



## **Investigating the Relationship between the Variables of Depression, Emotion Regulation and Individuals Occupational Functioning in Saudi Arabia**

**Rawda Abdullah Almuntashiri**  
Master of Social Work in Family and Child.  
E-mail: [rawda1090s@gmail.com](mailto:rawda1090s@gmail.com)

### **Abstract**

This study addresses the relationship between depression, emotion regulation, and health care workers in Saudi Arabia occupational functioning. This study was based on the premise that the level of depression is bound to vary in accordance with age, a high level of depression would be associated with the ability to regulate their emotions, and a high degree of depression would result in a decline in work performance. The data of this study gathered from health workers in Saudi Arabia, consisting of 51 participants' age 20 to 40 from Faisal Hospital. The researcher found that the relationship between depression and emotion regulation was not statistically significant. However, younger workers reported more problems related to emotion regulation in a depressive state as compared to older people. The study concludes as age increases, depression decreases, and the older generation has a greater ability to think positively and handle depressive situations more appropriately.

**Keywords:** depression, emotion regulation, health care workers, age, job performance

## دراسة العلاقة بين متغيرات الاكتئاب وتنظيم الانفعالات والأداء المهني للأفراد في المملكة العربية السعودية

### الملخص

تتناول هذه الدراسة العلاقة بين الاكتئاب وتنظيم الانفعالات والعاملين في مجال الرعاية الصحية في المملكة العربية السعودية الوظائف المهنية. استندت هذه الدراسة على فرضية أن مستوى الاكتئاب لا بد أن يتغير وفقاً للعمر ، ويرتبط مستوى عال من الاكتئاب بالقدرة على تنظيم عواطفهم ، وقد تؤدي درجة عالية من الاكتئاب إلى انخفاض في العمل أداء. تم جمع بيانات هذه الدراسة من العاملين الصحيين في المملكة العربية السعودية ، والتي تتكون من ٥١ مشاركاً تتراوح أعمارهم بين ٢٠ و ٤٠ عاماً من مستشفى فيصل. وجد الباحث أن العلاقة بين الاكتئاب وتنظيم الانفعالات لم تكن ذات دلالة إحصائية. ومع ذلك ، أفاد العمال الأصغر سناً عن المزيد من المشاكل المتعلقة بتنظيم العاطفة في حالة الاكتئاب بالمقارنة مع كبار السن. وتختتم الدراسة بتزايد العمر ، وانخفاض الاكتئاب ، والجيل الأكبر سناً لديه قدرة أكبر على التفكير بشكل إيجابي والتعامل مع حالات الاكتئاب بشكل أكثر ملاءمة.

**الكلمات المفتاحية:** الاكتئاب ، تنظيم الانفعالات ، عمال الرعاية الصحية ، العمر ، الأداء الوظيفي

### Introduction:

Depression is a pervasive mental disorder that impacts a large number of people all across the globe. Recent research indicates that an estimated 350 million individuals around the world are diagnosed with clinical depression (World Health Organization, 2015). Depression affects people of all ages and belonging to all walks of life. It has been found to influence the mental health of individuals regardless of their socioeconomic status, level of education and other major demographic variables.



The Diagnostic and Statistical Manual for Mental Disorders (DSM-5) describes major depressive disorder as characterized by symptoms of persistent low mood, diminished interest in activities, feelings of worthlessness, loss of energy, psychomotor retardation, sleep disturbances, diminished ability to concentrate and suicidal ideation, amongst other symptoms (American Psychological Association, 2010). It states that depression can significantly hamper an individual's personal, social, and occupational functioning (American Psychological Association, 2010). For a diagnosis to be warranted, the aforementioned symptoms must persist for a period of at least two weeks.

Depression has been associated with a myriad of negative outcomes, including a diminished quality of life and reduced cognitive and social functioning (Harvey, 2001; Papakostas, 2004). A relationship has also been established between depression and the inability to effectively regulate one's emotions (Gross & John, 2003). Research has provided evidence that depression levels and impacts tend to vary with age, generally being low level during early adulthood and gradually intensifying with age (Mirowsky & Ross, 1992). This pattern is directly influenced by alterations in one's life cycle, represented by changes in marital status, employment and economic wellbeing (Mirowsky & Ross, 1992).

Owing to the increasing prevalence of depression around the globe and research findings indicating how the disorder impacts the general functioning and emotional stability of afflicted individuals, the current study focuses on determining the possible association that depression has with individuals' occupational functioning and the variable of emotion regulation across different age groups. Although similar previous studies aiming to establish the connection between the stated variables, no known studies of a similar nature have been carried out in Saudi Arabia. This study aims to extend the research findings to this area of interest as well.

### **Statement of the Problem**

In the present era, an increasing number of people between ages 20 to 40 face the problem of depression, which exerts a substantially negative impact on various facets of their life. Among the factors subject to adverse impacts are individuals' social and occupational functioning.



Depression depletes a person's ability to modulate their emotions in an effective manner which, in turn, exerts negative influences upon their level of everyday functioning. Although the ill effects of depression have been well documented in studies in Western countries, very few empirical studies have focused on determining the impact depression has on the people of Mecca in Saudi Arabia.

In light of these factors, the current research has been designed to investigate the range of emotion regulation deficits and disturbances in occupational functioning instigated by depression in people between the ages of 20 and 40, from Saudi Arabia. The research takes into account the impacts that age- and culture-related variables have on the level of depression. Hence, empirical research claiming that depressive symptoms that people exhibit vary in relation to their age, also guides the current research (Mirowsky & Ross, 1992).

### **Purpose of the Study**

The purpose of this research is to investigate the relationship between the variables of depression, emotion regulation and people's occupational functioning. The researcher intends to examine any associations found to exist between these variables, as they apply to the population of Saudi Arabia. It aims to ascertain whether depression impacts peoples' capacity to exert control over their emotions. It seeks to explore how the emotion regulatory abilities of people fare under the influence of depression. It also aims to determine whether a high level of depression is associated with a decline in job performance. In this research, assessment of a person's job performance would provide a measure of their occupational functioning. Moreover, the research intends to determine whether age differences in depression are present among the people of Saudi Arabia. By addressing the aforementioned factors, the current study also aims to derive implications for the treatment of depression for individuals belonging to the 20 to 40 age group.

### **Research Questions**

The current study aims to answer following primary research questions as well as future secondary questions that may arise during the study:

**Question 1:** Does the level of depression differ across the range of ages from 20 to 40?



**Question 2:** What is the effect of depression on the emotion regulation ability of individuals belonging to the age group of 20 to 40?

**Question 3:** Does a high degree of depression have an adverse impact on individuals' occupational functioning?

### **Research Hypotheses**

Keeping in view the objectives of the research and the available research literature, three specific hypotheses are developed. The first hypothesis states that a high level of depression is associated with a diminished ability to regulate emotions. The next hypothesis states that a high degree of depression results in a decline in work performance, which denotes a person's occupational function. A third hypothesis is that the level of depression is varies in accordance with age.

