et al., 2008). The study by Mahfouz et al. (2009) can be questioned because they used the SCL-90R, for which no psychometric information could be found for the Arabic version.

Two studies (Abdel-Fattah & Asal, 2006; Desouky et al., 2015) used the same instrument (the BDI-II) in the same city (Taif) and found little difference in the prevalence rate, even though they used different cut-offs (19 and 26). This could be explained by the time difference of about nine years between the studies, as Saudi Arabia showed considerable development since 2000. Overall, there was no clear relationship between the choice of cut-off and the prevalence rate reported but it is interesting to note that Abdel-Fattah and Asal (2006) used a cut-off of 19 on the BDI-II and reported a prevalence of 40.2% for females while Desouky et al. (2015) used a higher cut-off of 26 on the BDI-II and also reported a higher prevalence of 42.9% for females, even though a higher cut-off would be expected to give a lower value.

3.4 Discussion

This systematic literature review identified and evaluated studies that examined the prevalence of elevated depression symptoms among adolescents in Saudi Arabia. It used the widely used JBI Critical Appraisal Checklist (Munn et al., 2015) to help to recognize some of the methodological issues and this highlighted several significant issues.

A large range of prevalence rates were reported, which were generally high by Western standards. Ten of the fifteen studies evaluated reported that more than 40% of young people in Saudi Arabia reported elevated symptoms of depression, and there were six findings which ranged from 50.0% to 80.2%. In comparison, in section 1.5.2.1 it was found that the overall prevalence values based on self-report instruments ranged from 2.6% to 46% for a variety of countries.

The large variability in the rates reported by different studies of young people in Saudi Arabia probably reflects both genuine differences between samples and methodological differences in measurement and sampling. Although the two studies using the parent MINI-Kid interview by Al-Modayfer and Alatiq (2015) and Alatiq et al. (2017) are of uncertain validity because only the parents were interviewed, both were carried out by the same researchers using the same method and found very different prevalence values of 5.4% and 30%. This perhaps reflects a real difference between their two samples. However, different

rates are also likely to be reported because different studies used different cut-offs without justifying the choice of cut-off or did not state what value was used to identify participants with elevated depression symptoms.

The instruments used may have accounted for some differences. This is clearly illustrated by the two studies of 545 female students in Abha city by Al-Gelban et al. (2009) and Mahfouz et al. (2009). Although their ages were reported to be slightly different and neither paper referenced the other, both studies were carried out by the same research assistants, in the same year, on the same number of female participants, in the same city, and it is unclear what differentiated the samples. In Mahfouz et al., (2009) students completed the Arabic version of the Symptom Check List 90-revised (SCL 90-R), which indicated the prevalence of depression symptoms to be 13.9%. However, in Al-Gelban et al., (2009) the prevalence of depression symptoms was found to be 41.5% using the DASS-42.

This difference of 27.6% draws attention to the critical importance of the assessment method used to assess depression symptoms and the potential unreliability of a single study. It also raises the possibility that one or both Arabic versions of the DASS-42 and the SCL-90R may not be valid to use with Saudi adolescents. Indeed, as was noted above (section 3.3.2.6) the DASS does not appear to have been validated on adolescents, and that no psychometric information could be found for the Arabic SCL-90-R.

There are further reasons to question the validity of these instruments. Although the prevalence of depression among females is reported to be twice that among males (e.g. Hyde et al., 2008), Mahfouz et al. (2009) found no gender difference in the prevalence of depression symptoms. Moreover, the prevalence rates they reported for both genders were low compared with most other studies, suggesting that the Arabic version of SCL-90-R may not be valid for use among this age group. Similarly, the validity of the Arabic version of the DASS for adolescents is unclear.

It should be noted that many popular self-report instruments were developed in English-speaking countries (Ferraz, 1997; Guillemin et al., 1993; Hendricson et al., 1989), but they not only need to be translated appropriately, but they also need to be adapted appropriately to the culture (Guillemin et al., 1993). Moreover, Dardas et al. (2016) emphasised that future studies of mental illness prevalence need to pay careful attention to using instruments that are sensitive to developmental and cultural factors.

It is evident from section 3.3.2 that all of these studies have shortcomings, including the fact that most of the instruments used to assess depression symptoms were not validated on

adolescents. This indicates the need for further studies using an Arabic self-report instrument that has been validated for use on adolescents.

As was discussed in section 2.5.3, depression symptoms in adults in Saudi Arabia has been associated with several sociodemographic factors, though with much contradictory evidence, including being single, low income, and unemployment, as well as being female. It was noted in section 3.3.3 that none of the studies gave information concerning how the demographics of their area related to the demographics of Saudi Arabia as a whole. The highest prevalence values related to the Al-Qassim region (80.2% among females and 66.0% among males), Riyadh city (57.7% among females), and Jeddah city (43.6% among females). The last two are large cities while the Al-Qassim region includes the large city of Buraydah, and so it may be that a high level of depression symptoms is associated with living in large cities. The very high value for the Al-Qassim region is possibly due to two factors: first, the study included several small cities, and second, it is largely a rural area where the parents may have been more traditional, which made them stricter with their children and less aware of their mental wellbeing.

3.5 Summary

This chapter has identified and reviewed research that has reported the prevalence of depression symptoms among adolescents aged from 12 to 19 years old in Saudi Arabia. Fifteen studies were found and critically evaluated. They reported prevalence values ranging from 13.1% and 66.0% for males, and from 13.9% and 80.2% for females, which are high in comparison with those for Western countries. However, a number of methodological problems were identified. There was clear evidence that the instrument used to assess severity of depression symptoms mattered, as the Arabic versions of the DASS-42 and SCL-90-R gave the findings of 13.9% and 41.5% for a very similar sample. No research could be found to show that either measure had been validated for use on adolescents. Further, there was an issue with the reporting and choice of the cut-offs used in some of the studies, which makes it difficult to compare reported rates. In conclusion, there is a need for a further study using an instrument that has been specifically designed for use on adolescents that has been validated on an Arabic sample and has a recommended cut-off. Chapter 4 was carried out to fulfil this need.

Chapter 4

Study 2: Prevalence of Depression Symptoms Among Female Adolescents in Saudi Arabia

4.1 Introduction

A systematic review of the prevalence of depression symptoms among Saudi adolescents was presented in Chapter 3. The results indicated that elevated symptoms of depression were more commonly reported by Saudi adolescents than by adolescents from many other countries. Section 3.3 reported the findings for both male and female adolescents. This chapter focuses on the results of prevalence surveys for adolescent females from Saudi Arabia to prepare the foundations for Study 2, which specifically aimed to assess the prevalence of elevated depression symptoms in adolescent females. Although it would be beneficial to conduct a study among both genders, the Saudi culture meant that this study could only be delivered to females only, as the researcher was not allowed to enter male-only schools.

In the systematic literature review presented in Chapter 3 (Study 1), it was found that studies have reported a wide range of estimates of prevalence of elevated depression symptoms among female adolescents from 13.9% (Mahfouz et al., 2009) to 80.2% (Alharbi et al., 2019). The values found are generally higher than those reported by Johnson et al. (2018) for the US, Canada, Sweden, Finland and New Zealand, which found prevalence rates symptoms amongst young people aged 11 to 19 years which varied from 5.6% to 44.0%, based on mainly on clinical interviews but also self-report instruments.

It is important to consider whether the high values for Saudi Arabia are an artefact of the methodology used rather than reflecting a truly high prevalence. The review in Chapter 3 noted that there were a number of methodological concerns with previous studies estimating the prevalence of depression symptoms among Saudi adolescents. The instruments used were an issue. For example, among a very similar sample of girls in Abha city the prevalence was estimated to be 13.9% using the SCL 90-R (Mahfouz et al., 2009), whereas it was estimated to be 41.5% using the DASS-42 (Al-Gelban et al., 2009). A further issue is that different researchers used different cut-offs without explaining the choice of cut-off, or not stating what value was used.

There is therefore a need to provide estimates using a more reliable methodology. As was discussed in Chapter 3, none of the studies used self- report instruments that were designed for use with adolescents. To help increase the precision with which we can estimate the level

of elevated depression symptoms in adolescent girls in Saudi Arabia it is desirable to assess depression symptoms using a measure that has been specifically designed for use with young people.

The Mood and Feelings Questionnaire (MFQ; Angold et al., 1995; Costello & Angold, 1988; see Appendix 6) is recommended as the gold standard self-report measure of depression symptoms in adolescents (NICE, 2017). The MFQ was developed to identify symptoms of depression in young people aged 8-18 years and is based on DSM-III-R diagnostic criteria for major depressive disorder (American Psychiatric Association, 1987). The MFQ has high internal consistency (Cronbach's alpha= .94; Wood et al., 1995). Kent et al. (1997) examined the validity of the MFQ among an outpatient sample of 113 children and adolescents aged 7 to 17 years in England and found that the MFQ was valid for depression among young people. The validation was done by comparing the MFQ scores of 15 children against diagnoses based on clinical interviews using the K-SADS (Kaufman et al., 1997). Furthermore, the MFQ has been widely used in epidemiological and clinical research (e.g., Park et al., 2002; Wood et al., 1995). To identify young people with a diagnosis of major depressive symptoms a cut-off of 27 gave the best diagnostic confidence based on optimal sensitivity and specificity (Wood et al., 1995).

Some examples of estimates of the prevalence of depression symptoms for both sexes in some Western countries using the MFQ (measured by using a cut-off of 27) follow. Among 2,465 adolescents (M= 1,212, F=1,253) aged between 12 and 15 in Norway the prevalence was 3.3% (Sund et al., 2001). Among 3,593 (M=1,774, F=1,819) students in 6th and 8th grades in Seattle, USA, the overall prevalence was 6.5% (Banh et al., 2012). Finally, in the UK, a recent study was conducted among 822 young people aged 13 to 18 years old in public schools, which found the prevalence was 28.2% for girls (Hards et al., 2020). It is not known whether this was not a typical sample but a possible reason for this higher value could be that the worldwide prevalence has increased since the time of the previous studies.

There is an Arabic version of the MFQ (Tavitian et al., 2014) although its construct validity has not been specifically assessed. Therefore, a secondary aim of this study is to examine the construct validity of the MFQ by exploring associations between this measure of depression and well-established correlates of depression symptoms which are particularly salient to female adolescents living in Saudi Arabia: self-esteem and social support. This has not been done among adolescents in Saudi Arabia. If the MFQ has construct validity it would be expected to show negative relationships with both self-esteem and social support.

Rosenberg (1965) regarded self-esteem as the degree to which an individual considers themself good enough and worthy. Low self-esteem is strongly associated with depression symptoms in adolescents in Western societies (e.g., Carbonell et al., 1998; Lee & Hankin, 2009; Overholser et al., 1995; Sowislo & Orth, 2013). However, theories of depression differ in how they conceptualise the relationship between self-esteem and depression (Orth & Robins, 2013). The vulnerability model proposes that low self-esteem is an intrinsic personality factor that renders an individual more likely to experience depression (Klein et al., 2011). In contrast, the scar model suggests that the experience of having an episode of depression causes low self-esteem (e.g., Rohde et al., 1990).

As explained in section 2.2.2, in the KSA women's roles in their family, as caregivers and mothers, are highly valued and may therefore be a source of self-esteem. However, some aspects of Saudi society may be conducive to low self-esteem in adolescent and adult females, as described in section 2.2. Women have to obtain permission from their legal guardian (male relative) to get a passport, or study abroad. Although women's legal rights are changing with recent reforms, women's engagement in society is restricted, compared to women living in most other countries (Al-Asfour et al., 2017; Fahim, 2019). To the researcher's knowledge, self-esteem has not been investigated among Saudi adolescents, but a negative correlation between self-esteem and symptoms of depression can be predicted.

Social support is another well-established correlate of symptoms of depression in women (Dalgard et al., 2006). Social support can be described as support available to an individual through social bonds to others (Lin et al., 1979). Gariépy et al. (2016) reviewed 100 studies on the relationship between social support and depression. The relationship between gender and social support in male and female children and adolescents was reported in 11 of the 100 studies. There was a significant negative relationship between social support and depression symptoms in girls in all 11 studies and between social support and depression in boys in eight of the 11 studies. Lack of support from parents, teachers and family was more strongly associated with depression than lack of support from friends, and parental support was particularly beneficial for adolescent girls.

Although social support has been widely investigated in relation to symptoms of depression in the West, to the researcher's knowledge it has been examined only once in Saudi adolescents (Al-Marri & Al-Qahtani, 2017). In a sample of 500 female high school students in Al-Khobar City, those with high social support assessed using the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) reported fewer symptoms of depression than those with less support. Zimet et al. (1988) found that

perceived support from family showed a negative correlation (r = - .24) with depression, and perceived support from friends also showed a negative correlation of (also r = -.24) with depression.

A further aim of the study was to investigate how the prevalence of depression symptoms among adolescents related to sociodemographic factors, given the lack of clarity regarding this in Saudi samples. Some studies have suggested, for example, that certain sociodemographic factors, such as family size, family income, families with a chronic medical condition and the loss of a parent or other relatives, type of school, age, parents' employment status, education level of parents, and marital status of the participants, are not related to depression symptoms among adolescent students (Abdel-Fattah & Asal, 2006; Alatiq et al., 2017; Al-Gelban, 2007; Al-Gelban et al., 2009; Marasa & Mandoura 2018). Others, however, have found correlations between some of these factors and severity of depression symptoms among this age group.

Raheel (2015) looked at the effect of family income among 1,028 female students and Alenazi (2019) among 406 male students. They found that students in families with low income have more symptoms of depression than those in families with higher income. History of psychiatric or chronic physical illness was examined in the studies of Abdel-Fattah and Asal (2006), Alenazi (2019) and Marasa and Mandoura (2018), which found that both male and female adolescent students with a history of psychiatric illness or a family with a history of chronic diseases are much more likely to have depression symptoms than those without. They also found symptoms of depression were significantly higher among students who have a history of losing a relative. In respect of parents' marital status, Marasa and Mandoura (2018) in their study among 372 female students found a relationship between depression symptoms among students and their parents' marital status, in that higher depression symptoms were associated with parents being, divorced.

In a sample of 350 males and 402 females, Hakamy et al. (2017) found that depression symptoms where highest among those who were 16 or older and, similarly, Al-Marri and Al-Qahtan found that depression symptoms increased with increasing age in a sample of 500 females aged 15-19.

Interestingly, Raheel (2015) found that those students with greater depression symptoms had a father with a higher education, whereas those students with less depression symptoms had a mother with higher education, although this was not found in other studies.

In conclusion, studies have shown that the associations between demographics and depression symptoms are inconsistent. One possible reason is that there are methodological issues with the measurement of depression symptoms, as discussed in Chapter 3.

The main aim of the study is to investigate the prevalence of elevated depression symptoms among female students in the KSA using a gold standard self-report measure of depression, the MFQ, which has been validated among Arabic adolescents. In view of previous studies, it was hypothesised that some sociodemographic factors may show a relationship with elevated depression symptoms among the students. Specifically, it is anticipated that the severity of depression symptoms will be related to losing a parent (Abdel-Fattah & Asal, 2006; Alenazi, 2019), the parents' marital status (Marasa & Mandoura, 2018; Raheel, 2015), their level of education (Raheel, 2015) and the age of the students (Al-Marri & Al-Qahtan, 2017; Hakamy et al., 2017). A secondary aim is to assess the construct validity of the MFQ, which would be indicated by a negative correlation between the MFQ and social support and between the MFQ and self-esteem.

4.2 Method

4.2.1 Ethical Approval

Ethical approval to conduct the study was obtained from the University of Reading Research Ethics Committee (see Appendix 13), and from the Education Administration in Unaizah (see Appendix 14).

4.2.2 Participants

A total of 515 of participants aged 13-18 were selected from five schools. Three middle and two high schools from a variety of areas throughout the city including working, middle and higher classes were selected as a purposive sample. A power calculation indicated that assuming a population prevalence of elevated depression symptoms of 25%, an accuracy of estimation of 4%, and a confidence interval of 95%, a minimum sample size of 451 would be required. These values follow the same ones used by Raheel (2015).

4.2.3 Recruitment

There are 25 middle schools (13-15 years) and 17 high schools (16-18 years) for females in Unaizah, Saudi Arabia. All 25 schools received information about the study from the Ministry of Education in Unaizah. The researcher called each school on the two lists of middle and high schools provided by the Ministry in the order on the list and selected those schools which replied to the call until over 500 participants had been recruited. No schools

refused to take part. Because it was the examination period and some students were absent, the principal asked the teachers to select those students who were present and available in each grade to take part in the study while the researcher was present at the school.

An information sheet about the study was given to the head teachers of all the schools (see Appendix 7). Following agreement from head teachers (see Appendix 8), written information about the study was sent a week before the study to the parent(s) or guardian(s) or husband (if appropriate) of each girl in the school (see Appendix 9); the students were also given an information sheet (see Appendix 10). Parents or guardians of girls aged 13-15 were asked to return an "opt-out" form to the school if they did not wish their daughter to take part, or to call the school or researcher to indicate their refusal (see Appendix 11). The girls were asked to confirm that they had given their parents or guardian the form and that they had read it before they were invited to take part in the study. Each student signed an assent form if they were aged 13-15 or a consent form if they were aged 16-18 (see Appendix 12).

4.2.4 Procedure

Data were collected in April and May 2018. The researcher obtained consent and assent and collected the data by visiting each school. Of a potential sample of 1,564 across the five schools, 515 girls (32.9%) completed the study. All the girls who were present agreed to take part; however, three students from intermediate schools did not complete the questionnaire, and two students from high schools refused. The response rate was therefore 99.0% (515/520).

The study was explained to each class verbally by the researcher. Students were informed that taking part was completely voluntary and they could withdraw from the study at any time. Students were told that they could leave the name section blank or put a nickname; if they put their real name, this was related to a number during data analysis, to ensure anonymity. This was done by putting these details in a separate document which was kept in a secure filing cabinet. After completing the study, each student was given a debrief sheet (see Appendix 15).

4.2.5 Measures

Participants were asked to complete three self-report questionnaires.

Depression symptoms. The Mood and Feelings Questionnaire (MFQ; Angold et al., 1995; see Appendix 6) is a 33-item self-report questionnaire that is used to assess the severity of depressive symptoms in young people. Each symptom is rated on a three-point scale, 0 (not true), 1 (sometimes true) and 2 (true). The Child Self-report long version MFQ is designed

specifically for use with children and adolescents aged 6-17 (Angold et al., 1995; Costello & Angold, 1988). The Arabic version was used, which has good reliability and validity, and excellent internal consistency (MFQ-Children α = .92; Tavitian et al., 2014). Two items of the MFQ (items 17 and 19) were removed for the 13-15 years old girls because the Education Administration in Unaizah considered them to be too sensitive for young students ('I thought about death or dying' and 'I thought about killing myself'). Scores were pro-rated to ensure that the equivalent cut-off could be used for older and younger participants, following Raheel (2015) ,who modified their scores after they deleted items which were inappropriate for Saudi culture. A cut-off of 26 was used based on the validation study of the Arabic version (Tavitian et al., 2014), because the authors recommended this value to not miss individuals with sub-threshold depression; that is, it favoured sensitivity. It should be noted that a cut-off of 27 is often used on the standard English language version of the MFQ (Wood et al., 1995) and Tavitian et al. (2014) recommended a cut-off of 31 to favour specificity.

Social support. The 12 item Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988; see Appendix 16) was used to measure how much support and help the girls they received from their family, friends or others. Each item is rated on a seven-point Likert scale: 1 (very strongly disagree), 2 (strongly disagree), 3 (mildly disagree), 4 (neutral), 5 (mildly agree), 6 (strongly agree), 7 (very strongly agree). The Arabic translation of the MSPSS has good reliability and validity, with high internal consistency for all three subscales (Family, Friends and Significant Others, α = .82, α = .86 and α = .85, respectively, in one study by Merhi & Kazarian, 2012).

Self-esteem. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; see Appendix 17) was used to measure personal self-esteem and how an individual feels about themselves, with higher scores indicating higher self-esteem. This is a 10-item measure with each item rated on a four-point Likert rating scale (strongly agree, agree, disagree, strongly disagree). The Arabic translation of the RSES has good reliability and validity, with Cronbach's α = 0.92 in one study (Zaidi et al., 2015).

Demographic variables. Information was collected about the participants' age, school grade, marital status (married or single), parents' marital status (married, divorced, widowed) and whether parents were alive or deceased , parents' education (no formal education, primary, intermediate, secondary, university, and postgraduate), mother's occupation (unemployed, Governmental employee, private sector private business, or retired), father's occupation (unemployed, military, Governmental employee, private business, private sector

or retired), accommodation (house or flat), nationality (Saudi or not Saudi), number of their siblings and their birth order. Most of these variables were investigated in relation to MFQ scores using one-way ANOVAs; the nationality variable was not investigated because the numbers for 'not Saudi' were too small. These demographic variables were chosen based on some positive relationships with depression symptoms that were reported in the studies of Marasa and Mandoura (2018) and Raheel (2015), while other studies found no relationships (e.g., Abdel-Fattah & Asal, 2006; Al-Gelban et al. 2009), and it was therefore hypothesised that these variables may have a link with higher symptoms of depression among the students.

4.2.6 Statistical Analysis

To conduct data analysis the questionnaire data were entered into SPSS version 25, and a significance level of $p \leq 0.05$ was used. There were some missing data on the MFQ, RSES, and MSPSS. Participants were excluded from the analysis of the MFQ, RSES, and MSPSS if they missed more than 25% of items on any of the questionnaires. As a result, 22 participants were excluded from the MSPSS analysis as they missed four or more items; no participants were excluded from the MFQ or RSES analyses. Although the participants aged 13-15 were not given two of the 33 MFQ items, the total number of missing MFQ data (taking this into account as well as items missed by the participants) remained below 25% for all participants. Where missing values for the MFQ, MSPSS and RSES were below 25%, missing values were replaced by the mean values of the other items for that individual participant.

4.3 Results

The main findings are presented using descriptive statistics. In addition, correlation coefficients were calculated using Pearson's r in line with previous studies relating depression to self-esteem and social support. Differences between means were assessed using an ANOVA and Bonferroni multiple comparisons.

The mean age of participants (N=515) was 15.63 years (SD=1.64; range=13-18). Nearly all participants were single (99.4%), the remainder being married. Most students were Saudi nationals (94.4%). Most participants lived in a house (84.1%) while the rest lived in a flat (15.9%).

The mean MFQ score for this sample was 26.35, itself above the cut-off. Descriptive statistics for the MFQ, MSPSS and RSES are presented in Table 4.1. Cronbach's α for each measure indicates good internal consistency. Two hundred and forty-eight of the 515 participants scored above the clinical cut-off of 26, giving a prevalence rate of 48.2%, with a 95% confidence interval of 43.8% to 52.6%. With a cut-off of 31 and therefore favouring

specificity over sensitivity (Tavitian et al., 2014), 181 scored above threshold, giving a prevalence rate of 35.1%, with a 95% confidence interval of 31.0% to 39.4%. As hypothesised, there were significant negative correlations between severity of depression symptoms and perceived social support and self-esteem, supporting the construct validity of this measure when used in this population.

Table 4.1

Descriptive Statistics and Correlation Coefficients for the MFQ, RSES and MSPSS

	MFQ	RSES	MSPSS
Mean	26.35	19.40	60.58
SD	13.51	4.76	15.50
Range	0-61	1-29	13-84
Cronbach's α	0.91	0.76	0.89
Pearson's r			
MFQ	-	-0.54*	-0.42*
RSES	-	-	0.46*

* p<.001, 2-tailed.

Note. N=515. MFQ = Mood and Feelings Questionnaire; RSES = Rosenberg Self-Esteem Scale; MSPSS = Multidimensional Scale of Perceived Social Support.

Eight demographic variables (parents' status, mother's education, father's education, mother's occupation, father's occupation, type of accommodation, number of siblings, birth order) were tested in relation to MFQ scores using one-way ANOVAs and showed no statistically significant effects. The MFQ scores were also examined in relation to the students' age (Table 4.2). Participants who did not state their exact date of birth (N=57) were excluded from the analysis, leaving a sample of 458 students. An ANOVA of the MFQ scores for all six age groups was significant, $F(5,452) = 2.87$, $p = 0.014$. Post hoc Bonferroni comparisons indicated that two differences were significant. The mean MFQ for the students aged 13 of 21.82 was significantly lower than that of 29.31 for those aged 14 ($p = .020$), and that of 28.85 for those aged 17 ($p = .025$). As all the other differences were not significant, it can be concluded that those aged 13 reported fewer symptoms than all the older students. The

13 year-olds had a prevalence rate of 40.3%, compared with a mean prevalence for the older students of 50.1%.

Table 4.2

Mean and SD of Mood and Feelings Questionnaire (MFQ) and Rate of Elevated Symptoms by Age

Age (years)	13	14	15	16	17	18
N	62	67	75	92	81	81
Mean	21.82	29.31	27.23	26.04	28.85	25.36
SD	13.24	15.66	13.03	13.00	12.48	11.82
Prevalence %	40.3	52.2	49.3	50.0	56.8	42.0

4.4 Discussion

To the researcher's knowledge**,** this is the first study to examine the prevalence of adolescent depressive symptoms among female adolescents in Saudi Arabia using the gold standard self-report measure of depression symptoms in adolescents, the Mood and Feelings Questionnaire (Angold et al., 1995; Tavitian et al., 2014). In this sample of 515 females aged 13-18 years, 48.2% of the sample scored above the cut-off. The level of depression symptoms reported by this sample is at the upper end of the range of worldwide prevalence reported previously (Johnson et al., 2018). Thus, female adolescents in Saudi Arabia may be at high risk of experiencing depression symptoms and possibly of meeting diagnostic criteria for depression. This may be of concern, but caution is needed in interpreting these data. However, previous studies reviewed in Chapter 3, using different measures and samples, have found similar high rates of elevated depression symptoms amongst young females in Saudi Arabia (e.g., Abdel-Fattah & Asal, 2006; Ahmed & Alrowaily, 2015; Al-Gelban et al., 2009; Alharbi et al., 2019; Desouky et al., 2015).

The data also support the use of the Arabic version of the MFQ as a measure of depression symptoms amongst female adolescents in the KSA. As expected, the MFQ had excellent internal reliability and significant negative associations with self-esteem and social support; girls with higher perceived social support and higher levels of self- esteem reported fewer symptoms of depression. Given this evidence of measurement reliability and validity and the

convergence of results from multiple independent studies, we can be more confident that rates of depression symptoms amongst adolescent females in Saudi Arabia are likely to be high, relative to rates reported by adolescent females living in other countries (Hards et al., 2020; Sund et al., 2001). This could be due to several factors relating to Saudi culture. Possible reasons could be the high level of bullying in Saudi schools (AlBuhairan et al., 2015; Eissa et al., 2019), and the lack of mental health literacy among students, their families and school workers alike.

There was a non-linear relationship between severity of depression symptoms and age; participants aged 13 reported lower MFQ scores than those aged 14 and 17; there were no significant differences in severity of depression symptoms in participants aged 14 to 18 years. This is in line with the findings in Western countries that the prevalence of depression symptoms increases among adolescents between the ages of 13 and 16 (Thapar et al., 2012).

The present study found no significant relationship between any measured demographic factor and depression severity. This is in accord with Al-Gelban et al. (2009), who found that elevated depression symptoms among female adolescents were not significantly related to their parents' status, father's and mother's education and occupation. Further, Asal and Fattah (2006) found there was no relationship between high depression symptoms among adolescents and number of siblings. However, they did find a significant relationship with birth order, as those who were born last were more likely to have depression symptoms than the rest. It is not clear why the present study did not find this. Unlike the present study, Raheel (2015) found that elevated depression symptoms among female adolescents was significantly related to their type of accommodation and living with a single parent. The present study may not have found a relationship with accommodation because only a few of the students lived in a flat. Interestingly, Raheel (2015) also found that there was a significant relationship with the parents' education, in that depression symptoms were associated with mothers who had a lower education and fathers who had a higher education.

In regard to the finding of a negative relationship between the MFQ scores and self-esteem, this is consistent with the finding of Raheel (2015) that female adolescents with a negative self-image reported higher symptoms of depression. The finding of the negative relationship between the MFQ scores and the level of perceived social support was also found among female adolescents by Al-Marri and Al-Qahtani (2017). This is further consistent with the finding that female adolescents who showed elevated depression symptoms had poorer relationships with their families, friends and teachers (Raheel, 2015).

The design of this study does not allow us to infer causation. Many social, psychological and biological factors, including being female, increase the risk of developing depression. The legal, social and economic status of females in Saudi Arabia may further increase their risk of developing depression symptoms (and other mental health problems) but this study cannot be used to support that hypothesis. The data suggest an association between perceived social support and self-esteem and depression and thus may provide a rationale for exploring and assessing ways to prevent depression symptoms amongst females in Saudi Arabia. Interventions or methods to build positive self-esteem and to increase social support may help build resilience and reduce vulnerability.

The results of this study and those reported previously reinforce the need for improvements in services to help identify and treat depression symptoms in Saudi Arabia. Increased attention to preventing depression is also important, as is raising awareness about depression symptoms in adolescents among teachers, school counsellors and general practitioners in Saudi Arabia, as well as the students and their parents.

4.5 Strengths and Limitations

Strengths of the study include the sample size exceeding 451 that was required based on an a priori power calculation. A further strength was the use of an instrument, the MFQ, which was developed for use among this age group and has been validated for Arabic adolescents.

The study did not assess the length of time that participants had experienced their symptoms (the MFQ is concerned with the previous two weeks). The findings of this cross-sectional self-report study must be interpreted carefully. Ideally prevalence would be determined by screening, supplemented with structured diagnostic interviews to confirm the point prevalence of young people (males and females) with a diagnosis of a depressive disorder. This would also help further assess the validity of the MFQ as a screening instrument in this population. The data were collected during a school examinations period and so the students' symptoms may be may have reflected that specific and stressful event.

The study was limited to female students in one location, Unaizah.

4.6 Summary

A cross-sectional study of 515 female Saudi students aged 13 to 18 years was conducted. Participants completed the Arabic versions of the Mood and Feelings Questionnaire, the Rosenberg Self-Esteem Scale and the Multidimensional Scale of Perceived Social Support. MFQ scores were negatively correlated with those of self-esteem and perceived social

support, as expected, which supports the construct validity of the Arabic version of the MFQ. The MFQ is a gold standard measure of depression symptoms in adolescents, and 48.2% of the sample had scores above the cut-off, with a 95% confidence interval of 43.8% to 52.6%, suggesting that they had an elevated risk of a depression diagnosis. Prevalence of depression symptoms varied with age, being lower at 31.7% for those aged 13. This result supports previous research showing high prevalence of depression symptoms among this population.

