



ST. MARY'S
UNIVERSITY

Digital Commons at St. Mary's University

Theses & Dissertations

Counseling & Human Services Theses and
Dissertations

7-2019

An examination of death anxiety, psychological depression, and adult attachment patterns among Saudi students in the USA

Siham Ahmed Alswayel

Follow this and additional works at: <https://commons.stmarytx.edu/dissertations>



Part of the [Counselor Education Commons](#)

Recommended Citation

Alswayel, Siham Ahmed, "An examination of death anxiety, psychological depression, and adult attachment patterns among Saudi students in the USA" (2019). *Theses & Dissertations*. 34.
<https://commons.stmarytx.edu/dissertations/34>

This Dissertation is brought to you for free and open access by the Counseling & Human Services Theses and Dissertations at Digital Commons at St. Mary's University. It has been accepted for inclusion in Theses & Dissertations by an authorized administrator of Digital Commons at St. Mary's University. For more information, please contact egoode@stmarytx.edu, sfowler@stmarytx.edu.

AN EXAMINATION OF DEATH ANXIETY, PSYCHOLOGICAL DEPRESSION,
AND ADULT ATTACHMENT PATTERNS AMONG SAUDI STUDENTS IN
THE USA

A

DISSERTATION

Presented to the Faculty of the Graduate School of
St. Mary's University in Partial Fulfillment of the Requirements
for the Degree of

DOCTOR OF PHILOSOPHY
in
Counselor Education and Supervision

by
Siham Ahmed Alswayel, M.A.

San Antonio, Texas

July 2019

**AN EXAMINATION OF DEATH ANXIETY, PSYCHOLOGICAL DEPRESSION,
AND ADULT ATTACHMENT PATTERNS AMONG SAUDI STUDENTS IN
THE USA**

APPROVED:

R. Esteban Montilla, Ph.D.
Committee Chair

Laura Murphree, Ph.D.
Committee Member

Priscilla Reyna-Vazquez, Ph.D.
Committee Member

APPROVED:

Leona Pallansch, Ph.D.
Dean of the College of Arts, Humanities, and Social Sciences

Date

Acknowledgements

My deepest thanks, prayers, and love to my friend Amani Rawa who died from cancer in 2015 and inspired me to write about this topic.

I want to also thank all the people who have supported me through my journey. First, I want to thank my parents for their unconditional love and continuous support to achieve my doctoral degree. I want to thank my siblings, Arwa, Hala, and Ali, who always encouraged me to not give up. My appreciation and grace also extend to my friends Samar and Reema who helped me and motivated me every time I asked them.

For Dr. Montilla, I appreciate your guidance and encouragement. Your strength and compassion have always motivated me to be a good example. I want to thank my committee member Dr. Marisol for endless support and kindness. I also extend gratitude to Dr. Ryna for her guidance and encouragement.

Table of Contents

Abstract	vii
Acknowledgements	i
List of Tables	v
List of Figures	vi
Chapter I.....	1
Introduction	1
Statement of the Problem	9
Purpose of the Study	9
Research Questions	10
Justification of the Study.....	11
Limitation of the Study	12
Definition of Key Terms	12
Chapter II	14
Review of the Literature.....	14
The Culture of Saudi Arabia	14
Saudi Students in the United States.....	18
Saudi Arabian Students' Adjustment in the U.S.....	20
Theoretical Perspective of Death Anxiety	30
Understanding Death Through History.....	33
Terror Management Theory and Death Anxiety.....	35
Death Anxiety in Non-Clinical Populations.....	36
Attachment Patterns	37
Attachment Patterns and Death Anxiety.....	40

Terror Management Theory and Attachment Patterns	41
The Role of Attachment Patterns on International Students' Psychological Well-Being.....	42
Psychological Depression and Death Anxiety	44
Psychological Depression and Terror Management Theory.....	45
Chapter III.....	48
Methodology	48
Purpose of the Study	48
Theoretical Perspective	49
Research Questions	50
Theoretical and Methodological Framework	50
Research Design.....	51
Research Method.....	52
Instruments to Collect Data.....	53
Measurement of Psychological Depression	54
Procedure.....	56
Data Analysis	57
Chapter VI.....	59
Results.....	59
Demographic Features of the Sample	59
Death Anxiety, Psychological Depression, and Adult Attachment Patterns Characteristics of the Sample	61
Results Regarding the Relationships between Death Anxiety and Adult Attachment Patterns	63

Results Regarding the Relationships between Death Anxiety and Psychological Depression..	66
Prediction of Death Anxiety by Psychological Depression and Adult Attachment Patterns....	68
Results Regarding the Prediction of Psychological Depression by Death Anxiety.....	71
Discussion	73
Interpretation of Findings.....	74
Chapter V	79
Summary, Implications, and Recommendations.....	79
Limitations	81
Implications and Recommendations	82
References.....	84
Appendix A: Invitation Letter To Saudi Arabian Cultural Mission (SACM)	105
Appendix B: Invitation Letter for Participation.....	106
Appendix C: Informed Consent Form	108
Appendix D: Demographic Form	110
Appendix E: Center of Epidemiological Studies Depression Scale Revised (CESD-R).....	111
Appendix F: The Relationship Questionnaire (RQ)	112
Appendix G: The Arabic Scale of Death Anxiety (ASDA).....	113

List of Tables

Table 1. Frequency Table for Categorical Demographic Variables.....	60
Table 2. Descriptive Statistics of the Death Anxiety and Psychological Depression Variables.....	62
Table 3. The Percentages of Adult Attachment Patterns.....	63
Table 4. Mean Death Anxiety Scores for Each Adult Attachment Pattern.....	64
Table 5. One-way ANOVA for Death Anxiety by Adult Attachment Patterns.....	65
Table 6. Holm-Bonferroni Test Results.....	66
Table 7. Correlations Between Death Anxiety and Psychological Depression.....	67
Table 8. ANOVA for Multiple Linear Regression of Psychological Depression and Adult Attachment Patterns on Death Anxiety.....	69
Table 9. Coefficients for Multiple Linear Regression of Psychological Depression and Adult Attachment Patterns on Death Anxiety.....	71
Table 10. The Prediction of Psychological Depression by Death Anxiety.....	72
Table 11. Coefficients for Simple Linear Regression of Death Anxiety on Psychological Depression.....	73

List of Figures

Figure 1. Normal Q-Q plot showing the normality of death anxiety variable.....	63
Figure 2. Normal Q-Q plot showing the normality of psychological depression variable.....	66
Figure 3. The scatter plot of the linear relationship between death anxiety and psychological depression.....	68
Figure 4. Normal Q-Q plot showing normality distributed residuals.....	69
Figure 5. Normal Q-Q plot of the residuals showing normality of psychological depression and death anxiety regression data.....	72

Abstract

AN EXAMINATION OF DEATH ANXIETY, PSYCHOLOGICAL DEPRESSION, AND ADULT ATTACHMENT PATTERNS AMONG SAUDI STUDENTS IN THE USA

Siham Alswayel

Dissertation Adviser: R. Esteban Montilla, Ph.D.

This study was designed to investigate the relationships between death anxiety, psychological depression, and adult attachment patterns within Saudi students in U.S. universities. The sample of 684 participants was obtained via the Saudi Arabian Cultural Mission (SACM) in the United States. Death anxiety was measured by the ASDA survey, psychological depression was measured by the CESD-R survey, and adult attachment patterns were measured by the RQ survey. All data were self-reported via an online form. There was a significant relationship between death anxiety and adult attachment patterns. Death anxiety and psychological depression were positively correlated. Among the entire sample, adult attachment patterns and psychological depression were significant predictors of death anxiety. Death anxiety was a significant predictor of psychological depression.

Chapter I

Introduction

In recent years, and because of scholarly programs funded by the government, many Saudi students have come to study in the United States due to the quality of the country's higher education. According to the Institute of International Education (IIE), Saudi students comprise the highest percentage of international students after China, India, and South Korea (IIE, 2014). When international students live in the United States, they realize the big differences between their new residence and home culture. According to Mori (2000), international students experience special and distinctive psychological problems more so than other students as they adjust to a new environment and culture. Adjustment problems can sometimes result in distressing psychological challenges (Mori, 2000). For example, Pedersen (1991) found that there is a relationship between failing to adapt to new circumstances and low academic performance. International students' successful adjustment to a new culture enhances their psychological well-being and academic performance (Pedersen, 1991).

The difficulties most commonly experienced by international students are lack of social support, language barriers, unfamiliarity with the new education system, difficulty in building new relationships, and homesickness (Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2002). These circumstances challenge the international students' well-being (Leong & Chou, 2002; Mori, 2000). Students such as Muslim Arabs come from home regions with many religious and social restrictions that cause them more adjustment problems than other international students from other countries (Faragallah, Schumm, & Webb, 1997).

Throughout history, the inevitability of death is the most basic fear that affects many aspects of human lives. Many theories have tried to understand how death and the idea of

mortality affects human beings' behaviors. One of the most famous theories is the terror management theory inspired by the work of Becker (1971, 1973, 1975) and then formulated by subsequent scholars (Greenberg, Pyszczynski, & Solomon, 1986). According to terror management theory, all cultural worldviews serve as important anxiety buffer mechanisms because they offer a shared meaning of reality and help people to construct a symbolic or literal immortality (Pyszczynski et al., 2006). In addition, self-esteem consists of the standards that get validation from sharing the same cultural worldview, and it serves to reduce anxiety (Pyszczynski et al., 2006). As mentioned above, Saudi international students face many challenges that might affect their psychological mechanisms to buffer death anxiety. Although in just the past four decades, more than 1,000 studies have been conducted on death anxiety (Neimeyer, 1998), there are few studies in the literature review regarding death anxiety among international students (Long, 1985; Long & Elghanemi, 1987).

In general, Lester and Becker (1993) found that college students showed more fear of death and greater curiosity to know about life after death. Moreover, Wong (2009) found that university students in Hong Kong had negative perspectives about death. Yet, the studies that investigated death anxiety among students focused more on domestic students. One study attempted to explain the relationship between death anxiety and gender using an Arabic version of the Templer Death Anxiety Scale that was administered to Egyptian university students (214 males and 214 females); Egyptian female students scored significantly higher than males (Abdel-Khalek, Beshai, & Templer, 1993).

Another study examined the difference in death anxiety levels between two cultures by using two samples of female nursing undergraduates from Spain ($n = 126$) and Egypt ($n = 132$). The Arabic Scale of Death Anxiety, the Spanish Death Anxiety Inventory, the Templer Death

Anxiety Scale, the Kuwait University Anxiety Scale, and the State-Trait Anxiety Inventory-Trait subscales were administered to the participants, who answered in their native languages. The researcher found that death anxiety had significantly lower mean scores in the Spanish sample than the Egyptian sample. The correlation between death anxiety and general anxiety in both countries was significant, positive, and moderate (Abdel-Khalek & Tomás-Sábado, 2005).

Another study with similar results was conducted in four Arabic (Egypt, Kuwait, Lebanon, and Syria) and three Western (Spain, the United Kingdom, and the United States) countries. Using a total sample of 2,978 undergraduates, the study aimed to examine the sex-related differences on the Arabic Scale of Death Anxiety (ASDA) and to compare the mean ASDA scores among Arabic samples (Egypt, Kuwait, Lebanon, and Syria) with Western samples (Spain, the United Kingdom, and the United States). The participants resided in their native countries and responded to the scale in their native languages. Sex-related differences on the ASDA were statistically significant in all countries except the United Kingdom. The women had higher mean scores than the males. The results showed that all the Arab samples, except for Lebanese men, had significantly higher mean ASDA scores than Western samples. These differences might be explained because of the distinctive differences between individualism and collectivism and the lower economic statuses in the Arab countries except for Kuwait (Abdel-Khalek, Lester, Maltby, & Tomás-Sábado, 2009).

One study examined the relationship between death anxiety and death obsession among Palestinian university students. The sample consisted of 216 students enrolled in two universities in the Gaza Strip and one university in the West Bank. The ages of the participants ranged from 17 to 30 years; 87 of the students were males and 129 were females. The questionnaires were predesigned sociodemographic sheets that measured death anxiety and obsession about death.

The results indicated that female students, and those living in the Gaza Strip, reported high levels of death anxiety. Mean scores on the death obsession were higher among students from Gaza. There was a positive association between death anxiety and death obsession, death dominance, death idea repetition, and death ruminations. The researchers suggested that the high scores of death anxiety among students who live in Gaza were due to the continuous conflict in the area (Thabet & Abdalla, 2018).

Saudi students living in the United States face many conditions that challenge their adjustment process and might affect their cultural worldview and self-esteem, which are considered the main ways to control and buffer any fear that they might face in their lives, specifically the terror of death (Pyszczynski et al., 2006). There are many studies that have examined various variables that are related to death anxiety, such as age (Russac, Gatliff, Reece, & Spottswood, 2007), gender (Suhail & Akram, 2002), education level (Hass-Thompson, Alston, & Holbert, 2008), and religiosity (Swanson & Byrd, 1998).

This present research, in addition to death anxiety, also focuses on two variables: attachment patterns and psychological depression. According to Bowlby's (1973) attachment theory, individuals who trust the availability of attachment figures who provide support and love, especially in stressful circumstances, show less fear and anxiety than those who do not have this source of care and support. Parents who respond to their infants' needs construct a fundamental secure bond that helps their infants to regulate their negative emotions when facing stressful circumstances. Ainsworth, Blehar, Waters, and Wall (1978) compared the infants of parents who provide care and sensitivity to their infants with infants of non-caring parents. Their findings suggested that infants with parents sensitive to their needs showed fewer anxious and aggressive reactions in separation circumstances. Ainsworth (1967) did many experiments on the

relationship between infants and their mothers and suggested three attachment patterns: secure, ambivalent, and avoidant. She examined the reactions of the infants when the mothers returned after a short separation and found that secure infants interacted normally. Ambivalent infants' reactions were characterized by intense distress and clingy behaviors, whereas avoidant infants reacted with no distress and did not seek contact with the mothers.

Mikulincer, Florian, and Tolmacz (1990) suggested that attachment patterns may shape the negative responses in individuals under distressing conditions. Bowlby (1973) created a working model based on the expectations of the infants from their attachment figures and suggested that this model affected the regulation of feelings, affects, and beliefs of the attachment experience. This working model exists throughout the life span and affects individuals' reactions toward their relationships (Dontas, Maratos, Fafoutis, & Karangelis, 1985). One's confidence in the availability of attachment figures reinforces self-esteem (Cassidy, 1988) and helps with the regulation of general negative feelings (Kobak & Sceery, 1988). Therefore, it also influences how people deal with the terror of death (Mikulincer et al., 1990).

Mikulincer et al. (1990) suggested that the feeling of loneliness that accompanies the fear of death is reduced when an individual has access to securely attached relationships that provide love, support, and care. For example, one study tried to examine the relationship between attachment patterns and personality characteristics with death anxiety. The research method was a descriptive survey. The population for the research consisted of 15,000 students from Hamadan Islamic Azad University, selected via cluster random method. Researchers collected the data using the Templer Death Anxiety scale, the Hazan and Shaver attachment-style questionnaire, and the NEO PI-R personality test questionnaire. Data were analyzed using the Pearson correlation test and stepwise regression. The findings showed that there is a relationship between

personality characteristics and attachment patterns with death anxiety among students. The researchers also found that attachment patterns and personalities can predict death anxiety (Ebrahimi Pakizeh, Kharaghani, Zavari Zare, Zavari Zare, & Abbasi Jegarloe, 2016).

Another study investigated the relationship between attachment patterns and fear of personal death among a sample of 80 male Israeli undergraduates at Bar-Ilan University, ranging in age from 22 to 33 years. Data were collected using the Hazan and Shaver questionnaire, the perception of attachment figures questionnaire, the responses to separation questionnaire, the death anxiety scale, the fear of personal death scale, and the Thematic Apperception Test. Students were classified into secure, ambivalent, and avoidant attachment groups, and researchers measured the extent of, and the meaning attached to, fear of personal death and the extent of fear at a low level of awareness. The researchers found that ambivalent subjects showed higher levels of fear of death than did secure and avoidant subjects; ambivalent and avoidant subjects showed higher levels of fear of death at a lower level of awareness than secure subjects (Mikulincer et al., 1990).

Another study examined the relationship between death anxiety, attachment patterns, and personality using a sample of students at Bilgi University with ages ranging between 19 and 30. The data were gathered via a relationship scale questionnaire, the big five inventory, the death anxiety scale, and a debriefing form. The results indicated that there is a significant relationship between levels of neuroticism and death anxiety. The researchers did not find a significant relationship between dismissive attachment, preoccupied attachment, and death anxiety. Secure attachment and fearful attachment showed a significant relationship with death anxiety (Oral, 2017).

Death anxiety has been linked with many psychopathological disorders, such as obsessive-compulsive disorder (Strachan et al., 2007), anxiety disorders (Arndt, Routledge, Cox, & Goldenberg, 2005), and depression (Öngider & Eyüboğlu, 2013). According to the terror management theory, the failure to use anxiety reduction mechanisms that manage the terror of death and anxiety increases one's chances of developing a psychological disorder (Maxfield & Pyszczynski, 2014). Mechanisms to reduce death anxiety may not be activated for a number of reasons, such as life distress, insecure attachments, low self-esteem, and difficulty meeting the standards of a cultural worldview (Menzies, 2014). As a result, Menzies (2014) suggested that death anxiety is a transdiagnostic construct that presents with various psychological disorders.

Many researchers have confirmed the presence of death anxiety in depressive disorders (Öngider & Eyüboğlu, 2013; Simon, Arndt, Greenberg, Pyszczynski, & Solomon, 1998). Another explanation of the relationship between death anxiety and depression was found in the work of Kelly (1955), who defined depression by applying the concept of constructions. He stated that depressed individuals limit any experiences and worldviews that do not fit with their personal construct system. Death is a future and unknown experience; therefore, trying to understand this experience often leads to anxious reactions because recognizing the unknown requires an extension of the personal construct system.

As another example, a study aimed to investigate the relationship between death anxiety and death depression and general depression among Egyptian students. The sample included 208 male and female undergraduate students. Instruments to collect data were the Arabic Death Anxiety Scale, the death depression scale, and the general depression scale. The researchers found that death anxiety correlated 0.32 ($p > .001$) with general depression, while the correlation between death depression and general depression was not significant (Abdel-Khalek, 1997). A

replication study on a Kuwaiti sample used the same instruments that had been previously administered to Egyptian and Lebanese college students. The participants were 215 Kuwaiti undergraduate students who responded to the death anxiety scale, the death depression scale, the general anxiety scale, and the general depression scale. The study occurred from 1997 to 1998. The researchers found a significant relationship between death anxiety and depression (Abdel-Khalek, 2001).

Another study aimed to examine the relationship between death anxiety, gender differences, and change over time, as well as death anxiety and attitudes toward end of life care (EOLC) and psychological well-being. The sample consisted of 953 medical students at the University of Cambridge Medical School for up to three consecutive years. Questionnaires included death anxiety (Collett-Lester Fear of Death Scale), psychological well-being (Hospital Anxiety and Depression Scale and Interpersonal Reactivity Index), and attitudes toward EOLC and were administered each year. The findings indicated that death anxiety was moderate among students of all training levels and remained stable over time. There was no significant relationship between gender differences and death anxiety except for the subscale ‘death of others,’ where men scored significantly lower than women. A high level of death anxiety was correlated with higher depression and anxiety levels (Thiemann, Quince, Benson, Wood, & Barclay, 2014).

To summarize, the existing literature has proven the relationship between death anxiety, attachment patterns, and psychological depression. Therefore, it is important to investigate the relationship between the three variables among Saudi students attending American universities who experiences many difficulties due to adjustment distress in a Western culture that has

different social and religious perspectives. To the best of the researcher's knowledge, there are no studies that have examined the relationship of those variables among this population.