### **Significance of the Research**

Depression is one of the most prevalent mental health disorders around the world. A vast wealth of literature establishes its links to a variety of negative personal, social and health related outcomes. The present study looks into areas of inquiry regarding the disorder having received considerable research focus in the west but which have not been explored extensively in the cultural context of Saudi Arabia.

One of the chief objectives of the research is to focus on how the variable of emotion regulation relates to depression. A popular conceptualization of emotion regulation defines it as the process by which individuals exert control over when, how and what kind of emotions that they experience or exhibit (Gross, 1998). The process of emotion regulation is vital to mental health as it can influence a person's potential for work and ability to socialize with others (Gross & Munoz, 1995). Research has previously linked a disruption in the emotion regulation capacities to pronounced clinical problems such as major depressive disorder (Joormann & Gotlib, 2010). It is for this very reason that many therapeutic interventions for depression target improving the emotion regulation abilities of people in order to alleviate the symptoms of depression (Gross & Munoz, 1995).



The fact that psychotherapy acknowledges the positive role that emotion regulation plays in the treatment of depression is indicative of the strong connection that exists between these variables. The present research looks to add to the library of research literature that supports this view, and attempts to elaborate on the topic by showing that this relationship between the variables persists across different cultural dimensions.

Earlier research has also documented that depression has a detrimental effect on the occupational functioning of people as assessed by their job performance. Lerner and Henke (2008) showed that in comparison to non-depressed people, those who exhibited a greater level of depression showed diminished workplace performance, greater absenteeism and a higher rate of unemployment. These individuals' workplace productivity was directly related to the severity of their depressive symptoms (Lerner & Henke, 2008). In consideration of such empirical evidence, the present research aims to discern the effect that depression has on the occupational functioning of people in Saudi Arabia. By delving into this area of study, new avenues that may play a role in reducing negative work related outcomes caused by depression can be identified.

Another important aspect of the present study is to examine how the level of depression varies across people falling within the parameters of 20 to 40 years of age in Saudi Arabia. Research has confirmed that age-related differences are likely to exist in the severity of depressive symptomology (Mirowsky & Ross, 1992). The specified pattern of these differences indicates that depression levels are usually low during early adulthood and tend to increase with the passing years (Mirowsky & Ross, 1992). These patterns are representative of the life cycle changes that people typically go through over a lifetime.

The present research explores whether the same model of differences exist within the distinct cultural context of Saudi Arabia. It seeks to answer the question of whether factors specific to a particular society or culture could correlate to, or differ from, the age related differences in depression that have been observed in the west. By probing these factors, the current study could help determine ways to help devise effective treatment methods for depression that eliminate some of the detrimental effects associated with the disorder.



The current research focuses on exploring the impact that depression has on the emotion regulatory ability and occupational functioning of people living in Saudi Arabia. The research also aims to determine any age related differences in the levels of depression observed within the social and cultural contexts of Saudi Arabia. Earlier research confirmed the association between disruptions in emotion regulation and major depressive disorder (Joormann & Gotlib, 2010). Research has also provided evidence that depression has a detrimental impact on the work performance functioning of individuals (Lerner & Henke, 2008). Such deficits in job performance and work productivity are representative of disruptions in occupational functioning. Furthermore, earlier studies have also show that the level of depression exhibited by people tends to differ in relation to their age (Mirowsky & Ross, 1992). People belonging to different age groups exhibit differences in terms of the manifestation and severity of the disorder (Mirowsky & Ross, 1992). The aforementioned findings have been derived from studies conducted in the U.S. and hence, fail to provide a cross-cultural perspective with respect to the variables. The present research intends to overcome this shortcoming by exploring the associations between these variables within the cultural and social confines of Saudi Arabia.

To fulfill the objectives of the research, three specific hypotheses were formulated. The initial hypothesis states that a high degree of depression would diminish a person's ability to effectively regulate his or her emotions. The second hypothesis states that a greater level of depression would cause a decline in an individual's work performance and occupational functioning. Additionally, it is hypothesized that the level of depression is likely to vary in correlation to an individual's age. By testing these hypotheses and addressing the objectives that guide the research, various implications for the treatment of depression could also be drawn. As many therapeutic techniques for depression already employ methods for enhancing individuals' emotion regulation capacity, the present research could help substantiate the effectiveness of such techniques.

## **REVIEW OF THE LITERATURE**

In this section, factors related to depression such as age, job performance, and emotion regulation will be discussed. First, this chapter provides an historical overview of the literature related to depression and DSM-5.



It also offers an historical overview of the changes that have occurred in theories related to depression. Moreover, this chapter will discuss the Afrocentric Prospective and its applicability for the interpretation of data related to depression in Saudi Arabia. The Afrocentric Perspective has explained the fact that social affiliations and social relations can play a vital role in decreasing depression. These relations are the basic of social theories regarding depression.

### **Historical Perspective**

Depression, emotion regulation, and people's occupational functioning are variables that are interconnected in many different ways, as they all possess the same characteristics, albeit in different contexts. According to the DSM-5 (2000), primary depression is described through modifications in emotional working, involving anhedonia and depressed mood (American Psychiatric Association, 2000). A mood disorder can appear at any age but such disorders often start earlier than the onset of primary depression. According to researcher, mood disorders often begin in childhood or early adulthood, however (Quitkin et al., 1998).

There are certain risk groups that are more statistically vulnerable to depression than others, such as women. Studies conducted in the 1980s indicated that women experience mood disorders more than twice as often as men, by a ratio of 26% versus almost 11% (Boyd & Weissman, 1981; Stuart et al., 1984). Such figures regarding mood disorders contribute to gender imbalances regarding depression diagnoses and statistics. In Saudi Arabia, recent studies demonstrated that depressive issues constitute around 20% of reported mental illnesses (Alhabib, 2013). Of these mental illness diagnoses, only 35% are a source of concern. Sleep disorders are also a cause for concern among researchers in Saudi Arabia, since sleep disorders, which are 40% in Saudi society, can lead to depression (Alhabib, 2013). The available literature demonstrates that women are disproportionately affected by such things.

However, the available literature regarding mental illnesses in Saudi Arabia lack an accurate estimate for the prevalence of such problems among the Saudi population. This notwithstanding, a few studies have been conducted in relation to specific mental disorders on particular populations and age groups (Becker, 2002).



These studies offer promising results regarding the possibility for future and more comprehensive estimations of mental illnesses in the Saudi population. These studies also explicated the historical context of depression among individuals who live in the kingdom.