Chapter 5

Study 3: Experiences of Saudi Female Adolescents Reporting Elevated Depression Symptoms

5.1 Introduction

Study 2 showed that the prevalence of depression symptoms among Saudi female adolescents is high in comparison with Western countries, but it did not provide any information about why this might be. In Chapter 2 it was pointed out that Saudi culture is very different to Western culture, including its beliefs about mental illnesses. There is a gap in our knowledge about the experiences of depression symptoms on the part of Saudi adolescents, their awareness of having depression, and how they get the appropriate help to deal with their symptoms. It is possible that the high prevalence of depression symptoms among Saudi adolescents is linked to their lack of awareness about mental health, and depression symptoms in particular, and to other factors that may be different in Saudi culture, such as the triggers of low mood, coping with depression symptoms and attitudes to seeking help. Consequently, it has been pointed out that there is an urgent need to raise awareness of mental health conditions among adolescents (Abou Abbas & AlBuhairan, 2017; AlBuhairan et al., 2015; Raheel, 2015).

Although 15 studies that examined the prevalence of depression symptoms among Saudi adolescents were included in the systematic literature review (Chapter 3; Study 1), none of them examined the personal experience of having these symptoms. Previous studies in Western populations have explored the experience of depression symptoms among adolescents, although none has been found looking at similar phenomena in KSA. These studies consistently revealed several core findings: the adolescents experienced withdrawal and isolation, and a sense of feeling down, spiralling down or being overwhelmed (see Dundon, 2006, for a review; see also McCann et al., 2012; Midgley et al., 2015; Weitkamp et al., 2016).

Dundon (2006) reviewed six qualitative studies investigating the experience of depression among adolescents (age ranging from 13–22 years), all conducted in the United States or Canada and with sample sizes varying from four to 48 participants. Several themes were identified from a meta-synthesis of these studies. One theme was “beyond the blues”, where she noticed that adolescents were experiencing more symptoms of depression than the common identified symptoms in DSM-IV (American Psychiatric Association 1994). Adolescents often express their feeling of depression as a loss or disconnection from

themselves; they may feel they are a different person. In addition, they may feel powerless, angry, defenceless and lacking control. Another theme was “spiralling down and within”, in which the adolescents realize how the symptoms are affecting them, perceiving themselves to be different, and as a result they withdraw themselves from the people they love. A further theme was “seeing and being seen”, which refers to adolescents not noticing their own symptoms to be those of depression and others around them sometimes not recognizing their depression.

It should be noted that in her review, Dundon (2006) included studies in which the participants had not been diagnosed with depression. Moreover, she included two unpublished PhD theses which had therefore not been subjected to formal peer review. However, Dundon (2006) followed a systematic approach for coming up with meaningful themes.

In Australia, McCann et al. (2012) interviewed 26 young people aged 16 to 25 years old who had been diagnosed with depression. Interpretative phenomenological analysis revealed four overlapping themes regarding their experience of living with depression and how they came to terms with it. First, the participants struggled to come to terms with their depression. Second, they reported a “spiralling down” in their situation, for example, the participants reported how their lives dramatically changed in different ways, such as losing their self-esteem and self-confidence along with experiencing mental and physical tiredness. Third, they withdrew from their friends, fearful of how others might perceive their situation and react to it. Fourth, they considered self-harm or suicide.

McCann et al. (2012) they did not state what questions they asked (providing only three examples of their questions), conducting in-depth interviews lasting for up to 60 minutes. Further, their sample may not have been typical because it was recruited through clinicians working in a single primary care service providing mental health support. Given the age range (and the mean age of 18 years), it is possible that there were some differences between older participants and younger participants (e.g., different living circumstances), which might have influenced the findings.

Midgley et al. (2015) carried out semi-structured interviews with 77 UK adolescents (22 males; 55 females) diagnosed with moderate to severe depression (aged 11-17, mean age 15.86) to explore how they experienced the condition and its impact on their lives. A framework analysis revealed five themes: 1) Misery, despair and tears – feeling low and unhappy; 2) Anger and violence towards self and others – feeling short-tempered and aggressive; 3) A bleak view of everything – having negative thoughts and perceptions; 4)

Isolation and cutting off from the world – withdrawing from others; and 5) The negative impact on educational progress.

Midgley et al.'s (2015) sample only included those who had sought professional help and had met the diagnostic criteria for their depression. Therefore, their findings may not generalize to those with less severe symptoms.

Further, Weitkamp et al. (2016) investigated six adolescents diagnosed with depression in Germany who were entering outpatient psychotherapy. Their aim was to extend the previous studies described above in relation to their experience of depression. The participants were aged 15-19 and had experienced mild to moderate depressive episodes based on the ICD-10 diagnostic criteria (World Health Organization, 1993); five were female. They took part in semi-structured interviews. Interpretative phenomenological analysis of the transcripts revealed some principal themes: 1) suffering is experienced as overwhelming –they stressed the high level of suffering, which led to a sense of resignation and passivity; 2) an experience of loneliness and isolation; and 3) struggling to understand the suffering. Their findings echoed those of previous studies, in that the participants experienced irritability, aggression and feeling overwhelmed, loneliness and isolation. All participants reported key characteristics of depression, such as concentration difficulties, low school performance, low self-esteem, anhedonia and negative thoughts. They were very open about self-harm and suicidal ideation. They emphasised that they were struggling to understand why they were feeling so bad. It is worth mentioning that only six of the 13 young people who were asked agreed to take part.

In brief, the studies described above showed that the adolescents with depression, despite living in five different countries, shared many similarities in their experiences, including the feeling of being overwhelmed, isolated and withdrawing from others. However, all the countries were Western and there has been little exploration of the experience of adolescents with depression symptoms in other cultures.

An important issue, raised by Dundon's (2006) findings, concerns the extent to which adolescents are aware of the symptoms of depression and whether they have it. This was elaborated by Weitkamp et al. (2016), who noted that there had been a considerable delay in the participants seeking professional help after they became depressed and they perceived therapy as a last option, believing that they should deal with their situation by themselves. A significant barrier associated with this was their lack of knowledge about their symptoms of depression and not knowing what the "normal" degrees of sadness or irritability are for a teenager. Further, they reported a lack of support from their caregivers to get the appropriate

help. Similarly, Dundon (2006) reported that adolescents find it difficult to understand and identify their symptoms as depression, as they may feel confused about their symptoms and they recognize they are different from their friends without knowing the reasons. Burns and Rapee (2006) assessed the mental health literacy of adolescents in regard to their ability to identify symptoms of depression in their peers. Their participants were 122 male and 80 female Australian adolescents aged 15–17 years who were given a questionnaire that presented them with five scenarios of young people, some of which showed depression. Their young participants showed a large difference in their ability to identify depression, while they were able to distinguish depressed and non-depressed scenarios in respect of severity and expected recovery time.

Turning to another issue, it is important to be aware of what triggers depression among adolescents from their own personal experience. The previous studies reported some of these triggers. Dundon (2006) suggested that adolescents perceived the causes and triggers to be related to her fundamental theme of 'breaking points', which covered a wide range of issues, such as parental separation, the loss of someone loved, difficulties in relationships and the stresses of being an adolescent. Weitkamp et al. (2016) mentioned similar breaking points, including being abused by a parent and loss of a parent through divorce or death. Midgley et al. (2017) explored the beliefs of adolescents about what had caused their depression. The interview data revealed three themes related to causal beliefs: (1) bewilderment about why they were depressed; (2) depression as a result of rejection, victimisation, and stress; and (3) something inside is to blame, such as their genetics or biological processes or intrinsic personality. Many adolescents believed stressful life experiences to be the cause of their depression while some believed it was caused by something inside them. Others reported that school and education and bullying triggered their depression. One participant cited the cause of her depression to be changes in her life, as she had to live in a different country. Although these studies revealed similarities in the causes and triggers of depression reported by adolescents, they were restricted to Western countries.

A further important issue is how adolescents with depressive symptoms cope with their symptoms. Dundon (2006) distinguished two kinds of coping that adolescents with depressive symptoms do in order to deal with their symptoms: positive and negative coping. The positive methods include learning to care for oneself, being physically active, reaching out to others, joining support groups, and engaging in social interactions. The negative ways of coping include hurting themselves by cutting, substance use and smoking (Dundon, 2006). She identified the theme of "seeking solutions", where adolescents expressed that the best

solution for them when they realized their depressive symptoms is to talk to someone they trust, such as a family member or friend. Some adolescents disclosed that talking to friends may be difficult sometimes, as they fear being judged or stigmatized, which are barriers for their seeking help. An additional way of coping was mentioned by Weitkamp et al. (2016), whose adolescents reported that they tried to "push away" their overpowering thoughts and feelings. As noted previously, these findings only relate to Western countries.

Turning to the Middle East, in Chapter 2 it was pointed out that there are some important cultural differences from Western societies. The concept of the family in the Middle East plays a very important role, as the parents have a strong influence on their daughter's decisions (see section 2.2.2). For example, if a daughter was wanting to seek professional help for a mental health condition, it would be usual for her to turn to her mother rather than seeking help by herself. Further, the concept of mental health in Middle East societies is more influenced by religious beliefs. For instance, Middle Eastern people often attribute depression symptoms to being disconnected from God (see section 2.5.1).

Only one study has looked at the experience of depression symptoms among Middle Eastern adolescents. Dardas et al. (2019) carried out a qualitative study with 12 focus groups of Jordanian males and females aged 14 to 17 years who took part in discussions at schools and who reported mild to moderate depression symptoms based on the BDI using a thematic analysis approach. They found that most of the participants were uncertain about their symptoms, and they had difficulty in describing their feeling. The researchers asked the participants to discuss what depression meant to them from their personal point of view. They used a variety of terms to describe their symptoms, which included sadness, anger, irritability, pessimism, crying, lack of interest, difficulty focusing, thoughts of hurting oneself, guilt, loneliness, and changes in their appetite. In addition, they were unsure of the meaning of depression and how it linked to their feelings.

Participants sought help related to their depression symptoms from their friends, teachers, or relatives. Most of the female participants stated that their parents provided care and emotional support, including financial support. However, not all the female participants found that their mothers provided reliable support. Additional ways of coping included religious practice, such as reading the Quran, praying and fasting. A further cross-sectional study based on survey by Raheel (2014) was carried out in Riyadh schools among 1,028 female students aged 15-19 to find out their coping strategies when they are stressed. This was a quantitative study based on a questionnaire that they developed. About 139 (25%) reported that they cried, 104 (19%) listened to music, 78 (15%) started eating a lot, 65 (12%)

sat alone/isolated themselves, 63 (11%) prayed or read the Quran, 57 (10%) engaged in a verbal argument or a fight, 15 (3%) exercised, and 12 (2%) found someone to talk with.

In addition, Dardas et al. (2019) examined how young people understood the causes of their depressive symptoms. They found that their causal attributions fell into three classes, individual, family and school. At the individual level, the causes included lack of belief in God, having a bad experience, such as losing a family member, possessing a weak personality, being a failure and not complying with the family's demands. Regarding the family, the causes included low income, parents having a mental condition, having overprotective and authoritarian parents, and not having good family communication and support. In respect of the school, the causes included the pressure of having to achieve good grades and pass exams.

The research that has been carried out on Middle Eastern adolescents in regard to their experiences of depression symptoms, their causes and how they cope with it appears to be limited to the two studies of Dardas et al. (2019) and Raheel (2014). None of these topics appears to have been investigated among Saudi adolescents having depression symptoms. It is important to fill these gaps in our knowledge as Saudi adolescents are raised in a very different culture from those in 'the West', one that emphasizes the authority of the father within the family and the authority of Islam within the society (see Chapter 2). Study 3 set out to fill these gaps in regard to Saudi female adolescents only, as in Saudi society it was not possible for a female researcher to enter male-only schools.

The first part of Study 3 is a qualitative study that aimed to examine the experiences of depression symptoms of Saudi female adolescents using thematic analysis. The second part of Study 3 aimed to obtain more factual information which was analysed using exploratory quantitative analysis. In light of the gaps in knowledge, it had three main aims: 1) to find out how many participants who have elevated symptoms of depression recognize they are experiencing depression; 2) to find out what they report may have caused their depression symptoms; and 3) to find out how they cope with such symptoms. At the same time, a range of additional topics were covered, including their relationships and sources of support, and how they think teenagers having depression symptoms can be helped, including by their school.

The following research questions were addressed.

1) How do adolescent girls in Saudi Arabia who have elevated symptoms of depression understand and describe their symptoms?
2) How many of the participants think they are experiencing depression symptoms?

3) What may have caused their depression symptoms?
4) How do they cope with their depression symptoms?

5.2 Method

The COREQ checklist (see Appendix 34) was used to help ensure adequate reporting of the qualitative research (see also Tong et al., 2007).

5.2.1 Researchers' Backgrounds

The qualitative studies were conducted by the researcher who is a Saudi female who grew up in Saudi Arabia and is very familiar with the culture and education systems. She has lived outside Saudi Arabia since 2006 in the United States and the UK. She is doing a PhD in Psychology at the University of Reading, and she has a Master's degree in Counselling Psychology. Before conducting the qualitative studies, she took a course on qualitative methods and practised interviewing skills with other PhD students. These circumstances helped her to put the interviewees at ease and encourage them to be open in their answers to questions without feeling they are being judged. Having grown up in Saudi Arabia, the researcher was aware of her own experiences growing up there and how these compared with her experiences of living in Western cultures for some time.

The thematic analyses in this research were carried out with the researcher's supervisors. One supervisor, Shirley Reynolds, is a Professor at the School of Psychology and Clinical Language Sciences at the University of Reading and is also Director of the Charlie Waller Institute. She has experience of conducting research with adolescents with depression symptoms and has published qualitative research. The other supervisor, Paul Jenkins, has published research on eating disorders and has been trained in CBT, working clinically with both adults and adolescents.

5.2.2 Ethical Approval and Ethical Considerations

Ethical approval to conduct the study was obtained from the University of Reading Research Ethics Committee, and from the Education Administration in Unaizah (see Appendices 13 and 14). Given the nature of the research, specific procedures were in place for managing risk. School safeguarding processes were followed, such as a teacher being present just outside the classroom where the researcher was. Should significant risk arise, the procedures were such that it was possible to identify students at significant risk (e.g., suicidal thoughts or self-harm) by linking their ID number to their consent form. In the presence of significant and immediate risk, the researcher would alert the school counsellor to raise the

girl's awareness and direct them towards appropriate help. All the girls who took part in the study and their caregivers received information about sources of professional support for adolescents and young adults. Further, a self-help sheet and a sheet listing professional services and their phone numbers was distributed to all students after the end of the study. Each participant was told that she could leave the interview at any time without giving any reason and could withdraw her data from the study at any time in the future. Everything said by each participant was kept confidential from individuals outside of the study, including the teachers, principal and their caregivers. All the recordings were kept securely in a locked cabinet in a password-protected area in the Department of Psychology in accordance with the data protection policy of the University of Reading. This also applied to the transcriptions and translations of the recordings.

5.2.3 Participants and Sampling

The participants were sampled from individuals who were recruited in Study 2 (see section 4.2.1). Of the 248 girls who scored above the cut-off of 26 on the MFQ, 85 indicated that they would be happy to take part and 16 of those were selected.

To determine an appropriate sample size for nonprobabilistic research, the researcher must determine how many participants are required to reach saturation (Guest et al., 2006). This study reached saturation with 16 students as the last few were not providing any more information and there was enough information to replicate the study (O'Reilly & Parker, 2012; Walker, 2012). After interviewing 16 students, the researcher reviewed their answers, and considered that saturation had been reached. She sent some of the transcripts to SR, who agreed that saturation had been reached because no further useful information was being provided by the participants.

The permission of each head teacher was sought to allow the students to be interviewed at school after the consent form was received from their parents (see Appendix 8). The 248 girls had a range of MFQ scores between 26 and 61. From these, girls were selected so that their scores were spread out across this range. It was then necessary to make a further selection based on those who were present at the school at the time of interview (because some were away as it was the exams period). Sixteen females aged 14 to 18 years were interviewed, all of whom were Saudi nationals, and whose MFQ scores ranged from 27 and 60 (see Table 5.1). All the girls who were invited for interview agreed to take part, having already indicated this (see Appendix 12). Their caregivers had already agreed to their adolescent to participate (see Appendix 18). The 16 female students signed a consent form (see Appendix 19). They referred to by a unique number (F1 to F16) and Table 5.1 shows each with their ages, MFQ scores, and other demographic information.

Table 5.1

Ages and MFQ Scores of Participants

Participant ID	Age	MFQ score	Siblings	Birth order	Parents' marital status	Mother's education	Father's education
F1	14	26.61	5	3	Married	Bachelor	High school
F2	15	48.97	1	1	Married	Middle school	Middle school
F3	13	50.03	5	1	Married	Bachelor	High school
F4	14	39.39	5	2	Married	Bachelor	Bachelor
F5	16	60	9	4	Married	Middle school	Bachelor
F6	16	49	4	3	Married		
F7	16	41	7	1	Married	Bachelor	Bachelor
F8	16	28	7	3	Married	High school	High school
F9	17	49	10	10	Both deceased		
F10	17	30	6	3	Married	Bachelor	Bachelor
F11	17	52	6	6	Married	Master	Master
F12	17	29	3	3	Father deceased and mother remarried	High school	
F13	17	33	5	1	Married	Master	Bachelor
F14	17	34	4	4	Married	Bachelor	Bachelor
F15	17	46	8	8	Married	Bachelor	Bachelor
F16	17	55	6	3	Married	Bachelor	Bachelor

Note. Bachelor = university Bachelor's degree. Master = university Master's degree.

5.2.4 Procedure

Interviews were conducted in April and May 2018. The 16 girls were interviewed in a private room at their school during school hours. All of the interviews were audio-recorded. A semi-structured interview was conducted, which lasted for approximately 45 minutes (see Appendix 20). The interview questions were devised by the researcher and checked by the supervisor SR who is familiar with qualitative studies, until the researcher and supervisor agreed on the final version. Here is an outline of the interview:

- Introduce the concept of depression.
- Ask if the participant thinks she may be experiencing depression symptoms. If yes, ask her to describe her experience of it.
- Ask her to describe what depression symptoms feel like, using images or pictures.
- Ask her when it started. Was it sudden or gradual?
- Ask her for her ideas about what may have caused it.
- Ask her what she does to feel better.
- Ask her how it affects her life.
- Explore her relationships and sources of support.
- Explore what else she does to cope with her state.
- Ask her how female teenagers can be helped with depression symptoms.
- Ask her what the school should do to help students with depression symptoms.

At the start of the interview, it was explained to the students that their answers to the MFQ had indicated that they had elevated symptoms of depression; however, for students who did not understand the meaning of depression, the researcher substituted that word with the word sadness. This was because in Arabic the word depression is most closely associated with feeling sad (Dardas et al., 2019).

The interviews were later transcribed verbatim and all the information about the students' identity was changed to ensure anonymity. A bilingual native Arabic and English speaker checked the accuracy of the translated transcripts.

5.2.5 Data Analysis

The analysis of the data uses mixed methods. The first part was qualitative, using thematic analysis that followed Braun and Clarke's (2006) approach. The second part used simple quantitative analysis of factual information reported by the participants, including what triggered their symptoms, how they coped with them and how the school could deal with students having such symptoms.

Part 1:

An approach using qualitative thematic analysis was carried out, based on Braun and Clarke (2006)'s six stage method, which assumes no underlying theoretical orientation. It focused on the girls' experiences of depression symptoms. Thematic analysis was chosen because it is very flexible in dealing with many kinds of data and data collection, including interviews (Clarke & Braun, 2014). Clarke and Braun (2014) point out that it can be used to analyse datasets ranging in size from large to small, and even samples based on two participants. It is important to note that it can be used inductively, meaning that it can capture both explicit and underlying meanings in the data without being driven by theory (Clarke & Braun, 2014), which is what is required for the current study.

In stage 1 of thematic analysis, the researcher became familiar with the data by conducting, transcribing, and translating the interviews to English, and then reading and re-reading the transcripts. While doing this she made notes of the most salient groups of content.

In stage 2, the first part was carried out by the researcher and one of her supervisors (SR), who conducted line by line coding on all 16 transcripts. Coding was an inductive process between and within transcripts. All data were coded for both explicit and implicit meaning by highlighting the relevant text. The codes focused on the meaning and experiencing of depression. In stage 3, to start with the researcher cut out the highlighted parts of the transcripts, pasted them onto cards, and put them in different envelopes based on her ideas of the initial themes. Each envelope had the name of a theme on it. There was then a meeting between SR, PJ, her second supervisor, and the researcher, who engaged in joint discussion to decide on appropriate themes, collapsing themes that overlapped, and putting all the cards into envelopes. In stages 4 and 5 at the same meeting the themes were reviewed, identified and named. Stage 6 concerns reporting the themes, which has been done in the Results section.

Stages 3, 4 and 5 depend on the awareness and experience of the researcher and her supervisors (see section 5.21.and Appendix 34). As a female who grew up in Saudi culture and lived in Western culture, the researcher was aware of the school system and the nature of Saudi culture as it applied to the female participants in this study. This enabled her to develop an understanding with the participants during the interview and to be sensitive to the content of their responses during the process of thematic analysis. Supervisor SR was already familiar with thematic analysis working with others which helped in the present analysis. However,

there was little discussion between the team concerning their assumptions in the process of identifying the themes, except that the researcher explained to SR certain aspects of Saudi culture that were relevant to what the participants were expressing.

Part 2:

The second part of Study 2 was a quantitative study. The interview questions elicited a wide range of 'factual' information, which was analysed using simple quantitative methods. As three examples, the participants were asked if they thought they were experiencing depression symptoms, if they had any ideas about why they felt the way they did, and what the school should do to help students having symptoms of depression.

5.3 Findings

Part 1

The first part of Study 3 explored the girls' experiences of their depressive symptoms, which called for a thematic analysis, presented in section 5.3.1.

5.3.1 Thematic Analysis of Their Experiences of Depressive Symptoms

The girls were asked to describe their experiences of depression symptoms, and to describe what it feels like, using images or pictures. Four themes emerged from their reports: 1) Isolating and withdrawing themselves from others; 2) Lack of enjoyment or meaning; 3) Common formal symptoms; and 4) Describing depression using a metaphor.

5.3.1.1 Theme 1: Isolating and Withdrawing Themselves From Others – 'I Like To Be Alone and Isolate Myself' (F5).

This theme captures how participants isolated themselves and withdrew from others, which resulted in their lacking support. All the participants expressed the same theme of being alone or feeling alone or wanting to be alone, although expressing this in slightly different ways. Many participants expressed a sense of being isolated or of being alone, either physically or psychologically. This could involve the expression of loneliness or sadness:

> *"Depression means I live alone, no one around me, no one helps me." (F10)*
>
> *"Withdrawing myself from the people I love, and I became pessimistic." (F3)*
>
> *"Also I am lonely because I feel I am alone even if I want to explain my emotions to my sisters, they told me, it's okay, we sometimes feel this, but they don't know how I feel." (F7)*
>
> *"Make me isolated and always want to be alone." (F11)*

"It's like a depressed girl sat alone and can't express what she feels because she doesn't know why she is feeling this way and keeps it to herself and withdraws herself from others, all her sadness keeps it to herself." (F4)

"I feel, do you know when you feel like socially awkward, like you don't know how to talk or express myself to others, like being physically with them but mentally somewhere else. This makes me not like to be around others." (F5)

After being prompted, nine students expressed that no one cared about them, were interested in them, or listened to them.

"They don't care and even when I want to express myself, no one listens." (F14)

"I heard that talking to people can help, I tried to, but it didn't help. I talked to my mother but unfortunately, she was not interested, maybe she was depressed as well. Also talking to my friend didn't work. So, I prefer not talking as it failed." (F5)

"I noticed when I talk about my depression, they [her friends] shut me up so I tried to make fun of my symptoms." (F5)

Many participants found it very difficult to express their feelings; even when they tried to express themselves to others, they felt misunderstood, or they described feeling angry and cross with other people. Nine participants stated that they could not express their feelings to anyone, even their mother, sisters or friends. When prompted to explain why they could not, different participants gave different answers: either they did not trust others, or others did not care, or no one listened to them or understood them. A further reason was that they had expressed their feelings in the past, but it had not helped or in the case of one participant they had been laughed at. One participant expressed that her mum taught her not to show or tell her emotions to anyone. Some of those who were able to express their feelings to others reported they felt better while others did not.

"My mom taught me to not show or tell my emotion or problems to anyone." (F15)

"I am grumpy and cross with my family, I have a very bad mood with my family and my friends and even my friends noticed I am like this, so that's why I am always alone and avoid talking to anyone." (F16)

Another participant explained that she did not want to put a burden on her mother, as she was in a difficult situation, including her health. When asked who she turned to for help when she was feeling down, she replied as follows.

"My mother, but not all the time due to her health condition and I don't want to feel sad for me and her health condition like this, so I tried not to." (F12)

5.3.1.2 Theme 2: Lack of Enjoyment or Meaning – 'I Lost the Enjoyment of Life' (F15).

This theme captures the participants' experience of negative emotions and the absence of positive emotions. All the participants reported this, but their negative emotions were expressed in a variety of ways, such as feeling sad, crying and losing enjoyment of life, which are covered in the examples below. Loss of enjoyment is an aspect of anhedonia, which is one of the core symptoms of depression, the other being low mood/irritability. Anhedonia is defined in DSM-5 (American Psychiatric Association, 2013) as the lack of interest and the absence of enjoyment in every, or almost every, activity. Some females described feeling loss of pleasure and enjoyment in anything.

"I don't enjoy reading as usual, don't enjoy watching my favourite shows, I lost enjoyment in everything." (F15)

The participants used a variety of words to define their negative emotions, including "miserable feeling", "bad", "down"," crying" and "low mood". Some said that the sad feeling they experienced seemed to take away their enjoyment and made them feel they did not want to do anything they had liked to do, or even feel any sense of satisfaction:

"Is like a black hole, it takes all the good moments from me, for example, I like to read about physics and astronomy but this period I don't enjoy reading, I don't enjoy doing anything I like, I can't even do sport." (F16)

Some described having lost the energy for doing the things they love or even being with the people they loved.

"Like I noticed things inside me just steal all my energy and happiness." (F14).

Others implied that the way they are feeling affected them and they were not the same person they used to be, and others expressed not caring about their friends, for example:

"I don't care about my friends anymore, even if they send me a good message, I don't care at all as I used to be." (F9)

The adolescents perceived a lack of meaning or emptiness in their life, sometimes to the degree that they felt it was no longer worth living.

"I feel like I am done, I can't bear this anymore. I am tired of my life; I can't handle it." (F15)

"Because I feel life is not worth living and has no meaning for me to live anymore." (F9)

"I think of committing suicide always, and feel like having a mental breakdown, that's why I want to die, and I don't feel I am worthy to live and if die no one is going to care, and if so, they will cry only for days and they will forget me." (F5)

Three expressed thoughts of ending their life.

"Yes, I feel I became older and although I am still young, I am tired from my life. Also like I face many things that are bigger than me and no one my age can handle it." (F11)

"I think of committing suicide always, and mental breakdown, that's why I want to die and don't feel I am worthy to live and if I die no one is going to care." (F5)

"I am thinking of killing myself." (F6)

However, it is likely that many female adolescents did not say they would kill themselves directly because it is forbidden and not acceptable in Islam, so instead they said it in a different way, for example, as:

"People who feel sadness always think of death." (F3)

"When I feel down, I cry, break things, and sometimes hurt myself." (F5)

5.3.1.3 Theme 3: Common Formal Symptoms - 'Being Irritated and Stop Talking to People Around Me and Ignoring Them' (F10).

This theme captures common symptoms (often described in Western diagnostic manuals) that the students talked about, such as being irritated, disturbed sleep, negative perceptions about the self, and changes in appetite. Participants reported a variety of formal symptoms which greatly affected their lives in different ways. For example, one participant reported the formal symptoms, in addition to low mood, of thinking of committing suicide and disturbed sleep, while others added more formal symptoms such as negative perceptions, being irritated, changes in appetite and disturbed sleep.

"Getting mad, irritated and cross with my family, and screaming, and feeling very guilty after that." (F8)

"I am unable to sleep for days sometimes." (F9)

"I am ugly, unlovable, I am not skilful at talking, also my friends bully me because I know I am fat and also, I have body shaming." (F16)

"When I feel down, I eat more, and I feel better." (F7)

However, the participants did not report other formal symptoms such as fatigue, psychomotor retardation and indecisiveness (American Psychiatric Association, 2013).

Symptoms of depression were also identified as having an adverse impact on the participants' academic performance.

> *"My performance in school has fallen, even though I am studying hard." (F8)*
>
> *"I am not a good student. I used to be, but even though I study hard and focus, my brain is not with me." (F6)*
>
> *"Even when I am studying, I can't focus, my mind is not with me. I am very distracted – even if I am reading, I feel I am reading nothing, even though I was a very good student." (F6)*

5.3.1.4 Theme 4: Describing Depression Using a Metaphor – 'It Is Like a Black Cloud That Comes to You Suddenly' (F5).

Although only three participants expressed, they were sure they had symptoms of depression, it is interesting that most of the participants used intense metaphors or similes to describe how low they were feeling or how they experienced depression. The most common similes were "heaviness", "blackness" and "monster". Some examples follow.

> *"From my experience depression is like a black colour and like a black monster sneaking gradually, it's like you need to tell and express what you are feeling but you can't." (F9)*
>
> *"It is like a black hole that takes all the great moments from my life. "(F16)*
>
> *"I feel like something in my chest like heaviness." (F11)*
>
> *"Like a heavy monster in your chest." (F14)*

Additional metaphors that were mentioned included depression being like "a black box", "a massive mountain", "a tornado", "a black cloud", "black shadow", "darkness" and "a girl in a dark room who is screaming and not being heard". Overall, across participants there was a sense of "darkness", "massiveness" and "heaviness".

Part 2

As previously stated, the second part of Study 2 was a quantitative study which elicited a wide range of more factual information. It did not require a thematic analysis but the analysis of responses to a simple set of questions. Given the small sample size (of 16), the research presented here should be viewed as only exploratory. However, quantitative results are

nonetheless presented to give an idea about the proportion of the students reporting responses to questions which are of interest. The findings are presented in the following sections.

5.3.2 Participants' Awareness of Having Depressive Symptoms

The participants were asked if they thought they were experiencing depression symptoms. The findings are summarised in Table 5.2.

Table 5.2

Participants' Awareness of Having Depressive Symptoms

Awareness of having depressive symptoms	Number of students
Yes, I am sure I have depression symptoms	3
Yes, sometimes I have had depression symptoms	4
Maybe, but I am not sure I have depression symptoms	5
No, I am sure I do not have depression symptoms	4

Even though all the students who were interviewed had an MFQ score above the cut-off, indicating that they had significant depressive symptoms, nine (56.3%) were either sure that they did not or were uncertain. However, when those who were sure they were not depressed were asked how their symptoms affected their life, they gave clear examples of symptoms indicative of depression. One student who recognized that she had depression symptoms stated that she pretended to be ok and hid her symptoms from others.