Statement of the Problem

Regarding death anxiety studies, students—and especially international students—receive less attention from researchers because most of the studies focus on death anxiety from a pathological perspective (Elliot & Church, 2002; Schwartzberg & Halgin, 1991). A review of the current literature finds that few studies have investigated the relationship between death anxiety and depression among college students, although it is an issue. For example, a study with 208 male and female Egyptian undergraduates revealed that death anxiety correlated 0.32 ($p > .001$) with general depression (Abdel-Khalek, 1997, 1998, 2001).

Most of the studies that have examined the relationship between death anxiety and depression were with clinical samples, such as the HIV patients and elderly (Gular, 1995; Lim, Ko, Kim, & Lee, 2017). Moreover, the studies that explored the relationship between death anxiety and attachment patterns were also among clinical populations (Scheffold et al., 2018; Valikhani & Yarmohammadi-Vasel, 2014). Few studies examined the relationship between death anxiety and attachment patterns among students (Mikulincer et al., 1990; Oral, 2017). There are no studies that have compared the above three variables together among international students, specifically Saudi Arabian international students.

Purpose of the Study

This study aims to investigate death anxiety, attachment patterns, and psychological depression among Saudi students in American universities. The results might fill the gap in the current literature review regarding this issue. The research follows a quantitative study using a survey design that intends to answer the research questions, which investigate the relationship

between specific variables. According to Creswell (2002), quantitative designs should have a purpose statement, research questions, and hypotheses that are specific and measurable. Creswell (2002) stated that instruments are important tools to measure the variables in the quantitative study. Instruments are constructed from different questions that help the researcher to collect the quantitative data. In this study, surveys are used to explore the various opinions of the participants. In survey research design, data are collected in various ways, such as questionnaires or surveys, where collecting data is based on systematic processes; therefore, survey research design is considered as an important assessment in the social science field.

The data in this quantitative study data have been analyzed using IBM SPSS software. Descriptive statistics used in this study include frequency distribution, mean, standard deviation, and correlation. Inferential statistics in this research included analysis of variance (ANOVA) and linear and multiple regression analysis. The researcher used a convenience sample that includes Saudi Arabian students who are 18 years of age or over and taking undergraduate and graduate courses in American universities or colleges. They responded to a Qualtrics survey via the Internet that includes four scales. The first scale is the demographic questionnaire that identifies the age, gender, marital status, and level of education of the participants. The second scale is the Arabic Death Anxiety Scale (ADAS) that measures death anxiety. The third scale is the Center for Epidemiologic Studies Depression Revised Scale (CESD-R) to measure depression. The fourth scale is a relationship questionnaire scale (RQ) developed by Bartholomew and Horowitz (1991) to determine the attachment patterns.

Research Questions

RQ1: Is there a significant relationship between death anxiety and attachment patterns among Saudi students in the United States?

RQ2: Is there a significant relationship between death anxiety and psychological depression among Saudi students in the United States?

RQ3: Do attachment patterns and psychological depression predict death anxiety among Saudi students in the United States?

RQ4: Does death anxiety predict psychological depression among Saudi students in the United States?

Justification of the Study

Studying abroad has been an explosive trend in the past few years. Millions of students from all over the world travel to different countries to study. Consequently, challenges start to appear, either financial, educational, or cultural. Some of the students' experiences living alone for the first time in their lives, far away from all their attachment figures, affect their psychological well-being. In general, international students are more vulnerable to different stresses because they face many obstacles, such as not assimilating into the new culture or the new education system; this could cause the students to develop death anxiety and depression.

In the past, researchers were interested in studying Asian and Hispanic international students (Dao, Lee, & Chang, 2007; Rudmin, 2009; Shaw, 2010); there is scant research focusing on Saudi international students. Therefore, the concern of the present research is to examine the relationship between death anxiety, attachment patterns, and psychological depression among this specified group of international students.

This study will help relevant funding agents to better assess the applicants who are eager to study abroad in order to earn a degree, thereby getting a better idea which applicants will be able to adjust successfully or not. In addition, the hosting universities will need such information to offer the proper psychological support for international students who might suffer from death

anxiety. Therefore, the counselors and psychologists in the academic institutions will better understand death anxiety and other variables that moderate its effect among international students. This understanding will enhance their ability to provide students with proper treatment.

Limitation of the Study

One of the limitations of the study is not considering the possible moderate effect of other demographic factors of the sample, such as age, gender, educational level, marital status, and religion. Studying the effect of marital status is quite complicated because it requires using different attachment scales, such as a romantic relationship scale. This study only used the relationship questionnaire developed by Bartholomew and Horowitz (1991). Moreover, religion is one of the main factors that determines the perception of death by an individual. Therefore, it limits the investigation of death anxiety in this research.

Definition of Key Terms

- A. Death anxiety: Death anxiety is a personality trait characterized by a negative attitude, feelings, and beliefs regarding death and the dying process, whether it be the death of self, death of significant others, or the general idea of death (Abdel-Khalek & Neimeyer, 2017). Many assessments have been created to measure death anxiety. One of the most popular scales is the death anxiety scale, which includes a 15-item self-reported questionnaire using a Likert response format (Templer, 1970). There are many revisions of this scale, such as the Arabic Death Anxiety Scale.
- B. Attachment: Attachment has been defined by Bowlby (1973) and his followers (e.g., Ainsworth et al., 1978) as the emotional bond constructed between an infant and his or her caregiver(s). The attachment behaviors express this bond through crying or body movements. This emotional bond serves to maintain security and support, especially in

stressful circumstances. Therefore, it is an adaptive mechanism that is important for survival and development. This emotional bond is expressed in mentalistic terms of perceptions and feelings and identifies the self as a separate individual from the mental agent who is distinct from others by individual cognitions and emotions (Keller, 2013).

- C. Depression: Major depressive disorder is a common and serious medical illness that negatively affects how people feel, the way they think, and how they act. Fortunately, it is also treatable. Depression causes feelings of sadness and/or a loss of interest in activities once enjoyed. It can lead to a variety of emotional and physical problems and can decrease a person's ability to function at work and at home (American Psychiatric Association, 2013).

Chapter 2 includes a review of the current literature as a basis for conceptual and theoretical frameworks for the topic under investigation.

Chapter II

Review of the Literature

This chapter introduces the background of the research and provides specific information about the different variables included in the research. Moreover, this chapter analyzes the scientific articles and theoretical perspectives relevant to the research questions of the study. In addition, the chapter informs the reader about the known and the unknown regarding the different variables that the researcher intends to examine.

The Culture of Saudi Arabia

Culture plays an important role in shaping the behaviors and perspectives of human beings. Understanding the basic elements of the culture that international students belong to provides a precise explanation for how they might interact and adjust with the challenges they face while living abroad. Therefore, the cultural context that influences Saudi Arabian students who study in American universities will be addressed.

The Kingdom of Saudi Arabia was once a tribal society, where each tribe had its ruler and own set of rules. In 1932, the tribes were united by King Abdul-Aziz Al-Saud (Blanchard, 2009). The discovery of oil in Saudi Arabia at the start of the 20th century helped in the establishment of a strong economy and aided in the development and the welfare of the Saudi country. However, Saudi Arabia maintains a conservative Islamic ruling system (Long & Maisel, 2010). The legal system of the kingdom is based on the Islamic Shari'a law and the holy book of Islam known as the Qur'an (Bowen, 2014). Shari'a means "the pathway to the source" (Long & Maisel, 2010, p. 61). The population of Saudi Arabia is approximately 33 million (Central Intelligence Agency, 2019).

Religion. It is hard to separate religion from culture in Saudi Arabia. Religion and culture together form the basic fundamental groundwork for all life aspects of Saudi citizens. Almost all Saudi people consider themselves Muslims (Keating, 2004). Islam is based on the teachings of the prophet Muhammad, who was born in Mecca in 572 c. Islam means in Arabic a surrender or submission by its followers to Allah (Long, 2005). As a whole, there are more than 1.3 billion Muslims around the world (Harper, 2007).

Islam consists of five pillars. The first pillar is acknowledging that there is no god but Allah and the prophet Mohammed is his messenger. The second pillar is praying, which is known as al-salah; Muslim perform five prayers every day. Prayers build a direct relationship between Muslims and Allah (Ali, Liu, & Humedian, 2004). The third pillar is Al-Zakat, which is defined by giving a specific percentage of one's annual savings to the less fortunate. This percentage is about 0.25% of the total annual savings. Al-Zakat not only includes money, but also includes agricultural crops, gold, and other elements that can be liquefied. Al-Zakat helps in constructing solidarity and compassion between society members (Senturk, 2007). The fourth pillar is fasting in the month of Ramadan, which is the ninth month in the Islamic calendar (lunar calendar). During Ramadan, Muslims are not allowed to eat, drink, or have a sexual relationship. The fifth pillar is Hajj, which means the pilgrimage to Mecca by Muslims at least one time in life. Muslims who lack the financial and physical resources are exempt from the pilgrimage (Ali, Liu, & Humedian, 2004).

Muslims have two celebrations every year. The first celebration is the Eid al-Fitr, directly after the month of Ramadan. In Eid al-Fitr, Muslims break their fast and families visit each other (Saudi Arabian Cultural Mission in the United States, 1993). The other celebration is Eid al-Adha, which starts at the end of the pilgrimage (Yackley-Franken, 2007). Sacrificing an animal

(sheep, cow, or goat) and prayers mark this celebration. In summary, Islam shapes every individual Muslim's social life and organizes community traditions based on its rules. Breaking the Islamic rules in Saudi Arabia is considered taboo, and following Islamic rules is a must to gain validation from the community and the government.

Family. In contrast to Western culture, Saudi Arabian society is mostly a collectivist culture. In a collectivist society, the extended family manages the individual's life (Maisel, 2011). According to Al-Banyan (1980), the individual is expected to sacrifice their goals, needs, and choices for the sake of the family. On the other hand, the family provides collective support under any circumstances to their members (Abu-Hilal, 1987).

Traditional family in Saudi Arabia consists of the parents, children, grandparents, aunts, uncles, and cousins (Saudi Arabian Cultural Mission in the United States, 1993). The family in Saudi Arabia falls under the patriarch system, where the males hold the responsibility to guide and control other members, such as the females or young brothers (Maisel, 2011). Saudi Arabian students rely on their families to provide support and care during their lives, including for social, financial, and health problems (Dwairy, 1997). Moreover, people in the Middle East, specifically Muslims, tend to handle mental disorders such as depression by communicating with their families, friends, and Islamic traditional healers rather than visiting mental health clinics.

Language. Arabic is the language of the Saudi Arabian people. It is also the language of the Quran, which makes it valuable to all Muslims. Arabic is completely different from English. According to Auty, Holes, and Harris (2005), the letters are different, written from right to left, as are the order of subjects, objects, and verbs. These differences result in great pressure on Saudi international students. This language barrier may affect Saudi students' performance in class participation or Western society.

Education. The percentage of literacy in Saudi Arabia has increased over the past 60 years, jumping from 25% to 75% (Wynbrandt, 2004). The strong economy supported the Saudi plan to set education as a main priority. The Ministry of Higher Education was established in 1953 by King Fahd. Since then, the ministry has made some revolutionary decisions: to encourage Saudis to enroll in the school system and higher education; free education for all Saudi Arabian citizens; and the availability of scholarships and fellowships to allow Saudi students to study in different foreign countries (Krieger, 2007).

In general, the Saudi Arabian learning system is Islamic-focused, and the curriculum includes Islamic values and laws (Ramady & Al-Sahlawi, 2005). Moreover, males and females study in separate schools and universities. The instructors in the classroom are of the same gender as the students (Yackley-Franken, 2007). The learning process relies on lectures provided by the teachers; this entails one-sided direct input from the teacher to the student. Therefore, there is minimal collaboration and interaction between students and teachers (Saudi Arabian Cultural Mission in the United States, 1993).

When studying in the United States, Saudi Arabian students experience a different educational system, which can be very challenging. For example, group discussions and other interactive activities in the classroom require a greater effort by the Saudi students to adapt because the Saudi educational system relies mainly on the one-way instructing style, with a lack of sharing thoughts between students and the instructor.

Gender. According to Islamic law, women should cover their bodies and hair in the presence of males outside their family circles (Yackley-Franken, 2007). Educational institutions apply a separate-sex policy; therefore, males and females study in different schools and universities after kindergarten (Saudi Arabian Cultural Mission in the United States, 1993).

When Saudi Arabian students travel to the United States to study, they experience for the first-time co-ed classrooms and professors. This extends to other activities in the university, such as eating in the cafeteria, studying in the library, and working out at the gym.

According to Shari'a law, females are not allowed to travel abroad alone unless they are accompanied by a male guardian who is a family relative (father, brother, husband, or uncle). As a result, the number of Saudi Arabian female students studying in the United States is lower than the number of Saudi Arabian male students. Moreover, Saudi females are mainly responsible for taking care of children and households, which adds an additional burden if they are students.

Saudi Students in the United States

There are 58,726 Saudi students in the U.S.: 43,188 males and 15,538 females, accompanied by 33,856 family members. Most students are studying engineering and information technology (22,240), followed by management and finance (15,181), and human and social studies (8,528). Medicine and medical sciences are fourth with 7,685 students, ahead of biology with 2,154, and physics with 1,065 (Ministry of Higher Education, 2018). In 2005, Saudi Arabia initiated a scholarship program that sends Saudi students to the best universities all over the globe, known as the King Abdullah Scholarship Program (KASP). The goal is to provide high-quality education, empower the students with a new cultural and educational experience, and to exchange scientific education and cultural expertise (Ministry of Higher Education, 2014).

Shaw's (2010) study aimed to explore Saudi students' experiences in the United States. In her study, the Saudi students revealed that they came to the U.S. to gain a degree, to be educated, to be proficient in English, to become independent, and to learn American culture. Hall's study (2013) found that Saudi students chose to study in the United States due to the prestige of American universities, because one of their family members or friends studied in the

United States, because of the policies of the KASP that encourage the students to come to the United States, and the desire to learn English. The literature about Saudi students in American universities indicates that the biggest challenge that the Saudi students encounter is the lack of English proficiency. In addition, the Saudi students felt homesickness and alienation. They were not completely adjusted to the host society, either academically or culturally. While the Saudi students desired to interact and be friends with American people, the interaction was limited (Al-Musaiteer, 2015). According to Al-Shehry's (1991) study, the biggest problems faced by Saudi students included English proficiency, financial aid, and academic records, while the problems of least concern were admissions and health services.

Shaw (2010) found that the most challenging problems that Saudi students experienced were living-dining, English use, financial aid, and social-personal problems, and the least challenging problems were orientation services, student activity, and religious services. The students indicated that they struggled with the different climate, the bathroom facilities, and the taste of food in America. In addition, they mentioned that none of the Americans invited them to their homes. Half of the participants reported that they felt homesick. Saudi students suggested that they rarely interacted with American students and that they mostly interacted with other Saudi students. In addition, some of the Saudi students reported that they encountered discrimination due to their nationality, ethnicity, and religion. Furthermore, while most Saudi students perceived American students as friendly, they reported that some Americans outside the campus were racist and the Saudi students felt ignored (Shaw, 2010).

Abdel Razek (2012) reported that Saudi students experienced many stereotypes about their religion, race, and country. In addition to the method of teaching, the amount of the assignments and the teachers' expectations were challenging. All these challenges enhance the

students' vulnerability to psychological problems that affect their well-being and many other aspects, such as their ability to adapt and improve their academic performance. Therefore, the aim of this study is to explore how living abroad and being far from family members could lead to some mental disorders such as depression and death anxiety.

Saudi Arabian Students' Adjustment in the U.S.

International students, and especially Saudi Arabian students in the United States, face several obstacles that affect their adaptation to the new environment and negatively impact their educational plans. Several research articles have suggested that the adjustment problems mainly arise from the abrupt change to the culture in the United States, either in daily life or in the educational system. This change can lead to cultural shock that inevitably has an effect on the performance and mental stability of the new Saudi students (Al-Jasir, 1994; Jammaz, 1972; Mustafa, 1985; Shabeeb, 1996).

Academic adjustment. First, the researcher will discuss the academic difficulties that Saudi students face based on cultural change. By indicating the major differences between the Saudi and American educational systems, it begins to reveal the sources of such cultural shock. Heyn (2013) summarized the unique Saudi educational system in three main points. Firstly, Islam is the core of the educational system, as all the subjects that are taught must conform to Islamic regulations. For example, many Muslim scholars believe that philosophy is rejected in the Islamic religion, and so philosophy is never taught in any Saudi schools or universities. The same applies to other subjects such as art. Islam is the only religion taught in Saudi schools and is obligatory even for non-Muslim international students. The Saudi educational system offers religion course topics such as the Quran, Islamic tradition, Jurisprudence, Theology, and Hadith (the study of the narrations on the prophet Muhammed).

Additionally, the educational system in Saudi Arabia totally segregates males from females, even with teachers and university professors. This issue is very important to discuss because most of the Saudi students who travel to the U.S. find themselves dealing with the opposite sex directly in an intense way, which can affect students' perceptions. Third, education in Saudi Arabia is free. There are public schools and universities that offer free education for Saudi and non-Saudi students. Currently, there is an increasing number of private schools and universities.

One area that has been researched related to Saudi Arabian student adjustment in the United States is how student perceptions, attitudes, and expectations affect academic adjustment (Almotery, 2009; Al-nusair, 2000; Mustafa, 1985; Shaw, 2010). For example, Al-nusair (2000) conducted a study on 278 Saudi students at different American universities, selected randomly. This study attempted to reveal the levels of adaptation of Saudi students to the academic culture in the United States. The study had three main points: the perception of the Saudi students of the new college, the accommodation of the students into the new environment, and how many educational benefits the Saudi students were gaining. A College Student Experiences Questionnaire (CSEQ) was the measuring tool in that study, and 62% of the Saudi students participated in the questionnaire. The results of the questionnaire can be summarized in two main findings. First, most of the Saudi students were more involved with educational and scholarly activities rather than art and music activities. This can be explained by the pressure induced by their families because it is expected that these students will achieve top grades and return back to their families and contribute to the evolution of their own country. On the other hand, the lack of involvement of the Saudi students in art and music (non-educational activities) can be related to

the big differences in culture and culture shock. In addition, some of the students preserve a religious ideology and thus refuse to interact with other students in any non-educational activity.

Second, the questionnaire results found that many Saudi students are not interested in writing experiences, especially when it comes to their academic work. This is highly attributed to the language barrier because English is not the first language in Saudi Arabia. Moreover, the educational system in Saudi Arabia relies mainly on homework, and no reports are requested from the students. As a result, some students get confused about what are they supposed to do and how in an American classroom. Regarding the educational gains, students who are in the fields of science and technology indicated satisfaction; in the non-scientific fields, the students were not highly satisfied. This is mainly because the science fields do not rely highly on using the English language, while non-scientific fields rely heavily on the correct use and expression of the English language.

The English academic writing problem was also a factor in a recent report by Al-Murshidi (2014). Research conducted on Saudi and Emirati students found that the students experienced several challenges with academic writing in American universities. Using a mixed method study design, the researchers found that around 70% of the Saudi students (out of 219 participants) struggled with English academic writing. Sentence construction, together with the vocabulary and grammar rules, were the main issues affecting students' performances. A number of the participants showed an interest in including a native English speaker in their projects, so as to let the native speaker correct their mistakes or even be responsible for the writing entirely. These results contrast the fact that most Saudi students start their academic journey in the United States by joining official language institutes; based on these results, it seems that these institutes

are not offering the required academic English training needed by the students to pursue their studies in the United States successfully.