The historical context of depression indicates a high rate of repetition. In fact, this repetition is significant to the study of depression and as well as to other aspects that exacerbate repeated depressive incidences among individuals generally. There is a 50% chance of repetition for an individual after having experienced one incident of depression and that chance grows to between 70% and 90% if an individual has had more than one past incident (Panel, 1993). Another study indicated that the more a person has depressive incidents the more he or she will become treatment-resilient (Keller, 1998). This treatment-resilience, according to researchers, produces harsher depressive incidents in the future (Keller, 1998).

### **Depression and Age**

A previously conducted study by Kato et al. (1996) investigated post-traumatic stress disorder (PTSD) in younger and older individuals after an earthquake in Japan. Their results revealed that older people manage stress more easily, compared to those who were younger. The younger generation reported more trauma after some duration, but older people showed less trauma overall.

These findings are supported by Gatz and Hurwicz (1990) who explored depression in young adults, middle-, and older age groups. Their findings revealed that the younger group showed highest scores on the self-reported depression, as compared to the older groups which did not report any elevated symptoms of depression. The findings of Kessler et al. (2009) revealed that depression decreased in later life, and it is actually not so common in older people. The younger generation reported more problems related to depression.

Beekman, Copeland, and Prince (1999) reviewed 34 articles and concluded that major depression is not very common in the elderly. However, older participants do report having minor depression. Beekman, Copeland, and Prince (1999) studied the depressive symptoms in two groups, one younger and another older. Their findings revealed that depression is more common in the young, as compared to those who are old.



Older participants did not exhibit as many symptoms of depression. According to Gallo et al. (1994), younger adults have more symptoms of depression such as guilt, dysphoria, and feelings of worthlessness as compared to older adults, who showed fewer incidents of all these symptoms.

The research also highlights the importance of genetic factors in depression. In terms of age, studies indicate that the third decade of life is the age during which the highest proportion of individuals experience the disease of depression (Hautzinger, 1994). Despite this, depression can appear at any age, including early childhood. Depression begins with the majority of people between the end of their twenties and their early thirties. Additionally, research indicates an increase occurring in the proportion of individuals with the disease between their late teens and the end of their twenties (Quitkin, 1998).

### **Depression and Emotion Regulation**

Marioa, Vincenta, and Johannea (2006) found that people with major depressive disorders have difficulties regulating their emotions when compared to those who were considered “normal.” Depressed people are shown to be unable to regulate their depressive symptoms properly. Erk et al. (2010) demonstrated that mental conditions got better with the fastened regulation and that useless and unproductive emotional regulation leads to mental problems. Joormann and Gotlib (2009) established depressed people process more negative material, such as false memories. Age related effects of depression on emotion regulation have been indicated by previous researchers as well. Mirowsky and Ross (1992) indicated that age related differences are likely to exist in the severity of depressive symptomology. In this research, younger people reported more emotional deregulation as compared to older individuals.

Another study conducted by Fales et al. (2008) revealed that depressive individuals showed greater response to those stimuli that are fear related but unattended. The amygdala response of depressive people was higher as compared to that of normal people. Moreover, depressive individuals showed more dysregulation of emotions as compared to normal people. Many intellectuals have proposed that these modifications might be seen as shortages in emotion regulation (Campbell-Sills, 2006).



Parallel to this point of view, researchers have revealed that issues regarding emotion regulation are linked to individual stages of depression (Campbell-Sills, 2006a), along with historical depression (Ehring, 2008).

### **Depression and Job Performance**

Similarly, Adler (2006) investigated job performance deficits due to depression, with findings showing depressive people as having higher levels of deficiency in managing their tasks and outputs. Lerner and Henke (2008) suggest depression causes unemployment, deficiency in work performance, and absence from work. Kessler et al. (2006) investigated effects of certain disorders on the workers' performance. Findings revealed that people who have mood disorders incur more losses related to work.

According to Wang et al. (2004), among many illnesses including headaches, allergies, asthma, and high blood pressure, major depression was most related to deficiency in occupational performance. Lerner et al. (2010) found that absenteeism and impairment in work performance is also more related to depression. Depressive people have less control over the tasks and jobs they command, which results in deficiency in their performance.

According to Berndt et al. (1998), workplace performance was enhanced when depression symptoms were absent. Absence of depressive symptoms leads workers to approach every task at full potential, and it also enhanced abilities. Haslam et al. (2005) reported that workers have difficulty managing their work if they are taking anti-depressant medication. The symptoms of depression and its prescribed medications lower work performance. Moreover, workers feel uncomfortable about disclosing mental illness, as it can stigmatize an individual. Because of this, people are not likely to admit taking medication. A previous study by Birnbaum et al. (2009) also showed similar findings. Results revealed that severe and moderately severe depressive people have more problems related to work performance, when compared to those who have no depression.

### **Afrocentric Perspective**

The Afrocentric perspective has emerged as a viewpoint that addresses the cultural and political values of persons of African descent.



The Afrocentric perspective takes the view that social science theories are mostly derived from the experiences and cultural perspectives of European individuals. Because of this, Afrocentric theorists espouse an Afrocentric worldview, a worldview that does not see individuals as detached observers of their problems. Rather, this worldview sees individuals as consistently involved in the interpretation of their experiences. Considering this involvement, Afrocentric theorists suggest that people ascribe meaning to these experiences from the standpoint of their culture.

In this regard, the Afrocentric perspective takes into account the cultural, political, and social ideas that prevail in a culture and uses these things as assumptions when interpreting the cultural experiences of the individuals in question (Schiele, 1996). Although Afrocentrists believe that there is commonality among various cultures, they often focus on the differences and the impacts of a particular culture on individuals. They feel that differences should not be seen as insignificant, as they have unique influences on the lives of individuals (Schiele, 1996).

The Afrocentric argument, that *culture is very important* for understanding the problems and perspectives of individuals, has been applied to this research. For example, this study identifies the relationship between emotion regulation problems in depressive individuals and the impact those problems have on a person's job performance. It also identifies the cultural differences that apply to Saudi Arabians, vis-à-vis other cultures, and how those differences contribute to denials of depression among Saudis. This research also applies the Afrocentric perspective in order to find out how various assumptions about individuals can help make better relationships between people.

The application of the Afrocentric perspective to depression and emotion regulation problems among Saudi Arabians considers three assumptions with regard to human beings that are central to this perspective. The first is that human identity is collective, which means that all human beings share a common humanity that empowers each person to relate to others. This notion regarding a shared human identity is especially important, since it presupposes that everyone person deserves humane treatment.



A more African-centered outlook on the problem of depression among Saudi nationals might help relieve some of the stigma in the country regarding depression diagnoses. If the presupposition is that all individuals have a share, common humanity, regardless of illness, the logical conclusion might be that depression is an important but not a culturally consequential label in Saudi Arabia. This can help Saudis seek help for their depression with feeling fears of rejection or judgment. Seeking help from others and the particular individuals could help the people to gain their emotional expressions and eventually makes them stable and less depressive. Giving this role to their inclusion is extremely significant (Schiele, 1996).