5.3.3 Sources of Knowledge of Depression

Participants were asked if they had heard about depression and its symptoms. If they had, they were asked from where they had heard about it. The findings are summarised in Table 5.3 and suggest that social media was a common source of information. It should be noted that it was not the role of the study to educate the female students about mental health problems. It is worth pointing out that those students who acknowledged that they had depressive symptoms expressed that without those resources, they would not know about depression symptoms.

Table 5.3

Sources of Knowledge About Depression Reported by the Girls

Source of knowledge	Number of students
Books	3
Watching films	1
Social media	9
Family and friends	5
People who had experienced depression	2
School	1

Note. Some students reported more than one source.

5.3.4 Onset of Feeling Depression Symptoms

The participants were asked whether their depression symptoms started suddenly or gradually. Thirteen of the 16 participants stated that their symptoms appeared gradually while three said that they appeared suddenly.

5.3.5 Situations Triggering Their Depression Symptoms

Participants were asked if they had any ideas about why they felt the way they did and the causes. They identified several types of situations, or external events that they felt had triggered their depression symptoms (see Table 5.4). However, one student preferred not to say what situation triggered her depression symptoms.

Table 5.4

Situations Triggering Their Depression Symptoms Reported by the Girls

Triggers of depression	Number of students reporting the trigger
Bullying/ fighting with students	8
Moving to high school	3
Family difficulties*	5
Death of parent or other family member	3
Moving to another location	1
School stress, including homework, exams and projects	3

Note. *Family difficulties indicates observing or hearing parents fighting, or fighting with sisters, or parents criticising them. Some girls reported more than one trigger.

5.3.6 Coping With Their Depression Symptoms

The adolescents were asked about their relationships and sources of support and how they coped with their emotions and distressing feelings. They reported using a variety of coping strategies (see Table 5.5). To some extent, the female adolescents found another way to talk about their symptoms when they were feeling bad. For example, one participant had used a fake social media account to express her feeling to others, as she stressed that she did not want anyone to know what her feelings really were.

Table 5.5

Coping Strategies Reported by the Girls

Coping with their depression symptoms	Number of students
Escaping from reality	1
Distracting thoughts	7
Seeking the company of friends/family	3
Hurting self	1
Listening to music	7
Reading the Quran	1
Ignoring feeling	3
Eating	2
Sleeping	4
Using social media, including fake accounts, to express feelings	3
Doing hobbies, including reading, walking and drawing	7
Crying	6

Note. Some girls reported more than one.

5.3.7 Students' Suggestions About What Female Teenagers Need To Know About Depression and How They Can Be Helped

The participants were asked what they thought female teenagers need to know about depression. Their responses are summarised in Table 5.6 and suggest that teenagers should have more awareness of how to deal with their symptoms and seeking professional help.

Table 5.6

What Female Teenagers Need To Know About Depression

What female teenagers need to know about depression	Number of students
They should know that they can talk freely about their feeling without shame	8
They should seek help from a professional	3
Read about depression and have knowledge about it	10
Acknowledge their symptoms	4
Need to know how to deal with symptoms	2
Help herself before it gets worse	4
Doing hobbies	5

Note. Some girls reported more than one

The participants were asked about how they thought females with depression symptoms could be helped. Their responses are presented in Table 5.7.

Table 5.7

How Female Teenagers With Depression Symptoms Can Be Helped

How female teenagers with depression can be helped	Number of students
Family should accept the idea of seeking professional help and encourage us to do this	3
Family has a big role to listen and support us*	14

Note. Some girls reported more than one. * Some students specifically mentioned the mother as having an important role to play.

5.3.8 The School's Role in Dealing With Students

The students were asked what the school should do to help students having symptoms of depression. Their responses are summarised in Table 5.8. All 16 students stressed that they

would never trust the counsellor as they would leak their personal matters to the teachers or principal or even to their mother, especially if the mother is a friend.

Table 5.8

The School's Role in Dealing With Students Suggested by the Girls

School's role in dealing with students	Number of students
Do not stress us with homework and exams	6
Understand students with a bad mood	12
Help and support us	3
Provide a qualified person to help us	7
Keep all our personal information confidential	4
Raise the awareness among students and educate us about it	6
Stop bullying	1
Not involve the family	2

Note. Some girls reported more than one.

5.4 Discussion

In this study 16 Saudi adolescent females with elevated symptoms of depression were interviewed. One aim was to elicit their experiences of depression symptoms, which had not previously been carried out among this group. This was done in Part One using thematic analysis based on Braun and Clarke's (2006) approach. In summary, their reports revealed four main themes: 1) Isolating and withdrawing themselves from others; 2) Lack of enjoyment or meaning; 3) Common formal symptoms; and 4) Describing depression using a metaphor.

One theme which emerged was that the adolescents withdrew themselves from others. Previous studies have offered explanations for this. For instance, McCann et al. (2012) found that young people withdrew to protect themselves from stigma and to reflect on their situation and deal with their problems. Yet, withdrawing stops young people from having interaction with others and getting their support, and increases their social isolation from friends (Gonzalez-Torres et al., 2007; Schulze & Angermeyer, 2003). This is consistent with the interpersonal theory of depression (Coyne, 1976), which emphasises that individuals with

depression symptoms can have difficulties in their relationships with others which can result in withdrawal and make their symptoms worse. Watson et al. (2020) uncovered several reasons why participants did not express their feelings to others, including not wishing to be a burden to others, difficulty in verbalising their feelings, and covering their true feelings by pretending to be happy. This was also found in the current sample, as some females did not want to put a burden on her mother, and another pretended to be normal.

A second theme was that the present sample described clear symptoms of anhedonia, as they expressed how they lost their enjoyment of anything they used to do and withdrew themselves from others or stopped doing the activities they were enjoying before. This is in line with the previous studies among adolescents with depression symptoms. For example, Watson et al. (2020) focused on anhedonia among 34 English adolescents aged 13–18 years with a primary diagnosis of depression (N = 12) or elevated depressive symptoms (N = 22). Participants described the experience of anhedonia and low positive affect; they lost their motivation and willingness to make an effort and reported a blunting of all emotion.

A third theme was that the participants reported the common formal symptoms of depression, which closely mirrored those used in Western societies to describe the phenomenon of depression. For example, they described feeling sad, irritated, and having changes in their sleep or appetite, all of which are listed as symptoms of depression in DSM-5 (American Psychiatric Association, 2013). Much the same key characteristics were reported by the Canadian girls with depression studied by Hetherington and Stoppard (2002), the German adolescents with depression studied by Weitkamp et al. (2016) and the Australian young people aged 16 to 25 years old with depression studied by McCann et al. (2012). In addition, Dardas et al. (2019) found that their Jordanian adolescents reported very similar symptoms.

One of the diagnostic criteria for depression listed by DSM-5 (American Psychiatric Assocation, 2013) is “recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.” (p. 161). In this regard, during the interview three females mentioned thinking of suicide directly, which is mirrored in other studies of adolescents, such as those of McCann et al. (2012) and Midgley et al. (2015). In fact, however, ten students did respond to the statements in the MFQ that they are thinking to kill themselves or they are thinking of death, although they did not mention this during the interview, which suggests they are reluctant to disclose such information directly. This is likely because in Saudi society and the Islam religion hurting and killing oneself is considered a sin. The fact that over half the older students reported

thoughts of death or suicide in the MFQ is of concern, especially as a study by Ahmed et al. (2020) that included many Saudi adolescents found that over a half who had attempted suicide had been diagnosed with depression. The study involved 175 male and female patients aged 10-24 years who had attended emergency departments in Riyadh after attempting suicide; 47 of these 175 patients had a psychiatric disorder, of whom 30 (63.8%) had depression. In contrast with the results of the current study, Weitkamp et al. (2016), who studied young people in Germany, mentioned that the participants were very open about self-harm and suicidal ideation, which suggests that they were quite honest about their engagement in risky behaviours; this could be a cultural difference.

Finally, participants used several interesting metaphors that described their experience of depression symptoms, including "heaviness", "blackness" and "monster". One participant said, "It is like a black hole that takes all the great moments from my life" (F16). Interestingly, the phrase black hole was also expressed by a German female adolescent who had been diagnosed with depression (Weitkamp et al., 2016), despite the very different culture.

Moving on to the quantitative results presented in Part 2, an important finding was that even though the participants reported elevated symptoms of depression (demonstrated by scoring above a recommended clinical cut-off on a validated measure), only seven of the 16 identified that they were depressed or sometimes depressed. Over half of the girls did not recognize their symptoms to be those of depression, although they still expressed how their lives were affected in a negative fashion. This agrees with the findings of Weitkamp et al. (2016) in a sample of German adolescents, who reported the same, and that their participants did not know what the "normal" degrees of sadness or irritability are for a teenager (see section 5.1). Similarly, Dardas et al. (2019) found that their Jordanian adolescents were unclear about the meaning of depression and how it linked to their experience and feeling, yet they reported several factors of depression symptoms, including "feeling frustrated," "staying alone," and "feelings of emptiness."

The present study also explored what the girls reported had triggered their depression symptoms. They mentioned a number of factors, such as bullying, fighting with students, schoolwork, including exams being stressful, moving to high school, and moving to another location, and family problems. Studies have shown that adolescents who are exposed to bullying at school were more likely to display a higher level of depression (Fekkes et al., 2006) and lower psychological adjustment (Nansel et al., 2001). Bullying in school in Saudi Arabia is thought to be a common phenomenon and for a long time, it has been recognized to

affect Saudi adolescents physically and mentally. For example, AlBuhairan et al. (2015) reported that 25% of male and female adolescents reported exposure to bullying at school during the 30 days preceding the study and a later study (AlBuhairan et al., 2017) showed that students who had been bullied were much more likely to have depression symptoms or anxiety symptoms than those who had not. In comparison, a systematic review of studies in Australia among children and adolescents found that the pooled prevalence of bullying in the last month was 12.1% (Jadambaa et al., 2019). Al-Eissa et al. (2019) studied a large sample of Saudi adolescents (N=16,010, aged 15-18 years) and confirmed that bullying was common, with a prevalence of 45% in the past year. They found that girls were more likely than boys to experience exposure to domestic violence, psychological and physical abuse, neglect and bullying. Therefore, the high prevalence of bullying in Saudi Arabia may help to explain the high rates of depression symptoms. Consequently, there is an urgent need to prevent bullying at school (AlBuhairan et al., 2017; Haddad et al., 2020; Raheel, 2015). A further trigger reported by most of the students was conflict with their friends, which extends the applicability of interpersonal theories of depression to the Middle East, as interpersonal conflict is a major cause of depression among this age group (Jacobson & Mufson, 2010). Although none of the students reported having a conflict with their parents, some reported conflict with their sisters, which is also in line with this theory. The lack or inadequacy of interpersonal relationships may negatively affect the adolescents' mental health (Sullivan, 1953).

These triggers of depression parallel the findings of Midgley et al. (2017). Some of their UK adolescents attributed their depression to stress. Others disclosed that school and education and bullying triggered their depression symptoms. Further, the Jordanian adolescents studied by Dardas et al. (2019) showed some similarities in the triggers they reported, including loss of a parent or sibling and pressure of schoolwork.

The participants were asked about their sources of support and how they coped with their state. They reported positive coping strategies, such as doing their hobbies, reading, listening to music and seeking the company of their family or friends, in line with the studies of adolescents in Dundon's (2006) review. Since the time of that review, the use of social media has increased greatly, and three participants reported using social media, including fake accounts, to express feelings. One participant reported that she used a fake social media account because she did not want anyone to know what her feelings really were. This could also be because privacy is very important in Saudi culture, and many individuals do not share

their feelings with others except their family, so talking to a stranger using a fake identity would help them not to feel judged and to keep their privacy.

Although none of the participants reported that they had sought professional help, three who acknowledged their symptoms wished their parents would allow them to seek such help. Further, eight suggested that adolescents should feel free to express their feeling without shame. However, Dardas et al. (2019) reported that their Jordanian adolescents were afraid of expressing their symptoms or seeking help for different reasons, such as being labelled as crazy, being ashamed of expressing their real feeling, being misunderstood or separated from their own family. Additionally, they were fearful of their community, as they would believe they are "bewitched". As discussed in section 2.5.1, the family can wait for a considerable time before seeking help from a professional and often the family do not take mental illness seriously and do not consider it as a real illness that requires professional help (Dardas & Simmons, 2015). As 14 of the 16 participants reported that they wanted help or support from their family, it was decided to investigate this matter in Study 4, in which ten of their caregivers were interviewed.

Turning to the possible role of the school, a critical issue was that all the participants did not seek help from the school counsellor, whose role is to help them with their difficulties. They reported that the school counsellor did not keep things confidential, and they did not trust them, as they leaked their secrets to others, either to other workers or to their family, especially if the school counsellor was a friend of their mother. This issue is looked at in Study 5 from the perspective of the school counsellors and is discussed further in section 8.4.3. Six of the students suggested that the school should educate them about mental health in general and depression in particular. Hence, awareness and education about mental health and depression symptoms among this age group is needed to help them acknowledge their symptoms and get the appropriate help in Saudi Arabia (Alotaibi, 2016).

5.5 Strengths and Limitations

Study 3 is the first study, to the author's knowledge, that has interviewed Saudi adolescents about their experiences of depression symptoms. It allowed them to express their own voice, although they might not have disclosed sensitive issues during the interview, for example, having thoughts of killing themselves. This is indicated by the fact that ten (older) students did respond to the statements in the MFQ that they are thinking to kill themselves or they are thinking of death but did not disclose this in the interview. A strength of the thematic analysis was that it involved three people, the researcher and her two supervisors, and was

based on Braun and Clarke's (2006) approach, which adopts an inductive approach and does not require testing prior theories or hypotheses. Although the researcher did not screen the participants using a structured clinical interview, she did use the most appropriate self-report instrument for adolescents, the MFQ.

A strength of the sampling was that participants having a range of scores above the cut-off were selected for interview, and a total of 16 were used. It should be noted that this small number means that Part 2 was an exploratory quantitative study and that a larger sample would be needed in future research in order to elaborate on the preliminary findings presented here. However, a limitation of the sampling was that it only included public schools in Unaizah, not private or religious schools. A further limitation was that the transcripts were not checked by the students themselves to avoid the risk of their parents seeing them. It would be valuable to conduct similar studies with male adolescents with depression symptoms, particularly given that males and females are treated differently by the culture.

5.6 Summary

Sixteen female adolescents in Saudi Arabia who reported elevated symptoms of depression, as indicated by having an elevated score on a validated measure, were interviewed. Nine of them were not clearly aware of having depression symptoms. All 16 reported typical symptoms of depression, including isolation and withdrawing themselves from others, anhedonia, life having no meaning, irritability, difficulty concentrating and changes in sleep patterns. Although Saudi culture is very different from Western culture, the students' experience of depression symptoms was very similar to those reported in Western cultures. They mentioned several situations that had triggered their depression symptoms, including bullying at school, fighting with friends, family conflict and moving to another location. They reported a variety of coping strategies to deal with their symptoms, including escaping from real life, doings their hobbies, and seeking the company of friends. They suggested several ways in which the school could help them, including providing education and raising awareness about depression and employing a suitably qualified person they could turn to who would keep what they said confidential.

Chapter 6

Study 4: Perceptions of Caregivers of Female Adolescents With Elevated Symptoms of Depression

6.1 Introduction

As in most countries, in Saudi Arabia, most adolescents live with their parents and are dependent on them. The parents of young people with mental health issues can play an important role in their treatment and a study carried out on Australian adolescents found that many recognize that a major source of support is their family (Jorm & Wright, 2007). As a result, it is often the parents who first notice symptoms and to whom their children first turn for help (Boulter & Rickwood, 2013). However, many parents do not recognize mental health symptoms in their children (Sayal et al., 2003; Teagle, 2002) and may therefore not see any need to seek professional help. A topic of concern to researchers has been why the parents of children and adolescents with mental health conditions have been reluctant to seek help for their own children. A systematic review by Reardon et al. (2017) examined 44 studies done in Western countries, including the UK, USA, Australia, and Canada, and identified a variety of barriers that can prevent parents from seeking professional help for their children. The review found that the majority of parents did not recognize their child's symptoms, which is very important to do as early as possible so that they receive appropriate treatment (Jorm, 2012).

Besides not recognizing mental health symptoms in their children, Reardon et al. (2017) identified several further barriers to parents seeking professional help. The commonest barrier was the parents' negative attitudes, including stigma attached to mental health issues or accessing mental health services. They also found that parents had inadequate knowledge about where or in what way to ask for help for their own child. Other barriers were the cost of the services, transport difficulties, and lack of trust in the professionals.

In respect of the experiences of the parents of children with depression symptoms, there is a shortage of studies reported in the literature. Tan and Rey (2005) found that mothers of children with depression symptoms were more likely to perceive them as "difficult" than mothers of non-depressed children and more likely to experience higher parenting stress. Stapley et al. (2016) interviewed 48 parents of adolescents aged 11-17 who had been diagnosed with moderate to severe depression and had been referred to Child and Adolescent Mental Health Services in the United Kingdom. The study found that just two of the 48 parents recognized that their child was depressed, although the majority had noticed changes

in their behaviour, such as irritability, social withdrawal, moodiness, or lack of sleep. However, a quarter of the parents had not noticed any changes in their child's behaviour until they had been told by their child or the school about their difficulties.

A recent study by Armitage et al. (2020) interviewed eight mothers of adolescents aged 13-18 in the UK who had been referred to a Child and Adolescent Mental Health Service for depression. They found that the mothers blamed themselves or external factors for their child's depression. They emphasised the sense of helplessness and frustration, as they did not know how to help their child or who could help them. The mothers hid their own emotions and needs, for example, trying to stay positive and to control their emotion in order to manage the situation. The majority of mothers reported experiencing strong negative emotions, such as worry and anxiety, upset and distress, guilt and self-blame.

The studies referred to so far have been conducted with parents living in the USA and the UK, but attitudes and behaviours may differ in other cultures (Jorm, 2012). For example, in section 2.5.1 it was highlighted that there is a high degree of stigma and shame associated with mental illness in the Middle East and in section 2.5.5 the barriers to the treatment of mental illness among Middle Eastern cultures were reviewed. Issues around mental health literacy, referring to "knowledge and beliefs about mental health disorders which aid their recognition, management, or prevention" (Jorm et al., 1997, p. 182) are embedded in Saudi society. In developing countries, such as the Middle East, the prevailing lack of mental health literacy is a matter of concern, as it can make people reluctant to seek professional help (Mubbashar & Farooq, 2001; Peterson et al., 2011) and lead them to somatise their symptoms (Patel et al., 2001). A cross-sectional study was conducted among 5,644 males and females in Saudi Arabia to explore their knowledge and perceptions about mental illness. The majority of participants (87%) did not have knowledge of the services offered and half of the participants expressed that they would be ashamed to seek a professional's help (Mahmoud, 2019).

Gearing et al. (2014) stated that stigma related to mental illness is one of the greatest factors that negatively affect the individuals with mental health conditions to seek help. Gilat et al. (2010) observed that once a person shows symptoms of mental illness, the initial reaction of most families is to seek a physician, discuss with a family member, or refer to a faith healer. Only a few families seek to involve the mental health services. Moreover, it can take a family a long time to consider seeking help and usually this happens only when the symptoms become severe and recognizable by others (Dardas & Simmons, 2016). In Arab societies, the family bears mental health conditions unless these conditions are out of control

or result in shameful behaviours (Al-Krenawi, 2005). Moreover, shame is linked to having a mental health condition; a person who has a relative with mental health problems feels ashamed to tell this to others (Abolfotouh et al. 2019).

As already mentioned, parents play an important role in recognizing mental health symptoms in their children and helping them in this. Some early signs of depression can be noticed by the mother in her daughter's changing behaviour and the findings from Study 3 suggested that female students with elevated symptoms of depression feel that their family has a big role to help and support them. Mothers in Saudi culture have a central role in relation to their children, including closely monitoring their behaviour. Therefore, the primary aims of this study are to explore mothers' recognition of their daughter's depression symptoms, how they supported their daughter, and the barriers that opposed them seeking the help they need. These aims included both qualitative and quantitative exploratory analyses in order to investigate the mothers' attitudes to their daughters' depression symptoms and their own experiences. The research questions are as follows:

1) What changes do the mothers notice in their daughter's behaviour?
2) What are the potential barriers that hindered the mothers seeking help for a daughter experiencing symptoms of depression?

   In addition, two secondary research questions were addressed by the study.
3) What may have caused these changes in behaviour?
4) What is the impact of the daughter's difficulties on the mother?

6.2 Method

The researcher has followed the COREQ checklist (see Appendix 35).

6.2.1 Ethical Considerations

Ethical approval to conduct the study was obtained from the University of Reading Research Ethics Committee (see Appendix 13), and from the Education Administration in Unaizah (see Appendix 14). When the researcher called the caregiver to see if she wanted to take part, the caregiver had already received information about the study and the researcher made it clear that she was under no pressure to take part. Participants were informed that their information would be kept confidential, and their name would be coded. Further, they were told they could stop the interview at any time. All the caregivers received information about sources of professional support for adolescents and young adults. Further, a self-help sheet and a sheet listing professional services and their phone numbers was given to them after the end of the study.

The researcher informed each participant that she could leave the interview at any time without giving any reason and could withdraw her data from the study at any future time. Recordings, transcriptions and translations were kept in a secure cabinet having a PIN code at the researcher's home in Saudi Arabia and on her return to the UK they were stored in a locked cabinet in a password-protected area at the University of Reading.

6.2.2 Participants and Sampling

Of the 16 students who were interviewed in Study 3, ten of their caregivers were interviewed; these students had a range of MFQ scores above the cut-off of 26 (Tavitian et al. 2014). The students were asked to provide their primary caregiver's phone number and were given information sheets (see Appendix 21) about the study to hand on to their caregivers. The students who agreed for their caregivers to take part advised them that the researcher would be calling them to see if they wanted to take part. Shortly after, the researcher called the caregiver and asked them if they wished to take part; if they did, the caregiver confirmed a time and place for the interview. All caregivers signed a consent form before they started the interview (Appendix 22). Nine mothers of the 16 participants in Study 3 were interviewed. In addition, the sister of one participant was interviewed. She was the participant's primary carer because their mother had died. Their demographic details are given in Table 6.1. Three mothers did not want to take part, two of the students refused to provide their mother's number, and one mother could not be contacted.

Table 6.1

Demographic Details of the Caregivers Who Took Part in the Interview

	Age	Status of the caregiver	Education	Occupation
M of F1	47	Married	Bachelor's	Teacher
M of F2	37	Married	Middle school	Housewife
M of F3	35	Married	Bachelor's	Social Worker
M of F4	37	Married	Bachelor's	School Worker
M of F7	39	Married	Bachelor's	Housewife
S of F9	29	Married	Bachelor's	Teacher
M of F10	49	Married	Bachelor's	Teacher
M of F12	69	Married	High school	Housewife
M of F13	41	Married	Master	School Principal
M of F14	50	Married	Bachelor's	Teacher

Note. All were mothers except one participant who was the sister.

Procedure

Before the researcher interviewed each caregiver, she made sure that they had read the study information (Appendix 21). Before the interview started, the purpose of the interview was explained and why they had been invited, i.e., because their daughter (or sister) had reported elevated symptoms of depression on the MFQ. It was explained that the interview would be audio-recorded and that their name would be changed to keep their confidentiality. In addition, they were informed they could leave the interview at any time and ask for their data to be removed from the study in the future. Next each caregiver was given the Parent Report long version of the MFQ (see Appendix 23) to report their adolescent's depression symptoms. Then a semi-structured interview (see Appendix 24) was carried out; here is an outline of the interview.

- Ask how long she thinks her daughter has been feeling this way.
- Ask which changes in her daughter's behaviour she has noticed the most. Ask for examples.
- Ask if she has any ideas about what might have caused the changes.
- Ask when her daughter is feeling in a low mood, does she find this difficult to cope with. (If yes) What does she find difficult?
- Ask her when her daughter has been feeling down, did she do anything to help and support her.
- Ask her if she went outside the family for any advice or help.
- Ask her would she consider talking to anyone else, such as a psychologist or therapist to help her.
- Ask her if she has noticed any impact of her daughter's difficulties on herself.

The interviews were carried out by the researcher alone at private coffee shops, where in Saudi Arabia these provide a private partitioned area; these interviews lasted for approximately two hours. One mother was interviewed by phone because of transport difficulties. Finally, every caregiver was debriefed about the study (see Appendix 25); the one mother who was interviewed over the phone was sent an email about this. The interviews took place in May 2018.

The interviews were later transcribed verbatim and all the information about the students' identity was changed to ensure anonymity. A bilingual native Arabic and English speaker

checked the accuracy of the translated transcripts. All the transcripts were sent to the caregivers to make sure they agreed with them and all ten confirmed this.

6.2.3 Data Analyses

The study used mixed methods and consisted of three parts. The first part used semi structured interviews and then qualitative data analysis to analyse the barriers to seeking help reported by the caregivers. The caregivers were asked several questions about the help they provided to their daughter (or sister), and whether they sought help outside the family, including from a professional. Their answers indicated a variety of barriers which were analysed by using thematic analysis on the transcripts based on Braun and Clarke (2006)'s six stage method. This method was selected because of its flexibility in regard to many types of data and because the analysis was exploratory and not based on prior assumptions (Clarke & Braun, 2014). As the sample size was ten, it is appropriate as Clarke and Braun (2014) stated that it can be used with very small sample sizes. Although the questions did not ask directly about barriers, the thematic analysis allowed patterns of meaning in their replies to emerge inductively. Further, this approach can capture underlying meanings (Clarke & Braun, 2014). and aligns with the exploratory aims of the study.

In stage 1, the researcher familiarised herself with the data by conducting, transcribing, and translating the interviews to English, and then reading and re-reading the transcripts. This was checked by a bilingual native English and Arabic speaker. As the researcher did this, she noted in writing the most salient groups of content. In Stage 2, the researcher conducted line-by-line coding. This was an inductive process between and within transcripts. All data were coded for both explicit and implicit meaning by highlighting relevant parts of the text. In stage 3, the researcher looked for potential themes based on the various codes, and then in stage 4, these were reviewed with one of the researcher's supervisors (PJ) and changed if necessary. In stage 5, themes were agreed by both the researcher and a supervisor (PJ). In stage six, it was decided which themes to include in the Results section. After this, both supervisors gave further advice and feedback on the final selection of themes.

In part two the data were analysed using simple descriptive data analysis to answer simple questions that required factual answers. For example, the first two research questions were what changes have the caregivers noticed in their daughter's behaviour and what may have caused these changes? Both of these require factual answers that do not require thematic analysis.

In part three the caregivers' scores on the parent MFQ were compared with the adolescents' scores on the child MFQ. This included using a Pearson's r correlation using a one-tailed test and comparing the means of the two sets of scores using a paired samples *t* test.

6.3 Findings

Part 1: Qualitative Analysis of the Barriers to Seeking Help That the Caregivers Reported.

6.3.1 Barriers That Hinder the Caregivers Seeking Help

The caregivers were asked several questions about what they did to help their daughter, including whether they sought help from outside the family or from a professional, such as a psychologist. Their answers revealed a variety of reasons why they did not seek help, and the following four themes were identified: 1) The caregivers perceived their daughter's (or sister's) symptoms to be normal; 2) The caregivers viewed religious practice as a better solution; 3) The caregivers did not want anyone to know about their daughter's (or sister's) symptoms; and 4) Practical barriers to seeking help.

6.3.1.1 Theme 1: The Caregivers Perceived Their Daughter's Symptoms To Be Normal - 'It Is Normal To Feel This Way' (M of F12).

This theme captures how the caregivers observed their daughter's (or sister's) symptoms as normal for this stage of development. Although all had noticed changes in their daughter's feelings or behaviour, nine attributed these to being normal for a teenage girl or due to common issues such as physical problems, school matters, or parental conflict. Some caregivers believed that such symptoms would pass in time, based on their own experiences of having been an adolescent. Nine did not recognize the symptoms to indicate possible depression.

> *"My daughter had been feeling down since a year ago for many reasons, after her dad passed away, with vitamin D deficiency, and from bullying at school. It is normal to feel this way, it's not serious or it's not depression as you think." (M of F12)*

> *"The symptoms that I told you about my daughter are normal for this age. It is just because it is the exams season, that is it, nothing serious." (M of F14)*

> *"This is normal for a teenager, as I was in her situation before but lost our dad and his death affected her a lot." (S of F9)*

"I faced more difficulty in my life when I was her age and overcame them and I improve myself and make myself busy." (M of 7)

The one exception was a mother who was aware that her daughter had some kind of mental health problem, which the daughter herself recognised, requiring the help from a professional.

"I know she suffers, and I know there is something wrong and I want to see a psychologist as she asked me." (M of F2)

As most of the mothers perceived the symptoms to be normal, this can be viewed as a barrier to their daughter's treatment, for they saw no need to seek professional help.

"No way, she is normal and doesn't have big problems; if it is big, I would see a psychologist, but I would keep it secret. … No, we don't think of seeing a psychologist, she is a teenager and that's normal in this stage." (M of F13)

6.3.1.2 Theme 2: The Caregivers Viewed Religious Practice As a Better Solution - 'Approach to God Is the Best Way To Remove Sadness' (M of F7).

This theme captures how the caregivers believed that practising religion is the best solution for their daughters (or sister). Without any prompting, the first thing all the caregivers mentioned to deal with their daughter's symptoms was to encourage their daughters to practise religion, no matter how serious their symptoms were. The experiences of the caregivers seemed to offer a great deal of consistency in that all of them mentioned religion to help their daughter cope with her difficulties. Eight suggested their daughter engage in religious practice to cope with their symptoms, such as reading the Quran or praying or learning from the stories of the prophets, while the other two reported that they engaged in prayer themselves to help their daughter.

"When my daughter feels this way, I ask her to read the Quran and pray because I believe it helps a lot, and approach to God is the best way to remove sadness. Talking to her by saying that no one deserves to be sad, and nothing makes you sad helps her a lot. Sometimes I am tough with her. I give her advice and telling her how I have been through and overcome this by myself, which changes her and makes her less moody and encourages her." (M of F7)

"I never thought of taking her to see a psychologist or therapist to help her, because we are religious, and we solve our problems by the Quran and praying and tell them stories of prophets and how their problems were solved by God." (M of F12)

"Being close to God is more important than seeing a psychologist or therapist. If I need help the internet can help me." (M of F1)

"I always tell my daughter no one can help you except God, so praying will solve your problems". (M of F 7)

6.3.1.3 Theme 3: Not Wanting Anyone To Know About Their Daughter's Symptoms - 'I Don't Want to Share My Privacy With Anyone' (M of F7).

This theme captures how the caregivers tried not to talk about their daughter's (or sister's) symptoms to avoid negative attitude from others toward their daughters. Nine of the caregivers found that initially disclosing details of their daughter's symptoms to any others was uncomfortable, including me as the researcher. Seven of the ten reported they never asked for advice from others about their daughter's symptoms. They tried to hide their daughter's symptoms from others and to deal with them alone, even if this cost them their comfort; they wanted their daughter to present a good image to others. The remaining three said they only asked members of their family and not anyone else. One explained she would seek advice from her family if her daughter's symptoms were noticeable, otherwise she would never disclose her daughter's problems to others. Another expressed that she asked her family for advice when she had difficulty with her son, although she did not seek advice about her daughter's symptoms.