Caldwell (2013) reached a conclusion that in order to fix this issue, American institutions should focus on developing courses in academic writing for international students. Another study (Shaw, 2010) focused on 25 Saudi students' perceptions of the learning environment at Oregon University. The study aimed to understand the differences that affect Saudi students between their home environment and the environment at Oregon University. In addition, the study aimed to compare different students' strategies to achieve their goals between the two different environments. The study revealed that the students were shocked by the strict system applied in American universities, with no option for students to get an exception. For example, when a student missed an exam, he was shocked that he was not able to make up for that exam; as a result, the student felt misunderstood. This centers mainly around the idea that there are rules in Saudi culture, but they are implemented with sympathy, and the applier of the rules always considers the student's individual situation. Oppositely, American university rules are applied without exceptions. Regarding the success strategies, most of the students agreed on a number of important points that helped in their academic success, e.g., setting a goal at the end of their study, time management, developing their skills, establishing study groups, and using the offered campus educational resources. Many students confirmed the fact that the natural environment in Oregon helped them to ease the pressure accumulating from their stress.

Another study was conducted on Saudi students at Wisconsin University (Almotery, 2009). This study focused on the Saudi students' expectations, motivations, and experiences. The study involved students who had been studying at Wisconsin University for more than two years. This included undergraduate (four females and six males) and graduate (three males) students.

The students indicated that upon their arrival in the United States, the students were worried about the new educational system and environment. The students who earned low GPAs had more negative experiences compared to the ones with higher GPAs. One factor mentioned by the students was the presence of family members or supportive friends; students who were supported by family and friends showed more promising performances and higher expectations than students who were alone. The Saudi students at Wisconsin University suffered from the aforementioned English language problem. These Saudi students were generally satisfied with their academic goals and performance, but the English language problem remained a barrier to their academic goals.

Language adjustment. One of the main obstacles faced by international students is the English language. Several studies in the aforementioned section addressed the effect of the English language on the academic performance of the students, which is reflected in their psychological responses. This was reviewed in different articles and studies (Al-Sahafi & Shin, 2016; Robertson, Line, Jones, & Thomas, 2000; Wu, 2011). Wu (2011) introduced a study where he identified the challenges incurred by Taiwanese students studying in various American universities. These difficulties included writing assignments and understanding the required tasks, either during the exam or during the lecture. In addition, this difficulty was reflected in their ability to take notes, give oral presentations, and participate in class, which negatively affected their grades.

Several studies on Saudi students have shown that they experience great difficulty gaining proficiency in the English language (Almotery, 2009; Al-Morshedi, 2011; Al-Shehry, 1991; Rabia, 2015; Shabeeb, 1996). To explore this further, Rabia (2015) presented the results of a qualitative exploratory study on Arabs from different nationalities (Arabic countries include all

the countries in the Arabic League). The study showed that Saudi students suffer more than other Arabic nationals in American universities because of the English language barrier. The language barrier affects their communication with their professors and other students, which impacts their teamwork with American students. Moreover, the students have a hard time understanding the lectures, interacting with the professors, and conveying their ideas. One of the participants indicated that the English taught in Saudi schools is very basic, so it does not have an impact on improving the students' proficiency in English. This is actually a major issue because most of the other Arabic countries provide stronger English courses than the ones given in Saudi Arabia. The majority of the students were also having difficulties regarding the writing assignments.

Al-Shehry (1991) studied various financial and academic problems facing Saudi students who study in the United States. The study was conducted on 354 graduate students using the Michigan International Student Problem Inventory (MISPI). The result of the study was very similar to that of the aforementioned studies, shedding light on the English language problem facing the students, either in writing or communicating. This study showed that a larger number of Saudi female students had a harder time in class recitations than Saudi male students. Generally, 41% of both sexes had major issues with the writing assignments and around 30% had concerns about oral presentations. Another interesting result in this study was that the students who took English lessons in the United States faced more language-barrier problems than other Saudi students, which again raises the question regarding the quality and efficiency of English-language centers in the United States.

A relevant study by Shabeeb (1996) showed a contradicting result to Al-Shehry (1991) regarding the differences between males and females. Shabeeb (1996) conducted his study among higher education institutions in eastern Washington and included Saudi and Gulf region

students. The study revealed that male students faced more difficulties than female students regarding the English language. Another interesting result was that the Saudi students on scholarships faced more difficulties with the English language than the students who were not on scholarships. This result makes some sense because many of the wealthier students who were not on scholarships likely had different resources for learning English. They may have traveled to the U.S. or Europe before. On the other hand, many middle-class students who needed scholarships did not have a similar chance to previously improve their proficiency in English.

Cultural adjustment. The scene in an American university is a mixture of different cultures, a melting pot where everyone comes in from their own culture, integrating with other people from different cultures. This cultural diversity has both positive and negative impacts on international students. Students from Saudi Arabia arrive from a rather insular community compared to other parts of the world. Thus, the sudden mixing with other cultures can lead to culture shock that may affect their academic and social interactions (Heyn, 2013).

Kampman (2011) studied the cultural effect on five female undergraduate Saudi students at a university in Portland, measuring their ability to adjust to the newly adopted culture. The female students were subjected to culture shock when attending a class with male classmates for the first time in their lives. The females were not comfortable with that and they preferred to study only with females. As a negative impact, the females were not able to represent themselves adequately. On the other hand, the females understood the importance of this step and they believed that it was important to break the cultural taboo and interact with the community, either with males or females.

One of the main cultural aspects of Saudi Arabia is that the man is the leader in the house. He is responsible for earning the money for his family and the woman is responsible for

the house and raising kids. Although this traditional culture is fading away, it is still represented in the community in some ways, especially in terms of religion. Al-Ramadan (2016) noted that these aforementioned cultural themes are not seen so much in Saudi Arabian couples in the United States, given that both of them are studying. The author explained that because the study load is equal for both partners, the couple starts to divide the house duties equally, even childcare. In addition, Al-Ramadan (2016) revealed that Saudi couples rely on each other more while they are living in the United States because their families are not there to support them. It can be deduced that the relationship between a Saudi male and female changes when they are in the U.S., and to some extent, this improves the relationship between couples. Couples gain more understanding, share responsibilities, and support each other. On the other hand, several participants indicated that they do feel some stress being away from family, while others claimed that the stress is because they are not used to such a relationship. Other research had similar results (Akhtarkhavari, 1996).

Wearing a hijab to cover their hair for women is an obligation in Saudi Arabia. Arising from both cultural and religious roots, Saudi women are also expected to wear abayas (covering the whole body with a black robe). A significant percentage of Saudi Arabian men consider a woman showing her face or body as a scandal. These ideas arise from the tribal community in several parts of Saudi Arabia. From here, it can be deduced that at least some Saudi women wear the hijab based on their own beliefs while others are forced to wear it because of the pressure exerted by family or the community. It is notable that most Saudi women, even religious women, do not wear abayas outside Saudi Arabia. On the other hand, Saudi women who are veiled in the United States face a number of adjustment problems. Many Americans do not know much about Islamic clothing and they make a connection between covering hair and women's rights,

assuming that when a woman covers her hair, she is forced by her family to do so. Several Saudi women reported being accused of this or even being discriminated against for covering their hair. Based on that, several veiled women reported feeling isolated on campuses and not getting much interaction with other students (Al-Ramadan, 2016). Thus, some of the veiled women started to reevaluate their clothing customs.

Adopting and understanding a new culture is a major issue for Saudi students. Several studies have focused on this particular issue because it can affect the students' perceptions and mental health. Al-Khedair (1978) found that Saudi students who studied in the United States for at least three years were more understanding of the culture in the United States than the new incoming students, without changing their attitude toward it. On the other hand, Al-Banyan (1980) found a direct relationship between the length of stay and change in cultural attitude for Saudi students, e.g., changing opinions about women's rights and freedom of clothing. Students who stayed more than two years in the United States displayed total rejection of their own cultural traditions and adopted American traditions. This might occur more often for undergraduate students who are more likely to change and to adopt a new culture and less likely for graduate students who grew up longer in the Saudi culture.

Alshaya (2005) conducted an important study that summarized the cultural ideas of Saudi Arabian students who are studying in the United States. About 242 students participated in this study with only 9% representing females. The participants had distinctive opinions differing from the Saudi culture. For example, more than 80% of the male participants were ready to share household responsibilities with a wife, believing that the woman can make important decisions as well as the man and that it is okay for the wife to achieve a higher professional position than her husband. The survey revealed that the length of stay in the U.S., the age, the marital status,

nor the level of education made any real biased contribution. The results of this survey stand in contrast to the aforementioned studies. Participants may have deliberately chosen socially acceptable answers in this survey, but it does not reflect if those participants will apply those answers in real life or not.

Social adjustment. Many international students travel alone to the United States as young as 17 years old. It may be the first time those international students are away from their families and a protective community. Most international students are naïve and lack the life experiences that would help them avoid social shock. Moreover, the students have to adapt to a new culture and make new friends who are speaking different languages (Sawir, Marginson, Deumert, Nyland, & Ramia, 2008). Saudi students in particular struggle with this issue because Saudi Arabia is not a tourism-centric country, and thus most of the Saudi students' interactions at home are with Saudi students and other Arabic students. This huge cultural shift can make the Saudi international students feel lonely (Sun & Chen, 1997).

Academic success depends on a healthy environment, which is achieved by integration into the community and forming social connections with other students, as stated by various researchers (Al-Ramadan, 2016; Jammaz, 1972; Mustafa, 1985; Rundles, 2013; Shaw, 2010). Al-Ramadan (2016) and Rundles (2013) have both found that Saudi students were aware of the importance of having good social relationships during their study. The students indicated that the presence of such social support helped them to get over several difficulties. The students expected to have a bad learning experience if they did not have such social support. This was also confirmed by Shaw (2010). Saudi students felt that one of the major reasons behind their academic success was feeling that they are related to the university community and are involved on the campus.

One of the issues that can have an impact on social adjustments is the ability of the Saudi students to form friendships with American students. Most of the studies have shown that Saudis and Americans are not friends in most cases; they can just be colleagues with positive interactions (Jammaz, 1972). There are many cultural differences between the meaning of friendship in Saudi Arabia and America, which results in great difficulty in understanding each other. Most of the Saudi students travel in groups; as a result, the Saudi students are always with each other, not separated. Although this sounds like a better situation for the Saudi students, it minimizes the contact between Saudis and non-Saudis. This can be also seen in the Chinese student communities; the Chinese students just interact with Chinese students and do not interact with anyone from a different culture, even the one in which they currently live (Alsabatin, 2015).

Theoretical Perspective of Death Anxiety

After World War II, various philosophers redefined their views about death. The existentialist movement heavily influenced how people perceived the idea of death (Simsek, 2005). The existentialist point of view sheds light on self-awareness as an important component (Eckroth-Bucher, 2001). It reflects humans' full responsibility for their decisions, improving one's ability to provide a clear belief about life, death, and other dilemmas (Eckroth-Bucher, 2001). Heidegger is one of the important philosophers who introduced the topic of death in his work. Heidegger focused on the nature of death and its main role in shaping human existence (Heidegger, 1962). According to Heidegger (1962), fear of death is the source of exertional anxiety and experiencing the death of others is not helpful in understanding the ontology of death. Loneliness and death are important issues addressed by different philosophers. Heidegger claimed that the main source of anxiety behind loneliness is death because it represents the state of absence in our relations (Heidegger, 1962). Yalom, an existential psychotherapist, mentioned

that most people who experience near-death situations are not fearing the idea of death itself, but the fear of experiencing dying alone, away from family and friends. And according to the authors, being surrounded by family or beloved ones reduces death anxiety (Yalom, 1980).

Fear of death. Death affects all human beings and all living creatures. As a result, death has always been a concern for philosophers, artists, religious figures, and scientists. Human beings are considered to be unique in their ability to reflect upon their own death compared to other species that lack this property. This property offers human beings the ability to feel their death and express it in various forms (Tillich, 1952). The ability of human beings to suppress the death anxiety feeling is impossible, according to Kastenbaum (2000). As a result, individuals experience different degrees and levels of death anxiety (Carmel & Mutran, 1997), but only compulsive death anxiety prevents people from functioning in daily life (Niemic & Schulenberg, 2011). Becker (1973) indicates that it will be disastrous if the fear of death is always present in one's mental processes because it will impart a negative effect. Evolutionary psychology (Landau, Solomon, Pyszczynski, & Greenberg, 2007) indicates that fear of death can be adaptive. While all humans understand that they will die one day, they should also be able to cope with this fact and live normally, reproduce, and enjoy life without anxiety.

Definition of death anxiety. In the last half of the 20th century, several studies examined the nature of death anxiety (Feifel, 1990; Kastenbaum & Costa, 1977; Lonetto & Templer, 1986; Neimeyer, 1998; Neimeyer & Van Brunt, 1995; Wass & Neimeyer, 1995). Due to the multidimensional nature of death fears, researchers suggest that the notion of death anxiety should include the set of thoughts and feelings about death (Schultz, 1979). As a result, researchers defined death anxiety from feeling and cognitive perspectives; however, McIntosh et al. (2008) described death anxiety as an uneasy or uncomfortable emotion in response to

perceptions of death. Moreover, according to Carpenito-Moyet (2008), death anxiety is the state in which an individual experiences apprehension, worry, or fear related to death and dying. These definitions focused only on the negative feelings that create the fear of death. Other researchers concentrate on the role of thoughts and attitudes that cumulate and are generated during our life experiences toward death that might cause death anxiety. Researchers who view death anxiety as a multidimensional cognitive construct believe that cognitive dimensions of death anxiety include beliefs or ideas of the dying process, thoughts of the state of being dead or being destroyed, images of significant others, thoughts about the unknown, conscious thinking about death, ideas about the body after death, and thoughts of premature death among different individuals (DePaola, Griffin, Young, & Neimeyer, 2003; Neimeyer, 1998).

Thorson and Powell (1988) tried to include the feeling and cognition factors of death anxiety. They identified twelve main aspects of death anxiety: concern about an afterlife, fear of a long and slow death, fear of getting diagnosed with cancer, worry about becoming helpless, fear of a painful death, looking forward to a new life, concerns about maintaining control, fear of pain, fear of being shut in a coffin, concerns about the state of the body after burial, dread of having surgery, and concerns about what might happen to the body. Eventually, it is not death itself causing death anxiety, but rather the loss of control over the body, uncertainty about what happens to the body after death, and ambiguity about what causes the death (Thorson & Powell, 1988).

From the mid-1950s to the late 1970s, researchers tried to understand why people fear death. They answered this question in different ways (Abdel-Khalek, 2002). According to Raphael (2003), there are various reasons for death anxiety “as the fear of pain, of destruction, or of mutilation. It is a fear of the unknown, of the annihilation of self, of the process of dying with

loss of function, dependence on others, incapacity to tolerate the pain involved, a fear of being alone, and the fear of loss of beloved ones” (p. 21). Similarly, Choron (1972) identified types of death fear as the following: fear of the dying process, unknown destiny after death, and fear of absence. Thorson and Powell (1988) studied elements of death anxiety and meanings of death empirically. They found that older respondents indicated a concern over the existence of an afterlife and over the loss of personal control; women expressed more fear of pain and bodily decomposition. At the same level, numerous factor analyses of death anxiety scales extracted manifold components that may be considered as both varieties and reasons for death fear.

Florian and Mikulincer (1993) suggest three elements of the death fear, including the intrapersonal element, which is the physical and mental effect of death. It is the interpersonal element, which encompasses the fear of the body’s annihilation and not achieving personal goals, which is related to the effect of death on relationships with others. Gordon (2000) suggested that the most emotionally painful experience is a loss of a loved one, which is a transpersonal element. The third element is related to self-transcendence and fears of what lies beyond death.

Understanding Death Through History

From the beginning of human history, death has been a mysterious topic, and searching for the secret of immortality lies behind many myths and traditional metaphysics. The earliest writers on the subject argued strongly that people should not fear death on logical grounds. Great thinkers including Socrates, Zhuangzi, Epicurus, and Lucretius were convinced that being afraid of death is irrational and misguided. In their minds, the fear of death stems from faulty thinking, opinions, and judgments (Warren, 2004).

There are three periods of development that changed the view of death through history. The first period lay between the 6th and the early 12th centuries, the second period took place between the 12th and the 17th centuries, and the third period occurred between the 17th and 20th centuries. In the first period, death was conceptualized as the collective destiny of all human beings, and concerns about one's own death were overshadowed by a social awareness of the death of others. Religious teachings were the most important resource about death, stressing heaven as the reward for righteous living. In the second period, attitudes toward death focused more on the individual's own mortality than the social aspects of death. Death was seen as an important personal experience, including the belief in a personal afterlife, which was more important than what happened to others after death.

The source of knowledge about death began to change from the 17th through the 20th centuries. Secular and scientific reasoning came into existence and concerned themselves with death and death-related conceptualizations (Ariès, 1974). During the third period, the death of others once more began to overshadow individuals' perception of their own death. Death was romanticized and depicted as a human companion; dying and the afterlife were viewed as beautiful and peaceful experiences. Yet, at the end of this period, during the late 19th and into the 20th century, modern Western culture started to view death as a fearful, forbidden occurrence. In modern society, many humans have lost touch with death (Kearl, 1996; Lanier, 1997; San Filippo, 1998). The scientific investigation, in the same vein, supports this view (Schumaker, Barraclough, & Vagg, 2001). An overview of research indicates that the prime topics are psychopathology, the elderly and chronically ill, and some psychological variables—particularly denial and acceptance of death—all of which seem to have the same motivation: considering death as a non-normal phenomenon.

Terror Management Theory and Death Anxiety

Terror management theory (TMT) is considered as one of the most important theories that explains how people manage death terror. This theory is based upon the work of Ernest Becker, a cultural anthropologist who said the fear of death is the source (Becker, 1973). TMT conceptualizes how the awareness of the threat of death has motivated or paralyzed humans during their lives. According to Vess and Arndt (2008), TMT is a “social psychological theory that draws from existential, psychodynamic, and evolutionary perspectives to understand the often-potent influence that deeply rooted concerns about mortality can have on our sense of self and social of self and social behavior” (p. 909).

TMT holds that cultural worldviews and self-esteem help in reducing and buffering anxiety that is triggered by the fear of death (Pyszczynski, Greenberg, & Solomon, 1999). Cultural worldviews indicate the common and shared values and standards that are held by the individuals who belong to a specific culture that serve the mortality concept, such as religious beliefs or having children (Strachan et al., 2007). Worldview serves the immortality concept literally or symbolically (Lifton, 1983; Mikulincer & Florian, 1998). According to Lifton (1983), there are different forms of symbolic immortality: biological, religious, creative, natural, and transcendent. For example, having children represents the biological form of immortality. On the other hand, the creative form is achieved by leaving a remarkable legacy, while literal mortality appears in a direct meaning, such as the idea of an afterlife in some religions. Similarly, self-esteem is maintained and evaluated by following the principles and values that are agreed upon and set by a cultural worldview, which leads eventually to validation by this cultural worldview (Greenberg, 2012). Pyszczynski et al. (1996) provided a dual-process framework of proximal and distal defenses. This dual process model is an evidence-based approach that approves the

affective role of defensive strategies in reducing the mortality cognition when they are activated by death reminders (Abeyta, Juhl, & Routeledge, 2014; Burke, Martens, & Faucher, 2010; McGregor et al., 1998; Greenberg, 2012). People use these defense reactions to deal with death reminders around them. Without these mechanisms, it is difficult for them to control their anxiety and other coupled mental problems that disturb their well-being.