Secondly, the Afrocentric perspective assumes that the spiritual component has great importance in everyday human life. In most cases, individuals suffering from lost feelings or illness might weaken their relation with God (Peteet, 2012). When an individual is more spiritually stable and is able to overcome to negative spirituality in him or her, then it gives the inner peace to an individual and he or she is able to become less depressive and more optimistic toward life. This acts as a turning point in one's life, which helps to make an individual feel the needed strength and also respective stability in one's emotions control and inner peace which helps to overcome the depression.

Thirdly, the Afrocentric perspective assumes that affective knowledge about individuals is the ultimate source of knowing, and without understanding of emotions, neither a problem nor a culture can be understood (Schiele, 1996). When a person is able to understand his or her emotions, then he or she is able to learn about the destructive and constructive emotions. He then makes sure to establish the positive emotions and be able to overcome the negative ones. This eliminates depression from life and provides better management and stability of emotions.

The depressive patients' problems with regard to regulation of emotions and performance are viewed through the lens and understanding of the collective culture in which they exist. It is emphasized in Afrocentric perspective that the individuals cannot be alienated from their collective culture in which they exist (Schiele, 1996). Thus, when understanding the issues of the depressive population, it is important to take into account their collective culture. Only after having done this, their problem can be fully understood and solutions proposed. Secondly, all humans are, arguably, spiritual beings and social work aims at working collectively with spiritual concerns (Schiele, 1996).



Finally, the Afrocentric perspective views the feelings and emotions of individuals as major sources of knowledge and postulates that affective knowledge is key to reaching real understanding about individuals within the context of a culture (Schiele, 1996). Applying this concept to understanding emotion regulation and depression, as well as job performance related issues, gives the idea that individual's level of depression can be measured through the use of their cultural values and the knowledge they have on their depression. Thus, addressing feelings within social and cultural contexts and values, as well as belief systems and related thoughts will benefit those with depression in achieving better emotion regulation. It allows individuals to regulate their emotions and get better hold on depression. The three basic assumptions about human beings from the Afrocentric perspective have been used in this research in order to understand emotional processes that operate within individuals who are depressed and to understand its impact on their job performance.

### **Theoretical Framework**

There are various theories about emotion regulation which help in understanding how individuals with psychopathology have problems in emotion regulation and also how these problems impact their performance. Various models have been proposed. Gross (2007) gave a theory of emotion regulation, which he calls process model of emotion regulation. He indicated that emotion regulation is a part of affect regulation along with coping and mood regulation, as well as psychological defenses. These emotion regulation strategies can both be adaptive and maladaptive. When maladaptive, they tend to impair the functioning of the individual, as in emotional disorders.

Five strategies in emotion regulation have been proposed. These include situation selection, situation modification, attention development, cognitive changes and response modulation. In a situational selection strategy, an individual chooses a strategy which leads to a desirable or undesirable strategy. Attention development involves focusing attention on appropriate aspects within a situation; cognitive change strategy involves altering the perception or assessment of a given situation in order to effect the emotional significance. Finally, response modulation occurs when an individual influence as well as modifies the experiential, psychological, physiological and behavioral responses (Gross & John, 2003). Gross inclusion of situational selection is different as compared to other models of emotion regulation as it involves manipulation of the environment.



This indicates that the individual's ability to attend and manipulate the environment is an important emotion regulation strategy (Gross, 2007).

Difficulties in emotion regulation are found to be highly associated with emotional disorders like anxiety and depression. One of the maladaptive strategies that is used to regulate emotions in depression is rumination, which impairs individuals' functioning. This involves over-thinking about the negative situations in life and its causes as well as consequences. Rumination leads to poor mood state and also is associated with the negative memories. Rumination is seen to impair the problem solving skills of an individual and also his or her interpersonal functioning (D'Avanzato et al., 2013). Moreover, along with rumination, expressive suppression is another maladaptive strategy which involves controlling the emotional responses by avoiding expressing them outwardly. This leads to more negative emotions and often physiological arousal. Moreover, as this process is emotionally exhausting, it leads towards impaired cognitive functioning and memory (Richards & Gross, 2000). Thus, maladaptive emotion regulation which are common in emotional disorders adversely impact the functioning of an individual.

Emotion regulation is very important within the context of the workplace. Excessive emotional labor, which includes emotional "faking," suppressing, or excessively using emotions, leads to problems at the workplace. It has been asserted that due to poor emotion regulation at work, excessive issues can arise, like conflicts in problem solving, decision making, and appropriate expressions of emotions. Moreover, poor emotion regulation also leads to stress and inability to cope appropriately. This impacts the performance of individuals at the workplace and also leads to more stress that, ultimately, leads to burnout (Grandey, 2000).

As indicated by literature, individuals with depression have maladaptive emotion regulation strategies like suppression of emotions and rumination about the past. Maladaptive emotion regulation often leads to poor job performance and an inability to cope well with tasks at work. Individuals with depression often lack the ability to regulate their emotions, which leads to cognitive malfunctioning, poor performance, and inability to remain optimistic in any situation. As a result of their inability to recall and focus on the positive aspects of situations, they often have conflicts in problem-solving and decision making (D'Avanzato et al., 2013). Thus, their job performance becomes badly impaired.



Stress, as a result of poor emotion regulation, is quite common among individuals with depression. Poor emotion regulation leads to poor coping and appropriate functioning at work, which impedes work performance and often leads to excessive job stress.

## METHODOLOGY

This study utilizes a quantitative approach that consisted of a series of closed-ended survey questions to capture participant life experiences and educational achievements. Recruited participants include health workers at Faisal Hospital in Saudi Arabia. Each participant signed an informed consent form, indicating they were fully informed of the purpose of the study and the extent of their participation, as well as any adverse outcomes.

The sample population consisted of 51 participants from Faisal Hospital in Saudi Arabia, between the ages of 20 and 40 years old, who were willing to participate in the study. Also, 60 participants completed 51 paper questionnaires comprised of questions about their age, gender, depressive symptoms, as well as questions about how they regulate their emotions and their occupational functions. There was no risk involved in participating in this study.

The instrument for this study was a closed-ended questionnaire. The instrument met the criteria of construct validity, as it possesses an adequate and representative sample of all elements that might measure the construct of interest (Kimberlin & Winterstein, 2008). Depression was measured with the Patient Health Questionnaire (PHQ-9). PHQ-9 was analyzed by many researchers (Williams, Kroenke, & Spitzer, 1999) as an efficient tool to monitor depression. The PHQ-9 is a tool which measures nine attributes regarding depression. This 9-item tool assesses major symptoms of depression like little interest in doing things, speaking or moving slowly, trouble falling asleep/sleeping too much/staying asleep, feeling badly, having little energy/feeling tired, overeating/poor appetite, trouble concentrating on things, feeling down/hopeless/depressed, and having thoughts of suicide. These items were measured on the 4-point Likert scales, which scores from 1 (not at all) to 4 (nearly every day). The total score was calculated by summing the scores of all items with total scores ranging from 9 to 32.