Asking Only the Family

"I would ask my sisters but only if they notice, because I don't want to share my privacy with anyone." (M of F7)

"I ask my sister for help because she is very close to my daughter, and she listens to her". (M of F3)

"I ask for my mom's help and my brother, but not about my daughter, about my son." (M of F13)

Not Liking To Share Their Privacy

"Not at all, we don't like to share our privacy, and this is a very private problem, and we don't want anyone to know. We try to solve them alone with my siblings." (S of F9)

"Not at all, I try to solve our problems by myself because I don't want anyone to know about my daughter's mood and behaviour to not be bullying and insulting her." (M of F4)

"No, it is impossible, and I never think of telling anyone because it's not a big thing and I don't want anyone to know about my daughter's attitude and I love to show people, including my family, that my daughters are the best." (M of F1)

6.3.1.4 Theme 4: Practical Barriers to Seeking Help.

When the researcher asked the caregiver if they would seek professional help for their daughter's symptoms, nine got quite upset and they replied that their daughter is normal, and their symptoms are very common for this age.

The caregivers gave quite different reasons for why they did not seek professional help for their daughter. Stigma was one reason, although some mothers did not say so directly while others did. For instance, one mother believed that seeking professional help would result in others perceiving her daughter to be crazy and another believed that this would result in her daughter being bullied and insulted. It could be suggested that most of the caregivers were not seeking professional help because of the stigma associated with the culture, although their responses did not explicitly state this.

"If I need to, I will see a psychologist, but I will keep it secret because I am not against it, because I don't want people to think negatively about my daughter and treat her badly and have a negative effect on her." (M of F 13)

Two mothers complained of the expense of seeing a psychologist, despite professional help being available free of charge in Saudi Arabia.

"Yes, I would consider it, but it is very expensive and not reasonable. Here it is very expensive, and the charge is [about £100] for one hour." (M of F10)

One caregiver perceived that the professional helpers lacked the appropriate knowledge, as they only give medicine.

"I do not seek help from a psychologist as I don't trust them. My daughter's situation is not that serious and does not need a psychologist, I can deal with it. As you know, the psychologists here are not that good, they don't have experience and the psychiatrists immediately prescribe medication. I know them because I am a social worker and work with them. I know how they deal with their patients." (M of F3)

As mentioned earlier, one mother was very aware that her daughter needed professional help, but she could not provide this because in Saudi Arabia the father has the authority in this regard. She had asked her husband for his permission for their daughter to see a

psychologist, but he refused, and she was left wanting to help her but not knowing what to do. A further caregiver also mentioned she would seek help, but the father refused.

> *"I know she suffers, and I know there is something wrong and I want to see a psychologist as she asked me, but I can't because her dad refused, and I can't do anything without his knowing and permission." (M of F2)*

One mother reported that the reason she did not see a psychologist was the difficulty of transport in addition to the waiting list being too long.

> *"The difficulty of transport, the appointment will take too long as I have heard, and I can't leave the house as I am responsible for many things." (M of F7)*

Part 2: Quantitative Analysis of the Caregivers' Factual Responses and Responses to Parents' Version of the MFQ

This section reports the caregivers' responses to a number of questions that were not analysed using thematic analysis. For example, the researcher asked simple questions calling for factual replies, such as 'When did you first notice that your daughter had some of these problems?' and 'Do you have any ideas about what might have caused this?' It should be noted that the sample size of ten is small, so this research is only exploratory and was designed to offer preliminary insights into the triggers and changes in the daughter's behaviours. A larger sample size would be required to produce more definite findings.

6.3.2 Changes Noticed in Their Adolescents' Feelings and Behaviour

The caregivers were asked what changes they had noticed in their daughter's (or sister's) behaviour. They described how they had noticed changes in their daughter's feelings and behaviour. They thought these symptoms normal for being a teenager, although they were concerned about the most noticeable changes in their daughters. Some of these changes are presented in Table 6.2. These include several common symptoms of depression mentioned in DSM-5 (American Psychiatric Association, 2013), for example, changes in sleep pattern, irritability, changes in appetite, although they were not often recognized as symptoms of depression by the mothers. After having been given the Parent Report long version of the MFQ, four of the mothers stated that it had made them more aware of their daughter's symptoms, while five had already noticed the symptoms, and one had not noticed any symptoms.

Table 6.2

Significant Changes Noticed in the Past Few Weeks in Their Adolescents' Feelings and Behaviour

Change	N of caregivers
Change in sleep pattern	5 (50%)
Change in appetite	4 (40%)
Sadness	1 (10%)
Bored	2 (20%)
Irritated	4 (40%)
Anxious	1 (10%)
Crying	2 (20%)
Withdrawing/isolating	9 (90%)
Poor attention	1 (10%)
Sensitive	2 (20%)
Low energy	1 (10%)
Not enjoying anything as before	7 (70%)
Hurting herself	1 (10%)
Talking about death	1 (10%)
Not caring about appearance/careless	3 (30%)
Fighting with her sisters	2 (20%)
Screaming	1 (10%)
Stubborn	2 (20%)
Not studying	2 (20%)

Note. Some caregivers reported more than one change.

6.3.3 Triggers of Their Adolescents' Depression Symptoms

The caregivers were asked what may have caused the changes in their daughter (or sister). Bullying was reported to be a common trigger, one which was also reported by the girls themselves (section 5.3.5). The mothers mentioned several situations or events that may have triggered their daughter's depression symptoms, which are presented in Table 6.3.

Table 6.3

Triggers of Their Adolescents' Depression Symptoms

Trigger	N of caregivers
Bullying	7

School exams	2
Sexual harassment at school	1
Family conflict	1
Losing parents	2
Conflict with friends	3
Moving to middle school	1
Moving to another city	1

Note. Some caregivers reported more than one trigger.

6.3.4 What the Mothers Did and Wished To Do To Help Their Daughter

The caregivers were asked several questions about what they did to help and support their daughter (or sister). Each mother tried to help their daughter in many ways. Even though the mothers considered their daughter's changed behaviour as normal for this age period, it still worried and stressed them, and left them not knowing how to help their daughter. Some reported different ways in how they tried to help their daughter, which sometimes worked and sometimes did not. The findings are summarised in Table 6.4.

Instead of seeking professional help, the mothers believed making their daughter busy would help them and make them feel better. Accordingly, they wished to engage their daughters in a workshop. In Saudi Arabia a workshop is a place where adolescents can go to after school or at the weekend to develop a new interest, such as learning a new language, art, computing, etc. Such workshops need to be paid for.

Table 6.4

What the Caregivers Did or Wanted To Do To Help Their Adolescent

What the caregivers did	N of caregivers
Wanting to support her more emotionally	4
Putting her on a course (workshop to improve her)	4
Did not know how to help	3

Note. Some caregivers reported more than one.

6.3.5 The Impact of Their Adolescent's Difficulties on the Caregiver

The caregivers were asked if their adolescent's difficulties had impacted them. Although some caregivers regarded their adolescent's symptoms to be normal for a teenager, all but one was still affected by them, for example, by their daughter's altered behaviour and low mood. But they added that it is very normal for mothers to be concerned about their child. The impacts are summarised in Table 6.5.

Table 6.5

Impact of the Daughter's Difficulties on the Caregivers

Impact on the caregiver	N of caregivers
Worries	4
Cannot live a normal life	1
Feeling sad	3
Low mood	3
Feeling guilty	2

Note. Some caregivers reported more than one.

6.3.6 Relationship Between Caregivers' MFQ and Adolescents' MFQ Scores

A Pearson's r correlational analysis was conducted using a one-tailed test as a positive relationship was expected between the caregivers' MFQ scores on the Parents long version and their daughters' MFQ scores. It was found that r=.662, N=10, p=.019 (one-tailed), confirming a positive relationship existed between the two. However, the mean scores for the caregivers were 20.30 (SD=13.00) compared with 38.10 (SD=8.90), which were statistically different, $t(9)=5.78$, $p < .001$. The fact that the mean for the caregivers is lower than that for their daughters indicates that they are not recognizing some of their daughter's symptoms.

Table 6.6

Adolescents' MFQ Scores and Caregivers' MFQ Scores

Adolescent's ID	Adolescent's MFQ scores	Caregiver's MFQ scores
F1	26.61	23
F2	48.97	50

F3	50.03	20
F4	39.39	16
F7	41	19
S9	49	34
F10	30	11
F12	29	10
F13	33	13
F14	34	7

Note. Adolescent scores include adjusted scores because the younger students were not given two questions in the MFQ.

6.4 Discussion

The study aimed to explore caregivers' recognition of their daughter's (or sister's) depression symptoms, and how they supported them, including what kind of help they sought and the barriers that opposed this. The findings were analysed using mixed methods. The first part of this discussion used qualitative analysis to explore the barriers to seeking help reported by the participants.

An important finding was that although most caregivers had noticed changes in their daughter's feelings or behaviour, such as being irritated, or changes of sleep pattern or appetite, most perceived these to be normal for a teenage girl or as easy to explain, for example, as being due to school matters or parental conflict. Many of the difficulties they noticed are identified as symptoms of depression in DSM-5 (American Psychiatric Association, 2013), yet most did not recognize them to indicate depression symptoms or a serious mental health problem. This is also supported by the finding that the caregivers reported a mean score of 20.30 on the parent version of the MFQ, compared with the daughters' mean score of 38.10 on the child version. A similar difference for a UK sample of adolescents and their caregivers (79% biological mothers) was reported by Orchard et al. (2017), who found that the mean score on the parent version was 25.48 and, on the child, version was 37.89, although their sample consisted of adolescents referred to a public mental health service. These findings echo those of previous work in other cultures (e.g., Stapley et al., 2016), finding that parents noticed changes in their children, such as irritability, lack of sleep, tearfulness and sadness, but did not recognize these as signs of possible depression.

As nine of the ten mothers (including one caregiver) in the present study lacked awareness that their adolescent daughter's symptoms indicated depression, they did not see any need to seek professional help. This accords with a systematic review conducted by Reardon et al. (2017), which also found that lack of knowledge and understanding of mental health problems was a barrier among parents to seeking professional help for their children. Although some of the caregivers in the current study wanted to help their daughter's symptoms, they did not know how they could help them. Similarly, Armitage et al. (2020) found that the mothers experienced helplessness and frustration, as they did not know what to do or who to turn to help their child. Consequently, it would be beneficial to improve the mental health literacy among Saudi parents. This could include educating them about recognizing the symptoms of depression and informing them about the local mental health services that are available for adolescents. Therefore, improving mental health literacy among the Saudi community is important to help those in need to seek the appropriate support for their conditions (Alangari et al., 2020).

The findings make clear that the stigma attached to having a daughter with depression symptoms was a barrier to one mother seeking treatment for them (M of F4 in section 6.3.1.3) and others may not have sought professional help because of the stigma attached to mental health problems in Saudi society (see sections 2.5.1 and 2.5.5). The stigma may be a reason why many of the caregivers preferred that their adolescents engage in religious practice, such as praying and reading the Quran, rather than seek professional help (Alosaimi et al., 2014) (see sections 2.5.1 and 2.5.5). A further reason the mothers rely on religion may be that having a daughter who is known to have sought professional help for her condition may negatively affect her later in her life, especially her prospects of marriage (Al-Krenawi et al., 2009; Al-Samadi, 1994).

The caregivers revealed several further barriers that either hindered or prevented them from accessing professional help for their daughters. A critical one was that some mothers stated that they required the permission of their husband for it, which was refused, as most husbands have the final decision in family matters (see section 2.2.3). Additional barriers to seeking professional help mentioned by the caregivers were the difficulty of transportation and the expense of a session with a professional. Although mental health services are free in Saudi Arabia and people can get the help they need from the psychiatric hospitals without referral, they often prefer to pay from their own money to access private services because of the stigma (Koenig et al., 2014). The issues of transportations and expense were also reported in previous studies covered in the systematic review by Reardon et al. (2017).

The second part of the study used quantitative analysis. The caregivers attributed the changes in their daughter's behaviour to several factors, including bullying, school exams, parental conflict and losing a parent. Such easily made attribution to external causes could have made the mothers overlook that their daughter's symptoms indicated a mental health problem requiring help. Similarly, Singer (2009) found that mothers attributed their child's problems to issues in the school or home environment, such as bullying or peer pressure.

As a matter of interest, the study also investigated how the caregivers were affected by their daughter's (or sister's) depression symptoms. They reported feeling stressed and being burdened by their daughter's behaviours, as well as being put into a low mood. Similar findings were reported in a qualitative study by Stapley et al. (2016), who found that the parents felt worried about their children's condition, which also lowered their mood. Armitage et al. (2020) found that mothers felt distress regarding their child's symptoms, with one mother expressing that it was "heart breaking" (p.1623).

In the current study, one of the mothers mentioned being tough with their daughter when she is being moody or irritated: "[I] leave her till she calms down. Talk to her nicely or sometimes she forces me to spank her when she becomes stubborn" (M of F1). This differs from the study by Stapley et al. (2016), who reported the parents of adolescents with depression in the UK changed their parenting style and became more lenient with their child. This may reflect differences between Western cultures and Saudi culture. As most of the mothers in the current study did not realise that their daughter had elevated depression symptoms, it is not known whether their parenting style would have been different if they had realised. It would be interesting to investigate the parenting style of Saudi parents who know their child has received a diagnosis of depression, especially given the cultural and religious beliefs held by many, as discussed in sections 2.2 and 2.5.

In conclusion, this study has revealed that some issues around mental health literacy in Saudi Arabia are similar to those in Western cultures and suggested that they impact on the help-seeking process for girls with depression symptoms. Two important issues were the caregivers' lack of knowledge about their daughter's symptoms and the stigma attached to mental health problems, both of which were barriers to seeking professional help. An important part of developing mental health literacy will be to provide education about mental health problems and the relationship with religious beliefs, which are embedded in Saudi society. Such an effort should also help to reduce the stigma that is attached to mental health problems among the communities.

6.5 Strengths and Limitations

To the researcher's knowledge this is the first qualitative study that has involved Saudi mothers discussing their daughters' mental health.

The nature of the study could not take into account the fact that some mothers may have concealed information because of the Saudi culture. However, the fact that some mothers reported sensitive topics (in Saudi culture), such as talking about sexual harassment at school, or her daughter self-harming suggests that they were open about discussing their daughter's condition and behaviour changes. A strength of the study was that all ten caregivers confirmed the accuracy of their transcripts. A further limitation was that the coding of the transcripts was only done by the researcher.

It was a limitation that none of the mothers had a daughter who had been formally diagnosed with depression at the time of the study. It is possible that the mothers of severely depressed daughters may have given different responses to questions such as the impact of their daughter's symptoms on them. A further limitation is that the quantitative analysis in Part 2 only used a small sample of ten caregivers, therefore it would be beneficial to use a larger sample in future studies to include a more diverse range of caregivers from different regions or cultural environments who may have different experiences with their daughter, or with seeking help.

It would be beneficial to interview the fathers to explore their points of view and perceptions of depression symptoms in their daughter and of seeking professional help, as the father has the authority in the majority of families.

6.6 Summary

Semi-structured interviews were conducted with ten caregivers of the girls interviewed in Study 3. Nine of the caregivers did not recognize depression symptoms in their adolescents. A variety of barriers that hindered the caregivers seeking help were identified, including the perceptions that their daughter's depressive symptoms were normal and did not require professional help; that religious practice was better than professional help; that professional help was expensive and could not be trusted; that transportation for it could be difficult; and that they required their husband's permission for such help. The caregivers reported several events that had triggered their adolescents' symptoms, including bullying, conflict with friends, and exams. A secondary aim was to find out the impact of the daughter's depression symptoms on the caregiver, which revealed that some had lowered mood, concern to help their daughter, and worry.

Chapter 7

Study 5: The Experiences of School Counsellors Who Work With Adolescent Girls With Elevated Symptoms of Depression.

7.1 Introduction

The school is one environment in which depression could be dealt with, as students in Saudi Arabia are expected to attend for at least seven hours every weekday, and schools provides a place where it is easy to reach the majority of adolescents (Masia-Warner et al., 2006). Teachers and counsellors in schools could have a significant role in identifying mental health conditions among students and refer them to appropriate professional services (Rickwood et al., 2007). In the UK, the British Association for Counselling and Psychotherapy defined school-based counselling as "a professional activity delivered by qualified practitioners in schools. Counsellors offer troubled and/or distressed children and young people an opportunity to talk about their difficulties, within a relationship of agreed confidentiality" (Cooper, 2013, p. 3). In the UK, 70% of school counsellors have a Masters level qualification or above, and 80% have training in therapeutic work with children and young people (Hill et al., 2011). Their approach is to create a supportive, understanding and trustworthy relationship with the student to help them with their difficulties and enhance their mental health. They may use a variety of methods taken from therapies such as CBT and solution-based therapy (Hill et al., 2011). Counsellor assessment records showed that, of those attending school-based counselling about 10% were presenting with issues relating to depression symptoms (Cooper, 2009; Hill et al., 2011).

School counsellors can provide both prevention and short-term mental health intervention services and make referrals to mental health professionals (Teich et al., 2008; Walley et al., 2009). School counsellors are in a place where they can identify and help those students with mental health needs (Lemberger et al., 2010). Those young people who are in need of mental health services in Western countries are more likely to approach services in a school than other community services (Burnett-Zeigler & Lyons, 2010; Lever et al., 2008; Mellin, 2009).

Calear and Christensen (2010) conducted a systematic review of 42 randomized controlled trials covering 28 school-based prevention and early intervention programmes in various countries for adolescents with elevated depression symptoms. The organisers of these programmes included graduate students (40%), mental health professionals (36%), and schoolteachers (31%). They found that most (76%) of the programmes were based on CBT and that in 23 of the 42 trials participants' depression symptoms at post-test or follow-up

were significantly reduced. Other kinds of approaches included psychoeducation (17%) and interpersonal therapy (9%).

In respect of Saudi Arabia, there is a lack of research regarding how schools work alongside students with mental health conditions, and in particular, the role and function of the school counsellor. Student counselling is not as well-established as in Western countries such as the UK and, although every school has one school counsellor, they lack appropriate training and adequate qualifications in this field, perhaps due to the absence of a student counselling association or organisation to deliver training them (Alotaibi, 2015). Further, there is confusion about their role. Although they are called school counsellors, in practice much of their work focuses on supervision and administrative duties (Alghamdi & Riddic, 2011). The official role of student counsellors in Saudi Arabian schools is to help the students to understand themselves better and in addition to guide them and mentor them in Islam in all psychological, ethical, social, educational and professional aspects, in order to become an active member in building society and to live a contented life (Ministry of Education, 2020). However, Alotaibi (2015) suggested that student counsellors in Saudi schools should be more qualified with CBT skills and appropriate training to be able to detect more students with mental health problems, including depression symptoms, and help to combat them. Moreover, it has been suggested that there is a need for education and awareness programmes at Saudi schools to deal with all kinds of mental health problems among students (Alotaibi, 2016). This need is also supported by the suggestion that many Saudi adolescents might not be aware of their symptoms as indicating depression, also indicated in the findings of Study 3. A recent cross-sectional study examined knowledge of mental health among 35 Riyadh secondary schools (Mulla & Bawazir, 2020). A total of 431 female teachers and staff took the modified Knowledge, Barriers and Perceived Readiness Survey (Reinke et al., 2011), suggesting that more than half the participants (74%) had poor knowledge and recognition of mental health issues. Moreover, 48% of teachers believed that supporting students with mental health conditions is not part of their job, which indicates that the school counsellor has a major role to help the students in this regard.

It is important to investigate focus on the school counsellors for several reasons. Firstly, as just noted, about half of the teachers in Riyadh schools do not see it as part of their role to help students with mental health issues. Taken alongside existing literature, Studies 1 and 2 have revealed that there is a high prevalence of depression symptoms among the students, there is a clear need for the school counsellors to be aware of this matter. However, in Study 3 the students emphasised that they would not turn to the school counsellors for help because

they did not trust them to keep personal information confidential. In addition, Alotaibi (2015) pointed out that the school counsellors lack appropriate training to help those students with mental health conditions. Consequently, the main aim of Study 5 was to interview eight school counsellors in Unaizah, Saudi Arabia to investigate these issues and hear their own views about their knowledge and experiences. In the absence of existing work in this area, this study set out to address the following research questions seeking mainly factual information, using both qualitative and quantitative methods.

1) Have the counsellors come across students with depression symptoms and how do they assess them?
2) What training have they had in regard to mental health issues?
3) What are the barriers that the students face in seeking help from the counsellors?
4) What is the school's policy on confidentiality, and do they keep it?

7.1 Method

The researcher has followed the COREQ checklist (see Appendix 36).

7.1.1 Ethical Considerations

Ethical approval to conduct the study was obtained from the University of Reading Research Ethics Committee (see Appendix 26), and from the Education Administration in Unaizah (see Appendix 27) to allow the researcher to enter any school and conduct the interview with the school counsellors. The researcher provided written information to the counsellors and the headteacher about the study both by letter and email (Appendix 29). After this the counsellors were approached by telephone and asked if they would be willing to take part. Further, the study was explained to the counsellor by the researcher before the interview started. They were informed that their information would be kept confidential and that they could withdraw from the study at any time. All the recordings, transcriptions and translations were stored in a secure cabinet.

7.1.2 Participants

Eight school counsellors were selected from eight schools in Unaizah and interviewed. Five of them were from the same schools (three middle schools and two high schools) of the students who participated in Study 2; the other three were selected at random from a list of the other schools. Every school has one counsellor, and all those approached agreed to take part. A sample size of eight was used because the researcher considered that data saturation had been reached at this point because no further new information was being provided. All the participants were female (see Table 7.1).

Table 7.1

Demographic Information About the School Counsellors

ID	School	Age	Marital status	Major	Years of experience
SC1	Middle school	43	Married	Bachelor in Mathematics	4
SC2	High school	40	Married	Bachelor in Geography	4
SC3	High school	53	Married	Bachelor in Chemistry	12
SC4	Middle school	42	Married	Bachelor in Geography	2
SC5	Middle school	52	Widow	Bachelor in Biology	11
SC6	High school	49	Married	Bachelor in English	14
SC7	High school	42	Married	Bachelor in English	8
SC8	High school	48	Married	Bachelor in History	18

7.1.3 Procedure

The researcher obtained permission from the principal of each school to conduct the study. Principals were shown the letter from the Ministry of Education administration in Unaizah and asked to sign the consent sheet (see Appendix 28). This was repeated for three additional schools (all high schools) in Unaizah to end up with a sample of eight student counsellors. Before each counsellor was interviewed, the researcher made sure that they had read the study information (Appendix 29). Further, the study was explained to each counsellor and the consent form (Appendix 30) was signed before starting the interview. It was explained that the interview would be audio-recorded and that their name would be changed to keep their confidentiality. Then a semi-structured interview (see below) was carried out in their office; these interviews lasted for approximately two hours and 30 minutes. Much of the interview was seeking factual information in response to closed questions in line with the four research questions. At the end, every counsellor was debriefed about the study (see Appendix 31). The interviews took place in December 2019 and January 2020.

Details of the interview questions can be found in Appendix 32. An outline of the information sought is presented below.

- What is their role as a school counsellor?
- What factors constrain their role?
- Do they give any presentations to students to raise mental health awareness?
- How do they help students with mental health issues?
- Does the school have a policy about confidentiality, and do they keep it?
- Have they come across students with depression symptoms and how do they assess it?
- Have they come across other mental health issues and how do they assess them?
- Have they had any training for their job?
- What support do they get from others they work with?
- What barriers face the students in seeking help from the school counsellors
- What do they want from the Saudi Education Ministry to be provided to their school?

7.1.4 Data Analysis

All the interviews were transcribed in Arabic and sent back to each counsellor to make sure they agreed with the transcription. Next the transcriptions were translated into English by the researcher, then were checked by a native bilingual Arabic English speaker.

Most of the replies were based on factual information and therefore a simple quantitative analysis is presented, along with supporting quotations. The transcripts revealed some further issues of interest which were analysed using a simple form of thematic analysis.

7.2 Findings

Five issues emerged from the interview transcripts which revealed a variety of barriers between students with mental health difficulties and receiving suitable help. These are presented in turn, followed by a summary of the quantitative findings.

7.2.1 Have the Counsellors Come Across Students with Depression Symptoms?

The school counsellors were asked if they had come across students with depression symptoms. Five of them were at the same schools selected in Study 2, which found that almost half the students had reported elevated depressive symptoms. These five gave mixed responses about if they had recognized depression symptoms among the students. Two were sure that there were no cases of depression (SC1 and SC3), one was not sure (SC6), and two mentioned depression symptoms in their replies (SC2, SC4). Of the remaining three, one mentioned depression symptom (SC7), one reported she had only come across one case (SC5), and another said, "maybe one or two, that's it" (SC8).

> *"Not at all, I was surprised when you told me this [depression] existed here in this school... What I want to say is there is nothing serious in this school." (SC3)*

> *"The most common problems among students are irritability, like easily getting upset and mad, also depression, but I am not sure if it really is, these are the most common." (SC6)*

After one counsellor had said she did not recognize the existence of depression symptoms among the students, the researcher pointed out that her research had identified girls with elevated symptoms of depression at the school and asked her if she thought there were some students who had depression symptoms that she might not be aware of. Even so, she remained unconvinced:

> *"No, I don't think so because I can tell from her appearance. Like if she doesn't care about hygiene and she sits alone. One of the students she suffered from something, I thought it was depression, and I encouraged her mum to take her to a psychologist and they diagnosed that she had fear, not depression." (SC1)*

Turning to some important issues related to depression symptoms, some did not recognize that engaging in self-harm or thinking of committing suicide could be signs of depression. When they noticed signs of self-harm on the students or the students told them they were trying to do this, they did not take any serious action.

For example:

> *"This one, she told me this one day and I told her, ok, do you want to commit suicide? Let's go! She said, are you serious? I said yes, you said this, and I will show you how, and she said, I am not serious, I am kidding, I said this to get what I want… You will go to Hell because you killed yourself and that is a sin." (SC5)*

"I had a case of a student who wanted to die and after sitting with her and talking, I talked about how this is a sin in Islam and it is forbidden to do this, and she changed and understood." (SC6)

"I would try to listen to her and understand what is behind it. Does she really want to do this, or does she just want to get attention?" (SC7)

Finally, when they were asked if they use any self-report instruments to identify mental health conditions, none of the eight school counsellors said they did. Here is one reply.

"I don't use any self-report instrument and I don't know any. Can you recommend one for me to use?" (SC1)

7.2.2 What Training Have the Counsellors Had About Mental Health?

The answers to this question indicated how the school counsellors were appointed despite having little relevant knowledge and not being suitably qualified.

"Honestly, to be in the picture, I didn't apply for this job. I enjoy being a teacher more, and teaching. However, the principal nominated me to be a school counsellor, and I appreciate that she considers me responsible for this job." (SC3)

All eight school counsellors, even those with some training, said that they did not have enough training to help the students in need. They pointed out that they are not qualified for this task, even if they wished to raise the awareness of mental health in general and depression in particular. Only two counsellors stated that they gave presentations to students about depression.

"No, I don't give any presentations about mental health, because this is not my field, and I don't know anything about mental health. How can I talk about something I don't know about and haven't learnt about? So, I tried not to be involved in any topic related to mental health, so that is why I don't give a presentation." (SC3)

All the school counsellors indicated they only focused on behaviour problems, such as breaking school rules or bullying or the student being behind academically. Here is an example.

"I got some training about preventing bullying, parents' abuse and what to do. I got these from the Education Ministry, but some of them are useful, others just a waste of time. Truly they ignore mental health, which is what we need, and we need to know how we deal with mental health problems, such as depression." (SC4)

If a school counsellor was faced with a student who had a serious problem that they did not feel they could deal with, they found various ways to help or advise them, such as reading or browsing the internet or even visiting a psychologist under a fake name and with a fake issue to discuss the student's symptoms. For example:

> *"There is a doctor on Twitter, I ask him everything I need to, or if I have a difficulty to deal with, and he really helps me, and gives me advice." (SC6)*

> *"Can you imagine, sometimes I go to a clinic under a fake name to meet a psychologist if no one answers me on the phone and if they don't have time for a consultation on the phone. I go as a patient or as a mother and tell them my case and they give me the solution." (SC8)*

7.2.3 What Are the Barriers to Students Seeking Help From the Counsellors?

It was highlighted in section 5.3.8 that several students declared that they would not seek help from the school counsellor because they did not trust them to keep what they said confidential. Furthermore, several recognized that the school counsellors were not qualified to be providing the kind of help they wanted. It was therefore important to investigate whether the school counsellors were aware of these barriers and what their response would be. The findings in relation to these issues follow.

Seven of the eight school counsellors conceded that the students did not trust them and feared that the school counsellor would leak their personal problems to others. For example:

> *"Maybe she doesn't trust me, and her problems would be disseminated among the students and teachers." (SC1)*

One school counsellor suggested another fear that the students had: that others would see the student coming in or out of the school counsellor's office and assume that she had a serious problem, and either worry about what they would think about her, or else bother her by asking about her problem. Another counsellor suggested that the students did not approach her for help because the teachers had made them scared of her.

> *"Unfortunately, some teachers make the students feel intimidated and frightened of me." (SC1)*

7.2.4 What Is the Policy on Confidentiality and Do the Counsellors Keep It?

The students in Study 3 reported that they did not turn to the school counsellors because they thought that the counsellors would not keep their confidentiality. Five of the eight indicated that there was a formal policy of the school or Ministry of Education which required them to tell the principal or the parents about certain things the students might tell

them, while the other three indicated there was no such policy to follow. Some reported that they could get into trouble if they did not follow the policy, while others ignored it. When asked about this vital issue, some of the school counsellors replied in the following ways.

> *"Once you are in this position you have to keep confidentiality. And yes, this is from the Education Ministry." (SC5)*
>
> *"Honestly, they never told us about confidentiality, but I personally keep their secrets and don't leak their problems and don't tell them, but sometimes we have to." (SC4)*
>
> *"[The Education Ministry] force us to tell the principal and then we may find a solution together. In some cases, they tell us to tell the parents if they understand the parents, but this depends on the school counsellor." (SC7)*

Furthermore, the school counsellors had their own individual ideas about whom to tell, if anyone, about the student's disclosures and in what circumstances. One school counsellor admitted she sometimes had to tell the principal but would not tell the parents or the Education Administration:

> *"It depends on what she is telling me. If it is personal, I will never tell anyone. However, in some cases I have to tell the principal. Some school counsellors tell the parents and tell others, but my policy doesn't agree with telling the administration or their parents. … I try my best to not tell anyone and solve it by myself, as I know some of the parents will not help, so there is no advantage in telling them." (SC7)*

One counsellor would involve the parents if they thought they were open minded, but not if their knowledge of the parents suggested the student would be put at risk:

> *"The rule forces me to tell her parents but I don't do this to protect the students as well, even though I put myself in danger…. I don't tell her parents if I know their parents' temperament. However, some parents are very collaborative with us, so we tell them. So, if the parents are not, we keep it very secret, and I do this even though I have to tell them but I will protect her." (SC1)*

A number of studies have investigated attitudes to mental health in the Middle East. Some examples of specific beliefs about mental illness were provided by a large-scale study of 3,300 Arabic people in Qatar (Bener & Ghuloum, 2011) and are presented in Table 2.1, where the proportion of women holding each belief was significantly higher than for men.