Confronting a conscious death threat triggers the proximal mechanism. These mechanisms include suppression and denying defenses that manage the potentiality of mortality thoughts when they arise by keeping them out of conscious awareness (Pyszczynski et al., 1996). Similarly, the distal mechanism works on the unconscious mindset. The main role of distal defenses is to limit the accessibility of death thoughts by focusing on reinforcing the cultural worldview and values of the individual that support self-esteem (Pyszczynski et al., 1996). Many experiments have examined TMT and how fear of death-related thoughts triggers people to react in a harmful or violent way when confronted with a challenging cultural worldview (Burke et al., 2010). Interestingly, sometimes it is difficult to notice the links between human behaviors and their terror of death cognition. For example, people's attitudes toward political elections, different religions, and driving speeds (Hayes, Schimel, & Williams, 2008) tend to become racist or aggressive toward people who threaten their worldview and more supportive of leaders who hold the same worldview (Solomon, Greenberg, & Pyszczynski, 2003).

Death Anxiety in Non-Clinical Populations

Most literature about death after the 1950s introduced it as a non-normal phenomenon (Feifel, 1990; Neimeyer, 1998) and a large body of research examined the study of death anxiety in non-clinical populations (Kastenbaum, 2000). The majority of researchers focused on elderly people or those about to die, such as terminal cancer or HIV patients and people who lived in

war-torn areas. Other researchers investigated the relationship between the fear of death and psychopathology (Templer, 1970; Yalom, 1980). Templer (1993) found an association between the fear of death and greater degrees of anxiety and depression. Research on death has also tried to understand the relationship between death anxiety and some sociodemographic variables such as age (Russac et al., 2007). Another variable that was found to be related to death anxiety is gender. Results show that females have more death anxiety compared to males (Dattel & Neimeyer, 1990). Researchers explain this high level of death anxiety among women by stating that women are more concerned than men about the possible pain that they might experience.

Regarding the correlation between religion and death anxiety, there have been inconsistent results. Some researchers found a positive correlation between religion and death anxiety, while other research showed negative or no significant correlation (Donahue, 1985). Studies also examined the relationship between death anxiety and economy states (Soleimani, Lehto, Negarandeh, Bahrami, & Nia, 2016) and death anxiety with education levels (Peace & Vincent, 1998). Further, Feifel (1990) found that fear of death affects all human beings at any point in their life span. Young and healthy people were as concerned about death as the elderly and chronically ill patients. Some researchers found that young adults often report a higher level of death anxiety than older people (Kastenbaum & Leaman, 2003).

Attachment Patterns

Attachment is a special relationship that initiates and develops between an infant and a caregiver. It is a unique relationship that has influenced researchers from Darwin to Lorenz and Tinbergen, who set the basis for the modern understanding of attachment by observing the mother-infant relation in animals. Throughout the years, several attachment theories were developed until the 1960s, where the first experimental setups were conducted to understand

attachment. People can understand the concept of attachment in that it is an evolutionary process that is highly adaptive to personal surroundings and it sets the behavior and the survival rates of the individual. In other words, once babies develop a satisfied bonded relationship with the caregivers, this relationship offers the babies a higher chance for survival.

Based on the aforementioned studies, Bowlby (1969, 1982, 1988) suggested his attachment theory. Children seek caregivers' protection and care to survive until the age of three. The child starts building his or her own mental-cognitive abilities and all aspects of life are based on experiences and bonded relationships during the previous years. By studying the internal working model for each individual, it is easy to understand his or her way of adapting and exploring the environment, his or her expectations from others, and how he or she interacts with different potential threats and fears. One of the unique properties of such a model is that once the person develops an attachment figure who is supportive and available when needed, this figure will always be present, even if there is no physical presence or contact with this figure. The figure still influences the person in different aspects and interactions with others (Fraley & Waller, 1998). According to the internal work model, children recognize how to count on other individuals in their environment based on how they see the individuals in their work model. As a result, the internal work model helps in the development of feelings and emotions for children and the organization of their goals in life—once the children establish a solid base with special surrounding figures.

The Bowlby attachment theory was highly adopted by the scientific community. Ainsworth (1967) aimed to extend her theory by understanding different types of relationship attachments experimentally. One of the main aspects of Ainsworth's work was to give a better understanding of the bonding relationship between mother and child and its effect on attachment

by adding a new factor, which was separation followed by a reunion. This study was quite innovative because most of the previous studies only focused on one case scenario, which is bonding in the case of union only. Moreover, this study offered a better understanding of how the attachment figures would affect the ability of the child to explore the surrounding environment.

Ainsworth et al. (1978) summed up the attachment behaviors into three main patterns: secure, insecure avoidance, and insecure resistance. They found the secure pattern was more frequent compared to the other two patterns, comprising 57% of the population. The main characteristic of such a behavioral pattern is that the child acts normally in the presence of the caregiver, exploring and socializing with the surrounding environment. However, in the absence of the caregiver, the child limits his or her actions, even the curiosity to explore. Once the caregiver returns, the child will return to normal activity, exploring and socializing. This pattern shows that the child considers the attachment model as a secure base that the child trusts and can rely on to function normally. In contrast, the insecure avoidant behavioral pattern shows a totally opposite result. The child in this model shows little interest in the caregiver; once the caregiver leaves, this does not change the situation much. In fact, the child shows little distress upon the caregiver's absence. Surprisingly, upon the return of the caregiver, the child totally ignores the caregiver. This behavioral pattern shows that the attachment model is loosely connected to the child's behavior (Ainsworth et al., 1978).

The third behavioral model, which is insecure resistance, is considered in the middle of the two extreme aforementioned behavioral patterns. The child shows a lack of activity and interaction similar to the one discussed in the secure model, but the difference here is that once the caregiver comes back, it becomes hard for the child to settle down immediately. It takes the child some time to adapt to the new situation, unlike the secure model in which the child settles

down immediately (Ainsworth et al., 1978). In 1986, Main and Solomon defined a fourth behavioral pattern, known as disorganized attachment. This behavioral pattern is determined by the lack of any coping strategy for the separation from the caregiver. Upon the return of the caregiver, the child refuses to engage or approach the caregiver. This can be mainly attributed to the development of fear or untrusting feelings during the absence of the caregiver.

An extension to Bowlby and Ainsworth et al.'s work was introduced in 1987 by Hazan and Shaver, which included the adult romantic relationship as a factor in developing the internal working model. The model had mainly been applied to children, but Hazan and Shaver were able to prove that this model is applicable to adults. The adult relationship observations are different from the ones used for children, including, love, closeness, and intimacy. The adult relationship model is similar to what has been discussed in the two previous models, where the history of the individual and personal experiences determines the type and extent of the romantic attachment. Every individual has their own internal working model that processes these attachments and determines their fate. Not surprisingly, Hazan and Shaver (1987) concluded that the adult romantic relationship is directly related to what people experienced during childhood.

To conclude, there are three main theories that were developed in order to classify the types of attachments that are developed by human beings: birth, the bonding relationship that is created after three years, and the understanding of life and developing one's own internal working model. Finally, the human being applies all that was learned before entering into an adult romantic relationship (Hazan & Shaver, 1987).

Attachment Patterns and Death Anxiety

Attachment security refers to how the individual relates to other people with whom they have close relationships, feeling secure and trustworthy with others and trusting them when

support and help are needed. This attachment builds a grounded psychological foundation that can overcome existential anxieties (Mikulincer & Shaver, 2007).

According to Bowlby (1982), attachment theory is based on the psychological system that motivates people to form bonds that include support and closeness from attachment figures. These bonds are main sources of support through life, especially for children who need care and love from their parents to grow and thrive. Bowlby (1988) asserted that this psychological system still plays a role in shaping adult relationships, as they seek love, acceptance, and support from others. This theory has been extended to adult romantic relationships.

Terror Management Theory and Attachment Patterns

According to the terror management theory (Greenberg et al., 1986), awareness of death is the main source of existential concerns that activates symbolic and cultural worldview defenses to manage the terror of death. Moreover, attachment theory (Bowlby 1969, 1982, 1988) indicates that mortality salience also activates the attachment system that encourages individuals to seek the needed care and support that helps in managing the terror of death and reducing the activation of other symbolic defenses. On the other hand, the absence of supportive, caring, and compassionate attachment figures motivates insecure individuals to rely on other forms of defense against death concerns.

Death reminders have two different forms: unconscious and conscious reminders of death (Mikulincer & Florian, 2000). The unconscious reminders activate the attachment system. Mikulincer and Florian (2000) examined a number of participants who experienced an unconscious reminder of death in a study. The participants were subjected to the word death, and the researchers recorded the first thoughts generated. Mikulincer and Florian (2000) noted that most of the participants experienced positive thoughts related to love, safety, and care in a short

period of time. Conscious awareness showed similar effects related to the activation of the attachment system. Mikulincer, Florian, and Hirschberger (2003) stated that mortality salience is directly related to the commitment to an intimate relationship, either with a partner or a close relationship with community groups. In addition, several studies (Hirschberger et al., 2003) stated that if someone is involved in a relationship that is not very reliable or comforting, they surprisingly remain in an attachment to their partners. This effect was not just noticed with partners, but also with friends and community groups, where participants showed a higher tendency to speak out and socialize, even if they will get criticized by other community members.

Secure and insecure people have different ways of managing concerns related to death. Mikulincer et al. (1990) found that secure attachment is correlated with lower levels of death-related thoughts. On the other hand, attachment anxiety is correlated with high levels of fear of death. Attachment-related avoidance is related to a lower self-reported fear of death, but securely attached individuals have an internalized sense of self-worth, and believe that others are available and supportive; therefore, they have a tendency to explore the social environments and cultural values and cope with stress. Insecurely attached people do not have the ability to explore new environments.

The Role of Attachment Patterns on International Students' Psychological Well-Being

College students face distress regarding their new academic lives (Rodgers & Tennison, 2009). Additionally, international students experience special adjustment difficulties (Mori, 2000). These difficulties include reduced contact with their family and friends and language barriers. Speaking a different language from their native language leads to the inability to

express their needs and engage in social relationships, which are linked with adjustment stress and depression (Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004).

Kenny (1987) defined living abroad as a “strange situation” due to the separation between students and their attachment figures. In the new environment, international students try to keep up old connections with their families while building new relationships. In fact, the social support of international students is merely affected because they are separated from families and close friends (Pedersen, 1991). As a result, the students feel lonely and their adjustment process is affected (Furnham & Alibhai, 1985; Hayes & Lin, 1994).

Several studies have supported the relationship between attachment styles and psychological issues; for example, Chen, Mallinckrodt, and Mobley (2002) hypothesized that there is a link between attachment and stress symptoms for East Asian international students. The results showed that attachment security is associated with fewer symptoms of stress and negative life events. However, attachment anxiety is related to more life event stressors and more stress symptoms.

Another study by Smiljanic (2017) examined the relationship between attachment, travel experiences, and English proficiency with international students’ acculturative stress and depressive symptoms. The participants were 91 graduate international students who completed online surveys. Pearson correlations showed that both attachment anxiety and avoidance were positively correlated with depressive symptoms, while only attachment anxiety was positively correlated with acculturative stress. Wang and Mallinckrodt (2006) completed a study with Chinese international students ($N = 104$) living in the United States, examining the relationship between sociocultural adjustment difficulties and psychological distress in addition to attachment avoidance, attachment anxiety, and acculturation to the U.S. and identification with the home

culture. Measurements were the Experiences in Close Relationships scale, the Acculturation Index, the Sociocultural Adaptation Scale, and the Brief Symptom Inventory–18. The results suggested that attachment anxiety was negatively linked with students' acculturation to American culture, and that attachment avoidance, attachment anxiety, and acculturation to American culture were significant predictors for the students' psychosocial adjustment.

Psychological Depression and Death Anxiety

Depression has proven to be one of the main contributors to death anxiety, and the severity of depression defines the link. Several studies from the mid-20th century have found a link between depression and death anxiety. Kelly (1955) tried to understand such relations between depression and anxiety and found that depression drives the individual to filter out every experience and activity that does not totally fit with his or her own construct. As a result, the depressed individual will not be able to withstand new circumstances and will succumb to his or her fears because the construct system is enclosed and he or she will not be able to get out of this closed loop. It is essential to understand that the filtering-out process initiated by depressed individuals is considered to be an involuntary self-defense mechanism. This process is usually initiated because the depressed individuals are unable to deal with stress and anxiety, and as a result, the depressed individuals tend to ignore most of their surroundings, live in their own world, and refuse to accommodate new circumstances. This mechanism may protect the depressed individuals for only short periods of time; once they are involved in any life event or social activity, they will succumb to their fears and will not be able to cope with the new changes. Thus, depressed individuals are highly vulnerable to death anxiety conditions.

There are many conceptual similarities between depression and death anxiety. It is logical to correlate depression and its driving force leading to death anxiety. Every individual builds his

or her own construct system based on experiences in life. The construct system helps each individual in interpreting and explaining what happened before and anticipating, expecting what will happen next, or how to deal with specific situations. The personal construct system forms people's own ideas, helping to identify good or bad people, objects, and circumstances. Ultimately, death is one of the harshest experiences that individuals can have in their lives. There is no universally accepted definition of death and what happens after death, other than the physiological death of the body; thus, death in the personal construct system is considered to be an anticipation process that is widely affected by what every individual has experienced—either a death of a friend or a relative or even experiencing near-death situations. As a result, the self-construct system buffers its death anticipation based on the individual's own experience. If people build their own constructs based on their limited exposure and experiences, this will lead to limited development of their construct, and this results in the lack of the appropriate anticipation of unknown (death) situations. The aforementioned explanation is applied to the constricted worldview, which has some similarities with the constriction experience in depression.

Psychological Depression and Terror Management Theory

There are several protective strategies addressed by terror management theory and depression, e.g., cultural worldview, attachment, and self-esteem, as a way to buffer an individual construct against anxiety. At the same time, there are several factors that may reduce the buffering capacity against distress and anxiety. This low buffering capacity is common in some cases, such as insecure attachments, trauma, lack of meaning, and stress. Several psychological disorders are highly related to the low buffering capacity of the self-construct (Field et al., 2014). Psychopathology is thought to target the inefficient buffering capacity

against awareness of death or the poor managing of extensional anxiety (Strachan et al., 2007; Yalom, 1980). Many studies have focused on investigating the connection between mental disorders and death anxiety, including if it is present or absent and the severity of the anxiety (Arndt et al., 2005).

Terror management theory deals with depression as being a result of a poor, fragile faith or culture worldview and the poor buffering capacity against anxiety (Field et al., 2014). The poor buffering capacity against anxiety creates several psychological problems, including having a life without feeling or understanding of its meaning, and this leads to the lack of interest in different activities, poor connection with surrounding social networks, loneliness, and lack of values. Based on that, depressed individuals require higher buffering capacity in order to cope with all these negative effects (Simon et al., 1998). Accordingly, it is worth mentioning that mildly depressed individuals tend to show a greater worldview defense when facing the idea of death compared with non-depressed individuals (Solomon & Pyszczynski, 1996). This leads to the conclusion that the worldview defense helps strengthen the meaning and importance of life among depressed individuals (Simon et al., 1998).

It is fair to assume that there is a positive correlation between anxiety and depression because the presence of depressive disorders aggravates death anxiety (Öngider & Eyüboğlu, 2013). In addition, age plays a role in defining the relationship between death, anxiety, and depression. According to Thorson and Powell (2000), older people do have lower death anxiety, lower depression rates, and higher religious beliefs compared with young individuals, who showed an opposite trend. Several findings suggest that depressed individuals tend to rely on a worldview defense mechanism when facing the idea of death, compared with non-depressed

individuals. This leads to the conclusion that depression is accompanied by lowered buffering capacity against death anxiety.

Chapter III

Methodology

This chapter describes the methodological process for conducting this research study. It provides a thorough discussion of the theoretical framework research design, research process, population, sampling plan, instrumentation, data collection procedures, and data analysis procedures conducted for this study.

Purpose of the Study

This study aims to investigate death anxiety, attachment patterns, and psychological depression among Saudi students in American universities. The results might fill the gap in the current literature review regarding this issue. The research follows a quantitative study using a survey design that intends to answer the research questions that investigate the relationship between specific variables. According to Creswell (2002), a quantitative design should have a purpose statement, research questions, and hypotheses that are specific and measurable. Creswell (2002) stated that instruments are important tools to measure the variables in the quantitative study, and they are constructed from different questions that help the researcher to collect the quantitative data. This quantitative study uses survey research design to explore the various opinions of the participants. In survey research design, data are collected in various ways, such as questionnaires or surveys where collecting data is based on systematic processes; therefore, survey research design is considered an important assessment in the social science field. The data in this quantitative study data were analyzed using IBM SPSS software. Descriptive statistics used in this study include frequency distribution, mean, standard deviation and correlation. Inferential statistics in this research included analysis of variance (ANOVA) and linear and multiple regression analysis.

The researcher draws from a convenience sample that includes Saudi Arabian students who are 18 years of age or over and taking undergraduate and graduate courses at American universities or colleges. The participants responded to a Qualtrics survey via the Internet that included four scales. The first scale is the demographic questionnaire that identifies the age, gender, marital status, and level of education of the participants. The second scale is the Arabic Death Anxiety Scale (ADAS) that measures death anxiety. The third scale is the Center for Epidemiologic Studies Depression Revised Scale (CESD-R) to measure depression. The fourth scale is a relationship questionnaire scale (RQ) developed by Bartholomew and Horowitz (1991) to determine the attachment patterns.

Theoretical Perspective

Epistemology, or the theory of knowing, has been viewed from constructivism and objectivism perspectives within social research. The objectivism approach relies mainly on the positivism paradigm that is more popular in scientific research. The positivism paradigm accepts the world that surrounds humans as real, and people can discover and understand these realities by sensory experiences driven by experiment (Walliman, 2011). Positivism develops certain facts about any aspect of the world despite what people think (Walliman, 2011). Therefore, the knowledge in positivism is built up in cumulative ways (Walliman, 2011). Conversely, constructivism approaches the world from a subjective way. According to Hatch (2002), reality consists of how people construct and view their worldview. Therefore, it is subjective in essence rather than being objective (Hatch, 2002). This research aims to know the opinions of Saudi students in the U.S. about death anxiety through survey research; thus, it is important to conduct it from a constructive epistemology.

Research Questions

RQ1: Is there a significant relationship between death anxiety and attachment patterns among Saudi students in the United States?

RQ2: Is there a significant relationship between death anxiety and psychological depression among Saudi students in the United States?

RQ3: Do attachment patterns and psychological depression predict death anxiety among Saudi students in the United States?

RQ4: Does death anxiety predict psychological depression among Saudi students in the United States?

Theoretical and Methodological Framework

Assumptions and rationale of the quantitative approach. The research has clearly defined research questions and aims to generalize the data that predict future results after investigating the relationships between the three variables: death anxiety, attachment patterns, and psychological depression among Saudi students in American universities. Moreover, the data exist in the form of numbers and statistics categorized in tables, charts, and figures. The data were collected using structured research instruments such as a demographic questionnaire, ADAS scale, RQ scale, and CESD-R scale. The results are based on large sample sizes that are representative of the population and are repeatable.

Appropriateness of quantitative research. Reviewing the existing literature helped the researcher identify the research goal, which is examining the relationship between three variables: death anxiety, attachment patterns, and psychological depression among Saudi Arabian students in U.S. universities. Therefore, quantitative research was suitable in justifying the research problem because this type of research focuses on providing the need of the research

problem that was investigated in the study and builds specific research questions to gain measurable data. Moreover, the numeric data were collected through structured questions answered by a representative sample (Saudi students in U.S. universities).