Emotion regulation has been measured through Emotion Regulation Questionnaire (ERQ). The ERQ was developed by Gross and John (2003). ERQ has been analyzed by many researcher (Gullone & Taffe, 2012) as an efficient tool to measure emotion regulation. The ERQ is a tool which measures 9 attributes regarding emotion regulation. This 10-item tool assesses emotion regulation through both reappraisal case (control of emotions through changing way of thinking) and suppression case (control of emotions through not expressing them). EQR also assesses at least one item about regulation of positive emotion and at least one about regulation of negative emotion for reappraisal case and also for suppression case. EQR also asks effects of any positive or negative consequences. Items of EQR are measured on 7-point Likert scale, which scores from 1 (strongly disagree) to 7 (strongly agree). The total score is calculated through addition of all scores. Total score may vary from 10 to 70.

Job performance has been measured through self-appraisal for job performance evaluation, developed by Campbell and Lee (1988). This tool has been analyzed by many researches (Somers & Birnbaum, 1991) as an efficient tool to evaluate job performance. The tool is a 15-item measure that assesses different attributes related to job performance like technical skills, technical knowledge, utilization/productivity, quality of work, business development, computer skills, project management skills, time management and organizational skills, interpersonal skills, communication skills, collaboration/mentoring/teamwork skills, innovation/creativity, leadership skills, employee policies, and professionalism. Items of this tool have been measured on 4-point Likert scale, scored from 1 (improvement needed) to 4 (outstanding). The total score is calculated by summing the scores of all items which range from 15 to 60.

### **Data Analysis**

The data was analyzed using statistical package for social sciences (SPSS 23). Means, standard deviations, and frequencies were used to present the descriptive data analysis of the major constructs. Data cleaning was first conducted. Descriptive statistics were used to assess how the level of depression impacts individuals psychologically and socially. Additionally, an independent-samples t-test was conducted to gauge the difference in the mean job performance score between the high level groups. The correlation test was used to assess the correlates between the degree of depression and the emotion regulation in the participants.



## **Study Limitations and Future Work**

The data collected in Saudi Arabia had limitations. To begin with, the researcher only had a short window of time to collect data. Additionally, the sample of this study included only 51 participants, which is not enough to permit generalization of the study's findings. Future studies may need to collect data from a larger sample so that results will better represent the entire population of Saudi Arabia.

It should be noted that the sample was taken only from one hospital, and it limited the findings of the group, which had lower depression scores. The group with lower depression scores has some difficulty in managing their work, and because the sampling included only one hospital, it is not statistically significant in this research project because there were no other hospitals to compare how depression effects mood changes and occupational functions. This study was conducted during the "holy month" of Ramadan, which is of utmost importance for Saudi people. This posed another interference in that it is a season of togetherness and community. It is possible, perhaps, that the participants showed more contentment and had less depressive symptoms during this time because of the influences of Ramadan. Further research can be performed during other times of the year, to ameliorate any possible extraneous variables bias.

## **PRESENTATION OF FINDINGS**

The depression effect is a measure of personal importance as to emotion regulation ability. In this regard, depression impacts individuals psychologically and socially. Depression is affected by an individual's responses according to their age, between 20 and 40. In addition, depression's degree of impact on any individual has consequences for their occupational functioning. A high level of depression can be implied by a high degree of decreased job performance.



### Sample Characteristics

Study respondents all had some form of formal education ranging from high school (5.0%), some college (7.8%), vocational training (3.9%), a college degree (70.6%), graduate work (2.0%), and graduate degree (9.8%) (Table 1). About 55% of the respondents were males and 45% were females (Table 1). Seventy-two percent of respondents were married, about 4% were divorced, and about 22% were single. These figures are represented in the table below.

Table 1.0: *Socio-Demographic Characteristics of Participants*

| Variable         |                     | Frequency | Percent |
|------------------|---------------------|-----------|---------|
| <b>Gender</b>    | Male                | 24        | 54.5    |
|                  | Female              | 20        | 45.5    |
| <b>Education</b> | High school         | 3         | 5.9     |
|                  | Some college        | 4         | 7.8     |
|                  | Vocational training | 2         | 3.9     |
|                  | College/graduate    | 36        | 70.6    |
|                  | Graduate work       | 1         | 2.0     |
|                  | Graduate degree     | 5         | 9.8     |
| <b>Marital</b>   | Single              | 11        | 21.6    |
|                  | Married             | 37        | 72.5    |
|                  | Divorced            | 2         | 3.9     |

Table 2 presents the mean, minimum, maximum, and the standard deviation scores for the depression, emotional regulation, and job performance. The average depression score was 13.85, with a standard deviation of 5.23, while the maximum was 35. The mean score of emotional regulation was 46.58, the maximum was 70, the minimum was 10, and the standard deviation was 14.08, which represented a variation of 14.08 from the mean value. The mean score of job performances were 36, with the standard deviation of 9.23, while the maximum score was 58.

Table 1.2: *Correlates of Depression, Emotion Regulation, and Job Performance*

|                            | <b>Min</b> | <b>Max</b> | <b>Mean</b> | <b>SD</b> |
|----------------------------|------------|------------|-------------|-----------|
| <b>Depression</b>          | 9          | 35         | 13.85       | 5.23      |
| <b>Emotional</b>           | 10         | 70         | 46.58       | 14.08     |
| <b>Job-</b><br><b>nces</b> | 20         | 58         | 36.58       | 9.23      |

**Question 1:** Does the level of depression differ across ages?

**Hypothesis:** The level of depression is bound to vary in accordance with age.

Below, in Figure 1.0, a graph shows the levels of depression among various age groups according to their level of depression. Among hospital workers in this study, the level of depression decreases as age increases. This suggests that depression is higher among younger hospital workers (<40 years old). In the age group 20 (Figure 1.0), the results of the correlation test found that depression among various age groups were negatively correlated, but it is not a statistically significant level at the significance level of .05 ( $r = -.301$ ,  $p = .094$ ).