7.2.5 Further Issues Mentioned by the Counsellors

Three additional issues of importance emerged from the counsellors' answers to the questions which added to the main aims of the study, and these are dealt with in this section.

7.2.5.1 Requiring Permission From the Parents To Get Their Daughter the Help They Need. This issue captures how some parents found it difficult to accept that their daughter should get help from outside and, further, that the school counsellor could have difficulty getting the parents' permission even if their daughter really needed help. In this situation, the school counsellors could not take any further action without their permission, even for help provided inside the school. This is an unfortunate barrier to treatment, because the school in Saudi Arabia does have the authority to bring in a specialist to the school or to send a student with severe symptoms that the school counsellors cannot deal with to the Education Administration, but the parents can still refuse to give permission for their daughter to see a specialist, either inside or outside the school.

> *"Sometimes the parents do not allow us to do this, or they don't want to involve the specialist person." (SC2)*

> *"I can't do anything without their permission, as some of the parents don't want me to be involved or give them help from outside." (SC3)*

The school counsellors explained that if the students need to seek external help, some parents still hold the idea that only insane people see a psychologist, which is why they do not give their permission.

> *"They don't believe in psychology and it's an issue if you tell them that their daughter has a mental health problem, and she needs help. Some of the family say my daughter is not crazy, there is no way to let her see a psychologist." (SC5)*

The school counsellors added that some parents still believe mental health issues to be caused by the 'evil eye' and therefore inappropriate for treatment by a specialist.

> *"Sometimes the family don't accept their daughter seeing a psychologist or a specialist and believe this is the evil eye or another thing. Even if I gave them everything, the appointment, the name of the specialist, they still refused." (SC7)*

Finally, some parents refused to give their permission because they do not want their daughter to be labelled, as this would affect her future life, especially when she wants to get married.

"The family didn't give her medicine and did not even take her to hospital because they don't want to have a file opened for her. This is like a black mark in her life and also, as you know, when people know this, she will not get married." (SC8)

7.2.5.2 School Counsellors Have Insufficient Time To Help the Students. All eight school counsellors expressed dissatisfaction regarding their workload, and some declared that they did not have the time to deal with the students' problems, which they had to ignore, because of the administration burden. For example:

"I deal with 500 students along with their problems. Sometimes I ignore the students' problems and sit and write these reports and document them." (SC3)

"The Education Ministry requires many things for us as school counsellors, such as we need to record everything and doing so many things on their website, so this makes us not focus on the students and just do the paperwork. Also, we do not have the time to do these two jobs. Therefore, the office work has taken over the field work." (SC5).

7.2.5.3 School Counsellors Lack Support From Others. This issue captures the lack of understanding and support the school counsellors received from the teachers or even the families, despite their high workload and the mental health issues of the students. Four explained that the teachers sometimes do not understand the students' mental health problems. If the school counsellor asked a teacher to treat a student nicely, they could get irritated or be in a bad mood. Some observations follow.

"Some teachers treat the students badly; they don't understand what they are feeling or what they have. Some students have bad grades, or they don't respond in the class. The teachers use words such as you don't understand, you don't pay attention, leave the classroom and your place is not here, you are rude, etc. They use very harmful words, and this doesn't work with this age as they hurt them and embarrass them in front of their classmates. I always tell them don't say this, you have to use nice words, and don't let them down and insult them." (SC1)

"Sometimes I ask the teacher to treat some students specially and understand if they have a problem and they do. And sometimes the teachers are against me, and they don't understand the state of the student's health." (SC2)

The school counsellors observed that the families sometimes do not appreciate the support and help that they give to their daughter, and may not cooperate, to the extent that they may be very difficult to deal with.

"The families are sometimes not helpful at all or sometimes you get threatened by them if you try to help their daughter." (SC5)

"It can be very difficult dealing with them, as some hang up the phone on me, others don't answer, while others tell me to stay away and don't get involved in this and this is our problem, and we don't need help and don't intrude into our privacy." (SC2)

"Some don't understand the seriousness of the problem and they tolerate it; they don't appreciate it and they don't have the awareness and they don't comprehend that their daughter needs the help." (SC6)

Six of the school counsellors complained about their principal as well. They related how they would sometimes not cooperate with them and not understand their role as a school counsellor and not keep the students' secrets, as well as wanting to know everything about the students. An example follows.

"There is difficulty dealing with the principal, as she wants me to go back to her and tell her everything before I deal with any student's problems. The principal doesn't understand the role of the school counsellor, which makes it hard for me and makes it complicated sometimes or let's say all the time." (SC4)

7.3 Discussion

The school counsellors highlighted some important issues at schools in Saudi Arabia in regard to mental health. Even though half the students who completed standardised questionnaires (see Chapter 4) had scores above the cut-off on the MFQ, indicating elevated depression symptoms, only two of the five counsellors at these schools recognized cases of students with symptoms of depression. Indeed, two asserted that their students did not suffer from any mental health problems, including depression. Moreover, none of the counsellors used self-report instruments to assess the students. Furthermore, some of the symptoms that the school counsellors recognized in the students, such as irritability, self-harming, and trying to commit suicide, could be considered as indications of depression. This can help to explain why the students did not receive any support or help for their symptoms (Alotaibi, 2015).

The study also investigated what training the counsellors had to deal with mental health issues, although it should be noted that they are not normally trained to deal with such issues, as this is not usually expected as part of their role. The results revealed that all the counsellors lacked training and qualifications about mental health, as they had been a teacher before taking this position. Even though the student counsellors stated that they had some training,

they declared that it was not sufficient to help the students with their needs. They found it difficult to help those with mental health conditions and they identified they had a shortage of understanding about depression symptoms and mental health in general. Consequently, those counsellors who dealt with students with severe symptoms had to make considerable effort to help them, for example, by searching the internet or visiting a specialist under a pseudonym.

As suggested by a minority of the counsellors, some might find themselves in the position of dealing with mental health problems in at-risk adolescents. The findings suggest that appropriate training in mental health issues would be beneficial for school counsellors (Alotaibi, 2015). The findings also support those of Alghamdi and Riddic (2011), who investigated the role of school counsellors in intermediate girls' schools in Saudi Arabia, as that role was perceived by the principals. They emphasized that the counsellors in their schools did not carry out their jobs in an adequate manner because they lacked the necessary skills. One principal claimed that counsellors were unable to deal with students with psychological issues because of their limited background about counselling and lack of training.

The current study highlighted another important finding, which is that some of the counsellors did not take certain cases of students who wanted to hurt themselves seriously. This is consistent with the findings of a study by Alsubie et al. (2017) conducted at 90 elementary and high schools in Riyadh, Saudi Arabia, which included 132 school counsellors. It found that only 41% had received adequate training to deal with suicide and 34% to deal with suicide ideation. This supports the suggestion of Alotaibi (2015) that student counsellors in Saudi schools should be better qualified and have better training to detect more students with mental health problems, including depression symptoms.

Further, six of the school counsellors stated that they did not give any presentations regarding mental health, including depression symptoms. However, this is in apparent contrast with the views of students interviewed in Study 3 who expressed a wish for the school to teach them about depression and raise awareness of mental health. This is in line with the need for education and awareness programmes at Saudi schools to deal with all kinds of health issues, including depression, among students (Alotaibi, 2016). The finding is not surprising as Alotaibi (2015) mentioned that they lack training about mental health issues.

The study further investigated what barriers hindered the students from seeing the school counsellor in their own view. It was found that seven of the eight counsellors reported that the students did not trust them because they know that they may leak their personal matters. This is in line with the finding of Study 3 that the students did not turn to the counsellor for

help because they feared she would not keep it confidential. This is related to the fourth research question, which was to find out what the school's policy was on confidentiality and whether the counsellor keeps it. Some counsellors reported that there is no formal policy regarding confidentiality and keeping this depends on the counsellors themselves. Other counsellors confirmed that there was a policy regarding confidentiality but in some cases, they are compelled to tell the parents and the principal. Hence, this issue can explain why some students did not seek their help, as they feared that their sensitive information would be disclosed without their knowledge or consent (see section 5.3.8). However, a few counsellors said they would keep matters confidential when they knew that telling the parents would put the student in danger or it would threaten her life. This contrasts with students in Western countries, such as in the UK, where the students do approach the counsellor at their school and report positive feedback about the services they receive; an important factor in this is likely to the confidentiality that is essential for their work (Cooper, 2013; Hill et al., 2011).

In addition to addressing the four research questions, the findings also revealed some additional important issues. Obtaining the parents' permission is an obstacle that faces the counsellor, as many refused to give their permission to help their daughter. They asserted that some parents did not allow them to have an outside helper because they attributed their daughter's symptoms to religious factors and expected her to seek sources of help in agreement with their beliefs; such parents tolerated their daughter's symptoms. This accords with what the caregivers reported in Study 4 (see section 6.3.1). However, it should be noted that the Ministry of Health has a regulation that an individual is allowed to get help regarding their difficulties even if they are under 18.

The counsellors explained they face disrespect from the parents in order to help their daughter. They do not respond to their calls and families threaten them if they become involved with their daughter's situation. This is probably because the family plays a central role in Saudi life (see section 2.2.2), so some students and their families do not want student counsellors, who are not part of the family, to interfere in what they may perceive to be private and confidential issues (Alotaibi, 2015).

Another obstacle the counsellors faced is that the principals did not fully understand their job, reported by six individuals. The principals sometimes did not allow the counsellors to take an action if they wanted to help the student without their permission by asking for an outside professional who could help. Alghamdi and Riddic (2011) similarly observed that there is a misunderstanding of the nature of the role of the school counsellors on the part of principals, which appears to be an area for development.

The counsellors described that the overload of work and the number of students hindered them doing their job in an adequate and sufficient way. At times, this resulted in students who needed help being ignored, or constrained the time the counsellors had available to discuss possible solutions with students. This issue was also discussed by the principals in Alghamdi and Riddic's (2011) study, who asserted that the counsellors spend so much time in preparing records that they do not perform their duties properly. This suggests that the role and expectations of the school counsellor need to change. Alotaibi (2015) suggested that student counselling in Saudi Arabia has not become sufficiently accepted as normal for the service to be properly valued by the principals, teachers and students.

Some counsellors in the current study mentioned that there are some teachers who do not cooperate with them to help the students. The counsellors reported that instead of teachers helping the students and sending them to the counsellor, they can clash with them. This is possibly because teachers also lack knowledge about mental health symptoms.

The results of interviewing the school counsellors highlighted the issues that they have in schools in Saudi Arabia in regard to mental health. However, even though they are called school counsellors, in practice much of their work focuses on supervision and administrative duties and they lack formal training to deal with students with mental health problems. It is not part of their present job description to work therapeutically with young people, although they are in a good position to help the students with mental health needs and to refer them for professional help. It was recommended by Alotaibi (2015) that the counsellors in Saudi schools should receive appropriate training to be able to identify more students with mental health issues, including depression symptoms, and help to combat them, for example, by being trained in CBT skills.

Therefore, schools should employ those who have a formal training in mental health to be able to recognize mental health symptoms and to be able to advise the students to see a specialist. Those who are already employed as a counsellor should be trained to help those students with mental health problems and to raise mental health awareness among the students and their family.

7.4 Strengths and Limitations

One strength of this study is that it is the first to interview school counsellors in girls' schools and it has discussed some of the issues that they encountered. Each counsellor was asked to check what they had said in a transcript of their interview, in an effort to ensure validity. The school counsellors reported issues that could be sensitive, such as how some of

the families threatened them if they became involved with their daughter's situation, serious behaviours that the students had done, for instance, self-harming, their lack of support from the principal or teachers, and some not keeping their students' matters confidential. Further, they acknowledged that they lacked adequate training and they wished that the Education Ministry would give them more training or employ others who were suitably qualified. However, some counsellors only mentioned some very sensitive topics on the condition that their words would not be recorded. Their responses agreed with those reported in previous studies conducted in Saudi Arabia (Alghamdi & Riddic, 2011; Alotaibi, 2015).

However, the study was limited by the questions they were asked. For example, a future study could include questions about their relationship with the guidance counsellors in the Ministry of Education and the overlap in their roles, and whether they have direct contact with specialist and professional helpers.

All the interviewed counsellors were in public schools, not private schools. The study was restricted to Unaizah. It is therefore difficult to know if their responses reflect those of counsellors in other institutions, which may have different approaches and policies. A further limitation is that male counsellors were not interviewed to see whether they would be willing to take part and provide trustworthy answers.

7.5 Summary

Eight school counsellors were interviewed. Their replies indicated that a future study of this nature would be feasible and beneficial. All acknowledged that they were not sufficiently qualified to help students with mental health problems and that they needed more training. Two of them were sure that there were no cases of depression among the students while three more had little awareness of the extent of the problem. Seven were aware that the students did not trust them to keep what they said confidential. Their reports were mixed about whether the school had a formal policy about keeping what students said confidential and whether they personally did this or not. Importantly, the counsellors revealed that they needed the parents' permission to refer a student for professional help, even for help provided inside the school, which some parents did not give. All eight school counsellors complained that their huge workload meant that they did not have enough time to help the students.

Chapter 8
General Discussion

8.1 Introduction

This chapter concludes the thesis. The first aim was to assess the prevalence of elevated depression symptoms among female adolescents in Saudi Arabia using a gold standard instrument, namely the Mood and Feelings Questionnaire (MFQ). There is a lack of research among this age group as compared with Western countries. The second aim was to explore some factors that may be related to the high prevalence rate in Saudi Arabia, including barriers to seeking help for depression symptoms. This is important because all the existing research has only focussed on the prevalence of depression symptoms without investigating other aspects, such as their experiences of having depression symptoms, and why they do not seek help for it.

Section 8.2 summarises the findings and brings them together to identify the barriers that face Saudi female adolescents in seeking help. Section 8.3 offers a critical appraisal of the research, together with some reflections of the researcher on what she learnt during the research process. Section 8.4 presents some implications of the research findings, firstly for some theories of depression, then in terms of recommendations for further research, and finally some practical implications. Section 8.5 assesses the contribution of the research. Lastly, section 8.6 presents a summary of the chapter.

8.2 Summary of the Research Findings

8.2.1 Study 1

Study 1 presented a systematic review of prevalence studies of elevated depression symptoms in adolescents in Saudi Arabia. Fifteen studies were included in the review, noting prevalence rate from 13.1% and 66.0% for males, and from 13.9% and 80.2% for females. However, several methodological problems were identified, including several related to the screening instruments used.

In view of these methodological problems, the primary aim of Study 2 was to estimate the prevalence of depression symptoms in female adolescents using a validated instrument which includes a recommended cut-off.

8.2.2 Study 2

Study 2 estimated the prevalence of depressive symptoms among 515 female Saudi students aged 13 to 18 years. They completed the Arabic version of the MFQ (Tavitian et al., 2014), a gold standard measure of depression symptoms in adolescents, as well as measures

of self-esteem and perceived social support. By Western standards, a high proportion (48.2% of the sample) had MFQ scores above the cut-off, with a 95% confidence interval of 43.8% to 52.6%. More frequent depression symptoms were associated with age, with numbers scoring above the cut-offs (31.7%) being lower in those aged 13 compared to older groups. There was no relation between the prevalence of depression symptoms and other socio-demographic factors, including number of siblings, the mothers' and fathers' education and parents' marital status. The MFQ scores showed the expected negative correlations with measures of self-esteem and perceived social support, supporting the construct validity of the Arabic version.

The high prevalence of depression symptoms raised several questions that led the researcher to conduct further studies. These included interviewing some participants who reported high scores to investigate to what extent they were aware of having depression symptoms, what had triggered their symptoms and how they coped with them (Study 3). Further, their caregivers were interviewed in regard to their own awareness of their daughter's symptoms and how they supported their daughter (Study 4). Finally, their school counsellors were interviewed to assess their recognition of these students and what support they gave them (Study 5).

8.2.3 Study 3

Study 3 recruited 16 female adolescents living in Saudi Arabia who had been identified as having elevated symptoms of depression in Study 2. It had three aims: 1) to find out how many participants who have elevated symptoms of depression recognize they are experiencing depression symptoms; 2) to find out what they report may have caused their depression symptoms; and 3) to find out how they cope with such symptoms.

They were interviewed using a semi-structured interview schedule, and a subsequent thematic analysis revealed four themes: 1) Isolating and withdrawing themselves from others; 2) Lack of enjoyment or meaning; 3) Common formal symptoms of depression; and 4) Describing depression using a metaphor.

The second part of Study 3 was a quantitative study of the girls' responses to simple factual questions. Even though all 16 students who were interviewed had an MFQ score above the cut-off, indicating that they had significant depressive symptoms, nine were either sure that they did not have a depressive illness or were uncertain. Three of the participants disclosed that they tried to hurt or kill themselves, because they thought that their life was not worth living any more. Some reported trying to cope with their symptoms in different ways,

by withdrawing, or ignoring their symptoms, or listening to music or watching films. They mentioned several situations that had triggered their depression symptoms, including bullying, fighting with friends, and family conflict. They were aware that the school counsellor was not qualified to help them, therefore they suggested the school could help them deal with depression symptoms by educating them, and especially, by employing a properly qualified person they could turn to for help who would keep what they said confidential.

8.2.4 Study 4

In Study 4, ten caregivers (nine mothers and one sister) of the girls who had been interviewed in Study 3 were interviewed. A thematic analysis was conducted regarding the barriers to seeking help that the mothers reported. Four themes were identified: (1) a perception that experiences were 'normal'; (2) religious practice being viewed as a better solution than seeking professional help; (3) not wanting anyone to know about their daughter's (or sister's) symptoms; and (4) practical barriers to seeking help. These included the expense, requiring the permission of their husband, not believing the treatment is effective, and the stigma attached to mental health. Only three caregivers stated they considered seeking professional help, though they would do this secretly.

8.2.5 Study 5

Eight school counsellors from the schools in Unaizah were interviewed in Study 5. Five of the eight counsellors did not recognize that certain behaviours of students might be indicators of depression. The school counsellors conceded that they lacked knowledge of mental health, and lacked the training required to help those students with mental health needs.

Another barrier was the requirement for parents' permission to allow their daughter to seek professional help for their condition. The school counsellors were aware that confidentiality is very important to make the students comfortable in disclosing personal and sensitive information but that many of the students did not trust them to keep this. Five of the eight counsellors declared that their school had a policy on confidentiality which required them to tell the parents or the principal what the students told them. Most of the school counsellors were aware of the serious issue of bullying at school, which Study 3 found was a trigger of the students' depression symptoms, and which the mothers in Study 4 also reported.

8.2.6 Summary of Barriers to Seeking Help for Depressive Symptoms

The following general barriers to seeking help for depression symptoms among the female adolescents were identified from Studies 3, 4 and 5. They will then be considered in more detail in the following subsections.

1) The students' depression symptoms were not recognized by themselves, their caregivers or the school counsellors
2) They had no one they could turn to directly for help
3) It was difficult for the school counsellors to access professional help for students because the parents' permission, especially the father's permission, was required
4) Nearly all their caregivers had attitudes to mental illness that did not encourage them to seek help for their daughter
5) The religious and cultural beliefs held by the caregivers about their daughters' symptoms hindered them from seeking professional help

8.2.6.1 The Students' Depression Symptoms Were Not Recognized by Themselves, Their Caregivers, or School Counsellors. The students appeared to lacked knowledge about the symptoms of depression. Consequently, only seven of the 16 female adolescents who were interviewed had an awareness that they had depressive symptoms (section 5.3.1.1). They regarded their symptoms as normal and tried to adapt to them and live with them, which could be a struggle. Furthermore, their caregivers and their school counsellors were largely unaware that they had depression symptoms.

It is not surprising that the girls lacked knowledge about their symptoms of depression, as mental health education is rarely provided as part of schooling in KSA; six students reported they wished the school would educate them and raise the awareness of depression symptoms. This matter was discussed by Alotaibi (2016), who emphasised the importance of educating and raising the awareness among students to help them recognize the early symptoms of mental health conditions, including depression. Those girls who did recognize their symptoms as suggesting depression stated that they learnt about this from social media or a film they saw; without these resources they are unlikely to have been aware of them.

8.2.6.2 No One To Turn To for Help. The students felt they had no one they could turn to directly for help. Each school in Unaizah has a counsellor whose role it is to support any students who need help for their difficulties, including psychological matters. In practice, the counsellors dealt with behavioural problems, such as breaking school rules or being behind academically, rather than psychological problems, which they had not been trained to

deal with. Although some students showed some behavioural problems which might relate to depression, some counsellors did not link this to mental health problems. Of the counsellors who were at the schools of the students who participated in Study 2, two were sure that there were no cases of depression symptoms, and one was not sure. However, Study 2 found that 48.2% of the students reported depression symptoms, which suggests that some of the counsellors are not aware of the problem.

All the students stated that they would not approach the counsellor for help because they did not trust them and were concerned that the counsellor would not keep what they said confidential (see section 5.3.8). Some were concerned that the counsellor would tell their mother. Indeed, some counsellors admitted that they were obliged to tell the head teacher or the parents about what the student had confided in them.

A further issue is that seven students were aware that the school counsellors were not qualified to help them and wished the school would provide a qualified one. All of the students stated they would never trust them as they did not keep their personal matters confidential, which the counsellors also admitted. In the more critical situations where students were harming themselves or mentioning suicide, the counsellors did not take it seriously or just offered advice based on religious beliefs, such as advising against committing suicide as it is a sin. This is in line with a recent study which found that the counsellors in schools lack training and proper qualifications, leaving them unable to deal with the students' suicidal thoughts (Alsubie et al., 2017). Alotaibi (2015) called for investment to be made in school counsellors to train them properly.

8.2.6.3 Difficulty in Accessing Professional Help. It was complicated for the students to access professional help. Under Saudi Law an individual with any mental health conditions, including depression, should be able to refer themself to see a psychologist if they are over 12 years old without needing anyone's permission (see Appendix 3). In practice, the caregivers and the school counsellors required the permission of the father to access professional help (sections 6.3.1.4 and 7.3.5). A recent study was conducted among 5,644 females and males who were all over 20 years old. It uncovered that more than half of the participants (87%) did not have knowledge about the services delivered by mental health facilities in Saudi Arabia (Mahmoud, 2019). Therefore, there is an urgent need to educate the students about the mental health services provided in their community. Another factor is that the caregivers tolerated their daughter's (or sister's) symptoms and attributed them to external

factors rather than to possible depression, which did not encourage them to seek professional help or allow their daughter to access any service, for fear of the stigma.

Further barriers to this are that psychologists can be viewed to be expensive, or to lack proper qualifications or considered not to be helpful (section 6.3.1.4). Even though there is free access to mental health services, some people prefer to pay for private treatment, because of the stigma that is attached to mental health (Koenig et al., 2014). The delay in getting help could have adverse consequences in the adolescent's life (Altamura et al., 2010). It allows more time for their condition to get worse and for them then to think about or attempt self-harm or suicide (Deitz, 2004).

8.2.6.4 Caregivers' Attitudes to Mental Illness. Nearly all the caregivers reported attitudes to mental illness that discouraged them from seeking help for their daughter. Most of the caregivers tried not to talk about their daughter's symptoms to avoid the perceived stigma on the part of others, in line with the studies on stigma cited in section 2.5.1 (Abu-Ras et al., 2008; Alrahili et al., 2016; Al-Issa, 2000; Rassoll, 2000). One mother declared that she would not seek advice from anyone because she did not want her daughter to be insulted or bullied. Many of the mothers tried to hide their symptoms. As noted in sections 2.5.1 and 2.5.5, there is a large amount of evidence to show that in the Middle East, stigma is a fundamental barrier to seeking professional treatment for depression (Al-Krenawi, 2005; Al-Krenawi et al., 2004; Al-Krenawi et al., 2000; Coker, 2005; Eapen et al., 1998; Lecomte et al., 2008; Ozmen et al., 2004; Savaya, 1995; Saxena et al., 2011).

Nine of the ten caregivers regarded the symptoms in their adolescent to be normal, for when they had been teenagers themselves, they had dealt with similar symptoms without seeking any help. Nine caregivers did not recognize the symptoms to be indicative of depression symptoms or were in denial that their daughter (or sister) was showing depression symptoms.

Some caregivers offered advice to their daughters based on religious beliefs, so they encouraged their daughter to be closer to God by praying and reading the Quran (as discussed in section 2.5.1). Some believed their own emotional support was sufficient, and so their daughter did not need any additional support from a professional. If they could not support their daughter adequately, they preferred to ask for help from their friends or family rather than seeking help from outside, in keeping with the emphasis on the family in Saudi culture (see sections 2.2.2 and 2.5.5.3). Some caregivers reported that they did not trust professionals as they perceived them not to be qualified and able to deal with depression and its symptoms;

rather, the professional would only give the daughter a prescription. Some did not seek a professional because they needed the permission of their husband, who refused, or they viewed it to be too expensive.

8.3 Critical Appraisal and Personal Reflections

This section offers a critical appraisal of each study in turn, along with some reflections on what the researcher learned as she carried out each study. It then considers the research as a whole.

A strength of Study 1 was that it covered literature published in both English and Arabic. Further, a comprehensive search was carried out following best practice guidelines and drawing from several scientific databases from the year 1950. Doing the systematic literature review and carrying out a critical appraisal gave me valuable knowledge and understanding, which helped me to carry out Study 2 properly, including choosing an appropriate self-report instrument with a recommended cut-off and including a sufficient number of participants. The fact that the rate of prevalence reported ranged from 13.9% to 80.2% was a puzzle to me and made me think critically about why this might be. For example, I wondered whether this was due to sample differences or the measure they used. Moreover, it emphasised the importance of reporting details of the study, such as how the cut-off was chosen and how the instrument was validated that would help researchers evaluate and build on the findings in the future.

One limitation of Study 1 was that the Arabic details of one of the questionnaires (the SCL-90-R; Derogatis, 2000) could not be found online and some of the references that were cited in the studies could not be found. A second limitation of Study 1 was that the critical appraisal of the final five studies was only done by the researcher, as the COVID pandemic prevented the involvement of others.

A strength of Study 2 was that it used a community sample based on five public schools from different districts in Unaizah. Furthermore, the sample size of 515 exceeded the required sample size of 451, following a power calculation based on existing work (Raheel 2015). However, a limitation was that no private or religious schools were included. Future research might therefore consider including a representative sample that included these kinds of schools, taking into account the numbers of students attending each kind of school. The sample was only taken from Unaizah, which is relatively conservative by Saudi standards compared with other cities. Consequently, it would be beneficial for future research to conduct studies in different locations, such as other cities, including Riyadh, the capital,

smaller towns and rural areas. As the sample was restricted to females, it would be valuable to carry out a study among male counterparts using the MFQ and compare the point prevalence.

A further strength was the use of a self-report instrument which was developed for use among this age group and has been validated for Arabic adolescents. Although Tavitian et al. (2014) validated the Arabic version of the MFQ, they did not assess its construct validity. However, in Study 2 this was partly achieved by showing that the scores revealed a negative correlation with self-esteem and perceived social support, as would be expected.

It is not known how honest the participants were in responding to the MFQ questions, but the researcher informed them to be honest and not to put their name if they did not want to and they were free to withdraw from the study at any time. A limitation concerning the younger students aged 13-15 was that they were not asked two sensitive questions in the MFQ ('I thought about death or dying' and 'I thought about killing myself'), but this was adjusted for in the final scoring.

The study did not assess the length of time that participants had experienced their symptoms, which was also limited by self-report. Therefore, it would be valuable to assess the 12-month prevalence using clinical interviews. for example. As such the findings of this cross-sectional self-report study must be interpreted carefully. Ideally, prevalence would be determined by screening, which was checked against structured diagnostic interviews to confirm the point prevalence of young people (males and females). It would also be beneficial to assess the validity of the MFQ by giving young people another self-report instrument such as the BDI, as it has been validated among young Arabic people (Ghareeb, 2000) and comparing the results. In addition, it would be useful to repeat the MFQ test in two weeks to assess its test-retest reliability and to provide some estimate of the stability of depression symptoms in this group.

The data were collected during a school examinations period and so the students' symptoms may have reflected that specific and stressful event. It would be beneficial to repeat the study at the start of the school year to ensure that the high prevalence of depression symptoms that were observed were not related to the stress of taking exams.

In conclusion, and in light of the limitations, we can have some confidence in the prevalence estimate of 48.2%, which is in line with several studies identified through the systematic review reported in Study 1.

A major strength of Studies 3, 4, and 5 was that they extended the very limited research that has been conducted to find out the barriers to seeking help for Saudi adolescents with

depression symptoms. The studies based this on the perspectives of the adolescents themselves, their caregivers and their school counsellors. Another strength of all three studies is that all the researcher's translations of the original Arabic interview transcripts into English were checked by a native bilingual Arabic/English speaker doing a PhD in Psychology.

In regard to Study 3, this was the first study to the researcher's knowledge that has interviewed Saudi adolescents about their depression symptoms and allowed them to express their own voice. Some of the girls stated that they would only participate on the condition that the researcher would not interview their mother or mention anything to their mother. Further, the time limit restricted me from gaining more information. An additional factor that may have affected the interview was that although it was carried out in a private quiet room sometimes some of the school staff briefly entered it and this caused interruption.

A strength of the thematic analysis was that it followed the procedure recommended by Braun and Clarke (2006), which is very flexible, not driven by theory and aims to capture all levels of meaning.

The researcher did not screen the participants using a structured clinical interview but did use the most appropriate self-report instrument for adolescents, the MFQ. A strength of the sampling was that participants having a range of scores above the cut-off were selected for interview, which introduced some diversity into the sample.

On reflection, it would have been valuable to ask the students more questions about if they had thought of seeking professional help and any barriers, they had faced in doing this. Also, to ask them if they knew they had the right to access mental health services free of charge. It would be beneficial to interview male adolescents with depression symptoms as well, particularly as males and females are treated differently by the culture. For example, males in Saudi Arabia are less restricted by the family than the females. This can explain that they have more freedom to seek professional help than females or even to deal with their symptoms by doing outside activities.

A strength of Study 4 is that it was the first qualitative study that has involved Saudi mothers discussing their daughters' depression symptoms. Similar issues to those in Study 3 regarding confidentiality were encountered. For example, some mothers were comfortable to discuss their daughter's condition when given reassurance that their contribution would remain confidential. After the interview transcript was sent to each caregiver to make sure that what they had said had been understood, and they agreed to its content. Some caregivers reported sensitive topics, such as talking about sexual harassment at school or her daughter self-harming. In fact, some caregivers preferred not to disclose any more information and

asserted that their daughter is fine. The first part of the analysis of the results for Study 4 used a thematic analysis based on Braun and Clarke (2006)'s six stage method in conjunction with one of the researcher's supervisors, so it is likely that all the significant themes were identified, although the codes were only reviewed by the researcher. It would have been better for both supervisors to have been involved with the coding.