Moreover, quantitative research is appropriate for this study because the researcher will use a mathematical process called statistics to analyze the numeric data and then generalize the results to a large number of people. On the other hand, quantitative research will not provide in-depth information about the issues that were examined in this study, because quantitative research relies on structured instruments with close-ended questions.

Research Design

This research focuses on studying the relationship between three main variables, which are death anxiety, attachment patterns, and psychological depression. The quantitative cross-sectional survey research design is the most suitable for this research. In the survey research design, the data collection process was mainly achieved through questionnaires that are a quantitative instrument and the results can be generalized for specific groups of populations (Babbie, 2010; Kraemer, 1991). One of the main advantages of using the questionnaire instrument to collect data in the survey research design is the huge amount of data that can be gathered in a short time and low cost (Kumar, 2011). Yet, questionnaires often lack the ability to gather details (Kraemer, 1991). Further, one of the main disadvantages of questionnaires is the potential bias from some participants who may feel ashamed or afraid to share behaviors and beliefs unaccepted in their cultures. Additionally, participants may not be able to understand or interpret their behaviors correctly, which can lead to inaccurate results (Kumar, 2011). A cross-sectional survey research design is appropriate for this study because the researcher aims to collect data from a large sample over a short time period. Babbie (2010) explains that cross-

sectional research “involves observations of a sample, or cross-section, of a population or phenomenon that are made at one point in time” (p. 106).

Research Method

The instruments to collect data for this quantitative research include a demographic questionnaire, the Arabic Scale of Death Anxiety (ASDA), the Center for Epidemiological Studies Depression Revised Scale (CESDR-R), and the relationship questionnaire (RQ) developed by Bartholomew and Horowitz (1991).

Sampling and participants. The researcher selected the study participants from the Saudi international student population studying at American Universities. There are 58,726 Saudi students in the U.S.: 43,188 males and 15,538 females, as well as 33,856 accompanying family members (Ministry of Higher Education, 2018). The participants for this study are Saudi international students who are holders of F-1 student visas and are 18 years old and over. Participants were recruited from multiple universities and colleges in the United States through a Qualtrics survey sent by the Saudi Arabian Cultural Mission (SACM) and posted on the organization’s Facebook official page. The Saudi Arabian Cultural Mission is an organization that serves Saudi international students in the U.S. and has access to potential participants through email and social media.

The researcher takes responsibility for obtaining consent by using a consent form in the Qualtrics survey that guarantees the anonymity of the participants. Moreover, participation is voluntary, and the study poses no minimal risk that might cause any possible harm for the participants.

The researcher used Raosoft, a software program used to estimate a priori sample size and identify a confidence level ($1 - \beta$) at 0.95, $\alpha = 0.05$, normal distribution (50%), and the

sample size. As a result, a minimum sample of 382 Saudi international students was needed for this research. The sample for this research was obtained by using a convenience sampling strategy. Gravett and Forzano (2015) identify the prevalence of convenience sampling in behavioral science research. This sampling method allows researchers to select participants based on their own inclination to respond.

Instruments to Collect Data

Demographic questionnaire. The demographic questionnaire, which was created by the researcher, is self-reported via the online survey. The demographic questionnaire investigates information regarding the following demographic characteristics: gender, age, marital status, and level of education.

Measurement of attachment patterns. The attachment patterns of the individuals were determined by using the relationship questionnaire (RQ) developed by Bartholomew and Horowitz (1991). The authors suggested that the attachment patterns of individuals can be determined according to four prototypic attachment patterns that are defined using combinations of a person's self-image and image of others. The RQ consists of four short paragraphs describing the attachment prototypes—secure, fearful, preoccupied, and dismissing—as they apply to close peer relations. Participants were asked to rate on a seven-point scale ranging from 1 = disagree strongly to 7 = agree strongly regarding how well they correspond to each prototype. The two studies completed by Bartholomew and Horowitz (1991) indicated that RQ was correlated with parenting styles as well as peer and family ratings concerning the attachment dimensions. RQ was also associated with interpersonal problems (Bartholomew & Horowitz, 1991). The scale had good convergent validity, indicating that the scale is a reliable predictor of measured adult attachment patterns (Bartholomew & Horowitz, 1991). Moreover, Griffin and

Bartholomew (1994) designed three different studies to assess the validity of the RQ measure. The results of the three studies strongly support the construct validity of the self- and other-model attachment dimensions (Griffin & Bartholomew, 1994). The Test-retest reliability for RQ was found (.49 - .71) for eight months (Scharfe & Bartholomew, 1994).

Measurement of death anxiety. Death anxiety is measured with the Arabic Scale of Death Anxiety (ASDA), which is a multidimensional scale. ASDA was constructed and validated in a sample of undergraduate students aged from 17 to 33 years in three different Arab countries: Egypt ($n = 418$), Kuwait ($n = 509$), and Syria ($n = 709$) (Abdel-Khalek, 2004). The ASDA consists of 20 statements. Each item is answered on a 5-point intensity scale in which 1 = no and 5 = very much. The total score of the scale ranges from 20 to 100; the higher the score is, the higher the level of death anxiety (Abdel-Khalek, 2004).

Alpha reliabilities ranged from .88 to .93 and item-remainder correlations ranged between .27 and .74; the 1-week test-retest reliability was .90 in the Egyptian sample. The correlations between the ASDA and Templer's DAS ranged from .60 to .74, indicating high convergent validity of the ASDA against the DAS in the three Arab countries (Abdel-Khalek, 2004).

Measurement of Psychological Depression

Center for Epidemiological Studies Depression Revised Scale (CESDR-R). This scale is a self-reported scale with 20 items that measure depression. The questions measure 8 different subscales, including Sadness (Dysphoria) (Q. 2, 4, 6), Loss of Interest (Anhedonia) (Q. 8, 10), Appetite (Q. 1, 18), Sleep: (Q. 5, 11, 19), Thinking/Concentration (Q. 3, 20), Guilt (Worthlessness) (Q. 9, 17), Tired (Fatigue) (Q. 7, 16), Movement (Agitation) (Q. 12, 13), and Suicidal Ideation (Q. 14, 15). The total score is calculated by finding the sum of 20 items where

the scores range from 0 to 60. A score that is equal to or above 16 indicates a risk for clinical depression (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004).

Regarding the reliability and validity of CESD-R, Eaton et al. (2004), administered the CESD-R and the original CES-D to a sample of 868 female nursing assistants employed in 50 nursing homes throughout West Virginia and Ohio. Internal consistent reliability for the CESD-R was reported at .93 and item-total correlations ranged from .32 to .75. The correlation between total CES-D and total CESD-R scores was .88.

Van Dam and Earleywine (2011) conducted a study to explore the psychometric properties of CESD-R among a large community sample ($N = 7389$) and smaller student sample ($n = 245$). The measures used in the study included CESD-R, Positive and Negative Affect Schedule (PANAS), State-Trait Inventory for Cognitive and Somatic Anxiety (STICSA), and Schizotypal Personality Questionnaire-Brief (SPQ-B). In the first sample, internal consistency reliability was high (Cronbach's $\alpha = 0.923$) and in the second sample, internal consistency was also high (Cronbach's $\alpha = 0.928$). In sample one, there was a high positive correlation between the CESD-R and the STICSA, $r = 0.737, p < 0.01$. There was also a medium positive correlation between the CESD-R and the SPQ-B, $r = 0.436, p < 0.01$. In sample two, there was a high positive correlation between the CESD-R and STICSA, $r = 0.653, p < 0.01$. There was also a medium positive correlation between the CESD-R and SPQ-B, $r = 0.426, p < 0.01$. The PANAS-NA was positively correlated with both the CESD-R, $r = 0.576, p < 0.01$, and STICSA, $r = 0.663, p < 0.01$. The PANAS-PA was negatively correlated with both the CESD-R, $r = -0.263, p < 0.01$, and STICSA, $r = -0.233, p < 0.01$. The results showed that CESD-R has consistent convergent and divergent validity with anxiety, schizotypy, and positive and negative affects.

Procedure

In the current study, a quantitative survey design was employed to answer each of the research questions and address the proposed hypotheses. The researcher received IRB approval to conduct the research study. Then, the researcher contacted the Saudi Arabian Cultural Mission (SACM) to receive confirmation that the organization would distribute the survey link through an invitation letter written by the researcher (Appendix A). SACM posted the invitation letter to potential participants on its Facebook page. The invitation email included a link that redirected participants to a Qualtrics survey (Appendix B). The survey included a consent form (Appendix C). Prospective participants were invited to take the survey through Qualtrics, which is an Internet-based survey tool used to collect data.

The survey consisted of a demographic form and multiple validated questionnaires. The Arabic Scale of Death Anxiety (ASDA) (Abdel-Khalek, 2004) measured death anxiety, the Center of Epidemiological Studies Depression Revised Scale (CESD-R) measured psychological depression (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004), and the relationship questionnaire scale (RQ) developed by Bartholomew and Horowitz (1991) determined adult attachments patterns (Bartholomew & Horowitz, 1991). The informed consent page of the Qualtrics survey outlined the purpose of the study and the rights of voluntary participation and withdrawing from the research. The consent form also addressed any possible risks or benefits of the research to the participants and the researcher, what participation in the research would involve, and how long the survey would last. The researcher guaranteed the confidentiality of the anonymously collected records by keeping them in locked files on a password-protected computer. After receiving IRB approval, the researcher collected data following standard legal and ethical guidelines. The survey was distributed from February 2018 to March 2018.

The participants in the study were Saudi international students aged 18 years and above enrolled in American universities and colleges. During the survey, 710 participants filled out the survey and the percentage of missing values was 23%. The researcher conducted the Little's Test in SPSS to check if the data were missing completely at random or not. If $p > 0.05$, then missing values are MCAR. The sig. of Little's MCAR Test was .103. The researcher deleted 26 results that did not answer most of the questions. Moreover, the researcher selected a hot deck imputation for 137 cases that did answer most of the survey questions, which left a total of 684 cases used to run the analysis for the research.

Data Analysis

The researcher used the statistical analysis package for the social sciences SPSS to analyze the data. After checking all returned responses, the information was entered in the SPSS to calculate descriptive and inferential statistics. The descriptive statistics to be used in this study include frequency distribution, mean, standard deviation, and correlation. Inferential statistics in this research included analysis of variance (ANOVA), linear regression, and multiple regression. The descriptive analysis describes the main features of the sample such as the age, gender, marital status, and educational level.

Pearson correlation can be used to study a correlation between two variables, three or more variables, as well as within and between sets of variables. The variables in this study are death anxiety, attachment patterns, and psychological depression. Green, Salkind, and Akey (2005) define the Pearson product-moment correlation coefficient (r) as a tool that measures the relationship and alignment of quantitative variables in a sample. The significance test for r is used to determine whether or not a linear relationship between variables exists.

Green et al. (2005) state that the Pearson correlation coefficient is an effect size statistic, meaning that SPSS computes the Pearson correlation coefficient and the effect size ranges in value from -1 to +1. Thus, the Pearson correlation coefficient displays the degree to which high or low scores affect another variable. To examine the relationship between death anxiety and adult attachment patterns as well as death anxiety and psychological depression, research question one used ANOVA analysis and research question two used the Pearson correlation coefficient.

Statistical analysis for research question three used multiple regression to predict the relationship between attachment patterns and psychological depression with death anxiety. Statistical analysis for research question four used linear regression to predict the relationship between death anxiety and psychological depression.

The researcher followed standard ethical and legal guidelines while conducting the study. The researcher collected data after receiving the St. Mary's University's Institutional Review Board (IRB) approval and IRB regulations were followed. The study was conducted with the permission of the dissertation chair and the committee members. Participation in this study was voluntary and anonymous. The researcher guaranteed the confidentiality of the participant responses and kept collected records in locked files on the researcher's computer.

Chapter IV

Results

This chapter presents the statistical results of the data analysis. In this quantitative cross-sectional survey research design, a Qualtrics survey was used to examine the relationship of death anxiety, psychological depression, and adult attachment patterns among Saudi Students in U.S. universities. The demographic variables of the sample, such as age, gender, marital status, and level of education, are also examined in this study.

The researcher used four self-report scales to collect data. The validity and reliability of the instruments were identified before starting the data analysis. The participants were Saudi students in American universities and the data were collected and analyzed as mentioned in Chapter III of the dissertation. The quantitative data were analyzed using the IBM Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics used were the frequency of distribution, mean, standard deviation, and correlation. Inferential statistics in this study were an analysis of variance (ANOVA), linear regression, and multiple regression. This chapter will display participant demographics, quantitative data analysis processes, and results. The researcher will present a summary of findings at the end of Chapter IV.

Demographic Features of the Sample

The sample size of participants who filled out the survey was 710. The missing values percentage was 23%. The researcher conducted the Little's Test in SPSS to check whether the data were missing completely at random (MCAR) or not. If $p > 0.05$, then missing values are MCAR. The sig. of Little's MCAR Test was 0.103. Additionally, the researcher deleted 26 results since the respondents did not answer most of the questions. The researcher did a hot deck

imputation for 137 cases since they answered most of the survey questions. Therefore, the sample size used for most of the analysis was 684.

The demographic form included age, gender, marital status, and level of education (Appendix D). As shown in Table 1, the study used seven age categories; 18.4% of respondents were ages 18-24, 39.1% were ages 25-29, 25.7% were ages 30-34, 10.6% were ages 35-39, 3.8% were ages 40-44, 0.9% were ages 45-49, and 0.10% were ages 50-55. Of the participants, 59.4% were female and 39.9% were male. Of the 684 participants in the marital status category, 255 (37.3%) were single and 397 (58%) were married. Six people (0.9%) were separated, 17 (2.5%) were divorced, and 7 (1.0%) were other. Sixty-six (9.6%) held doctoral degrees, 249 (36.4%) held master’s degrees, 319 (46.6%) held bachelor’s degrees, and 50 (7.3%) identified as other.

Table 1

Frequency Table for Categorical Demographic Variables

Variable	Levels	Frequency	Percent
Age	18-24 years	125	18.4
	25-29 years	268	39.1
	30-34 years	176	25.7
	35-39 years	72	10.6
	40-44 years	27	3.8
	45-49 years	7	0.9
	50-55 years	9	0.10
Gender	Male	273	39.9
	Female	406	59.4
	Other	3	0.4

Marital Status	Single	255	37.3
	Married	397	58.0
	Separated	6	0.9
	Divorced	17	2.5
	Other	7	0.1
Education	Bachelor's	319	46.4
	Master's	294	36.4
	Ph.D.	66	9.6
	Other	50	7.3

Death Anxiety, Psychological Depression, and Adult Attachment Patterns Characteristics of the Sample

To answer all four research questions, the researcher measured the constructs of death anxiety, psychological depression, and adult attachment patterns using three separate instruments. All data were gathered via a self-reported online survey. Death anxiety was measured using the Arabic scale of death anxiety (ASDA), a multidimensional Likert-type survey that consists of 20 items. Each item is answered on a five-point intensity scale where 1 = no and 5 = very much. The total score of the scale ranges from 20 to 100; the higher the score is, the higher the level of death anxiety (Appendix E). Psychological depression was measured using the Center for Epidemiological Studies Depression Revised scale (CESD-R), a Likert-type survey that consists of 20 items. Questions measure eight different sub-scales: Sadness (Dysphoria) (Q. 2, 4, 6), Loss of Interest (Anhedonia) (Q. 8, 10), Appetite (Q. 1, 18), Sleep (Q. 5, 11, 19), Thinking/Concentration (Q. 3, 20), Guilt (Worthlessness) (Q. 9, 17), Tired (Fatigue) (Q.

7, 16), Movement (Agitation) (Q. 12, 13), and Suicidal Ideation (Q. 14, 15). The total score of the scale ranges from 0 to 60. A score equal to or above 16 indicates a risk for clinical depression (Appendix F). The adult attachment patterns were measured using the relationship questionnaire (RQ) developed by Bartholomew and Horowitz (1991). The RQ survey consists of four short paragraphs describing the attachment prototypes: secure, fearful, preoccupied, and dismissing. These prototypes are defined using a combination of a person's self-image and image of others as it applies to close peer relations. Participants are asked to choose the prototype that sounded the closest to how they usually feel, and then rate how well they correspond to each prototype on a seven-point scale ranging from 1 = disagree strongly to 7 = agree strongly (Appendix G).

The average death anxiety score for the entire sample ($N = 684$) was 47.2 ± 0.67 as measured by the ASDA. The average psychological depression score was 19.1 ± 0.54 as measured by the CESD-R. Table 2 shows the descriptive statistics of the death anxiety and psychological depression variables.

Table 2

Descriptive Statistics of the Death Anxiety and Psychological Depression Variables

Variable	Mean	SD	1st Quartile	3rd Quartile
Death Anxiety	47.2	0.67	33.0	59.0
Psychological Depression	19.1	0.54	8.0	29.0

Regarding the adult attachment patterns measured by the RQ, 41.95% of participants chose the secure attachment pattern, 21.34% chose the fearful attachment pattern, 15.20% chose the preoccupied attachment pattern, and 21.49% chose the dismissing attachment pattern (Table

3). The distribution of attachment prototypes selected by the respondents is shown in Table 3. Consistent with other studies, the greatest percentage of attachment type selected was secure.

Table 3

The Percentages of Adult Attachment Patterns

Adult Attachment Pattern	Percentage
Attachment Pattern A: Secure	42.0
Attachment Pattern B: Fearful	21.3
Attachment Pattern C: Preoccupied	15.2
Attachment Pattern D: Dismissing	21.5

Results Regarding the Relationships between Death Anxiety and Adult Attachment Patterns

Before the key analysis, the Q-Q plot was used to check the normality of death anxiety.

Figure 1 shows that death anxiety is close enough to normal.

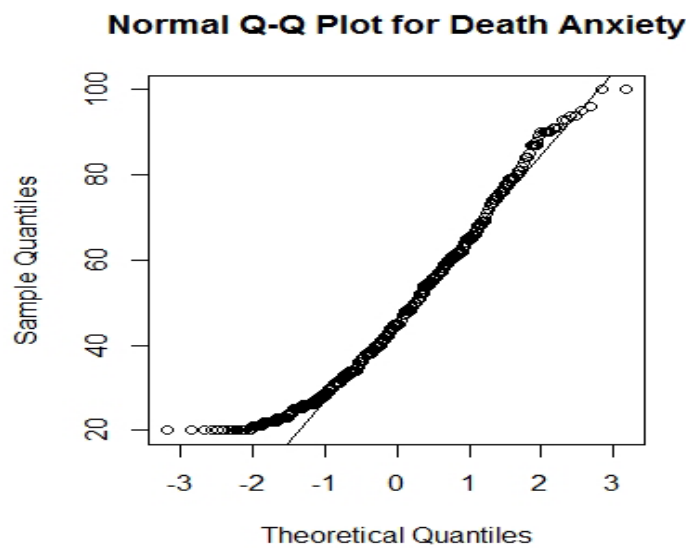


Figure 1. Normal Q-Q plot showing the normality of death anxiety variable.

Table 4 contains the average death anxiety score for each attachment pattern for survey respondents. The first research question was “Is there a significant relationship between death anxiety and adult attachment patterns among Saudi students in the United States?” In order to answer this research question, a one-way analysis of variance (ANOVA) F-test was used to check the relationship between death anxiety and adult attachment patterns. The standard deviations are sufficiently close to justify the use of ANOVA analysis. Levene’s test for equal variance is too sensitive here because there are more than 100 data points per group in the analysis.