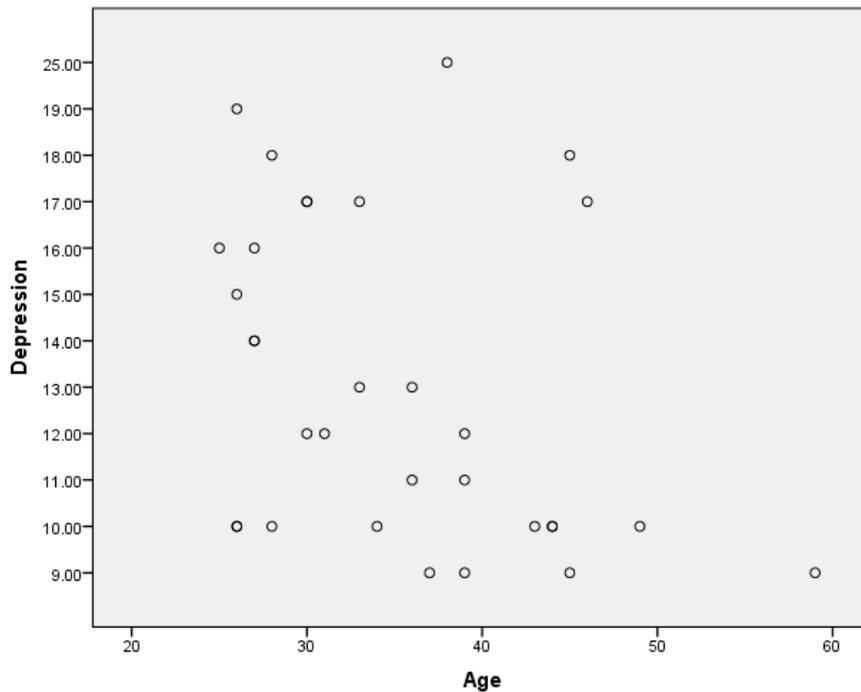


Figure 1.0: *The Level of Depression with Ages*

**Question 2:** What is the effect of depression on the emotion regulation ability of individuals within the 20 to 40 age group?

**Hypothesis:** The high level of depression would be associated with a diminished ability to regulate emotion.

The effect of depression on emotion regulation ability can be seen in Figure 1.2. An emotion regulation ability score above 40 is considered “high” emotional regulation, whereas an ability score below 40 is considered “low.” The scatter plot of depression scores and emotion regulation ability scores indicated that the hospital workers with a depression score of 15 or lower have either low or high emotion regulation. However, workers with a depression score of 15 or higher have high emotion regulation (Figure 1.2). The results of correlations analysis showed that the degree of depression is positively correlated with the emotional regulation score, but 5% of significance level is not statistically significant ( $r=.275, p=.074, n=47$ ).

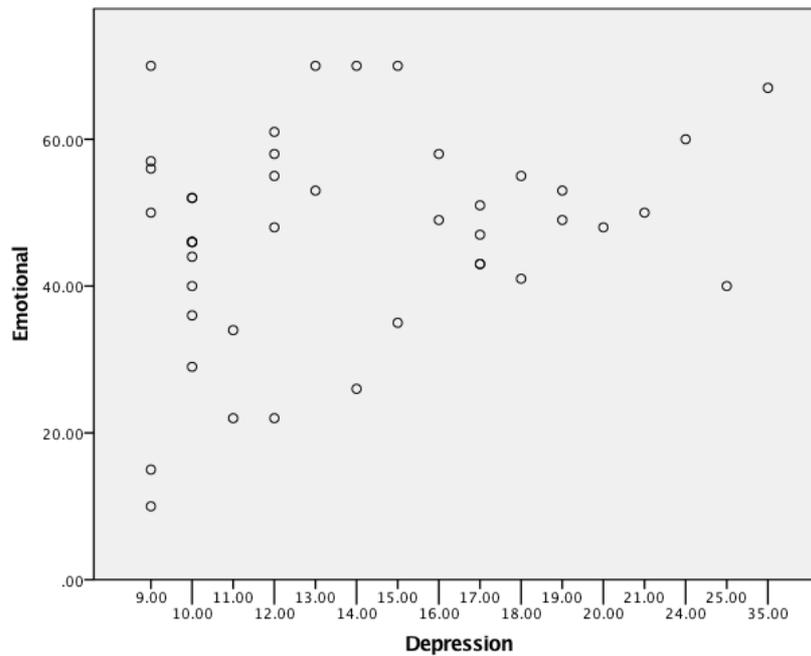


Figure 1.2: *The Effect of Depression on the Emotion Regulation Ability*

**Question 3:** Does a high degree of depression have an adverse impact on the occupational functioning of people?

**Hypothesis:** The high degree of depression would result in a decline in hospital worker performance.

The workers are divided into two groups based on their level of depression. The median point of depression score was 18. If their depression score is 18 or higher, they are considered as the high depression group. If the score less than 17 which is the median point. Seventeen is considered as the lower depression group. The degree of depression has no significant effect on occupational functioning of hospital workers. Nine individuals were in a higher depression group, and 38 were in a lower depression group. The job performance score was slightly lower in the higher depression group but statistically not deemed significant. The  $t$ -test statistics for the difference is  $t_{45} = 1.526$ ,  $p$  value = 0.067. Thus, it can be concluded that there is no significant difference in the mean job performance score between the two groups.

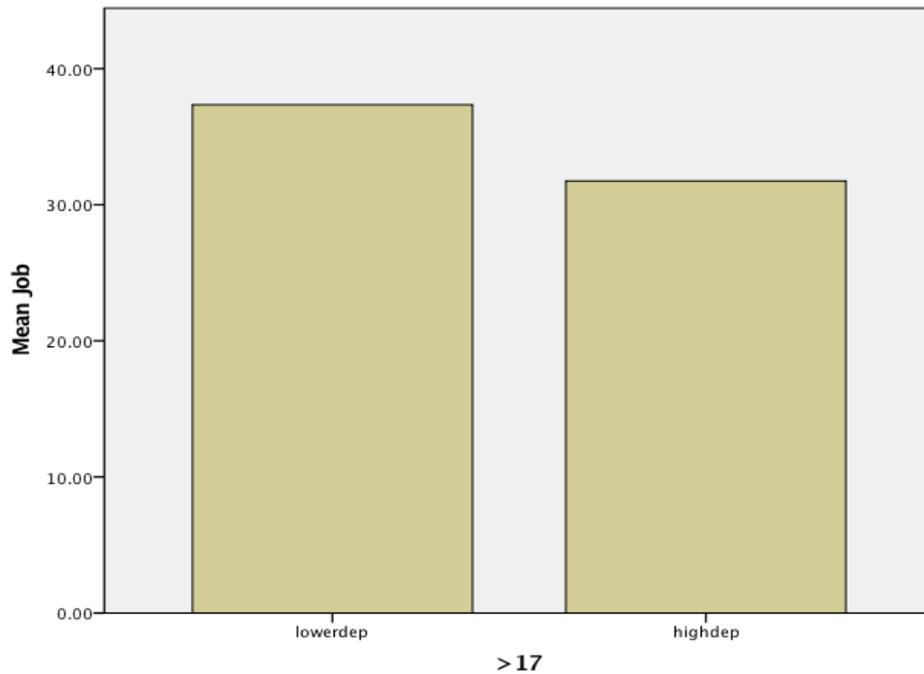


Figure 1.3: A High Degree of Depression on the Occupational Functioning of People

## SUMMARY AND DISCUSSION

The present research aimed to investigate the relationship between depression, emotion regulation and occupational functioning of young and older people in Saudi Arabia. Depression is a combination of symptoms including, but not limited to, lack of interest in daily routine activities, low mood, disturbed sleep, suicidal ideation, and decreased concentration. Impaired emotion regulation also leads to depression.