Another limitation is that none of the caregivers had a daughter who had been formally diagnosed with depression at the time of the study. It would be worth interviewing mothers with clinically diagnosed daughters to find out their attitudes and experiences. It would also be beneficial to interview the fathers to hear their point of view of their daughter's symptoms and if they would seek professional help for them, and if not why.

In conclusion, some of the findings of Study 4 appear trustworthy. For example, most of the caregivers did not report recognizing their daughter's depression symptoms, and their low scores on the parent's version of the MFQ agrees with this. Secondly, some of the caregivers mentioned bullying, which was also reported by their daughters.

Study 5 seems to be the first study to interview school counsellors in girls' schools. One strength was that the transcript of each interview was sent to each of them to be checked to ensure an accurate representation of their views. Transcripts were subsequently translated into English by the researcher and checked by a bilingual native Arabic and English speaker to minimise possible translation errors. Some of the school counsellors disclosed topics that could be sensitive, such as how some of the families threatened them if they became involved with their daughter's situation, serious behaviours that the students had done, for instance, self-harming, their lack of support from the principal or teachers, and some not keeping their students' matters confidential. However, one counsellor appeared not to want to disclose information about the students' condition or their problem behaviours, as all her answers indicated that the students were fine. They also acknowledged that they lacked adequate training and they wanted the Education Ministry to give them more training. Some counsellors asked me to turn the recorder off so that they could mention some very sensitive topics. A final point was that while the counsellors were being interviewed, this was stopped for a while when either a student or the principal needed to see the counsellor.

A future study could include questions about their relationship with the guidance counsellors in the Ministry of Education, and whether they have direct contact with professional helpers, because students having serious behavioural or mental issues are referred to the guidance counsellors. It was a limitation that counsellors were all based in public schools, not private schools, and restricted to Unaizah. A further limitation is that I

could have interviewed some male counsellors by the phone and compared their results with their female counterparts.

A strength of the research thesis was the agreement between some findings from the individual studies, which therefore reinforces their validity. For example, Study 2 found a high prevalence rate of depression symptoms, which echoes the high rates found by several of the studies reviewed in Study 1. All the girls in Study 3 said that they did not trust the school counsellors to keep what they said confidential, and the school counsellors in Study 5 agreed that this was an issue. Some of the mothers in Study 4 pointed out that they needed the permission of their husband for their daughter to see a professional helper, and all of the school counsellors in Study 5 stressed that this was a major problem.

Considering the three interview studies (Studies 3, 4, and 5) overall, some further issues can be discussed. This research was the first time that I conducted interviews. To begin with I was nervous and did not encourage the participants to elaborate on their answers. This improved over time. I believe that the interview method applied in Saudi culture could be difficult, so it was important to stress to the participants that everything would be kept confidential. This was especially important in Study 4 where I was very careful not to disclose anything to the mothers that their daughters had mentioned in Study 3. Another method that might be applied for the Saudi culture and help to ensure that the answers would be trustworthy would be to answer the questions online and anonymously.

I adopted an informal approach at the start of the interview, chatting with the participants to break the ice and give them a sense of trust. I spoke briefly about myself and why I am doing this research in order to maintain a warm conversation with them. Specifically, in regard to interviewing the young students, I consider that most of them were excited to talk to a researcher who had come from a Western country, and they were happy to talk about their issues freely. Having lived outside the country for many years and having studied psychology gave me a sense to accept anything that was said without any judgment, which also added to some students being able to talk to me without any limitations. The counsellors also welcomed me and understood that my research would benefit the Saudi education system. After the interview, three sent an email asking me to provide them with the MFQ to help the students. However, unlike the students and counsellors, two of the mothers did not accept me personally, and reacted strongly to me when I asked about why they preferred to seek religion-based solutions rather than seeking professional help, though I tried to address this immediately by showing that I understood their beliefs, and I wanted to hear their own words, then the interview continued well.

8.4 Implications of the Research Findings

The first part of this section discusses the implications of the findings in relation to some theories of depression. The second part presents the implications for further research. The last part offers some recommendations for future practice.

8.4.1 Implications of Findings for Theories of Depression

This research was not designed to test any theories of depression. However, some of the findings have implications for the theories of depression discussed in section 1.3, which will be discussed for each theory in turn.

8.4.1.1 Beck's Theory of Depression. Beck's theory proposed that dysfunctional beliefs can lead a person to be vulnerable to depression and when they are evoked by stressful life events that these can trigger negative automatic thoughts and depression (Beck, 1991). The current research found several stressful life events that were reported by the students having elevated depression symptoms. Such events included losing one or both parents, being exposed to parents fighting, fighting with sisters or friends, and being bullied.

Beck's theory also postulated that an individual having negative beliefs about themself can contribute to them having depression (Beck, 2002). This is supported by the finding that there was a negative correlation between depression symptoms (MFQ) and self-esteem (the Rosenberg Self-Esteem Scale). Moreover, some examples of negative beliefs about themselves or low self-esteem were reported by the students, such as:

> *"I am ugly, unlovable, I am not skilful at talking, also my friends bully me because I know I am fat and also, I have body shaming." (F16)*

In addition, Beck believed that in some cases of depression an individual can have repetitive and disturbing thoughts that can affect their concentration and their performance of daily activities (Beck et al., 1979). This was reported by both the students and one mother, for example:

> *"Even when I am studying, I can't focus, my mind is not with me. I am very distracted – even if I am reading, I feel I am reading nothing, even though I was a very good student." (F6)*

> *"I always have negative thoughts." (F7)*

These findings suggest that these aspects of Beck's theory can also be applied to Saudi culture as well as Western culture, despite Saudi culture being so different.

8.4.1.2 Interpersonal Theories of Depression. The current findings also offer support for interpersonal theories that postulate that a major cause of depression is conflict with other people (e.g., Jacobson & Mufson, 2010). Some girls reporting high levels of depression symptoms related that they had engaged in conflict with those they loved, such as parents, sisters and female friends. Eight out of the 16 students reported that they had been bullied or had fought with other students (see section 5.3.5). Moreover, seven out of ten caregivers attributed their daughter's symptoms to bullying (see section 6.3.3). Mychailyszyn and Elson (2018) claimed that the depression symptoms of adolescents can make them show behaviour which results in negative relationships with others. Here is one example from the current study:

> *"I am grumpy and cross with my family, I have a very bad mood with my family and my friends and even my friends noticed I am like this, so that's why I am always alone and avoid talking to anyone." (F16).*

These findings suggest that the factors of dysfunctional relationships with others, conflict with others, fighting and bullying that form an important part of interpersonal theories of depression can be extended beyond Western culture to Saudi culture.

A finding from Study 2 also supports interpersonal theories of depression. There was a negative correlation between depression symptoms (MFQ) and perceived social support. Those students who had elevated depression symptoms reported lower perceived social support from their family or friends.

8.4.1.3 Cultural Theories and Factors Relating to Depression. The research did not aim to test cultural theories of depression. However, the findings of Studies 1 and 2 raise the question of why the prevalence of depression and its symptoms is so high among female adolescents in Saudi Arabia compared to most Western countries.

One factor may be that the girls have been brought up to follow the traditional female role in Saudi culture, while being aware of how other females their age in Western culture live. For example, the girls may experience conflict between following traditional and religious practices and wanting to be like Western girls; like them, Saudi girls commonly use social media and the internet and are exposed to the outside world. Some mothers still want to control their daughter, for example, not wanting them to listen to music or telling them what they should wear. This is in line with the observation of Barber (1996) that in both cross-sectional and longitudinal analyses, parental psychological control of adolescents is consistently predictive of youth internalized problems, including depression. It is also

consistent with Ratner and El-Badwi (2011), who applied their cultural theory of depression to Saudi society and identified the authoritarian structure of the family as one main cause of mental illness in Saudi Arabian (see section 2.2.2).

A second factor is that Saudi culture may treat men and women differently, so that Saudi girls are made to feel inferior as they depend more on males, although this has started to change recently. This agrees with Ratner and El-Badwi (2011) who argued that a second reason for the high prevalence of mental illness in Saudi Arabia is the subordination and segregation of females in the society (see section 2.2.3). Further, this is consistent with the view of Markus and Kitayama (1991, 1994), who have suggested that positive feelings are associated with a sense of autonomy.

A third factor is that children may be brought up not to express their feelings outside the family as this is a sign of weakness. Furthermore, the family might attribute symptoms of depression to being away from God, which leads to the child not asking for help (see section 2.5.1).

Lastly, in Saudi society individuals represent the family, which may put stress on them to appear good and make them more vulnerable to depression.

8.4.2 Recommendations for Further Research

There are several matters arising from the current research that call for further study, including the following:

1) Studies should be conducted to assess the prevalence of depression among adolescents using a diagnostic clinical interview. As Study 2 was conducted during the examination season, which may have temporarily raised the depression symptoms of the girls, it should be repeated at a different time of the year. If the resources and time are available, it would be beneficial to repeat Study 2 in other cities in Saudi Arabia, including all kinds of schools.
2) The research focused on female adolescents. Studies should also consider male adolescents, their mothers, and their male school counsellors. It would also be interesting to interview the fathers of both the girls and boys, and in particular, to discover the fathers' views on the issue of their permission being required for their son or daughter to be referred to a professional helper.
3) It was pointed out in section 3.3.3 that the two studies of 545 female students in Abha city by Al-Gelban et al. (2009) and Mahfouz et al. (2009) gave quite different estimates of prevalence, depending on whether the DASS-42 or SCL-90-R was used. It is

therefore important to pursue the validation of Arabic versions of more than one instrument to assess mental health symptoms in Saudi adolescents.

4) It would be of value to seek further information from adolescents about their awareness of the mental health services available for them and their freedom to refer themselves to a psychologist and how they think other adolescents could be made aware of this right, and what barriers might prevent them from referring themselves.
5) This research found that there was a lack of mental health awareness among the students, their caregivers and the school staff. It is therefore desirable to conduct further research on the effectiveness of training to improve mental health awareness. Once mental health awareness has been improved, it could be investigated whether there is an increase in the number of students seeking help from school counsellors or health professionals. If school counsellors are trained in CBT, for instance, it would be beneficial to evaluate its effectiveness in reducing depression symptoms among the students.

8.4.3 Practical Implications: Improving the Awareness and Management of Depression Among Saudi Adolescents

8.4.3.1 Improve the Mental Health Literacy of Adolescents, Their Parents and School Staff. Only seven out of 16 girls having elevated symptoms of depression identified that they had such symptoms (section 5.3.1.1). Most of their caregivers did not recognize the symptoms, and most of the school counsellors did not either. There appears, then, to be a need to improve the mental health literacy of adolescents and those around them.

Mental health literacy is very important to encourage help seeking (Jorm, 2012). Studies have suggested that young people who recognize their symptoms as a sign of mental disorder are more likely to discuss it with an adult and less likely to deal with it alone (Olsson & Kennedy, 2010; Wright et al., 2007). Adolescents usually seek assistance from family and teachers when they are wanting to access professional help (Rossow & Wichstrom, 2010). Therefore, raising the awareness among the family and the school would help to encourage adolescents to access mental health services.

The following subsections discuss how this could be done.

The Importance of Aligning Mental Health Literacy With Cultural and Religious Values. It is important that all of the recommendations for improving mental health literacy take into consideration the traditional cultural and religious beliefs and values held by Saudi society. The society should understand that mental health conditions are not caused by being

away from God and that seeking professional help is not against Islam. The teaching of Islam urges people to seek help if they need to (Sabry & Vohra, 2013; Yosef, 2008).

In fact, however, researchers consider traditional healers to be a hindrance to the early recognition and treatment of depression and its symptoms (Alosaimi et al., 2014; Fakhr El-Islam, 2008; Gilat et al., 2010). In Saudi society traditional healers follow religious and cultural concepts and provide treatment for all kinds of mental health problems, as those in need first turn to them when they need help, ignoring the mental health services. Consequently, it is important to raise the awareness of mental health issues in line with traditional and Islamic values, as this would help the society to accept seeking professional help. Dardas et al. (2016) suggested that it is important to provide mental health services that follow scientific evidence while also aligning with traditional, cultural, and religious values. They recommended that the Arab mental health services work together with traditional healers. This system would encourage those who have traditional beliefs to seek and to accept modern professional help (Al-Krenawi et al., 2004). Further, Sewilam et al. (2015) suggested involving religious leaders who could incorporate religious teachings that advise people from discriminating against those with mental health conditions, along with advising them to seek help from mental health services, as this would reduce the stigma.

Mental Health Literacy Interventions Outside the School. In Western societies several approaches have been developed for raising mental health literacy among the public that are based on the internet, including the use of interactive websites for children, youth, and families, and social media channels (e.g., Facebook, YouTube, Twitter, Instagram) and educational webinars (King et al., 2015). It has been suggested that such media for youth should be interactive, customizable and exist in several formats, to allow for easy access, increased variety, and the quick dissemination of information (Skopelja et al., 2008), The need for campaigns to raise awareness about mental health in Saudi Arabia has been supported by AlBuhairan et al. (2015).

Campaigns about mental health can also involve television, including factual programmes and documentaries, discussion programmes and advertisements. It has been suggested that the awareness of depression and its symptoms can be increased by the use of narrative advertisements (Chang, 2008). Research has shown that such advertisements require two important features, which are chronology (showing the events taking place over time) and causality (showing how the events are linked causally) (Escalas, 1998; Polkinghorne, 1991). This could be applied in Saudi culture. For example, there could be an advertisement about a student who is a victim of bullying at school, and how the bullying affected her and then how

she dealt with her symptoms of depression. This small example would help students to be aware of their symptoms and encourage them to seek help.

Another way to raise the awareness of mental health issues would be to distribute leaflets among the students as well as their families. These leaflets would contain information about mental health conditions such as depression, identifying the symptoms of the conditions in simple language that suits the culture. The leaflets would also provide advice about what to do, including the mental health services available in the community as well as encouraging them to visit the school counsellor. The leaflets would further encourage the students to discuss their symptoms with their family and friends and help them to learn from others and to support each other, without feeling they are alone in experiencing depression.

A further way is to use posters. The World Health Organization has provided a set of posters based on the idea of "let's talk", which show two people talking about depression, for example, a mother with her daughter and a teacher with a student. This poster has an Arabic version, which could be included in campaigns (World Health Organization, 2017).

Mental Health Literacy Interventions in the School. It is suggested here that mental health literacy should start at the school, with adolescents receiving presentations or lessons about mental health. This may need to be approved by the Ministry of Education. This could be done in free time or in the morning assembly. It would obviously help if the teachers are given better education or training about mental health and spotting symptoms in students.

More formal interventions aimed at improving mental health literacy and based in the school setting have been carried out in a number of countries outside Saudi Arabia. It has been claimed that interventions that focus on mental well-being rather than preventing mental illness can be effective in promoting mental health (O'Mara & Lind, 2013).

When interventions have been introduced in the school setting, it has been found that this can reduce some of the frequent barriers to traditional mental health services, including cost, time, stigma and location (Barrett & Pahl, 2006; Masia-Warner et al., 2006). Further, a review of school-based interventions to improve mental health literacy or reduce stigma carried out in the UK, USA, Australia and Germany (Kelly et al., 2007) found several that were effective.

Turning to the Middle East, studies have shown that interventions among Jordanian students produced positive results for raising their awareness. Abojaradeh et al. (2019) looked at community-based education programmes aimed at raising mental health awareness among school and university students who were 15-24 years old. A variety of topics were covered in 13 programmes, including mental health challenges, the kinds of support and treatment

available, suicidality, yoga and mindfulness, and emotional intelligence. The study found positive effects, including better understanding of mental health issues and adopting more positive habits related to mental health. Another training programme was conducted among Jordanian university students to decrease shyness and depression and was found to be very effective (Ziadat & Jibril, 2014).

Train the School Counsellors To Be Properly Equipped. Alotaibi (2015) indicated that some school counsellors lacked adequate training, expertise and professional qualifications. He took note that no national Saudi student counselling qualifications have been set up and that there is no national Saudi counselling association or organisation. He added that a further problem is that some schools only had one counsellor to serve over 1,000 students, which is insufficient, especially given how common such issues as bullying and depression are.

The present research findings reinforce the need for school counsellors to be properly trained, in that most of them did not recognize the high prevalence of depression symptoms in the students and could not offer appropriate advice. Alotaibi (2015) recommended that investment be made in school counsellors by training them properly, arguing that the students' health would benefit, including reducing the prevalence of depression symptoms.

8.4.3.2 Combat Bullying in Schools. Although this research did not focus on bullying, it was frequently reported both by the students and their caregivers. These reports were supported by the school counsellors in Study 5, who stated that bullying is very common among students. AlBuhairan et al. (2015) surveyed 12,575 (M: 6,444 and F: 6,131) adolescents from schools in different regions of Saudi Arabia. They reported that, over a period of 30 days, 25% of students reported that they were exposed to bullying (AlBuhairan et al., 2015). It has been found that bullying has adverse consequences among these victims, such as social isolation, low self-esteem, poor school achievement, feeling shame and depression (Hurley, 2018). This serious phenomenon should be considered in every school, which should have a formal policy to confront it. Therefore, the schools in Saudi Arabia should educate the students and their parents about bullying and its negative consequences, including the part it can play in causing depression.

8.4.3.3 Adopt a Formal Policy That School Counsellors Keep What Students Tell Them Confidential. In section 7.3.4, it was evident that different school counsellors had different views on whether to keep what the students told them confidential. Both Gulliver et al. (2010) and Radez et al. (2020) in their systematic reviews highlighted that the issue of confidentiality is a common barrier that can stop young people seeking professional help.

Consequently, there is a need for a formal and clear policy for all school counsellors to keep what the students tell them confidential. All students should have the right to have their personal information kept confidential, as in the UK (Cooper, 2013). This would encourage the students to approach the school counsellor and feel comfortable to talk about their problems without fear.

8.4.3.4 Improve Access to Professionals Who Can Provide Help. Access to professionals in Saudi Arabia should not depend on obtaining the permission of the parents. In principle, as can be seen in Appendix 3, a patient under the age of 18 years is a minor and is allowed by law to refer themselves for treatment without the parents' consent. As pointed out in section 2.4, people have the right to access any mental health care without needing to be referred, including specialist psychiatric hospitals, for free (Koenig et al., 2014). However, as further noted in section 2.5.4, it is not generally feasible for individuals to refer themselves for psychotherapy (Algahtani et al., 2017).

8.5 Contribution of the Research

The research has made several important contributions. It used a psychometrically valid self-report measure of adolescent depression, the MFQ, which may have superior psychometric qualities than other instruments that have been used in previous studies in Saudi Arabia. The results indicated a high prevalence of depression symptoms among the female adolescents, in agreement with the high rates found by several previous studies. In doing so, it has highlighted the severity of the problem and the urgency to tackle it.

Very little previous work had addressed the barriers to the treatment of depression among adolescents in Saudi Arabia. This research has done so not only by interviewing the girls themselves, but also by interviewing their mothers and their school counsellors. This broad approach has led to some points of view held by different kinds of participants coming together, which reinforces their validity. Here are three examples:

1) All the girls reported that they did not trust the school counsellors to treat what they said as confidential, and nearly all the school counsellors acknowledged that this was an issue.
2) Some of the caregivers mentioned that it was a barrier that they needed the permission of their husband for their daughter to be referred to a professional, and all of the school counsellors highlighted that this was a major problem.
3) Only seven of the 16 girls in Study 3 were clearly aware that they had depression symptoms. Only one of their ten caregivers recognized that their daughter had a mental

health issue. Only three of the eight school counsellors were aware that depression was an issue among the students.

This is the first study that has interviewed the mothers of Saudi girls having depression symptoms to find out their awareness of the condition and what they do to help their daughters. Further, the research has added to the shortage of studies on the awareness of school counsellors in Saudi Arabia about mental illness among the students.

Finally, the research has highlighted that the school counsellors require much better training to deal with those students with depression symptoms who need help, reinforcing the call for this made by Alotaibi (2015).

8.6 Conclusion

This research has led to several conclusions. Study 2 confirmed that there is a high prevalence of depression symptoms among female adolescents in Saudi schools. Studies 3, 4 and 5 revealed that their symptoms were not being recognized by the students themselves, their caregivers, or the school counsellors. Importantly, the students had no one they could turn to directly for help, as they did not trust the school counsellor and it can be difficult in Saudi society to talk to family members about mental health. It was difficult for the caregivers and the counsellors to access professional help because they required the permission of the father and many caregivers had attitudes to mental illness that did not encourage them to seek help. The findings suggest that it would be important to train school counsellors to deal with mental health issues, including recognizing and treating depression symptoms, and also to consider how awareness of mental health could be raised.

8.7 Summary

The findings from the five studies are summarised and their implications discussed. Study 1 revealed there is generally a high prevalence of depression symptoms among adolescents in Saudi Arabia, although the studies reviewed have methodological weaknesses. Study 2 found that 48.2% of female adolescents showed depressive symptoms using an instrument designed for use on adolescents with a recommended cut-off. The remaining studies revealed four general barriers to Saudi female adolescents seeking help for their depressed symptoms: 1) the students' depression symptoms was not being recognized by themselves, their mothers or the school counsellors; 2) they had no one they could turn to directly for help because they did not trust the school counsellor to keep what they said confidential; 3) it was difficult for the caregivers and the school counsellors to access professional help, which required the permission of the father; and 4) nearly all their

caregivers had attitudes to mental illness that did not encourage them to seek help for their daughter. The implications of the findings for theories of depression and further research are discussed. Several practical recommendations are made to improve the awareness and treatment of depression symptoms among female adolescents in Saudi Arabia: 1) improve their mental health literacy and that of their parents and school staff ; 2) train the school counsellors to be properly qualified to deal with mental health issues; 3) combat bullying in schools; 4) adopt a formal policy that school counsellors must keep what students tell them confidential; and 5) improve access to professionals who can provide help. Finally, the contribution made by the present research is presented.

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Appendix 1: Principles of Islam and the Quran

Muslims believe the holy book, the Quran, to be the words of God, words that were communicated to the Prophet Muhammad in the Arabic language and to be God's final revelation. The Quran contains eloquent and significant messages that affect every Muslim individual and guide the everyday aspects of their lives. The Quran and the Sunnah – a body of literature that sets out the traditional customs and practices of the Islamic community, based on those of the Prophet Muhammad – provide the foundation for Sharia, the sacred law of Islam, which governs all aspects of the life of every Muslim. Sharia holds a unique position in Saudi Arabia in that it underlies the Kingdom's constitution and provides the authority for the country's political and legal systems (Basic Law of Governance, 1992).

There are Five Pillars of Islam that underlie and frame the beliefs, practices and concerns of Muslims (Embassy of the Kingdom of Saudi Arabia, n.d.). The first Pillar of Islam is the Shahadah, the profession of faith, in which Muslims express there is only one God, and the Prophet Muhammad is the messenger of God. The second Pillar of Islam is Salat, praying, where Muslims pray five times a day at dawn, noon, mid-afternoon, sunset and evening, as they believe they have a direct relationship with God. The third Pillar of Islam is Zakat, almsgiving or charity. Social responsibility is viewed as part of one's service to God and the act of zakat carries out this duty. Zakat stipulates payment of a fixed proportion of a Muslim's possessions for the welfare of the entire community and especially its poorest members. It amounts to 2.5 per cent of an individual's total net worth, excluding obligations and family expenses. The fourth Pillar of Islam is Sawm, fasting. The Muslim practice of fasting during the holy month of Ramadan is an act of deep personal worship in which Muslims seek a richer perception of God. Fasting is also an exercise in self-control whereby one's sensitivity is heightened to the sufferings of the poor. Ramadan is a very important month for Muslims, during which they abstain from drinking, eating and other sensual pleasures from sunrise to sunset, then break their fast with a special meal, "iftar". The last Pillar of Islam is Hajj, pilgrimage to Mecca, and is regarded as the most significant manifestation of Islamic faith and unity.

Appendix 2: Outline of School Education in Saudi Arabia

Saudi Education aims to inculcate the Islamic faith in the hearts of young people, and provide them with knowledge and skills, and prepare them to be useful members in building their society, loving their country, proud of its history. Today, Saudi Arabia has 26,377 public schools and 4,377 private schools, attended by over 6.4 million male and female students (Ministry of Education, 2020):

General education in Saudi Arabia consists of four stages:

- Kindergarten stage: entrance age is 4 or 5 and attendance is for 1 or 2 years.
- Elementary stage: entrance age is 6 and attendance is for 6 years.
- Intermediate stage: entrance age is 12 and attendance is for 3 years.
- High school stage: entrance age is 16 and attendance is for 3 years.

The subjects that are taught at the Elementary and Intermediate stages are mathematics, science, English, Arabic language, the Quran, religious studies, social studies, and art. At the High School stage, the students have to choose between an arts or science pathway, in preparation for Higher Education. Those on the science pathway take several science subjects

Appendix 3: Rights of Saudi Individuals With Mental Health Problems

According to the Ministry of Health in Saudi Arabia, an individual who is under 12 years old is considered a child and cannot undergo treatment without the permission of the parents, while a patient under the age of 18 years is a minor, who can take responsibility for their treatment without the parents' consent, depending on their maturity. The legal guardian of the person under 18 is the individual who is legally responsible for them and who has the right to sign on behalf of the patient in case they are unable to due to the state of their mental health (Ministry of Health, 2019).

In Saudi Arabia, every individual with a mental health problem has the following rights (Ministry of Health, 2019):

- Protecting them from all forms of abuse, physical, psychological and linguistic violence.
- Not restricting their freedom by any means or placing them in isolation in a room without medical reason.
- Obtaining medical services in the easiest way by allocating psychological clinics in the health facility.
- Provide appropriate teaching and rehabilitation facilities suitable for their abilities and mental status when they stay for a long time at the hospital.
- Treat them in the least restrictive conditions.
- They are treated on the basis of a plan developed for each individual patient or guardian and discussed with them, which is reviewed regularly, and adjusted according to the development of their condition and their response.
- Care is provided in accordance with standards of ethics for practitioners in the field of mental health and principles of medical ethics related to the role of health workers, especially doctors.
- Respect for their religion and belief.
- The procedures for admitting a patient to a mental health facility are done in the same way as entering any other health facility for any other illness.
- The patient has the right to receive or to refuse treatment for their particular mental health condition.

Appendix 4: The Treatments of Mental Illnesses in Saudi Arabia

The kinds of psychological treatments offered in Saudi Arabia (psychotherapy, medications, electroconvulsive therapy) are similar to those in Western countries, and there are no exceptional restrictions on psychiatric practice due to the culture (Koenig et al., 2013). However, psychiatry has been mistrusted and avoided by Saudi society (El-Gilany et al., 2010), although this began to change with the advent of the Internet and the increasing coverage of mental health issues on television (Koenig et al., 2013).

Koenig et al. (2014) observe that the commonest treatment for mental illness in Saudi Arabia since the 1980s was the use of anti-psychotic drugs, with seldom use of psychotherapy, and that those running the mental health services were not well trained in psychiatry. Lithium was not used to treat bipolar disorder, unlike in Western societies.

The effectiveness of Cognitive Behavioural Therapy (CBT) in treating depression and other mental health issues has recently attracted the attention of Saudi mental health professionals (Algahtani et al., 2017). A group of Western-trained Saudi psychiatrists and psychologists with CBT qualifications began to conduct CBT workshops for professionals, and then developed two CBT diploma programmes in Riyadh and Jeddah. Several psychotherapy resources, in particular some concerning CBT, were recently translated into Arabic (Algahtani et al., 2017), including the Cognitive Therapy Scale, for use in future CBT training in Saudi Arabia.

A recent study explored how CBT to treat depression and anxiety among adults in Saudi Arabia and Bahrain might be modified to be effective in these non-Western cultures (Algahtani et al., 2019). Interviews were conducted with 42 patients, 11 caregivers, and 16 psychiatrists and psychologists. Fourteen of the latter 16 agreed that CBT played an essential part in treating mental health problems but reported that it needed to be adapted in minor ways to take account of local cultural and religious needs. Accordingly, they suggested that the translation of the CBT material into Arabic should take into consideration local cultural and religious sensitivities and observed that some conceptual meanings had been lost in previous translations. Some commented that the involvement of the patient's family could present difficulties and Algahtani et al. (2019) remarked that this needed further investigation. All 16 mental health professionals agreed that CBT was under-utilized and should be funded while 13 called for improved training and resources.

Alatiq and Al Modayfer (2019) have discussed the feasibility and possible benefits of using Transdiagnostic CBT (T-CBT) in Saudi Arabia. This refers to CBT-based treatments that can be applied to individuals who have a variety of DSM-5 diagnoses. The use of such

treatments can be an advantage in a country like Saudi Arabia that has limited resources for psychotherapy, as it reduces the overall need for specialized therapists who have been highly trained in applying CBT to one specific disorder. Alatiq and Al Modayfer (2019) reported that an initial trial had proved beneficial for clients in Saudi Arabia who had a general emotional disorder (excluding psychosis), with the 33 participants who completed the programme showing reduced depression (measured by the PHQ) and anxiety (measured by the GAD). They showed that the programme could be effectively implemented by junior psychologists, of whom Saudi has a large number.

There is rather little research on psychotherapy practice in the Middle East. Algahtani (2010) (cited in Algahtani et al., 2017) surveyed 63 mental health professionals across Saudi Arabia and found the intervention used most in clinical practice was pharmacotherapy (71%), followed by supportive therapy (40%), cognitive therapy (23%), combined approach (17%), psychodynamic and family therapies (8%), and group therapy (6%). Algahtani et al. (2017) state that based on their own experience (all with over 10 years' experience) CBT tends to be the most common modality among trained Saudi therapists. But they point out with concern that "Mental health professionals working in the field in KSA often employ loose and fluid definitions of psychotherapy practices and then describe their work in technical psychotherapeutic terms. … The looseness with which therapeutic processes and techniques are defined may also allow liberties to be taken with such techniques, often by therapists ill-equipped to make such modifications" (Algahtani et al., 2017, p. 108). This is to be distinguished from the legitimate use of "eclectic" psychotherapy.

Algahtani et al. (2017) go on to observe that since the 1990s, the Kingdom has seen the arrival of many 'quack' or non-evidence based approaches that claim to treat various mental health issues. These include energy healing, emotional freedom technique (EFT), tapping, neurolinguistics programming (NLP), and many others that are viewed by elements of Saudi society as alternatives to psychotherapy. Many of their proponents advertise these approaches by linking them with culturally accepted religious and spiritual concepts. There is no regulatory body in Saudi Arabia to monitor the credentials or practice of those carrying out these techniques. Algahtani et al. (2017) suggest that many were attracted to these modalities as self-help approaches and a method of accessing nonprofessional help in a way that enables them to avoid the stigma associated with mental illness. These non-evidence-based approaches are shunned by many Saudi academics and mental health professionals.