Table 4

Mean Death Anxiety Scores for Each Adult Attachment Pattern

Adult Attachment Pattern	Mean	SD
Attachment Pattern A: Secure	44.3	15.7
Attachment Pattern B: Fearful	52.6	20.0
Attachment Pattern C: Preoccupied	51.1	16.1
Attachment Pattern D: Dismissing	44.7	18.0

Table 5 provides the ANOVA analysis. The p-value for the test of the null hypothesis (that each group is equal) is much less than 0.05. The statistically significant difference between adult attachment pattern groups as determined by one-way ANOVA is ($F(3,680) = 10.44, p < .0001$), indicating that there is a statistically significant relationship between death anxiety and adult attachment patterns in this study.

Table 5

One-way ANOVA for Death Anxiety by Adult Attachment Patterns

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>
Between Attachment Patterns	9315.5	3	3105.2	10.44	< 0.0001
Within Attachment Patterns	202220.2	680	297.4		
Total	211535.7	683			

Note: $p < .0001$.

The Holm-Bonferroni post-hoc test was used to determine which groups had different means. Table 6 shows that the mean value of death anxiety for people with the secure attachment pattern is statistically different from the mean value of death anxiety for people with the fearful and preoccupied attachment patterns. However, there is no evidence of a difference in death anxiety between the dismissing group and the secure group. Likewise, there is no evidence of a difference between the fearful group and the preoccupied group. Therefore, there is a significant relationship existing between death anxiety and attachment patterns. Consequently, based on the results presented in Table 4 and Table 6, respondents with either fearful or preoccupied attachment patterns reported a stronger sense of death anxiety than did respondents with either the secure or dismissing attachment patterns.

Table 6

Holm-Bonferroni Test Results

Comparison	Critical Value	P-value	Significance?
Secure vs. Fearful	0.00833	< 0.0001	Yes
Secure vs. Preoccupied	0.01	0.0001	Yes
Fearful vs. Dismissing	0.0125	0.0004	Yes
Preoccupied vs. Dismissing	0.0166	0.0041	Yes
Fearful vs. Preoccupied	0.025	0.53	No
Secure vs. Dismissing	0.05	0.77	No

Results Regarding the Relationships between Death Anxiety and Psychological Depression

Before the key analysis, the Q-Q plot was used to check the normality of psychological depression. Figure 2 shows that psychological depression is close enough to normal.

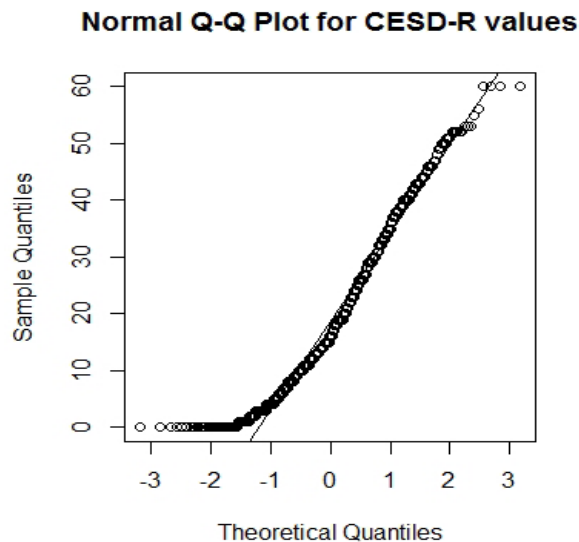


Figure 2. Normal Q-Q plot showing the normality of psychological depression variable.

Table 7 shows the Pearson correlation for death anxiety and psychological depression. The second research question was “Is there a significant relationship between death anxiety and psychological depression among Saudi students in the U.S.?” There was a positive correlation between death anxiety and psychological depression ($r = 0.28, p < 0.0001$). This means that as the death anxiety score increases, the psychological depression score also increases. The test on the null hypothesis (that the Pearson’s correlation is no different than 0) is significant, indicating that there is a positive relationship between the two variables. However, $R^2 = 0.080$, which indicates that death anxiety explains only 8% of the variance in depression (and vice versa), so it is a weak relationship. However, this is not surprising because it is well known that there are many factors associated with psychological depression. A scatterplot showing this relationship is shown in Figure 3.

Table 7

Correlations Between Death Anxiety and Psychological Depression

Variable	Death Anxiety	Psychological Depression
Death Anxiety	1	0.283*
Psychological Depression	0.283*	1

*Note: **, $p < 0.0001$.

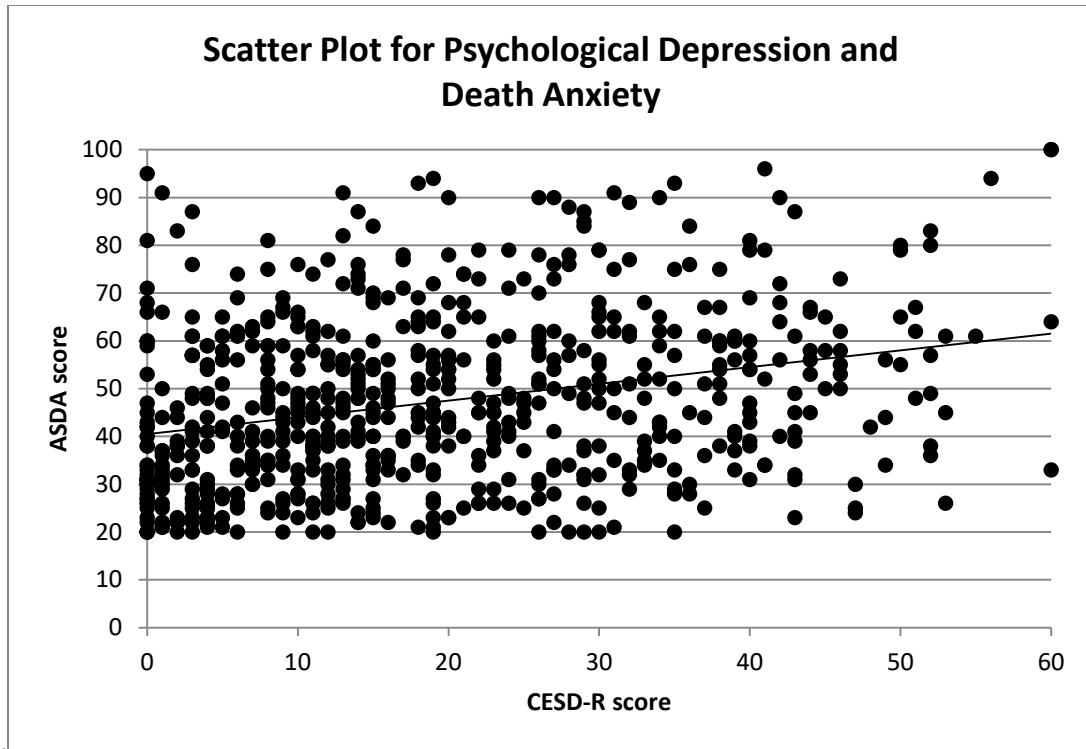


Figure 3. The scatter plot of the linear relationship between death anxiety and psychological depression.

Prediction of Death Anxiety by Psychological Depression and Adult Attachment Patterns

A multiple regression was calculated to predict death anxiety based on psychological depression and adult attachment patterns. Dummy coding was used to represent the attachment pattern with the secure pattern being the reference pattern. Table 8 shows the ANOVA table for the regression. The p-value in the ANOVA table is < 0.0001 , indicating that there is a significant relationship in the regression. Therefore, attachment patterns and psychological depression can be used together to predict death anxiety. The residuals were normally distributed as shown in Figure 4 below. The multiple regression model with psychological depression and adult attachment patterns produced ($F(4,679) = 19.34, p < 0.0001$) with $R^2 = 0.102$, meaning that the two scales together explain just 10.2% of the death anxiety variation. This demonstrates that

death anxiety is a complicated concept and attachment patterns and psychological depression together account for only about one-tenth of the conceptual framework.

Table 8

ANOVA for Multiple Linear Regression of Psychological Depression and Adult Attachment Patterns on Death Anxiety

Source	SS	df	MS	F	P-value
Model	21633	4	5408.3	19.34	< 0.0001
Psychological Depression	16932	1	16932	60.5	< 0.0001
Attachment Pattern B	2733	1	2733	9.77	0.0018
Attachment Pattern C	1914	1	1914	6.84	0.009
Attachment Pattern D	54	1	54	0.19	0.659
Error	189902	679	279.7		
Total	211535	683			

Note. $R^2 = 0.102$.

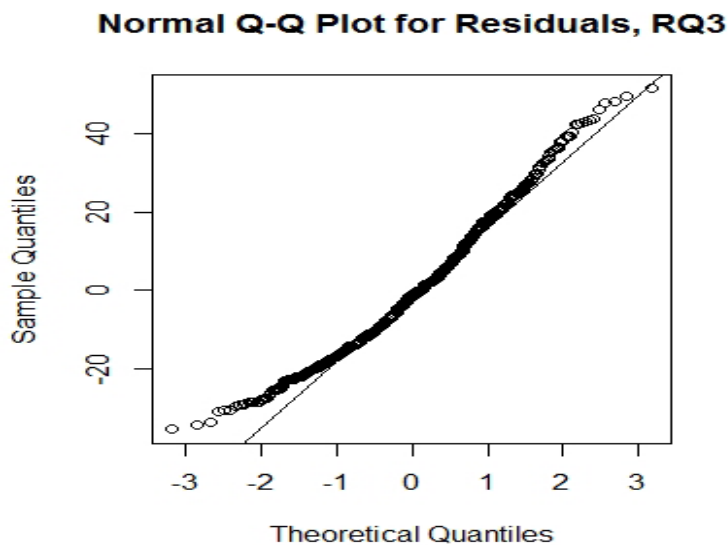


Figure 4. Normal Q-Q plot showing normality distributed residuals.

Table 9 provides the coefficients for each variable along with the p-values for the tests of the null hypotheses (that the coefficients are no different from 0). The estimated coefficient for the depression scale is 0.307, which means that for every increase in the depression scale of one point, a Saudi Arabian student in the U.S. is expected to have an increase in death anxiety of 0.307. The estimated coefficient for pattern B means that a study respondent who chose B (fearful) is expected to have a death anxiety score 6.25 points higher than a study respondent with the secure pattern and an identical level of depression. The estimated coefficient for attachment C means that a student who chose C (preoccupied) is expected to have a death anxiety score 5.08 points more than a student with a secure pattern. The p-value of 0.66 for attachment D (dismissing) indicates that the dismissing student and secure student will be expected to have the same death anxiety score if they have an equal level of depression.

As Table 9 shows, psychological depression was a significant predictor of death anxiety ($t(679) = 6.64, p < 0.0001$). Pattern B was also a significant predictor of death anxiety ($t(679) = 3.61, p = 0.0003$). Pattern C was a significant predictor of death anxiety ($t(679) = 2.63, p = 0.0087$). Pattern D was a significant predictor of death anxiety ($t(679) = 0.44, p = 0.659$). The regression equation is given by $death\ anxiety = 39.05 + 0.307 (psychological\ depression) + 6.25 (adult\ attachment\ pattern\ B) + 5.08 (adult\ attachment\ pattern\ C) + 0.75 (adult\ attachment\ pattern\ D)$.

Table 9

Coefficients for Multiple Linear Regression of Psychological Depression and Adult Attachment

Patterns on Death Anxiety

Variable	<i>B</i>	<i>SE B</i>	<i>t</i> *	<i>p</i> -value
Intercept	39.05	1.26	30.98	< 0.0001
Psychological Depression	0.307	0.046	6.64	< 0.0001
Attachment Pattern B	6.25	1.73	3.61	0.0003
Attachment Pattern C	5.08	1.93	2.63	0.0087
Attachment Pattern D	0.75	1.70	0.44	0.659

Results Regarding the Prediction of Psychological Depression by Death Anxiety

A linear regression was calculated to predict psychological depression based on death anxiety. Table 10 shows the p-value for the model and indicates that death anxiety can be used to predict psychological depression. The regression model with death anxiety produced ($F(1,682) = 59.34, p < 0.0001$) with $R^2 = 0.080$. In other words, 8% of the variation in total psychological depression can be explained by death anxiety. There was a linear relationship between the variables. The residuals were normally distributed as shown in Figure 5. The estimated coefficient for death anxiety indicates that for every increase of one point in the death anxiety score, a student's depression is expected to rise by 0.23.

Table 10

The Prediction of Psychological Depression by Death Anxiety

Source	SS	df	MS	F	P-value
Model	11062	1	11062	59.34	< 0.0001
Error	127137	682	186.4		
Total	138199	683			

Note. $R^2 = 0.080$.

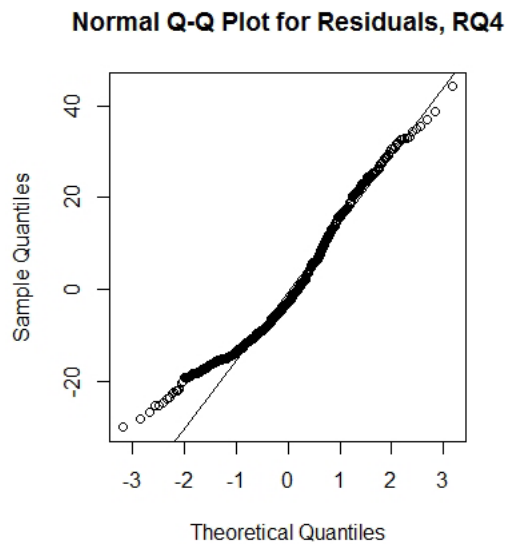


Figure 5. Normal Q-Q plot of the residuals showing normality of psychological depression and death anxiety regression data.

As shown in Table 11, death anxiety was a significant predictor of psychological depression ($t(682) = 7.70, p < 0.0001$). The regression model is *psychological depression* = 8.35 + 0.229 (*death anxiety*).

Table 11

Coefficients for Simple Linear Regression of Death Anxiety on Psychological Depression

Variable	<i>B</i>	<i>SE B</i>	<i>t*</i>	<i>p-value</i>
Intercept	8.35	1.50	5.58	< 0.0001
Death Anxiety Score	0.229	0.030	7.70	< 0.0001

Discussion

This section presents an overview of research questions and a summary and interpretation of the main findings presented within the perspective of previous studies. This study was designed to examine the relationships between death anxiety, psychological depression, and adult attachment patterns among Saudi students in U.S universities. In this study, all data were self-reported via an online form. Death anxiety was measured by the ASDA survey, psychological depression was measured by the CESD-R survey, and adult attachment patterns were measured by the RQ survey.

The following research questions guided this study:

RQ1: Is there a significant relationship between death anxiety and attachment patterns among Saudi students in the United States?

RQ2: Is there a significant relationship between death anxiety and psychological depression among Saudi students in the United States?

RQ3: Do psychological depression and adult attachment patterns predict death anxiety among Saudi students in the United States?

RQ4: Does death anxiety predict psychological depression among Saudi students in the United States?

Interpretation of Findings

Research question one. Regarding adult attachment patterns as measured by the RQ, 42.0% of the participants chose the secure attachment pattern, 21.3% chose the fearful attachment pattern, 15.2% chose the preoccupied attachment pattern, and 21.5% chose the dismissing attachment pattern. By using ANOVA analysis, the results of this study indicate that death anxiety and adult attachment patterns were significantly associated. Previous studies proved the existence of the relationship between death anxiety and attachment patterns (Ebrahimi Pakizeh et al., 2016; Mikulincer et al., 1990; Oral, 2017). For example, the study conducted by Ebrahimi Pakizeh et al. (2016) tried to examine the relationships between attachment patterns and personality characteristics with death anxiety. The research method was a descriptive survey. The population of the research consisted of 15,000 students of Hamadan Islamic Azad University selected via cluster random method. Researchers collected the data using the Templer Death Anxiety scale, the Hazan and Shaver attachment-style questionnaire, and the NEO PI-R personality test questionnaire. Data were analyzed using the Pearson correlation test and stepwise regression. The findings showed that there is a relationship between personality characteristics and attachment patterns with death anxiety among students. Also, attachment patterns and personalities can predict death anxiety. However, this study examined the relationship between death anxiety and attachment patterns among non-international students.

From the finding of this study among Saudi students in U.S. universities, one can understand the role of attachment patterns in regulating the negative responses of individuals under distressing and difficult circumstances (Mikulincer et al., 1990). In addition, the feeling of loneliness that accompanies the fear of death is reduced when an individual has secure attachment relationships that provide love, support, and care (Kobak & Sceery, 1990). Other

studies that examined death anxiety among Saudis were conducted on cancer patients (Almostadi, 2012). Two studies examined death anxiety among Saudi students living in the U.S. The first study investigated the relationship between death anxiety and religiosity (Long & Elghanemi, 1987). The other study examined the factor structure of an eight-dimensional fear of death scale (Hoelter's multidimensional fear of death scale), which was translated into Arabic and administered to a sample of Saudi students (Long, 1985). Since this current study examined the relationship between death anxiety and attachment patterns among Saudi students enrolled in U.S. universities, it makes it significant from other studies and novel to the current literature.

Research question two. Among the entire sample, the Pearson correlation revealed that death anxiety was positively correlated with psychological depression. Previous studies have found that death anxiety is correlated with psychological depression (Öngider & Eyüboğlu, 2013; Simon et al., 1996; Thiemann et al., 2014). The results of this study agreed with previous studies among Arab students. For example, one study aimed to investigate the relationship between death anxiety, death depression, and general depression among Egyptian students. The sample consisted of 208 male and female undergraduate students living in Egypt. Instruments used to collect data were the Arabic death anxiety scale, the death depression scale, and the general depression scale. Results showed that death anxiety was weakly positively correlated with general depression ($r = 0.32$) ($p > 0.001$) (Abdel-Khalek, 1997).

A replication study on a Kuwaiti sample used the same instruments that had been previously administered to Egyptian and Lebanese college students. The participants included 215 Kuwaiti undergraduate students living in Kuwait. Participants responded to the death anxiety scale, death depression scale, the general anxiety scale, and the general depression scale. Administration of the scales occurred from 1997 to 1998. Results showed there is a weak

significant relationship between death anxiety and depression ($r = 0.363$) (Abdel-Khalek, 2001). However, other studies that examined the relationship between death anxiety and depression showed strong significant relationships between them. For example, one study was conducted among 30 couples of Amyotrophic Lateral Sclerosis patients and their primary caregivers. Death anxiety was assessed using the newly developed BOFRETТА scale, depression via the Beck Depression Inventory, anxiety by means of the State-Trait Anxiety Inventory, and caregivers' exertion using the Caregiver Strain Index. Results showed a highly significant relationship between death anxiety and depression among the patients and their caregivers (Grabler, Weyen, Juckel, Tegenthoff, & Mavrogiorgou-Juckel, 2018). The difference in the results might be explained by considering that death anxiety among those with terminal diseases such as cancer, HIV, and Amyotrophic Lateral Sclerosis is higher than those in the student sample.

According to terror management theory, the failure to use anxiety reduction mechanisms that manage the terror of death increases one's chances of developing a psychological disorder (Maxfield & Pyszczynski, 2014). Mechanisms to reduce death anxiety may not be activated for a number of reasons such as life distress, insecure attachments, low self-esteem, and difficulty to meet the standards of a cultural worldview (Menziez, 2014). Regarding the current sample that consists of 684 Saudi students in U.S. universities, Saudi students experience many difficulties due to adjustment distress in a Western culture that has different social and religious perspectives. The weakly significant relationship between death anxiety and psychological depression might be due to students' ability to adjust to the Western culture and handle the various obstacles they face. Moreover, religiosity is extremely impactful in providing meaning to their lives, which regulates their negative feelings and fear of death.