Emotion regulation is basically the control of a person who overcomes emotions consciously or unconsciously. It is a mental or behavioral process by which a person manages his emotions in an effective way. Emotion regulation is an important concept that informs the mental conditions of a person and how he or she perceives their position in society. It is very important to study in the population of Saudi Arabia because Saudi Arabians deny having depression. Moreover, depression and emotion regulation both play important roles in occupational performance, as depressive symptoms and dysregulation of emotions both cause impairment in occupational performance.



Mental disturbances related to how individuals manage their stress are especially critical to explore among Saudi Arabian people. Saudi people are Arabic, representing many millions of people around the world. This indicates the results in Saudi Arabia studies may be potentially extrapolated to other Arab populations.

It was hypothesized that an individual's level of depression is bound to vary in accordance with age. Results reveal that younger hospital workers within the age range of 20 to 40 experience more depression, as compared to older hospital workers within the age ranges of 40 to 60. Findings suggest that with increasing age depression decreased. The older generation tends to exhibit more ability to think positively and handle depressive situations more appropriately.

Previously conducted studies by Kato et al. (1996) also support the present findings. They investigated post-traumatic stress in younger and older people after a dire earthquake in Japan. Their results revealed that the elderly manage stress more effectively as compared to those who are younger. The younger generation reported more trauma after some duration but older people showed less trauma.

It was hypothesized that a high level of depression diminished the ability of individuals' emotion regulation. The relationship between depression and emotion regulation were not statistically significant in this research. The reason for this may be that younger hospital workers are still lacking in maturity, or they are in their learning or growing phases and that is why they face difficulty in emotion regulation. However, older people manage any depressive state more easily due to their greater experience in life and know how to appropriately regulate their emotions according to situations. Moreover, the emotion regulation ability became improved with the passing of age (Gross et al., 1997).

Furthermore, it was hypothesized that a high degree of depression would result in a decline in hospital worker performance. Findings revealed that the group with lower depression score have some difficulty in managing their work whenever they're face with depression. The job performance score was slightly lower in the higher depression group but statistically not deemed significant. With regard to the performance levels of workers, there is no significant difference in the mean job performance score between the two groups.



Other research studies have shown contrasting results, indicating depression can affect all groups at any workplace. Depression can be found in individuals; however, the nature of depression changes. For example, for those who have worked in the hospital for a long time, depression is more related to the physical symptoms or health related than those who are newer to hospital work. New workers' nature of depression maybe related to food, self-image, relationships breakup etc., which could have an effect on their hospital performance at work.

### **Implications of the Study**

There are many implications of social work practice with regard to the treatment of depression and the prospect of controlling emotions in the work environment which can affect job performance. This study brought to light the effect of depression on emotion regulation and occupational functioning in the study population. This study provides social workers with an application of the PDQ-9 questionnaire in order to determine whether an individual is in a state of depression. This can be done with by providing information which can be used by social work practitioners, policy makers, and educators in order to understand the causes and other related factors of depression.

In addition, this will help social workers provide awareness programs for employers and entertain efforts to alleviate stress and anxiety in the workplace. The study's findings also provide avenues by which social workers can manage their patients or clients who struggle with depression. It can also provide social workers an opportunity to connect persons with depression to the respective circumstances in order to make sure that the required background of the employees within the workplace is studied effectively. It will then help the workplace prepare the better services and programs for the depressive employees with a better understanding of their environments and characters. The health care delivery systems can make sure that the individuals are given with the services that could help them cure the respective depressive issues and other underlying circumstances. This includes hospital policies related to depressive symptoms to be aligned by social workers for the welfare of the employees. Social worker should strive to reduce depression by the promoting an atmosphere of satisfaction, security, and happiness in the workplace.

## REFERENCES

Adler, D. (2006). Job performance deficits due to depression. *American Journal of Psychiatry Am J Psychiatry*, 163(9), 1569. doi:10.1176/appi.ajp.163.9.1569.

Alhabib, (2013). Psychologists: depression for 20% and 35% anxiety in Saudi Arabia. *AlArabia.net*. Retrieved, from <http://www.alarabiya.net/ar/saudi-today/2013/04/20/أطباء-نفسيون-الاكتئاب-يمثل-٢٠-والقلق-٣٥-في-السعودية>.html

American Psychological Association, (2010). *Publication manual of American psychological association (6<sup>th</sup> ed.)*. Washington, D.C: American Psychiatric Association.

American Psychological Association, (2000). *Diagnostic and statistical manual of mental disorders*. Washington, DC: American Psychiatric Association.

Becker S, Al Zaid K, Al Faris E. *Int J Psychiatry Med*. 2002; 32(3):271-83.

Beekman, A. T., Copeland, J. R., & Prince, M. J. (1999). Review of community prevalence of depression in later life. *The British Journal of Psychiatry*, 174(4), 307-311. doi:10.1192/bjp.174.4.307.

Berndt, E. R., Finkelstein, S. N., Greenberg, P. E., Howland, R. H., Keith, A., Rush, A., ... Keller, M. B. (1998). Workplace performance effects from chronic depression and its treatment. *Journal of Health Economics*, 17(5), 511-535. doi:10.1016/s0167-6296(97)00043-x.

Birnbaum, H. G., Kessler, R. C., Kelley, D., Ben-Hamadi, R., Joish, V. N., and Greenberg, P. E. (2009). Employer burden of mild, moderate, and severe

major depressive disorder: mental health services utilization and costs, and work performance. *Depression and Anxiety*, 27(1), 78–89. DOI: 10.1002/da.20580.

Boyd, J.H. & Weissman, M.M. (1981). Epidemiology of affective disorders. A reexamination and future directions. *Archives of General Psychiatry*, 38(1039-1046).

Campbell-Sills, L. &. (2006). *Incorporating emotion regulation into conceptualizations and treatments of anxiety and mood disorders*. New York, NY, US: Guilford Press.

Campbell-Sills, L. B. (2006). Acceptability and suppression of negative emotion in anxiety and mood disorders. *Emotion*, 587–595.

Campbell, D. J., & Lee, C. (1988). Self-appraisal in performance evaluation: Development versus evaluation. *Academy of Management Review*, 13(2), 302-314.

D'Avanzato , C, Joormann , J., Siemer , M.,& Gotlib, I.H.(2013).Emotion regulation in depression and anxiety: examining diagnostic specificity and stability of strategy use . *Cognitive Theory &Research*, 37, 968–980.