Algahtani et al. (2017) conclude with their view that "Saudis are experiencing a substantial gap between their perceived need for psychotherapy and available therapeutic

services. KSA is, therefore, ripe for a major expansion in the availability of training programmes and its population is likely to welcome any and all forms of psychotherapy" (p. 116).

Appendix 5: Prevalence of Mental Health Conditions in Saudi Arabia

The Most Common Mental Health Conditions Among the Saudi Population Across the Lifetime (Altwaijri et al., 2020)

Condition	All (%)	Males (%)	Females (%)
Separation anxiety disorder	11.9	11.0	13.0
Attention-deficit/hyperactivity disorder	8.0	10.0	6.0
Major depressive disorder	6.6	3.1	8.9
Social phobia	5.6	4.3	7.0
Obsessive-compulsive disorder	4.1	3.4	4.9
Post-traumatic stress disorder	3.4	2.8	3.9
Intermittent explosive disorder	3.3	3.8	2.9
Binge-eating disorder	3.3	2.7	3.8
Bipolar I-II	3.2	4.0	2.7
Bulimia	2.9	3.1	2.6
Drug abuse	2.7	2.9	2.4
Agoraphobia	2.3	1.4	3.2
Generalized anxiety disorder	1.9	0.9	2.9
Conduct disorder	1.7	1.9	1.5
Panic disorder	1.6	1.3	1.9
Drug dependence	0.8	0.9	0.8

Appendix 6: The Mood and Feelings Questionnaire (Long, Child Self-report Version)

MOOD AND FEELINGS QUESTIONNAIRE: Long Version

This form is about how you might have been feeling or acting **recently**.

For each question, please check (✓) how you have been feeling or acting ***in the past two weeks***.

If a sentence was not true about you, check NOT TRUE.
If a sentence was only sometimes true, check SOMETIMES.
If a sentence was true about you most of the time, check TRUE.

Score the MFQ as follows:
NOT TRUE = 0
SOMETIMES = 1
TRUE = 2

To code, please use a checkmark (✓) for each statement.	**NOT TRUE**	**SOME TIMES**	**TRUE**
1. I felt miserable or unhappy.			
2. I didn't enjoy anything at all.			
3. I was less hungry than usual.			
4. I ate more than usual.			
5. I felt so tired I just sat around and did nothing.			
6. I was moving and walking more slowly than usual.			
7. I was very restless.			
8. I felt I was no good anymore.			
9. I blamed myself for things that weren't my fault.			
10. It was hard for me to make up my mind.			
11. I felt grumpy and cross with my parents.			
12. I felt like talking less than usual.			
13. I was talking more slowly than usual.			
14. I cried a lot.			

ID Number_____Date: _____

15. I thought there was nothing good for me in the future.			
16. I thought that life wasn't worth living.			
17. I thought about death or dying.			
18. I thought my family would be better off without me.			
19. I thought about killing myself.			
20. I didn't want to see my friends.			
21. I found it hard to think properly or concentrate.			
22. I thought bad things would happen to me.			
23. I hated myself.			
24. I felt I was a bad person.			
25. I thought I looked ugly.			
26. I worried about aches and pains.			
27. I felt lonely.			
28. I thought nobody really loved me.			
29. I didn't have any fun in school.			
30. I thought I could never be as good as other kids.			
31. I did everything wrong.			
32. I didn't sleep as well as I usually sleep.			
33. I slept a lot more than usual.			

ID Number_____Date: _____

Appendix 7: Information Sheet for the Head Teacher for Study 2

Dear (name of head teacher),

I am Samr Binsaif. I am carrying out a PhD study of depression among female adolescents in Unaizah and would very much like to include the girls in your school in this study. I have already been given permission from Saudi Arabia Culture Mission to include any school in Saudi Arabia. It would be appreciated if you could find the time to read about my study below and, if you agree, sign the consent sheet I have enclosed.

What is the purpose of the study?

Depression and low mood is a major health problem for young people in all countries. It is important to understand how depression develops and how best to prevent it. Depression does not stem from weakness or being away from God.

The aim of our research is to understand depression in female adolescents in Saudi Arabia. We want to understand how young women and girls experience depression, examine how it relates to their thoughts, experiences and self-identity and understand how families deal with this problem when it arises. This will help us develop new and better ways to help young people.

Will students have to take part?

No. It will be up to them to decide whether to join the study. If they agree to take part, students are free to withdraw at any time without giving any reason.

It is important to get consent from anyone who take part in the study. We will send all parents and young people information about the study. Young women over 16 can provide consent for themselves. Young women under 16 will need consent from a parent and will also need to agree (give assent) to take part. We plan to obtain parental consent via on opt out process. This means that if the girl is under 16 and their parents DO NOT want her to take part, they can withdraw her from the study. Parents can do this by returning a form they will be given, or by contacting the researcher or the school by email or telephone. If parents do not withdraw their daughter from the research, we will assume that they are happy for their daughter to take part in this research. However, if parents change their mind and want to withdraw consent, they can do this at any time.

What will happen if my students take part?

Students will complete some questionnaires at school during a timetabled form session. The questions will ask her about her sense of self (self-concept and self-esteem), perceived social

support, her current mood, and a few demographic details. I will be present during this period to answer any questions or concerns.

What are the possible disadvantages and risks of taking part?

We do not expect any disadvantages or risks to be involved in taking part in this research. Girls will be asked questions about their mood. They can choose not to answer any questions. Some questions might highlight negative feelings these are quite common in young people. Students can stop at any time. If a student became upset, I or the school's social worker would immediately offer support. During the research we will follow all school policies. Additionally, all the girls will be given a list of resources about well-being, sources of support and advice.

What are the possible benefits?

This research aims to improve our understanding of adolescent mental health and improve treatments. Most young people enjoy taking part in research and learning about how research is conducted.

What if there is a problem?

If a girl has any concern about any aspect of the study, she should ask to speak to myself, the researcher.

Will everything in the study be kept confidential?

All personal information provided will be kept confidential. The only exception to this is if a student tells us something, which puts them, or someone else, at risk. If this happens, we will inform you and you will follow your appropriate policies. The information we collect (questionnaire answers) will not have any names on it and will be kept under strict confidence in locked cabinets. All the paperwork collected will be destroyed as soon as it is no longer needed. The consent forms, however, will be kept for 5 years before disposal. We would like to work closely with a nominated member of the school staff so that we can identify any girls that may be at risk.

What will happen to the results of the research study?

The information we collect will be analysed and written up as part of a PhD thesis (due to be submitted in 2020). They will also be published in a professional, scientific journal and at professional academic conferences. No personal information or information about your school will be included. If you would like a summary of the findings of our study or about the findings in your school, please let me know.

Will there be any further studies?

I will invite some of the girls who have completed the questionnaires (Part 1) to take part in an in interview with me (Part 2). This will be for girls who reported elevated symptoms of depression. The interview will take about an hour. With your permission we would like to carry out the interview at school.

At the end of the questionnaire in Part 1 we will invite girls to provide their contact details (e.g. email) if they would be interesting in helping with further research. These personal details will be used to contact girls individually about the second study. Once their personal details have been used for this purpose, they will be destroyed. If girls express an interest in taking part, we will send full written information about the second part to the students and their parent(s) or guardian(s). Parents of daughters under 16 will be asked to provide written consent for their daughter to take part in the research. It is completely up to the students and their parents to decide whether to join the second part of the study. Students are free to withdraw at any time without giving any reason.

Finally, we would like to interview a group of mothers who have daughters with elevated depression (Part 3). It would be appreciated if I could use a room in your school to do this.

Who has reviewed the study?

All research at the University of Reading is reviewed by an independent group of people, called a Research Ethics Committee. This is to make sure that the highest standards of ethical practice are followed. This application has been approved by the University of Reading Research Ethics Committee. The researcher – Samr Binsaif - has an enhanced Disclosure and Barring Service (DBS) in the UK and has been trained by the School of Psychology of the University of Reading to work with children and adolescents. As it is possible that the girls may be reminded of sad or distressing experiences they have had, we would like to work closely with the school social worker (or another appropriate member of staff).

If you would like any further information about this study, I would be delighted to visit you at school and discuss it with you.

Thank you very much,

Samr Binsaif (Researcher)
Email: s.binsaif@pgr.reading.ac.uk
Telephone number: xxxxxxxxx

Appendix 8: Consent Form Headteacher for Studies 2 and 3

Head teacher consent form

I understand that my school's participation in this project will involve:

Assisting the researcher, Samr Binsaif, to recruit girls for this project, including distributing information about it.

Allowing Samr Binsaif the use of a suitable location in which to conduct the tasks and interviews.

Allowing Samr Binsaif to conduct the research with the girls during school hours.

Providing the social worker to be available during the project.

Part 1 should take about 30 minutes and in Part 2 the interview will take about 60 minutes.

I understand that my school's participation in this study is entirely voluntary.

I, _____(NAME) consent to Samr Binsaif proceeding with this study.

I, _____ (NAME) have read all the information about the research and agree to the researcher carrying out her study in the school.

Signature of Head teacher: ..... Date:……

Appendix 9: Information About Study 2 for Parents

INFORMATION FOR PARENT/ GUARDIAN
Project Title: Mental Health among Female Adolescents in Saudi Arabia

Dear Parent or Guardian,

I am writing to inform you about a study of depression that I will be carrying out at your daughter's school. I am hoping your daughter will wish to take part.

What is the purpose of the study?

Depression and low mood is a major health problem for young people but we still do not really understand why it develops or how best to prevent it. Depression does not stem from weakness or being away from God.

Our research aims to help understand the experience of depression in young people and to examine how it relates to their thoughts, experiences and self-identity. This will help us develop new and better ways to help young people. In this study want to estimate how often depression is a problem for female adolescents in Unaizah, Saudi Arabia. We also want to find out more about how depression is understood and experienced by adolescent females and how it relates to the way girls think about themselves and their future.

Why are we inviting your daughter to take part?

Your daughter has been invited to take part because her school has agreed to take part in this project and we are inviting all students in Years 7 to 12 (to be adjusted, depending on the school).

Does my daughter have to take part?

No. It is up to you and your daughter to decide whether to join the study. You and your daughter are free to withdraw at any time without giving any reason. Please discuss this information with your daughter and consider if you are happy for her to take part in the research. If you have any questions about the research, please contact me and I will be happy to discuss these.

It is important to get consent from anyone who takes part in the study. Young women over 16 can provide consent for themselves. Young women under 16 will need consent from a parent and will also need to agree (give assent) to take part. If you do not want to give your consent for your daughter to take part in this study, please let us know. You can do this by returning the consent form overleaf, or by emailing or telephone message (contact details are at the end of this information). If you do not tell us that want to withhold consent, we will assume you are happy for you daughter to take part in this research. However, if you change their mind and want to withdraw consent later you can do this at any time, without giving a reason.

What will happen if my daughter takes part?

Your daughter will complete some questionnaires at school during a timetabled form session. The questions will ask her about her sense of self (self-concept and self-esteem), perceived social support, her current mood, and a few demographic details.

What are the possible disadvantages and risks of taking part?

We do not expect any disadvantages or risks to be involved in taking part in this research. Girls will be asked questions about their mood. They can choose not to answer any questions. Some questions might highlight negative feelings – these are quite common in young people. If a student becomes upset for any reason, I and/or the school social worker will offer immediate support. Students can stop at any time. During the research we will follow all school policies. Additionally, all girls will be given a resource list about well-being, sources of support and advice.

What are the possible benefits?

This research aims to improve our understanding of adolescent mental health and improve treatments. Most young people enjoy taking part in research and learning about how research is conducted.

What if there is a problem?

If you have any concern about any aspect of the study, you should ask to speak to Samr Binsaif, the researcher. Please see the last page for contact details. If you remain unhappy and wish to complain formally, you can contact the head teacher of the school, who will discuss any concerns you may have.

Will our taking part in the study be kept confidential?

All personal information provided will be kept confidential. The only exception to this is if your daughter tells us something, which puts them, or someone else, at risk. If this happens, we will inform the school who will follow their appropriate policies. The information we collect (questionnaire answers) will not have any names on and will be kept in locked cabinets in locked offices. All the paper work collected will be destroyed as soon as they are no longer needed. The consent forms, however, will be kept for 5 years before disposal. If we feel any girl is at risk of harm, we will alert a nominated member of the school staff who will then follow the school procedures.

What will happen to the results of the research study?

The information we collect will be analysed and written up as part of a PhD thesis (due to be submitted in 2020). They will also be published in a professional, scientific journal and at professional academic conferences. No personal information will be included. If you would like a summary of the findings of our study, please let us know and we will send you this (it will take about 6 months).

Will there be any further studies?

At the end of the questionnaire in Part 1 we will invite girls to provide their contact details (e.g. email) if they would be interesting in helping with further research. We will then invite some of the girls who reported elevated symptoms of depression to take part in an in interview with me (Part 2). Once their personal details have been used for this purpose, they will be destroyed. If girls express an interest in taking part, we will send full written information about the second part to the students and their parent(s) or guardian(s). Parents of daughters under 16 will be asked to provide written consent for their daughter to take part in the research. It is completely up to the students and their parents to decide whether to join the second part of the study. Students are free to withdraw at any time without giving any reason. The interview will take about an hour.

Finally, we would like to interview a group of mothers who have daughters with elevated depression (Part 3). We would invite mothers to take part and they will be given full information and asked to give consent to the interview.

Who has reviewed the study?

To protect your interests all research at the University of Reading is reviewed by an independent group of people, called a Research Ethics Committee. This application has been approved by the University of Reading Research Ethics Committee. The researcher – Samr

Binsaif - has an enhanced Disclosure and Barring Service (DBS) in the UK and has been trained by the School of Psychology of the University of Reading to work with children and adolescents.

Do we have to take part?

No. Participating in this research is entirely voluntary. If you have any questions, please contact us by phone or email if you have it. We will be happy to discuss any questions or concerns you may have.

Thank you very much,

Samr Binsaif (Researcher)
Email: s.binsaif@pgr.reading.ac.uk
Telephone number: xxxxxxx

Appendix 10: Information Sheet for the Students for Study 2

Hello,

We are inviting you to take part in a research study.

Why is this project being done?

We want to increase the awareness and improve our understanding of mental health among young people, especially depression. Depression is a common mental health problem that affects almost 20% of children and adolescents worldwide. Depression can affect your quality of your life and even your performance at school. Depression can strike any one whether weak or strong, at any age. Depression does not stem from weakness or being away from God.

We are interested in how young people think about themselves (their self-concept). We want to find out more about this in teenagers of different ages. We also want to see if mood and self-concept are linked in young people. This is important because it could help us prevent depression and improve treatments for young people.

Why have I been asked to take part?

You have been asked to take part because your school has agreed to help us with this project. We are inviting all students in Year 7 to Year 12 to take part (to be adjusted, depending on the school).

Do I have to take part?

No. Whether or not you take part in this study is completely up to you and your parents. You do not have to do this. If your parents give consent for you to take part but you don't want to that is fine – you don't have to do it. Also, if you decide to take part and then change your mind, this won't matter at all. You won't have to give us a reason.

What will happen if I take part in the project?

I will join your class during a tutorial session and ask everyone to complete some questionnaires. These include questions about your current mood and experiences. We will also ask you to describe the kind of person you are. This will take about 30 minutes.

Might anything about the research upset me?

Some of the questions about your mood might remind you of both happy and sad feelings. This is completely normal and OK. If you want to stop at any time or take a break this will be

fine. We can talk about this at the time, or you might want to talk to your friends or a teacher or parent about it.

Will my information be kept private if I take part? Will anyone else know I'm doing this?

Everything you tell us as part of this project is treated as confidential; this means that nobody other than us will ever know what you have told us. The only time we would not be able to keep information confidential is if you tell us something which makes us worried about you or someone else. If this were to happen, we would pass on this information to the school social worker, who can help you.

All your answers will be kept in locked cabinets and nothing will have your name on it. Once we have finished the project all the questionnaires will be shredded, and computer files will be deleted.

Did anyone else check the project is okay to do?

Before any research is allowed, it has to be checked by a group of people called an Ethics Committee. They make sure the research is safe. This study has been approved by the Reading University Ethics. Samr, the researcher who will visit you at school has been through the formal Disclosure and Barring Service process in the UK and has been trained to work with young people.

Will there be any further studies?

At the end of the questionnaire in Part 1 we will invite you to provide you contact details (e.g. email) if you would be interesting in helping with further research. We will invite some girls to have an interview with the researcher. We will send you and your parent full information about the interview so you can discuss this with your parents. Whether or not you take part in this second part of the study is completely up to you and your parents. You do not have to do this. Also, if you decide to take part and then change your mind, this won't matter at all. You won't have to give us a reason. If you do agree to have an interview it will take about 60 minutes. You would meet Samr, the researcher, individually at school.

Once your personal details have been used to contact you they will be destroyed.

What if I have more questions?

If you have any questions about our study, either now or later, please feel free to talk to Samr, or email or phone me. You have a right to know everything about the research and we will be happy to tell you everything. Also, please discuss this with your parents, friends or teachers.

Thank you very much,

Samr Binsaif (Researcher)
Email: s.binsaif@pgr.reading.ac.uk
Telephone number:

Appendix 11: Parent/ Guardian/ Husband Opt-out Form for Study 2

Researcher: Samr Binsaif

Supervisor: Professor Shirley Reynolds

Please return this form if you DO NOT want your daughter/wife to take part in this research.

I do not agree to my daughter/wife participating in this research.

Your daughter's/wife's name: _____

Daughter's form: _____

Your Name: _____

Date: _ _____

Signature: _____

If it is not convenient to return this form, you can also opt out of the research by contacting the researcher

Samr Binsaif (Researcher)

Email: s.binsaif@pgr.reading.ac.uk

Telephone number: xxxxxxxxx

Appendix 12: Assent/Consent Forms for the Students for Study 2

ASSENT FORM for ages 13-15 years

Please circle all you agree with:

Have you read (or had read to you) the information about this project?	**YES/ NO**
Has somebody explained this project to you?	**YES/ NO**
Do you understand what this project is about?	**YES/ NO**
Do you understand it's OK to stop taking part at any time?	**YES/ NO**
Have you asked all the questions you want?	**YES/ NO**
If relevant have you had your questions answered in a way you understand?	**YES/ NO**
Are you happy to take part?	**YES/ NO**
Are you happy to be contacted about Part 2? (This means you will be invited you do not have to take part!)	**YES/ NO**

If yes, please circle how you would you like to be contacted…

Phone call Text Email

Please provide your contact details below

…….

If any answers are 'no' or you do not want to take part, don't sign your name!

Your name: _____ Date: _____

Date of Birth: _____

The person who explained this project to you needs to sign too:

Name of Researcher: Samr Binsaif Date: _____

Signature: _____

CONSENT FORM FOR GIRLS aged 16-18

Please circle all you agree with:

Have you read (or had read to you) the information about this project? **YES/ NO**

Has somebody explained this project to you? **YES/ NO**

Do you understand what this project is about? **YES/ NO**

Do you understand it's OK to stop taking part at any time? **YES/ NO**

Have you asked all the questions you want? **YES/ NO**

If relevant, have you had your questions answered in a way you understand? **YES/ NO**

Are you happy to take part? **YES/NO**

If any answers are 'no' or you do not want to take part, don't sign your name!

Your name: _____ Date: _____

Date of Birth: _____

The person who explained this project to you needs to sign too:

Name of Researcher: Samr Binsaif_____ Date: _____
Signature: _____

Are you happy to be contacted about Part 2? YES/NO

(This means you will be invited; you do not have to take part!)

If yes, please circle how you would you like to be contacted…
Phone call Text Email

Please provide your contact details below
……
……
…….

Appendix 13: Approval for Studies 2, 3 and 4 from the University of Reading Research Ethics Committee

University of Reading

Coordinator for Quality Assurance in Research
Dr Mike Proven, BSc(Hons), PhD

Academic and Governance Services
Whiteknights House
Whiteknights, PO Box 217
Reading RG6 6AH

phone +44 (0)118 378 7119
email m.j.proven@reading.ac.uk

Professor Shirley Reynolds
School of Psychology and Clinical Language Sciences
University of Reading
RG6 6AL

18 March 2018

Dear Shirley

UREC 17/53: Mental Health among Female Adolescents in Saudi Arabia. *Favourable opinion*

Thank you for the response (email dated 6 March 2018 from Samr Binsaif, including attachments, refers) addressing the issues raised by the UREC Sub-committee at its November 2017 meeting (my email of 6 December 2017 refers). On the basis of these responses and the revised documentation, I can confirm that the Chair is pleased to confirm a favourable ethical opinion.

Please note that the Committee will monitor the progress of projects to which it has given favourable ethical opinion approximately one year after such agreement, and then on a regular basis until its completion.

Please also find attached Safety Note 59: Incident Reporting in Human Interventional Studies at the University of Reading, to be followed should there be an incident arising from the conduct of this research.

The University Board for Research and Innovation has also asked that recipients of favourable ethical opinions from UREC be reminded of the provisions of the University Code of Good Practice in Research. A copy is attached and further information may be obtained here:

http://www.reading.ac.uk/internal/res/QualityAssuranceInResearch/reas-RSqar.aspx .

Yours sincerely

Dr M J Proven
Coordinator for Quality Assurance in Research (UREC Secretary)
cc: Dr John Wright (Chair); Dr Laurie Butler (Head of School); Samr Binsaif (PhD student)

Appendix 14: Permission of the Education Ministry To Conduct Studies 2, 3, and 4

المملكة العربية السعودية
وزارة التعليم
إدارة التعليم بمحافظة عنيزة
قسم التخطيط والمعلومات
شؤون الباحثين والباحثات والدراسات

وزارة التعليم
Ministry of Education

من : إدارة التخطيط والمعلومات
إلى : إدارة التخطيط والمعلومات
الرقم الموحد : 39634986

2360
1439/07/22
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إلـــى : قائدة/ المرحلة الثانوية حفظها الله
قائدة/ المرحلة المتوسطة حفظها الله

مـــن : رئيس قسم التخطيط والمعلومات

بشأن : تسهيل مهمة الباحثة/ سمر عبدالملك السيف

السلام عليكم ورحمة الله وبركاته

بناء على الطلب المقدم من طالبة الدكتوراة/ سمر عبدالملك السيف ، بشأن دراستها المتعلقة بقياس مدى إنتشار الاكتئاب لدى طالبات المدارس بالمرحلة المتوسطة والثانوية تحت عنوان (الصحة النفسية بين المراهقات الإناث في السعودية _ عنيزة)

نأمل تسهيل مهمة الباحثة، حيث ستقوم بزيارة للمدارس خلال الفترة القادمة،لتقف مع الطالبات في تعبئة الاستبيان .

شاكرين ومقدرين حسن تعاونكم
والسلام عليكم ورحمة الله وبركاته

عبدالرحمن بن محمد المقبل

ص/ لسعادة المساعدة لتعليم البنات.
ص/ لقسم التخطيط والتطوير (بنات).
ص/ لشؤون الباحثين والباحثات وحملة الدراسات العليا.
ص/ للباحثة سمر عبدالملك السيف.

قسم التخطيط والتطوير بعنيزة Planning & Development Department (Unaizah) gtd@onaizahedu.gov.sa بريد إلكتروني : ٠١٣٦٥٦٢٤٠ ف: ٠١٣٦٥٦٢٤٠ onaizahedu.gov.sa عنيزة . إدارة التعليم

Appendix 15: Debrief Sheet for Students for Study 2

Researcher:	Samr Binsaif	s.binsaif@pgr.reading.ac.uk
Project Supervisors:	Prof Shirley Reynolds:	s.a.reynolds@reading.ac.uk
	Dr. Laura Pass:	l.s.pass@reading.ac.uk

The aim of this study was to investigate the prevalence of depression among female adolescents in certain schools in Unaizah, Saudi Arabia and to learn how depression is understood and experienced by adolescent females. It also assessed self-esteem and future self-image because we are interested in how these are affected by depression.

Your answers will be kept confidential. If at any point you wish to withdraw your answers or ask any questions about this study, please contact me or email me if you use email (contact details above). The project was approved by the University of Reading research Ethics Committee.

We asked you about your mood and how you are feeling. Everyone's feelings go up and down from time to time. This is perfectly normal and nothing to worry about. Sometimes we feel down for quite a while. If you, or a friend, are feeling down there are some places that can help.

Usually, people you already know can help; for example, your parents, other family, a teacher, or a friend. Sometimes it's useful to talk to someone else so we have included information about other organizations that can help young people. Do have a look at this. If you feel that you definitely would like some help you can also talk to the social worker at your school.

Thank you very much for helping us with this research. We hope you have found it interesting. If you would like to know more about our results, please let your teacher know and we would be happy to come back and tell you want we found out. If you would like us to send you a brief summary of what we found you can email us at this address:

s.binsaif@pgr.reading.ac.uk or contact me on xxxxxxxxx to send you a hard copy of your result (it will be ready in about 6 months).

Appendix 16: Multidimensional Scale of Perceived Social Support (MSPSS)

Multidimensional Scale of Perceived Social Support

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**

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

Appendix 17: The Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (RSE)

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. On the whole, I am satisfied with myself.	☐	☐	☐	☐
2. At times I think I am no good at all.	☐	☐	☐	☐
3. I feel that I have a number of good qualities.	☐	☐	☐	☐
4. I am able to do things as well as most other people.	☐	☐	☐	☐
5. I feel I do not have much to be proud of.	☐	☐	☐	☐
6. I certainly feel useless at times.	☐	☐	☐	☐
7. I feel that I'm a person of worth, at least on an equal plane with others.	☐	☐	☐	☐
8. I wish I could have more respect for myself.	☐	☐	☐	☐
9. All in all, I am inclined to feel that I am a failure.	☐	☐	☐	☐
10. I take a positive attitude toward myself.	☐	☐	☐	☐

Appendix 18: Consent Form From Parents for Study 3

Parent/ Guardian/Husband opt-in consent form - Part 2

PARENT/GUARDIAN CONSENT FORM

Researcher: Samr Binsaif

Supervisor: Professor. Shirley Reynolds

(Please initial each box)

1. I confirm that I have read and understand the Information Sheet for the above study and that I have had the opportunity to consider the information. ☐
2. I understand that my daughter's participation is voluntary and that we are free to withdraw at any time. ☐
3. I agree that my daughter can be audio-recorded. I understand that this recording will be heard only by members of the research team and kept on encrypted and password protected computer file. ☐
4. I agree for my daughter to take part in the above study. ☐

The study was reviewed and given a favourable ethical opinion for conduct by the University of Reading Research Ethics Committee.

Your daughter's name:

_____

Your name:

_____

Signature: _____Date:_____

Name of Researcher: Samr Binsaif_____ Date:

Signature: _____

Appendix 19: Assent/Consent Form for Students for Study 3

Project Title : Mental Health among Female Adolescents in Saudi Arabia (Part 2)

Please initial each box:

Have you read (or had read to you) the information about this project? ☐

Has somebody explained this project to you? ☐

Do you understand what this project is about? ☐

Have you asked all the questions you want? ☐

Have you had your questions answered in a way you understand? ☐

Do you understand it's OK to stop taking part at any time? ☐

Is it ok to audio record the session? ☐

Are you happy to take part? ☐

I understand that the data collected from me in this study will be preserved and made available in anonymised form, so that they can be consulted and re-used by others. ☐

If any answers are 'no' or you do not want to take part, don't sign your name!

Your name: _____ Date: _____

The person who explained this project to you needs to sign too:

Name of Researcher: Samr Binsaif Date: _

Signature: _____

If any answers are 'no' or you do not want to take part, don't sign your name!

Your name: _____ Date: _____

Appendix 20: Structure of the Interview for Study 3

Hello (Name), I'm Samr. Thanks for coming to talk to me today. You've already filled in some questionnaires in your classroom, so thanks for that. What I'd like to do today is to ask you a bit more about yourself and find out more about you. We have about an hour. You don't have to answer any questions you don't want to and we can stop at any time. Does that sound OK?

Great. I'd also like to audio tape our interview. That's to help me later so I can remember what we talk about – is that OK?

"(If yes,) I am going to start the recording now, okay?"

Fantastic. Have you got any questions?

"Okay, to start with let's begin with some of the statements you wrote about yourself – I've got a copy of your responses here. Can you have a look?

Exploring the five statements she has circled

[Gives participant their '**I am** sheet']

"Please could you circle the 5 statements that you think are the most important to you, the ones that you think describe you best?

[Collect the sheet with 5 statements circled]

Thanks for that – that's really interesting. Which one do you think is the best way to describe you? Can you say a little bit more about that? Why do you think that's the most important?

Repeat for the next 4 statements.

If any one of them relates to low mood, depression, loneliness, irritability or anhedonia use this to start a conversation about depression…. if not look at other statements and comment on that…. if there is no statement in the list that mentions low mood depression etc. comment on the fact that although they reported high depression symptoms this doesn't seem to be how they see themselves…. can you tell me about that?

Introducing the concept of depression and exploring it further

Something like this….

Some of the words you've used to describe yourself are words that are sometimes used to describe depression or low mood.
Have you heard about depression?
What does depression mean to you?
Do you think you may be suffering from depression?

If they say they think they have depression, then I can start to ask about their experience of depression.

Can you describe what depression feels like? Do any images or pictures come to mind that capture what it is like to be depressed?

If they need prompting 'This could be a colour, or a sound or piece of music, or it might be a place or a thing'

Can you remember when you first felt this way?
Did it happen suddenly or start gradually?

Do you have any ideas about why you feel like this? Explore reasons for the cause?

Can you think of anything that might help you feel differently? Or anything you do to feel better?

Anything that would help you enjoy things again/feel less depressed/ be less irritable (whatever the key symptom is)?

How does (whatever the key symptom is) affect your life?
Could you say a bit more about this?

Exploring her relationships and sources of support

Tell me about yourself, do you have a best friend?
If you feel down or you need to talk to someone, with whom do you prefer to talk?
Could you tell me about your relationship with your family?
Who is the person you mostly turn to when you feel down?
Who else could you turn to when you feel down?
Do you feel better after you have talked to these people?

Exploring what else she does to cope with her state

What do you do when you feel down or sad or hopeless (or whatever the main symptom is)?
Does anything in particular make you feel a bit better?
And is there anything you know that makes you feel worse?
What more do you think female teenagers need to know about depression?
How do you think female teenagers can be helped with depression?
In your opinion, what should the school do to help students with a sad mood or having symptoms of depression?

Appendix 21: Information Sheet About Study 4 for the Caregivers

What is the purpose of the study?

Depression and low mood is a major health problem for young people but we still do not really understand why depression develops or how best to prevent it. This research project aims to help us understand depression in young people and how it relates to thoughts. We hope that it will help us develop a new and better ways to help young people and to prevent depression.

Why are you inviting me to take part?