Research question three. Multiple linear analysis revealed that adult attachment patterns and psychological depression were significant predictors of death anxiety among Saudi students in the U.S. While research question one was concerned with the strength of the relationship between adult attachment patterns and death anxiety, and while research question two was also concerned with the strength of the relationship between psychological depression and death anxiety, the third research question was concerned with the nature of that relationship. Both adult attachment patterns and psychological depression were significant predictors of death anxiety. These results support the findings of the ANOVA analysis and Pearson correlations related to the first and second research questions. The relationship between depression and death anxiety, explored mostly in bereaved individuals, elderly populations, and HIV patients, has shown that depression is a strong predictor of death anxiety (Barr & Cacciatore, 2008; Hintze, Templer, Cappaletty, & Frederick, 1993; Lonetto & Templer, 1986; Neimeyer, 1994; O’Gorman, 1998; Wagner & Lorion, 1984). For example, Wagner and Lorion (1984) reported that depression was a significant predictor of death anxiety in a sample of elderly individuals. Previous studies also found that attachment patterns can predict death anxiety (Besser & Priel, 2008; Scheffold et al., 2018). However, this current study examined adult attachment patterns and psychological depression together with death anxiety. The results agreed with previous studies since adult attachment patterns and psychological depression were predictors of death anxiety among Saudi students.

Research question four. Simple linear regression analysis revealed that death anxiety was a positive significant predictor of psychological depression in this study. While the second research question was concerned with the strength of the relationship between death anxiety and psychological depression, the fourth research question was concerned with the nature of that

relationship. The results of this study agreed with previous studies since death anxiety was a predictor of psychological depression among Saudi students. Previous studies showed that death anxiety is a predictor of psychological depression (Lim et al., 2017; Oranchak & Smith, 1989). For example, a study was conducted to examine the moderate effect of social support on the relationship between death anxiety and depressive symptoms among 209 poor older women in rural areas. Moderated regression analysis revealed that death anxiety and self-esteem support had a direct effect on depressive symptoms (Lim et al., 2017).

Kelly (1955) explained the relationship between death anxiety and psychological depression by applying the personal constructions perspective. He stated that depressed individuals tend to limit experiences that fail to fit within their personal construct systems. Since death is a future and vague experience, any attempts recognize this unknown experience require an extension of the personal construct system accompanied by anxious reactions.

Chapter V

Summary, Implications, and Recommendations

In the last few years, an increasing number of students from Saudi Arabia have studied abroad at universities in the United States. The Institute of International Education (IIE) (2014) revealed that Saudi Arabia ranks fourth in the number of its students studying in the United States after India, China, and South Korea. Yet, Saudi students face many difficulties in adjusting to Western society. These difficulties include language barriers, financial challenges, discrimination, religious differences, and trying to build new relationships. Researchers need to investigate these difficulties in order to study their effects on Saudi students' well-being and to subsequently provide the appropriate mental health services that students might need.

The current study aimed to examine the relationship between death anxiety, psychological depression, and adult attachment patterns among Saudi students in U.S. universities. Regarding death anxiety studies, students—and especially international students—receive less attention from researchers because most of the previous studies focus on death anxiety from a pathological perspective (Elliot & Church, 2002; Schwartzberg & Halgin, 1991). There are few studies on death anxiety among Saudi students in the U.S. (Long, 1985; Long & Elghanemi, 1987). Even research that investigated death anxiety in Arabic students focused on domestic students living in their home countries and speaking their native languages (Abdel-Khalek, 1997, 2001). To the best of the researcher's knowledge, there are no studies that investigate psychological depression and adult attachment patterns with death anxiety among Saudi students. Further, previous studies on death anxiety among Saudi students provide very little information in the literature review and the method. Therefore, the present study is

significant in addressing death anxiety and its correlation with psychological depression and adult attachment patterns among Saudi students in the U.S.

The necessity of the present study comes from the need for mental health professionals to provide the needed mental health counseling services to this population. In addition, the universities hosting Saudi international students will need such information to provide proper mental health counseling. Therefore, it is important that counselors and psychologists in academic institutions use the results of this study to better understand death anxiety and other variables that moderate its effect on international students.

This study used quantitative methods. The survey design was used to answer the research questions that investigate the relationship between the current variables. Moreover, the study used a convenience sampling method that ultimately included 684 participants. The online questionnaires were sent to the participants through a Qualtrics survey. Death anxiety was measured by the ASDA survey, psychological depression was measured by the CESD-R survey, and adult attachment patterns were measured by the RQ survey. The demographic characteristics measured were age, gender, marital status, ethnicity, and level of education. The data were analyzed with IBM SPSS software to determine descriptive and inferential statistics.

The first research question asked, “What is the relationship between death anxiety and adult attachment patterns among Saudi students in the U.S.?” The analysis conducted with ANOVA revealed that death anxiety has a significant relationship with adult attachment patterns. This finding is supported by previous studies that found that death anxiety is correlated with adult attachment patterns (Ebrahimi Pakizeh et al., 2016; Mikulincer et al., 1990; Oral, 2017). The second research question asked, “What is the relationship between death anxiety and psychological depression among Saudi students in the U.S.?” The analysis done using the

Pearson correlation revealed that death anxiety and psychological depression were positively correlated. This finding is supported by previous studies (Öngider & Eyüboğlu, 2013; Simon et al., 1996; Thiemann et al., 2014).

To answer the third research question, multiple linear analysis revealed that adult attachment patterns and psychological depression were significant positive predictors of death anxiety among Saudi students in the U.S. These results support the findings related to the first and second research questions as well as the existing literature on psychological depression and death anxiety (Barr & Cacciatore, 2008; Hintze et al., 1994; Lonetto & Templer, 1986; Neimeyer, 1994; O’Gorman, 1998; Wagner & Lorion, 1984). This finding also supports previous studies on adult attachment patterns and death anxiety (Besser & Priel, 2008; Scheffold et al., 2018). To answer the fourth research question, simple linear analysis revealed that death anxiety was a significant positive predictor of psychological depression among Saudi students in the U.S. These results support findings related to the second research question as well as the existing scientific literature on death anxiety and psychological depression (Lim et al., 2017; Oranchak & Smith, 1989).

Limitations

There are some limitations regarding the current study. One of the limitations relates to collecting data by using self-report online questionnaires. In the survey’s research design, data collection was achieved through questionnaires. The main disadvantage of the use of questionnaires in survey research design is the potential bias from some participants who might feel ashamed or afraid to share behaviors and beliefs that are not accepted in their cultures. Further, some participants might not be able to understand or interpret their own behaviors correctly, which leads to inaccurate results (Kumar, 2011). Another limitation is that the results

of this study cannot be generalized because the convenience sample was not fully representative of the entire population of Saudi students in the U.S. Additionally, because the researcher used a convenience sampling strategy, it impacts the external validity of the study and the ability to generalize the results.

Other limitations in this study include the need to consider the possible moderate effect of other demographic factors of the sample, such as age, gender, educational level, and marital status. Studying the effect of marital status is quite complicated because it requires using different attachment scales, such as a romantic relationship scale. This study only used the relationship questionnaire (RQ) developed by Bartholomew and Horowitz (1991). Moreover, religion is one of the main factors that determines the perception of death by an individual. Therefore, it limits the investigation of death anxiety in this research.

Implications and Recommendations

The current study adds significant findings that need to be considered when investigating death anxiety among Saudi Arabian students in U.S. universities. Previous studies have not paid enough attention to the struggles of Saudi international students. The findings of the study also revealed that 42.0% of Saudi students had secure attached patterns, 21.3% were fearful attached, 15.2% were preoccupied attached, and 21.5% were dismissing attached. This means that more of the half of participants had attachment issues.

The results of the present study make it clear that death anxiety has a significant relationship with adult attachment patterns. Therefore, students with certain attachment patterns, such as fearful or preoccupied, might have higher death anxiety than students who have secure or dismissing attachment relationships. This supports the notion that Saudi international students should be provided with social support because they lack the support of their families and close

relatives. The actions taken from these recommendations could help Saudi students access the appropriate mental health services and the support that they need.

Further, findings of this study revealed that death anxiety is positively correlated with psychological depression. Moreover, the findings suggested that adult attachment patterns and psychological depression are significant predictors of death anxiety among Saudi students in the U.S. Therefore, Saudi students who have psychological depression might also be at risk for death anxiety. Findings also revealed that death anxiety is a significant predictor of psychological depression. Students who experience death anxiety might be at risk for psychological depression. Due to these related factors, Saudi international students need help getting mental health counseling from professionals who are familiar with the culture of these international students. To achieve this, universities should consider such information to offer the proper psychological support for Saudi international students.

Future research should further examine death anxiety among Saudi students in the U.S. Building upon these findings, subsequent research should consider the possible moderate effect of other demographic factors of the sample, such as age, gender, educational level, and marital status. Religion is one of the main factors that determines the perception of death. Ultimately, it is important to include it in future studies. In addition, it could yield interesting results to study attachment to God and its relationship to death anxiety. Future research might additionally consider conducting a study that compares death anxiety among Saudi students who live in the U.S. and Saudi students who live in Saudi Arabia.

References

- Abdel-Khalek, A., Beshai, J., & Templer, D. I. (1993). The structure of Templer's death anxiety scale among Egyptian students. *Psychological Reports, 72*(3), 920-922.
- Abdel-Khalek, A. M. (1997). Death, anxiety, and depression. *OMEGA-Journal of Death and Dying, 35*(2), 219-229.
- Abdel-Khalek, A. M. (1998). Death, anxiety, and depression in Lebanese undergraduates. *OMEGA-Journal of Death and Dying, 37*(4), 289-302.
- Abdel-Khalek, A. M. (2001). Death, anxiety, and depression in Kuwaiti undergraduates. *OMEGA-Journal of Death and Dying, 42*(4), 309-320.
- Abdel-Khalek, A. M. (2002). Why do we fear death? The construction and validation of the reasons for death fear scale. *Death Studies, 26*(8), 669-680.
- Abdel-Khalek, A. M. (2004). Death anxiety in clinical and non-clinical groups. *Death Studies, 29*(3), 251-259.
- Abdel-Khalek, A. M., Lester, D., Maltby, J., & Tomás-Sábado, J. (2009). The Arabic scale of death anxiety: Some results from east and west. *OMEGA-Journal of Death and Dying, 59*(1), 39-50.
- Abdel-Khalek, A. M., & Neimeyer, R. A. (2017). Death Anxiety Scale. In *Encyclopedia of Personality and Individual Differences*. (pp. 1-4). New York, NY: Springer International Publishing.
- Abdel-Khalek, A. M., & Tomás-Sábado, J. (2005). Anxiety and death anxiety in Egyptian and Spanish nursing students. *Death Studies, 29*(2), 157-169.
- Abdel Razek, A. N. A. (2012). *An exploration of the case of Saudi students' engagement, success, and self-efficacy at a mid-western American university*. (Doctoral dissertation).

Retrieved from

https://etd.ohiolink.edu/!etd.send_file?accession=akron1337282450&disposition=inline.

- Abeyta, A. A., Juhl, J., & Routledge, C. (2014). Exploring the effects of self-esteem and mortality salience on proximal and distally measured death anxiety: A further test of the dual process model of terror management. *Motivation and Emotion, 38*(4), 523-528.
- Abu-Hilal, M. M. (1987). *Foreign students' interaction, satisfaction, and attitudes toward certain aspects of the American culture: A case of Arab students in Southern California*. (Doctoral dissertation). Retrieved from <https://elibrary.ru/item.asp?id=7506503>.
- Ainsworth, M. D. S. (1967). *Infancy in Uganda: Infant care and the growth of love*. Oxford, England: Johns Hopkins Press.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Oxford, England: Lawrence Erlbaum.
- Akhtarkhavari, N. B. (1996). *The perceptions of education and satisfaction of Saudi graduates: A comparative study of Saudi graduates from American and Saudi universities*. (Doctoral dissertation). Retrieved from <https://elibrary.ru/item.asp?id=5632193>.
- Al-Banyan, A. S. (1980). *Saudi students in the United States: A study of cross-cultural education and attitude change*. London, England: Ithaca Press.
- Ali, S. R., Liu, W. M., & Humedian, M. (2004). Islam 101: Understanding the religion and therapy implications. *Professional Psychology: Research and Practice, 35*(6), 635.
- Al-Jasir, A. S. H. (1994). *Social, cultural, and academic factors associated with adjustment of Saudi students in the United States*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 9328959).

- Al-Khedair, K. S. (1978). *Cultural perception and attitudinal differences among Saudi Arabian male college students in the United States*. (Doctoral dissertation). *Dissertation Abstracts International*, 39(02A), 0546.
- Al-Morshedi, G. (2011). *Academic socialization: A comparative study of the experiences of the Emirati and Saudi students at U.S. universities*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 3586866).
- Almostadi, D. A. (2012). *The relationship between death depression and death anxiety among cancer patients in Saudi Arabia*. (Doctoral Dissertation). Retrieved from <https://scholarcommons.usf.edu/etd/3947>.
- Almotery, A. (2009). *Saudi students' expectations, motivations, and experiences at the University of Wisconsin-La Crosse*. (Master's thesis). Retrieved from <https://minds.wisconsin.edu/handle/1793/45118>.
- Al-Murshidi, G. (2014). Emirati and Saudi students' writing challenges at U.S. universities. *English Language Teaching*, 7(6), 87.
- Al-Musaiteer, S. S. (2015). *Saudi students' experience of intercultural communication*. (Master's thesis). Retrieved from https://etd.ohiolink.edu/!etd.send_file?accession=akron1439568586&disposition=inline.
- Al-nusair, D. M. (2000). *An assessment of college experience and educational gains of Saudi students studying at U.S. colleges and universities*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 9955796).
- Al-Ramadan, H. A. (2016). *The experience of married international Saudi students in respect to adjusting to study abroad in the United States of America*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 10251318).

- Alsabatin, H. Y. (2015). *Experiences of Saudi students attending a U.S. university: A qualitative study*. (Doctoral Dissertation). Retrieved from <https://soar.wichita.edu/ds2/stream/?#/documents/824888/page/1>.
- Al-Shehry, A. M. (1991). *An investigation of the financial and academic problems perceived by Saudi graduate students while they are studying in the United States*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 9023701).
- Alsaifi, N., & Shin, S. C. (2016). Factors affecting the academic and cultural adjustment of Saudi international students in Australian universities. *Journal of International Students*, 7(1), 53-72.
- Alshaya, M. (2005). *A sociological study of the attitude of Saudi students in the United States toward women's roles in Saudi Arabia*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 3170957).
- American Psychiatric Association (APA). (2013). Cautionary statement for forensic use of DSM-5. *In Diagnostic and statistical manual of mental disorders* (5th ed.). doi:10.1176/appi.books.9780890425596.744053
- Ariès, P. (1974). The reversal of death: Changes in attitudes toward death in western societies. *American Quarterly*, 26(5), 536-560.
- Arndt, J., Routledge, C., Cox, C. R., & Goldenberg, J. L. (2005). The worm at the core: A terror management perspective on the roots of psychological dysfunction. *Applied and Preventive Psychology*, 11(3), 191-213.
- Auty, N., Holes, C., & Harris, R. (2005). *Just listen 'n' learn Arabic*. New York, NY: McGraw-Hill Education.
- Babbie, E. (2010) *The practice of social research* (12th ed). Belmont, CA: Wadsworth.

- Barr, P., & Cacciatore, J. (2008). Personal fear of death and grief in bereaved mothers. *Death Studies, 32*, 445-460.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226.
- Becker, E. (1971). *The birth and death of meaning: An interdisciplinary perspective on the problem of man*. (2nd ed.), New York, NY: Free Press.
- Becker, E. (1973). *The denial of death*. New York, NY: Free Press.
- Becker, E. (1975). *Escape from evil*. New York, NY: Free Press.
- Besser, A., & Priel, B. (2008). Attachment, depression, and fear of death in older adults: The roles of neediness and perceived availability of social support. *Personality and Individual Differences, 44*(8), 1711-1725.
- Blanchard, C. M. (2009). Saudi Arabia: Background and U.S. relations. In D. R. Nagunian (Ed.), *Saudi Arabia: A hotbed of unrest?*. New York, NY: Nova Science Publishers.
- Bowen, W. H. (2014). *The history of Saudi Arabia*: ABC-CLIO.
- Bowlby, J. (1969). *Attachment and loss* (vol. 1). New York, NY: Basic Books.
- Bowlby, J. (1973). *Attachment and loss* (vol. 2). *Separation anxiety and anger*. New York, NY: Basic Books.
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry, 52*(4), 664.
- Bowlby, J. (1988). Developmental psychiatry comes of age. *The American Journal of Psychiatry, 145*(1), 1.

- Burke, B. L., Martens, A., & Faucher, E. H. (2010). Two decades of terror management theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review, 14*(2), 155-195.
- Caldwell, J. D. (2013). *Examining the experiences and adjustment challenges of Saudi Arabian students in the California state university system*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. ED564743).
- Carmel, S., & Mutran, E. (1997). Preferences for different life-sustaining treatments among elderly persons in Israel. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 52*(2), S97-S102.
- Carpenito-Moyet, L. J. (2008). *Handbook of nursing diagnosis*. Philadelphia, PA: Lippincott, Williams, and Wilkins.
- Cassidy, J. (1988). Child-mother attachment and the self in six-year-olds. *Child Development, 59*(1), 121-134.
- Central Intelligence Agency. (2019). *The world fact book: Middle East: Saudi Arabia*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html>
- Chen, H.-J., Mallinckrodt, B., & Mobley, M. (2002). Attachment patterns of East Asian international students and sources of perceived social support as moderators of the impact of U.S. racism and cultural distress. *Asian Journal of Counselling, 9*(1-2), 27-48.
- Choron, J. (1972). *Death and modern man*. New York, NY: Collier Books.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.

- Dao, T. K., Lee, D., & Chang, H. L. (2007). Acculturation level, perceived English fluency, perceived social support level, and depression among Taiwanese international students. *College Student Journal, 41*(2), 287-295.
- Dattel, A. R., & Neimeyer, R. A. (1990). Sex differences in death anxiety: Testing the emotional expressiveness hypothesis. *Death Studies, 14*(1), 1-11.
- Depaola, S. J., Griffin, M., Young, J. R., & Neimeyer, R. A. (2003). Death anxiety and attitudes toward the elderly among older adults: The role of gender and ethnicity. *Death Studies, 27*(4), 335-354.
- Donahue, M. J. (1985). Intrinsic and extrinsic religiousness: The empirical research. *Journal for the Scientific Study of Religion, 24*(4), 418-423.
- Dontas, C., Maratos, O., Fafoutis, M., & Karangelis, A. (1985). Early social development in institutionally reared Greek infants: Attachment and peer interaction. *Monographs of the Society for Research in Child Development, 50*(1-2), 136-146.
- Dwairy, M. (1997). Addressing the repressed needs of the Arabic client. *Cultural Diversity and Mental Health, 3*(1), 1-12.
- Eaton, W. W., Smith, C., Ybarra, M., Muntaner, C., Tien, A. (2004). Center for Epidemiologic Studies depression scale: Review and revision (CESD and CESD-R). In M.E. Maruish (Ed.), *The use of psychological testing for treatment planning and outcomes assessment volume 3: Instruments for adults* (pp. 363-377). Mahwah, NJ: Lawrence Erlbaum.
- Ebrahimi Pakizeh, B., Kharaghani, N., Zavari Zare, P., Zavari Zare, A., & Abbasi Jegarloe, S. (2016). Examining the relationship between attachment styles and personality characteristics with death Anxiety among students of Islamic Azad University, Hamadan.