Ehring, T. F.-C. (2008). Characteristics of emotion regulation in recovered depressed versus never depressed individuals. *Personality and Individual Differences*, 1574–1584.

Erk, S. M. (2010). Acute and Sustained Effects of Cognitive Emotion Regulation in Major Depression. *The Journal of Neuroscience*, 15726-15734.

Fales, C. L., Barch, D. M., Rundle, M. M., Mintun, M. A., Snyder, A. Z., Cohen, J. D., ... Sheline, Y. I. (2008). Altered emotional interference processing in affective and cognitive-control brain circuitry in major depression. *Biological Psychiatry*, 63(4), 377-384. doi:10.1016/j.biopsych.2007.06.012.

Gatz, M., & Hurwicz, M. (1990). Are old people more depressed? Cross-sectional data on center for epidemiological studies depression scale factors. *Psychology and Aging*, 5(2), 284-290. doi:10.1037//0882-7974.5.2.284.

Grandey, A.A.(2000).Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, 5(1), 95-110.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and wellbeing. *Journal of Personality and Social Psychology*, 85, 348 –362.

Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice*, 2(2), 151-164. doi: 10.1111/j.1468-2850.1995.tb00036.x.

Gross, J. &. (2006). Emotion Regulation and Mental Health. *American Psychological Association, Clinical Psychology: Science and Practice*, 151-164.

Gross, J. J. (2007). *Handbook of emotion regulation*. New York, NY: Guilford Press.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of personality and social psychology*, 85(2), 348.

Gullone, E., & Taffe, J. (2012). The Emotion Regulation Questionnaire for Children and Adolescents (ERQ–CA): A psychometric evaluation. *Psychological assessment*, 24(2), 409.

Haslam, C., Atkinson, S., Brown, S., & Haslam, R. (2005). Anxiety and depression in the workplace: Effects on the individual and organization (a focus group investigation). *Journal of Affective Disorders*, 88(2), 209-215. doi:10.1016/j.jad.2005.07.009.

Harvey, P. D. (2011). Mood symptoms, cognition, and everyday functioning: in major depression, bipolar disorder, and schizophrenia. *Innovations in clinical neuroscience*, 8(10), 14.



Hautzinger, M. & de Jung-Meyer, R. (1994). *Depression*. Pp. 177-218. In Reinecker, H. (Hrsg.): *Lehrbuch der Klinischen Psychologie- Modelle psychischer Stoerungen*. Goettingen. Hogrefe. Verlag fuer Psychologie.

Joormann, J., & Gotlib, I. H. (2010). Emotion regulation in depression: Relation to cognitive inhibition. *Cognition & Emotion*, 24(2), 281-298.  
doi:10.1080/02699930903407948.

John R. Peteet, "Spiritually Integrated Treatment of Depression: A Conceptual Framework," *Depression Research and Treatment*, vol. 2012, Article ID 124370, 6 pages, 2012. doi:10.1155/2012/124370.

Kato, H., Asukai, N., Miyake, Y., Minakawa, K., & Nishiyama, A. (1996). Post-traumatic symptoms among younger and elderly evacuees in the early stages following the 1995 Hanshin-Awaji earthquake in Japan. *Acta Psychiatrica Scandinavica*, 93(6), 477-481.  
doi:10.1111/j.1600-0447.1996.tb10680.x.

Keller, M. B. (1998). Implications of failing to achieve successful longterm maintenance treatment of recurrent unipolar major depression. *Biological Psychiatry*, 348-360.

Kessler, R. C., Akiskal, H. S., Ames, M., Birnbaum, H., Greenberg, P., .A, R. M., ... Wang, P. S. (2006). Prevalence and effects of mood disorders on work performance in a nationally representative sample of U.S. workers. *American Journal of Psychiatry*, 163(9), 1561-1568. doi:10.1176/ajp.2006.163.9.1561.

Kessler, R. C., Birnbaum, H., Bromet, E., Hwang, I., Sampson, N., & Shahly, V. (2009). Age differences in major depression: results from the National Comorbidity Survey Replication (NCS-R). *Psychological Medicine*, 40(02), 225.  
doi:10.1017/s0033291709990213.

Lerner, D., & Henke, R. M. (2008). What does research tell us about depression, job performance, and work productivity? *Journal of Occupational and Environmental Medicine*, 50(4), 401-410. doi:10.1097/jom.0b013e31816bae50.



Lerner, D., Adler, D. A., Rogers, W. H., Chang, H., Lapitsky, L., McLaughlin, T., & Reed, J. (2010). Work performance of employees with depression: the impact of work stressors. *American Journal of Health Promotion, 24*(3), 205-213.

doi:10.4278/ajhp.090313-quan-103.

Mirowsky, J., & Ross, C. E. (1992). Age and depression. *Journal of Health and Social Behavior, 33*, 187-205.

Molecular Psychiatry. (2011). Social network determinants of depression. *Molecular Psychiatry, 273-281*.

Panel, D. G. (1993). Depression in primary care: Treatment of major Depression. Rockville, MD:U.S. *Department of Health and Human Services*.

Papakostas, G. I., Petersen, T., Mahal, Y., Mischoulon, D., Nierenberg, A. A., & Fava, M. (2004). Quality of life assessments in major depressive disorder: a review of the literature. *General hospital psychiatry, 26*(1), 13-17.

Quitkin, F. M., Endicott, J. & Wittchen, H.-U. (1998). Depression und andere Affektive Störungen. Pp.118-141. In Wittchen, H. -U. (Hrsg.). *Handbuch Psychische Störungen*. Weinheim. Psychologie Verlags Union. 2. Auflage.

Richards, J. M., & Gross, J. J. (2000). Emotion regulation and memory: The cognitive costs of keeping one's cool. *Journal of Personality and Social Psychology, 79*(3), 410–424.

Schiele, J. (1996). Afrocentricity: An emerging paradigm in social work practice. *Social Work, 41*(3), 284-294.

Somers, M. J., & Birnbaum, D. (1991). Assessing self-appraisal of job performance as an evaluation device: are the poor results a function of method or methodology?. *Human Relations, 44*(10), 1081-1091.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Jama, 282*(18), 1737-1744.



Tarback, A. F., & Paykel, E. S. (1995). Effects of major depression on the cognitive function of younger and older subjects. *Psychological Medicine*, 25(02), 285.  
doi:10.1017/s0033291700036187.

Wang, P. S., Beck, A. L., Berglund, P., McKenas, D. K., Pronk, N. P., Simon, G. E., & Kessler, R. C. (2004). Effects of major depression on moment-in-time work performance. *American Journal of Psychiatry*, 161(10), 1885-1891.  
doi:10.1176/ajp.161.10.1885.

World Health Organization. (2015). *Depression: Fact Sheet*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs369/en/> Proc (Bayl Univ Med Cent). 2001 14(4): 352–357.