We want to explore your experiences of having a daughter with symptoms of depression and how this impact on her and other family members. And we want to find out from you how you deal with your teenage daughter at home.

Do I have to take part?

No. It is up to you, and you are free to withdraw at any time, without giving any reason.

What will happen if I take part?

You will complete a brief questionnaire about your mood and your daughter's feeling. You will have an interview with the researcher for about an hour. To make sure that we have a record of the interview I will audio record the interview, but you will not be identified by name, and no one will hear it except the researcher. Everything will be kept confidential.

What are the possible disadvantages and risks of taking part?

We do not expect there to be any disadvantages or risks involved in taking part in this research. Some of the tasks require answering questions about mood and how your daughter might have been feeling or acting recently. You can choose not to answer any questions. You can stop at any time you would like to.

Will the information provided be kept confidential?

Everything you say will be anonymous and kept confidentially. The questionnaires will be kept in locked cabinets in a locked room. All written information will be destroyed as soon as it is no longer needed. The consent forms, however, will be kept for 5 years before disposal.

What will happen to the results of the research study?

We will present the results of our research as part of a doctoral thesis (2020) and at scientific meetings and in scientific journals. No personal information will be given. We will be happy to send you a summary of our results.

Who has reviewed the study?

To protect your interests all research at the University of Reading is reviewed by an independent group of people called a Research Ethics Committee. This application has been reviewed and given a favourable opinion by the University of Reading Research Ethics Committee. Everyone working on this study has been through the formal Disclosure and Barring process and has been approved by the

School of Psychology of the University of Reading to work with children and adolescents.

If you have any questions, please contact us by phone or email. We will be happy to tell you more about the research and to discuss any questions or concerns you might have.

Thank you very much for your help,

Samr Binsaif (Researcher)
Email: s.binsaif@pgr.reading.ac.uk
Tel: xxxxxxxxx

Appendix 22: Caregivers' Consent Form for Study 4

Please initial each box:

Have you read (or had read to you) the information about this project?	☐
Has somebody explained this project to you?	☐
Do you understand what this project is about?	☐
Have you asked all the questions you want?	☐
Have you had your questions answered in a way you understand?	☐
Do you understand it's OK to stop taking part at any time?	☐
Is it ok to audio record the session?	☐
Are you happy to take part?	☐

If any answers are 'no' or you do not want to take part, don't sign your name!

Your name: _____ Date: _____

The person who explained this project to you needs to sign too:

Name of Researcher: Samr Binsaif_____Date: _____

Signature: _____

Appendix 23: Parent Report Long Version of the Mood and Feelings Questionnaire

Parent Report on Child

MOOD AND FEELINGS QUESTIONNAIRE: Long Version

This form is about how your child might have been feeling or acting **recently**.

For each question, please check (✓) how s/he has been feeling or acting ***in the past two weeks***.

If a sentence was not true about your child, check NOT TRUE.
If a sentence was only sometimes true, check SOMETIMES.
If a sentence was true about your child most of the time, check TRUE.

Score the MFQ as follows:
NOT TRUE = 0
SOMETIMES = 1
TRUE = 2

To code, please use a checkmark (✓) for each statement.	**NOT TRUE**	**SOME TIMES**	**TRUE**
1. S/he felt miserable or unhappy.			
2. S/he didn't enjoy anything at all.			
3. S/he was less hungry than usual.			
4. S/he ate more than usual.			
5. S/he felt so tired s/he just sat around and did nothing.			
6. S/he was moving and walking more slowly than usual.			
7. S/he was very restless.			
8. S/he felt s/he was no good anymore.			
9. S/he blamed him/herself for things that weren't his/her fault.			
10. It was hard for him/her to make up his/her mind.			
11. S/he felt grumpy and cross with his/her parents.			
12. S/he felt like talking less than usual.			
13. S/he was talking more slowly than usual.			
14. S/he cried a lot.			

15. S/he thought there was nothing good for him/her in the future.			
16. S/he thought that life wasn't worth living.			
17. S/he thought about death or dying.			
18. S/he thought his/her family would be better off without him/her.			
19. S/he thought about killing him/herself.			
20. S/he didn't want to see his/her friends.			
21. S/he found it hard to think properly or concentrate.			
22. S/he thought bad things would happen to him/her.			
23. S/he hated him/herself.			
24. S/he felt s/he was a bad person.			
25. S/he thought s/he looked ugly.			
26. S/he worried about aches and pains.			
27. S/he felt lonely.			
28. S/he thought nobody really loved him/her.			
29. S/he didn't have any fun at school.			
30. S/he thought s/he could never be as good as other kids.			
31. S/he felt s/he did everything wrong.			
32. S/he didn't sleep as well as s/he usually sleeps.			
33. S/he slept a lot more than usual.			
34. S/he wasn't as happy as usual, even when s/he was praised or rewarded.			

Appendix 24: Structure of the Interview for the Caregivers

I will introduce myself to the mother and I will thank her for being part of the study.

I will then ask the mother to do the MFQ (parent version) and explain to her that this form is about how her daughter might have been feeling or acting recently. When she has finished filling out the form, I shall give her the PHQ-9 and tell her this is about you and your feelings over the past two weeks.

Then I will explain to her how the study is important. If we learn more about her daughter and gain an understanding of how she deals with her daughter at home, and how she helps her to cope with her feelings, we can gain more information and help adolescents with depression. Then I will confirm that all the information will be confidential and ask if it is okay to record her.

"The reason I have invited you to take part in this research interview is because your daughter answered some questions that suggested she might have some problems with her mood. We would also like to ask you if you have had some problems with your mood recently or earlier in your life. Is that, OK?"

I will start the interview once I establish, she is happy to take part.

Focus on mother's perception of daughter, then follow-up questions to explore further

1. On the questionnaire, you've mentioned a few things about your daughter's mood and how she has been feeling and acting in the last few weeks. How long do you think she has been feeling this way?
2. Could you tell me which changes in your daughter's behaviour you have noticed the most?
3. Is this something you had already noticed or did doing the questionnaire highlight these issues for you? If yes, which of these difficulties (I shall use a word she has used if possible, so I don't introduce new ideas, e.g. symptoms) are you most concerned about? I shall ask her to elaborate.
4. When did you first notice that (name) had some of these problems? (If possible, I shall get her to tie it to an event, e.g. before/after Ramadam, before/after a family wedding, or birthday – this can help to pin down the onset time of issues when it happened some time ago and memories are less clear)

5. Prompt Questions – For example, has your daughter's sleep or appetite changed? Is she staying alone in her room more than she used to? Or are there any other changes you might have noticed?

6. (If they noticed a change) Do you have any ideas about what might have caused this? Did anything change at that time? I shall give some prompts if the mother can't come up with anything. For example, did anything change in your family, or in her life? For example, bullying, etc. Can you think of any other reasons? (e.g. …)

7. When your daughter is feeling in a low mood, do you find it difficult to cope with? (If yes) What do you find difficult?

8. When she has been feeling down, have you done anything to try and help her overcome her feeling and support her? Do you think it helped her? I shall keep asking for any further things the mother did, and whether she thinks they helped.

9. Can you think of any other things you have not already done that might help her?

10. Have you come across a similar situation before in your family? (I shall prompt if necessary any family history) (Or if I see a raised PHQ-9 from the mother) Do you think your daughter's difficulties are similar to the difficulties you mention here (indicating the PHQ-9)?

11. (If they have had a similar situation before) Did you go outside the family for any advice or help? Do you know about anywhere or any person you could go to for advice or help?
    (If they haven't) Is there anyone outside the family that you would go to for advice or help with your daughter? Do you know about anywhere or any person you could go to for advice or help?

12. (If she did not seek any support outside the family) Can you tell me why not?

13. Would you consider talking to anyone else? (If not mentioned) Would it be possible for you to take her to see a psychologist or therapist to help her?

Focus on mother

14. It's always difficult when our children or other people in the family have troubles – it can affect everyone. Have you noticed any impact of your daughter's difficulties on yourself?
    (Or if they have already mentioned this spontaneously, I shall mention this as the opening statement)

15. Is there anything you find particularly difficult to deal with?

16. (If yes) What do you do to help you cope with your difficulties?

17. (If the mother has shown symptoms of depression on the PHQ-9) On the second questionnaire (PHQ-9) that you did, you have mentioned that (if she has mentioned). Did you notice whether this happened before or after your daughter's behaviour changed?

18. (If the mother has shown symptoms of depression on the PHQ-9) What kind of support have you received to help you deal with your (whatever she has mentioned)?

To close the interview in a more positive way

19. Finally, I know we have focused on some difficult things in this conversation and thank you for being so open with me. I really would like to know about your daughter's strengths as well – what do you think are her three best qualities?

    Thank you for your time and your cooperation. Is there anything you would like to ask me before we end the interview? Your responses will be very helpful for our research. May I remind you that if you need more information about depression for your daughter you may look at the information sheet, we have already given her?

Appendix 25: Debrief Sheet for Caregivers for Study 4

Researcher:	Samr Binsaif	s.binsaif@pgr.reading.ac.uk
Project Supervisors:	Prof Shirley Reynolds:	s.a.reynolds@reading.ac.uk
	Dr. Laura Pass:	l.s.pass@reading.ac.uk

Thank you for taking part in our research. As you know, we wanted to find out more about your daughter's feelings and how you help and support her when she is feeling down. This is very important because depression is a major health problem for many adolescents, and we want to develop better ways to identify depression and to prevent it developing.

We are planning to interview about 15 mothers. All the information you give us will be kept completely confidential. If, at any time, you would like to withdraw your results or ask any questions about the research please contact me (Samr Binsaif) or the head teacher.

Thanks again for helping us with this research. We hope you have found it interesting. If you would like us to send you a brief summary of what we found, you can email me at s.binsaif@pgr.reading.ac.uk. It will be about 6 months before this is ready.

Appendix 26: Approval for Study 5 from the University of Reading Research Ethics Committee

University of Reading

Coordinator for Quality Assurance in Research
Dr Mike Proven, BSc(Hons), PhD

Academic and Governance Services
Whiteknights House
Whiteknights, PO Box 217
Reading RG6 6AH

phone +44 (0)118 378 7119
email urec@reading.ac.uk

Professor Shirley Reynolds,
School of Psychology and Clinical Language Sciences
University of Reading
RG6 6AL

25 July 2019

Dear Shirley,

UREC 19/32: The role of social workers in supporting well-being in Saudi Arabian female students. *Favourable opinion with condition*

Thank you for the response (your email, dated 2nd July 2019, from Samr Binsaif refers) addressing the issues raised by the UREC Sub-committee at its June 2019 meeting (*my Provisional Opinion email of 19 June including attachments refers*). I can confirm that the Chair is pleased to confirm a favourable ethical opinion subject to the following condition:

I. The Committee were of the opinion that once data is stored on the University secure network (which is backed-up by IT Services), it is not required and presents additional risks for the data to be stored in addition on a removable and encrypted hard drive. The Committee asked that this not be included in the procedure.

Yours sincerely

Dr M J Proven
Coordinator for Quality Assurance in Research (UREC Secretary)
cc: Dr John Wright (Chair); Dr Andrew Glennerster (SREC Chair); Ms Liz White (SREC Administrator); Samr Binsaif (PhD Student);

Appendix 27: Permission of the Education Ministry To Conduct Study 5

المملكة العربية السعودية
وزارة التعليم
إدارة التعليم بمحافظة عنيزة
قسم التخطيط والتطوير

6142
1441/04/12
0

الموضوع: تسهيل مهمة الطالبة سمر بنت عبد الملك بن سيف.

نشرة
للمدارس المتوسطة والثانوية (بنات)

المكرمة/ قائدة المدرسة وفقها الله

السلام عليكم ورحمة الله وبركاته

بناء على موافقة سعادة مدير التعليم بالإحالة رقم ٤١٥٨٦٢٢٧ وتاريخ ١٤٤١/٤/١١هـ على خطاب طالبة الدكتوراه سمر بنت عبدالملك بن سيف من جامعة ريدنق تخصص "علم النفس الإرشادي" بشأن طلب تسهيل مهمتها في القيام بزيارة المدارس وإجراء مقابلات شخصية مع المرشدات الطلابيات للتعرف على نوعية الاحتياج في المدارس، عليه نأمل تسهيل مهمة الطالبة.

شاكرين لكم حسن تعاونكم.

وتقبلوا تحياتي

رئيس قسم التخطيط والتطوير

د. خالد بن محمد المنصور

Appendix 28: Consent Form for the Head Teacher for Study 5

I understand that my school's participation in this project will involve:

Assisting the researcher, Samr Binsaif, to recruit the social worker for this project. ☐

Allowing Samr Binsaif the use of a suitable location in which to conduct the interviews. ☐

Allowing Samr Binsaif to interview the social worker at school. ☐

The interview will take about 60 minutes. ☐

I understand that my school's participation in this study is entirely voluntary. ☐

I, _____(NAME) consent to Samr Binsaif proceeding with this study.

I, _____ (NAME) have read all the information about the research and agree to the researcher carrying out her study in the school.

Signature of Head Teacher: ..... Date:……

Appendix 29: Information Sheet for the School Counsellor

Dear Social Worker,

I am Samr Binsaif. I am carrying out a PhD study on the role of school social workers in supporting students' well-being in Unaizah, and would very much like to include you in this study. It would be appreciated if you could find the time to read about my study below and, if you agree, sign the consent sheet I have enclosed.

What is the purpose of the study?

We are interested in finding out how schools support young people's well-being. The aim is to help develop new and better ways to help young people. School social workers have an important part to play. I hope to interview you to find out more about your role and any challenges you face. This study is specifically about social workers who are based in schools for girls.

Will I have to take part?

No, it will be up to you to join the study. If you agree to take part, you have to sign a consent form.

What will happen if I take part?

You will complete a questionnaire at school. The questions will ask you about your experience as a social worker and the barriers you may face to help the students in the school. You will then take part an interview at the school, which will be voluntary, and will last for approximately an hour. You have the right to not complete the interview for any reason. All the information will be given will be completely confidential, which means only myself (the researcher) and my supervisor will look at it. If this will be published the information will be anonymous. And if you need to ask any further questions before or after the interview you can contact the researcher at any time using the information provided below.

What are the possible disadvantages and risks of taking part?

We do not expect any disadvantages or risks to be involved in taking part in this research. You will be asked questions about your experience as a social worker. You can choose not to answer any questions.

What are the possible benefits?

This research should be a benefit to Saudi society and should help to support the students. And it will help in the future development of the role of the social worker.

Will everything in the study be kept confidential?

All personal information provided will be kept confidential. The information we collect will not have any names on it and will be kept in strict confidence in locked cabinets. All the paperwork collected will be destroyed as soon as it is no longer needed. The consent forms, however, will be kept for 5 years before disposal. The interview will be audio recorded and will be totally confidential.

What will happen to the results of the research study?

The information we collect will be analysed and written up as part of a PhD thesis (due to be submitted in 2020). It may also be published in a professional, scientific journal and at professional academic conferences. No personal information or information about your school will be included.

Who has reviewed the study?

All research at the University of Reading is reviewed by an independent group of people, called a Research Ethics Committee. This is to make sure that the highest standards of ethical practice are followed. This application has been approved by the University of Reading Research Ethics Committee. The researcher – Samr Binsaif - has an enhanced Disclosure and Barring Service (DBS) in the UK and has been trained by the School of Psychology of the University of Reading to work with children and adolescents.

If you would like any further information about this study, I would be delighted to visit you at school and discuss it with you.

Thank you very much,

Samr Binsaif (Researcher)
Email: s.binsaif@pgr.reading.ac.uk
Telephone number: 0550794433

Appendix 30: Consent Form for the School Counsellor for Study 5

Project Title: *A qualitative study about the awareness of school social workers about the mental health of female students and the barriers facing social workers in schools in Saudi Arabia.*

Please initial each box:

Have you read (or had read to you) the information about this project?	
Has the researcher explained this project to you?	
Do you understand what this project is about?	
Have you asked all the questions you want?	
Have you had your questions answered in a way you understand?	
Do you understand it's OK to stop taking part at any time?	
Is it ok to audio record the session?	
Are you happy to take part?	

Your name: _____ Date: _____

Signature: _____

The person who explained this project to you needs to sign too:

Name of Researcher: Samr Binsaif_____Date: _____

Signature: _____

Appendix 31: Debrief Sheet for the School Counsellor for Study 5

Thank you for taking part in our research. As you know, I wanted to find out more about social workers' awareness of students' experience of depressive symptoms and other mental illnesses and how they could be helped. We also wanted to examine the perceptions of school social workers related to their roles in the school and their job satisfaction and to discover what are the barriers that face the social workers to help the students in need.

This will help us develop new and better ways to help young people. This is very important because depression is a major health problem for many adolescents, and we want to develop better ways to identify depression and to prevent it developing.

All the information you give us will be kept completely confidential. If, at any time, you would like to ask any questions about the research please contact me (Samr Binsaif).

Thanks again for helping us with this research. We hope you have found it interesting. If you would like us to send you a brief summary of what we found, you can email me at s.binsaif@pgr.reading.ac.uk. It will be about 6 months before this is ready.

Thank you very much,

Samr Binsaif (Researcher)
Email: s.binsaif@pgr.reading.ac.uk
Telephone number: 0550794433

Appendix 32: Structure of the Interview for the School Counsellors

Hello, I am Samr. Thank you for allowing me to take your time and to interview you. Today I will ask you some questions that relate to your job as a social worker at this school. The questions will be about the barriers that you face as social worker and how you deal with students' mental problems. Before we start, I will record our conversation to help me later to analyse the data, is that ok for you?

Social worker's general information

Is being a school social worker a job you enjoy?

1. Please explain what your role is as a school social worker.
2. Prompt Questions- Are you only involved with students' problems, or do you have other responsibilities? If so, what are they?
3. What do you find most rewarding in your job? Or 'in a typical week at work what do you enjoy most? And what is the worst thing each week?

School policy

4. Are there any factors which constrain your role as a school social worker?
5. Do you present any lectures at assembly to raise the awareness of mental health, for example, depression? If no, why? If yes, can you tell me more about it?
6. Could you please tell me how do you help the students with their mental health issues?
7. Does the school have a policy about confidentiality?
8. Do you keep their issues totally confidential? If no, why?

Social worker's experiences with students

9. Do the students come to you independently or do the teachers refer them to you? Or it could be both.
10. What are the most common problems you have come across that the students have?
11. Have you come across students with depression? If yes, how do you assess them?
12. What are the most common mental health issues you come across? How do you assess them?

13. Are you aware about the students' mental issues? If yes, what awareness do you have of their experiences and their symptoms?
14. Has a student ever told you that they are planning to harm themselves? (if not) What would you do if a student told you that she was thinking of harming herself?
15. Do you have a specific policy to follow? Who do you need to talk to about this? Who would/ who did you tell?
16. Your job is really challenging – have you had any training to help you manage this?
17. Do you get any support from people you work with? How about supervision? What would you do if you had a problem, you didn't know how to deal with?

Barriers that may face the social worker and the students

18. What do you think are the most common barriers that face the student in seeking help from you?

19. Have you ever have had difficulties in dealing with students? Or their family or even the head teacher?
20. What do you as a social worker want from the Saudi Education Ministry to be provided to your school?

Appendix 33: Arabic versions of the Child Report MFQ, The Rosenberg Self-Esteem Scale, Multidimensional Scale of Perceived Social Support (MSPSS) and Parent Report Long Version of the MFQ

MOOD AND FEELINGS QUESTIONNAIRE (MFQ)

استبيان المزاج و المشاعر

هذه الاستمارة تستعلم عن شعورك أو تصرفاتك في الأسبوعين الماضيين.
اذا كانت العبارة صحيحة عنك في معظم الوقت، اختر "صحيح"
اذا كانت العبارة صحيحة أحيانا" فقط، اختر "أحيانا""
اذا لم تكن العبارة صحيحة عنك، اختر " غير صحيح"

	صحيح	أحيانا"	غير صحيح
1. شعرت بالتعاسة أو الحزن.			
2. لم أستمتع بشيء على الاطلاق.			
3. كنت أقل جوعا" من العادة.			
4. أكلت أكثر من العادة			
5. شعرت بتعب شديد لدرجة انني جلست و لم أفعل شيء.			
6. كنت أتحرك و أمشي ببطء أكثر من العادة.			
7. كنت كثير التململ			
8. شعرت ان لا نفع لي بعد الآن			
9. القيت اللوم على نفسي على أشياء لم يكن ذنبي بها			
10. صعب علي أن أحسم قرارا"			
11. شعرت بالغضب و التعارض مع أهلي			
12. شعرت برغبة في التكلم أقل من العادة			
13. كنت أتحدث ببطء أكثر من العادة			
14. بكيت كثيرا"			
15. فكرت أن لا شيء جيد لي في المستقبل.			
16. فكرت أن الحياة لا تستحق العناء.			
17. فكرت بالموت أو أن أموت.			
18. فكرت بأن عائلتي سوف تكون أفضل حالا" من دوني.			
19. فكرت بأن أقتل نفسي			
20. لم أرد أن أرى أصدقائي.			
21. وجدت صعوبة في التفكير كما ينبغي أو التركيز			
22. فكرت بأن أشياء سيئة سوف تحصل لي			
23. كرهت نفسي			
24. شعرت انني شخص سيء			

25 .فكرت بأنني بدوت قبيح			
26. قلقت بشأن الأوجاع و الألام			
27. شعرت بالوحدة			
28. فكرت بأن لا أحد حقا"يحبني			
29. لم استمتع في المدرسة			
30. فكرت بأنني لن أكون يوما" بجدارة الأولاد الآخرين			
31. فعلت كل شيء خطأ			
32. لم انم جيدا" كما أنام عادة"			
33. نمت أكثر بكثير من العادة			

MOOD AND FEELINGS QUESTIONNAIRE (MFQ)

استبيان المزاج و المشاعر-للأهل

هذه الاستمارة تستعلم عن شعور أو تصرفات ولدك <u>في الأسبوعين الماضيين</u>.
اذا كانت العبارة صحيحة عنه/عنها في معظم الوقت، اختر "صحيح"
اذا كانت العبارة صحيحة أحيانا"، اختر "أحيانا""
اذا لم تكن العبارة صحيحة عنه/عنها، اختر " غير صحيح"

	صحيح	صحيح أحيانا"	غير صحيح
1. شعر بالتعاسة أو الحزن.			
2. لم يستمتع بشيء على الاطلاق.			
3. كان أقل جوعاً من العادة.			
4. أكل أكثر من العادة			
5. شعر بتعب شديد لدرجة انه جلس و لم يفعل شيء.			
6. كان يتحرك و يمشي ببطء أكثر من العادة.			
7. كان كثير التململ			
8. شعر ان لا نفع له بعد الآن			
9. القى اللوم على نفسه على أشياء لم يكن ذنبه بها			
10. صعب عليه أن يحسم قراراً			
11. شعر بالغضب و التعارض معي			
12. شعر برغبة في التكلم أقل من العادة			
13. كان يتحدث ببطء أكثر من العادة			
14. بكى كثيراً			
15. فكر أن لا شيء جيد له في المستقبل.			
16. فكر أن الحياة لا تستحقّ العناء.			
17. فكربالموت أو أن يموت.			
18. فكر بأن عائلته سوف تكون أفضل حالا" من دونه.			
19. فكر بأن يقتل نفسه.			
20. لم يرد أن يرى أصدقائه.			
21. وجد صعوبة في التفكير كما ينبغي أو التركيز			
22. فكر بأن أشياء سيئة سوف تحصل له			
23. كره نفسه			
24. شعر انه شخص سيء			
25. فكر بأنه بدا قبيح			
26. قلق بشأن الأوجاع و الألام			

27. شعر بالوحدة			
28. فكر بأن لا أحد حقاً يحبه			
29. لم يستمتع في المدرسة			
30. فكر بأنه لن يكون يوماً بجدارة الأولاد الآخرين			
31. شعر بانه يفعل كل شيء خطأ			
32. لم ينم جيدا" كما ينام عادة"			
33. نام أكثر بكثير من العادة			
34. لم يكن سعيداً كالعادة، حتى عندما مدحته أو كآفأته.			

مقياس روزينبيرج للتقدير الذاتي

يندرج هذا المقياس تحت مقياس الدرجات التي تمتد من أوافق بشدة لغاية لا أوافق بشدة. يجب الانتباه الى بعض البنود التي يكون المقياس فيها معكوس. شملت العيّنة الأصلية التي تم وضع المقياس لها 5,024 طالب من المرحلة الثانوية، حيث اختيروا عشوائيا من عشر مدارس في ولاية نيويورك.

تعليمات: فيما يلي، قائمة ببعض البنود التي تتعلق بمشاعرك العامة نحو نفسك. ضع إشارة بجانب الإجابة الصحيحة.

البند	أوافق بشدة	أوافق	لا أوافق	لا أوافق بشدة
1. بشكل عام، أنا راض عن نفسي				
2. أحيانا، أشعر بعدم جدواي*				
3. أعتقد أنني أمتلك العديد من الصفات الجيدة				
4. أستطيع القيام بالأشياء التي يقوم بها الآخرون				
5. أشعر بعدم وجود شيئ يجعلني فخور بنفسي*				
6. بالتأكيد، أشعر بعدم فائدتي أحيانا*				
7. اشعر بأنني شخص ذو قيمة، على الأقل، بشكل متساو مع غيري				
8. أتمنى أن أكن لنفسي احتراما أكبر*				
9. بشكل عام، أنا أميل إلى الشعور بأنني فاشل*				
10. لدي سلوك إيجابي تجاه نفسي				

* بنود يجب الانتباه لها، بتكون معكوسة على سلم القياس

الدعم الاجتماعي

يتضمن هذا الاستفتاء عدد من الاقتراحات التي تتعلق بالدعم الاجتماعي. استعملي ١ الى ٧ من البنود من خلال وضع دائرة

رقم ١: اعترض بشده
رقم٢: اعترض باعتدال
رقم ٣: اعترض قليلا
رقم ٤: حيادي
رقم ٥: أوافق قليلا
رقم ٦: أوافق باعتدال
رقم ٧: أوافق بشده

هناك شخص مميز بجانبي عندما أحتاجه	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
هناك شخص مميز أستطيع ان أشارك أفراحي وأحزاني معه	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
عائلتي تحاول مساعدتي	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
أنال مساعدة عاطفية ودعم من عائلتي	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
هناك شخص هي /مميز هو مصدر حقيقي للراحة لي	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
أصدقائي يحاولون مساعدتي	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
بإمكاني الاعتماد علئ أصدقائي عندما تجري	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده

الامور بشكل سيء							
عندي أصدقاء أستطيع ان أشارك افراحي واحزاني معهم	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
هناك شخص مميز في حياتي يهتم بمشاعري	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
عائلتي ترغب في مساعدتي لإتخاذ القرارات	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا		٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
أستطيع ان اتحدث عن مشاكلي مع أصدقائي	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده
	١-اعترض بشده	٢-اعترض باعتدال	٣-اعترض قليلا	٤-حيادي	٥-أوافق قليلا	٦-أوافق باعتدال	٧-أوافق بشده

Appendix 34: COREQ Checklist for Study 3

COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	85
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	85
Occupation	3	What was their occupation at the time of the study?	85
Gender	4	Was the researcher male or female?	85
Experience and training	5	What experience or training did the researcher have?	85
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	85
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	85-86
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	85
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	88
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	86
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	88
Sample size	12	How many participants were in the study?	88
Non-participation	13	How many people refused to participate or dropped out? Reasons?	86
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	88
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	88
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	86
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	88
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	N/A
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	88
Field notes	20	Were field notes made during and/or after the inter view or focus group?	N\A
Duration	21	What was the duration of the inter views or focus group?	88
Data saturation	22	Was data saturation discussed?	86
Transcripts returned	23	Were transcripts returned to participants for comment and/or	104

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	89
Description of the coding tree	25	Did authors provide a description of the coding tree?	N/A
Derivation of themes	26	Were themes identified in advance or derived from the data?	89
Software	27	What software, if applicable, was used to manage the data?	N/a
Participant checking	28	Did participants provide feedback on the findings?	N/A
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	90
Data and findings consistent	30	Was there consistency between the data presented and the findings?	90
Clarity of major themes	31	Were major themes clearly presented in the findings?	90
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	94

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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Appendix 35: COREQ Checklist for Study 4

COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	108
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	85
Occupation	3	What was their occupation at the time of the study?	85
Gender	4	Was the researcher male or female?	85
Experience and training	5	What experience or training did the researcher have?	85
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	108
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	108
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	85
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	109
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	108
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	109
Sample size	12	How many participants were in the study?	108
Non-participation	13	How many people refused to participate or dropped out? Reasons?	108
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	108
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	109
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	108
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	109
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	N/A
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	108
Field notes	20	Were field notes made during and/or after the inter view or focus group?	N/A
Duration	21	What was the duration of the inter views or focus group?	109
Data saturation	22	Was data saturation discussed?	N/A
Transcripts returned	23	Were transcripts returned to participants for comment and/or	109

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	110
Description of the coding tree	25	Did authors provide a description of the coding tree?	N/A
Derivation of themes	26	Were themes identified in advance or derived from the data?	110
Software	27	What software, if applicable, was used to manage the data?	N/A
Participant checking	28	Did participants provide feedback on the findings?	
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	111
Data and findings consistent	30	Was there consistency between the data presented and the findings?	111
Clarity of major themes	31	Were major themes clearly presented in the findings?	111
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	112

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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Appendix 36: COREQ Checklist for Study 5

COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
Domain 1: Research team and reflexivity			
Personal characteristics			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	126
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	85
Occupation	3	What was their occupation at the time of the study?	85
Gender	4	Was the researcher male or female?	85
Experience and training	5	What experience or training did the researcher have?	85
Relationship with participants			
Relationship established	6	Was a relationship established prior to study commencement?	126
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	126
Interviewer characteristics	8	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	85
Domain 2: Study design			
Theoretical framework			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	127
Participant selection			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	125
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	126
Sample size	12	How many participants were in the study?	125
Non-participation	13	How many people refused to participate or dropped out? Reasons?	125
Setting			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	126
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	126
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	125
Data collection			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	127
Repeat interviews	18	Were repeat inter views carried out? If yes, how many?	N\A
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	126
Field notes	20	Were field notes made during and/or after the inter view or focus group?	N/A
Duration	21	What was the duration of the inter views or focus group?	126
Data saturation	22	Was data saturation discussed?	125
Transcripts returned	23	Were transcripts returned to participants for comment and/or	127

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
Domain 3: analysis and findings			
Data analysis			
Number of data coders	24	How many data coders coded the data?	N/A
Description of the coding tree	25	Did authors provide a description of the coding tree?	N/A
Derivation of themes	26	Were themes identified in advance or derived from the data?	N/A
Software	27	What software, if applicable, was used to manage the data?	N/A
Participant checking	28	Did participants provide feedback on the findings?	N/A
Reporting			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	132
Data and findings consistent	30	Was there consistency between the data presented and the findings?	N/A
Clarity of major themes	31	Were major themes clearly presented in the findings?	N/A
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	132

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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