- European Online Journal of Natural and Social Sciences: Proceedings*, 5(3(s)), pp. 59-66.
- Eckroth-Bucher, M. (2001). Philosophical basis and practice of self-awareness in psychiatric nursing. *Journal of Psychosocial Nursing and Mental Health Services*, 39(2), 32-39.
- Elliot, A. J., & Church, M. A. (2002). Client-articulated avoidance goals in the therapy context. *Journal of Counseling Psychology*, 49(2), 243-254. doi:10.1037//0022-0167.49.2.243
- Faragallah, M. H., Schumm, W. R., & Webb, F. J. (1997). Acculturation of Arab-American immigrants: An exploratory study. *Journal of Comparative Family Studies*, 28(3), 182-+.
- Feifel, H. (1990). Psychology and death: Meaningful rediscovery. *American Psychologist*, 45(4), 537.
- Florian, V., & Mikulincer, M. (1993). The impact of death-risk experiences and religiosity on the fear of personal death: The case of Israeli soldiers in Lebanon. *OMEGA-Journal of Death and Dying*, 26(2), 101-111.
- Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 77-114). New York, NY: Guilford Press.
- Furnham, A., & Alibhai, N. (1985). The friendship networks of foreign students: A replication and extension of the functional model. *International Journal of Psychology*, 20(6), 709-722.
- Furman, W., & Buhrmester, D. (2009). Methods and measures: The network of relationships inventory: Behavioral systems version. *International Journal of Behavioral Development*, 33, 470-478.
- Grabler, M. R., Weyen, U., Juckel, G., Tegenthoff, M., & Mavrogiorou-Juckel, P. (2018). Death

- anxiety and depression in Amyotrophic Lateral Sclerosis patients and their primary caregivers. *Frontiers in Neurology*, 9: 1035.
- Gravetter, F., & Forzanol, L. (2015). *Research methods for the behavioral sciences* (5th ed.). Stamford, CT: Cengage Learning.
- Green, S., Salkind, N., & Akey, T. (2005). Two related-samples tests: The McNemar, the sign, and the Wilcoxon tests. *Using SPSS for Windows and Macintosh: Analyzing and understanding data*, 395-399.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. Baumeister (Ed.), *Public self and private self* (pp. 189-212). New York, NY: Springer International Publishing.
- Greenberg, J. (2012). Terror management theory: From genesis to revelations. In P. R. Shaver & M. Mikulincer (Eds.), *Meaning, mortality, and choice: The social psychology of existential concerns* (pp. 17-25). Washington, D.C.: American Psychological Association.
- Griffin, D., & Bartholomew, K. (1994). Models of self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67, 430-445.
- Gular, E. (1995). *Depression, death anxiety, and hope among female caregivers of children with HIV/AIDS*. (Doctoral dissertation). Retrieved from <https://doi.org/10.1080/07481187.2011.604467>.
- Haas-Thompson, T., Alston, P. P., & Holbert, D. (2008). The impact of education and death-related experiences on rehabilitation counselor attitudes toward death and dying. *Journal of Applied Rehabilitation Counseling*, 39(1), 20-27.
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: Suny Press.

- Hayes, J., Schimel, J., & Williams, T. J. (2008). Fighting death with death: The buffering effects of learning that worldview violators have died. *Psychological Science, 19*(5), 501-507.
- Hayes, R. L., & Lin, H. R. (1994). Coming to America: Developing social support systems for international students. *Journal of Multicultural Counseling and Development, 22*(1), 7-16.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*(3), 511.
- Heidegger, M. (1962). *Being and time*. (J. Macquarrie & E. Robinson, Trans.). Oxford, England: Blackwell.
- Heyn, M. E. (2013). *Experiences of male Saudi Arabian international students in the United States*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 3572541).
- Hintze, J., Templer, D. I., Cappelletty, G. G., & Frederick, W. (1993). Death depression and death anxiety in HIV-infected males. *Death Studies, 17*(4), 333-341.
- Hirschberger, G., Florian, V., & Mikulincer, M. (2003). Strivings for romantic intimacy following partner complaint or partner criticism: A terror management perspective. *Journal of Social and Personal Relationships, 20*(5), 675-687.
- Institute of International Education (IIE). (2014). *Fast facts open doors 2014*. Retrieved from <http://www.iie.org/Research-and-Publications/Open-Doors>
- Jammaz, A. (1972). *Saudi students in the United States: A study of their adjustment problems*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 7305407).

- Kampman, D. (2011). From Riyadh to Portland: The study abroad experiences of five Saudi Arabian female students. *MA TESOL Collection*. Paper 512.
- Kastenbaum, R. (2000). *The psychology of death*. New York, NY: Springer Publishing Company.
- Kastenbaum, R., & Costa Jr, P. T. (1977). Psychological perspectives on death. *Annual Review of Psychology*, 28(1), 225-249.
- Kastenbaum, R., & Leaman, O. (2003). *Macmillan encyclopedia of death and dying*. New York, NY: Macmillan Reference.
- Kearl, M. C. (1996). Dying well: The unspoken dimension of aging well. *American Behavioral Scientist*, 39(3), 336-360.
- Keating, S. (2004). *Saudi Arabia: Modern Middle East nations and their strategic place in the world*. Broomall, PA: Mason Crest.
- Keller, H. (2013). Attachment and culture. *Journal of Cross-Cultural Psychology*, 44(2), 175-194.
- Kelly, E. L. (1955). Consistency of the adult personality. *American Psychologist*, 10(11), 659.
- Kenny, M. E. (1987). The extent and function of parental attachment among first-year college students. *Journal of Youth and Adolescence*, 16(1), 17-29.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59(1), 135-146.
- Kraemer, K. L. (1991). Introduction. *The information systems research challenge: Survey research methods*. Cambridge, MA: Harvard Business School Press,
- Krieger, Z. (2007). Saudi Arabia puts its billions behind Western-style higher education. *Chronicle of Higher Education*, 54(3).

- Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners*. Los Angeles, CA: SAGE Publications.
- Landau, M. J., Solomon, S., Pyszczynski, T., & Greenberg, J. (2007). On the compatibility of terror management theory and perspectives on human evolution. *Evolutionary Psychology, 5*(3).
- Lanier, J. (1997). Death: The skeleton key of consciousness studies? *Journal of Consciousness Studies, 4*(2), 181.
- Leong, F. T. L., & Chou, E. L. (2002). Counseling international students and sojourners. In P. B. Pedersen, J. G. Draguns, W. J. Lonner, & J. E. Trimble (Eds.), *Counseling across culture*, (5th ed., pp. 185-207). Thousand Oaks, CA: SAGE Publications.
- Lester, D., & Becker, D. M. (1993). College students' attitudes toward death today as compared to the 1930s. *OMEGA-Journal of Death and Dying, 26*(3), 219-222.
- Lifton, R. J. (1983). Responses of survivors to man-made catastrophes. *Cruse International Conference on Bereavement Following Violence, 4-6*.
- Lim, S.J., Ko, Y., Kim, C., & Lee, H.S. (2017). The death anxiety and depressive symptoms among poor older women in rural areas: The moderating effect of social support. *Journal of Korean Academy of Community Health Nursing, 28*(4), 440-449.
- Lonetto, R., & Templer, D. I. (1986). Series in health psychology and behavioral medicine. *Death Anxiety*. Washington, D.C.: U.S. Hemisphere Publishing Corp.
- Long, D. D. (1985). A cross-cultural examination of fears of death among Saudi Arabians. *OMEGA-Journal of Death and Dying, 16*, 43-50.
- Long, D. D. (2005). *Culture and customs of Saudi Arabia*. Gainesville, FL: University Press of Florida.

- Long, D. D., & Elghanemi, S. (1987). Religious correlates of fear of death among Saudi Arabians. *Death Studies, 11*(2), 87-97.
- Long, D. D., & Maisel, S. (2010). *The kingdom of Saudi Arabia*. Gainesville, FL: University Press of Florida.
- Main, M., & Solomon, J. (1986). Discovery of an insecure-disorganized/disoriented attachment pattern. In T. B. Brazelton & M. W. Yogman (Eds.), *Affective development in infancy* (pp. 95-124). Westport, CT: Ablex Publishing.
- Maxfield, M., John, S., & Pyszczynski, T. (2014). A terror management perspective on the role of death-related anxiety in psychological dysfunction. *The Humanistic Psychologist, 42*(1), 35-53.
- McGregor, H. A., Lieberman, J. D., Greenberg, J., Solomon, S., Arndt, J., Simon, L., & Pyszczynski, T. (1998). Terror management and aggression: Evidence that mortality salience motivates aggression against worldview-threatening others. *Journal of Personality and Social Psychology, 74*(3), 590.
- McIntosh, A., Moorhead, T., Job, D., Lymer, G., Maniega, S. M., McKirdy, J., . . . Porteous, D. (2008). The effects of a neuregulin 1 variant on white matter density and integrity. *Molecular Psychiatry, 13*(11), 1054.
- Menzies, R. G. (2012). The dread of death and its role in psychopathology. Keynote address presented at the 35th National Conference of the Australian Association for Cognitive and Behaviour Therapy, Queensland, Australia.
- Mikulincer, M., & Florian, V. (1998). The relationship between adult attachment styles and

- emotional and cognitive reactions to stressful events. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 143-165). New York, NY: Guilford Press.
- Mikulincer, M., & Florian, V. (2000). Exploring individual differences in reactions to mortality salience: Does attachment style regulate terror management mechanisms? *Journal of Personality and Social Psychology, 79*(2), 260.
- Mikulincer, M., Florian, V., & Hirschberger, G. (2003). The existential function of close relationships: Introducing death into the science of love. *Personality and Social Psychology Review, 7*(1), 20-40.
- Mikulincer, M., Florian, V., & Tolmacz, R. (1990). Attachment styles and fear of personal death: A case study of affect regulation. *Journal of Personality and Social Psychology, 58*(2), 273.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.
- Ministry of Higher Education. (2014). King Abdullah scholarships program.
- Ministry of Higher Education. (2018). King Abdullah scholarships program.
- Mori, S. C. (2000). Addressing the mental health concerns of international students. *Journal of Counseling & Development, 78*(2), 137-144.
- Mustafa, A. H. (1985). *A study of the academic problems encountered by Saudi students at Western Michigan University*. (Doctoral dissertation.) Retrieved from <http://scholarworks.wmich.edu/dissertations/2348>.
- Neimeyer, R. A. (1994). *Death anxiety handbook*. New York, NY: Taylor & Francis.

- Neimeyer, R. A. (1998). Death anxiety research: The state of the art. *OMEGA-Journal of Death and Dying*, 36(2), 97-120.
- Neimeyer, R. A., & Van Brunt, D. (1995). *Death anxiety*. In H. Wass & R. A. Neimeyer (Eds.), *Dying: Facing the facts* (3rd ed., pp. 49-88). Washington, D.C.: Taylor & Francis.
- Niemiec, R. M., & Schulenberg, S. E. (2011). Understanding death attitudes: The integration of movies, positive psychology, and meaning management. *Death Studies*, 35(5), 387-407.
- O’Gorman, S. M. (1998). Death and dying in contemporary society: An evaluation of current attitudes and the rituals associated with death and dying and their relevance to recent understandings of health and healing. *Journal of Advanced Nursing*, 27, 1127-1135.
- Öngider, N., & Özışık Eyüboğlu, S. (2013). Investigation of death anxiety among depressive patients. *Journal of Clinical Psychiatry*, 16(1), 34-46.
- Oral, R. (2017). *The relationship between five-factor model personality traits, attachment styles, and death anxiety*. (Doctoral dissertation). Retrieved from <http://openaccess.bilgi.edu.tr:8080/xmlui/bitstream/handle/11411/1052/>.
- Oranchak, E., & Smith, T. (1989). Death anxiety as a predictor of mood change in response to a death stimulus. *OMEGA-Journal of Death and Dying*, 19(2), 155-161.
- Peace, H. G., & Vincent, P. A. (1988). Death anxiety: Does education make a difference? *Death Studies*, 12(4), 337-344.
- Pedersen, P. B. (1991). Counseling international students. *The Counseling Psychologist*, 19(1), 10-58.
- Poyrazli, S., Arbona, C., Nora, A., McPherson, R., & Pisecco, S. (2002). Relation between assertiveness, academic self-efficacy, and psychosocial adjustment among international graduate students. *Journal of College Student Development*, 43(5), 632-642.

- Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling, 7*(1), 73-82.
- Pyszczynski, T., Abdollahi, A., Solomon, S., Greenberg, J., Cohen, F., & Weise, D. (2006). Mortality salience, martyrdom, and military might: The great satan versus the axis of evil. *Personality and Social Psychology Bulletin, 32*(4), 525-537.
doi:10.1177/0146167205282157
- Pyszczynski, T., Greenberg, J., & Solomon, S. (1999). A dual-process model of defense against conscious and unconscious death-related thoughts: An extension of terror management theory. *Psychological Review, 106*(4), 835.
- Pyszczynski, T., Wicklund, R. A., Florescu, S., Koch, H., Gauch, G., Solomon, S., & Greenberg, J. (1996). Whistling in the dark: Exaggerated consensus estimates in response to incidental reminders of mortality. *Psychological Science, 7*(6), 332-336.
- Rabia, H. M. A. (2015). *Arab international students' experiences in a U.S. university*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 10016577).
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*(3), 385-401.
- Ramady, M. A., & Al-Sahlawi, M. (2005). Education as a force for economic change in an oil-based economy: A case study of Saudi Arabia. *The Journal of Energy and Development, 30*(2), 187-206.
- Raphael, B. (2003). *The anatomy of bereavement: A handbook for the caring professions*. Florence, Italy: Routledge.

- Robertson, M., Line, M., Jones, S., & Thomas, S. (2000). International students, learning environments and perceptions: A case study using the Delphi technique. *Higher Education Research & Development, 19*(1), 89-102.
- Rodgers, L. S., & Tennison, L. R. (2009). A preliminary assessment of adjustment disorder among first-year college students. *Archives of Psychiatric Nursing, 23*(3), 220-230.
- Rudmin, F. (2009). Constructs, measurements, and models of acculturation and acculturative stress. *International Journal of Intercultural Relations, 33*(2), 106-123.
- Rundles, K. (2013). *Factors impacting the psychological adjustment of Saudi Arabian international students in the United States: Self-esteem, social support, and discrimination*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. ED552483).
- Russac, R., Gatliff, C., Reece, M., & Spottswood, D. (2007). Death anxiety across the adult years: An examination of age and gender effects. *Death Studies, 31*(6), 549-561.
- San Filippo, D. (1998). *The value of the awareness of near-death experiences for reducing fears of death for elderly persons*. (Doctoral dissertation). Retrieved from https://digitalcommons.nl.edu/faculty_publications/54.
- Saudi Arabian Cultural Mission in the United States (1993). *Education in Saudi Arabia*. Washington, DC: Royal Embassy of Saudi Arabia.
- Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2008). Loneliness and international students: An Australian study. *Journal of Studies in International Education, 12*(2), 148-180.
- Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships, 1*, 23-43.

- Scheffold, K., Philipp, R., Koranyi, S., Engelmann, D., Schulz-Kindermann, F., Härter, M., & Mehnert, A. (2018). Insecure attachment predicts depression and death anxiety in advanced cancer patients. *Palliative & Supportive Care, 16*(3), 308-316.
- Schultz, R. (1979). Death anxiety: Intuitive and empirical perspectives. *Death and Dying: Theory/Research/Practice, 66-87*.
- Schumaker, J. F., Barraclough, R. A., & Vagg, L. M. (1988). Death anxiety in Malaysian and Australian university students. *The Journal of Social Psychology, 128*(1), 41-47.
- Schwartzberg, S. S., & Halgin, R. P. (1991). Treating grieving clients: The importance of cognitive change. *Professional Psychology-Research and Practice, 22*(3), 240-246.
doi:10.1037//0735-7028.22.3.240
- Senturk, O. F. (2007). *Charity in Islam: A comprehensive guide to zakat* (E. Atasever, Trans.). Somerset, NJ: The Light.
- Shabeeb, S. S. (1996). *Saudi and Arabian gulf students' adjustment problems in eastern Washington*. (Doctoral dissertation). Available from ProQuest Digital Dissertations (UMI No. 3401195).
- Shaw, D. L. (2010). *Bridging differences: Saudi Arabian students reflect on their educational experiences and share success strategies*. (Doctoral dissertation). Retrieved from ProQuest digital dissertations (3401195).
- Simon, L., Arndt, J., Greenberg, J., Pyszczynski, T., & Solomon, S. (1998). Terror management and meaning: Evidence that the opportunity to defend the worldview in response to mortality salience increases the meaningfulness of life in the mildly depressed. *Journal of Personality, 66*(3), 359-382.

- Simsek, O.F. (2005). *Paths from fear of death to subjective well-being: A study of structural equation modeling based on the terror management theory perspective*. (Doctoral Dissertation). Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.633.8609&rep=rep1&type=pdf>
- Smiljanic, I. (2017). The role of attachment, travel experiences and English proficiency in international students' acculturative stress and depressive symptoms. *Journal of International Students*, 7(2), 188-203.
- Soleimani, M. A., Lehto, R. H., Negarandeh, R., Bahrami, N., & Nia, H. S. (2016). Relationships between death anxiety and quality of life in Iranian patients with cancer. *Asia-Pacific Journal of Oncology Nursing*, 3(2), 183.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (2003). Fear of death and human destructiveness. *The Psychoanalytic Review*, 90(4: Special issue), 457-474.
- Strachan, E., Schimel, J., Arndt, J., Williams, T., Solomon, S., Pyszczynski, T., & Greenberg, J. (2007). Terror mismanagement: Evidence that mortality salience exacerbates phobic and compulsive behaviors. *Personality and Social Psychology Bulletin*, 33(8), 1137-1151.
- Suhail, K., & Akram, S. (2002). Correlates of death anxiety in Pakistan. *Death Studies*, 26(1), 39-50.
- Sun, W., & Chen, G. M. (1997). Dimensions of difficulties mainland Chinese students encounter in the United States. *Intercultural Communication Studies*, 9, 19-30.
- Swanson, L. & Byrd, K. R. (1998). Death anxiety in young adults as a function of religious orientation, guilt, and separation-individuation conflict. *Death Studies*, 22(3), 257-268.
- Templer, D. I. (1970). The construction and validation of a death anxiety scale. *The Journal of General Psychology*, 82(2), 165-177.

- Thabet, A., & Abdalla, T. (2018). Death anxiety and obsessional death among university Palestinian students. *Clinical and Experimental Psychology, 4*(178), 14-16.
- Thiemann, P., Quince, T., Benson, J., Wood, D., & Barclay, S. (2014). Death anxiety among medical students: Prevalence and implications. *BMJ Supportive & Palliative Care, 4*(Suppl 1), A31-A32.
- Thorson, J. A., & Powell, F. (1988). Elements of death anxiety and meanings of death. *Journal of Clinical Psychology, 44*(5), 691-701.
- Thorson, J. A., & Powell, F. (2000). Death anxiety in younger and older adults. In A. Tomer (Ed.), *Death attitudes and the older adult: Theories, concepts, and applications* (pp. 123-136). Philadelphia, PA: Brunner Routledge.
- Tillich, P. (1952). Anxiety, religion, and medicine. *Pastoral Psychology, 3*(9), 11-17.
- Valikhani, A., & Yarmohammadi-Vasel, M. (2014). The relationship between attachment styles and death anxiety among cardiovascular patients. *Journal of Kerman University of Medical Sciences, 21*(4).
- Van Dam, N.T. & Earleywine, M. (2011). Validation of the Center for Epidemiologic Studies depression scale-revised (CESD-R): Pragmatic depression assessment in the general population. *Psychiatry Research, 186*(1), 128-132.
- Vess, M., & Arndt, J. (2008). The nature of death and the death of nature: The impact of mortality salience on environmental concern. *Journal of Research in Personality, 42*(5), 1376-1380.
- Wagner, K. D., & Lorion, R. P. Correlates of death anxiety in elderly persons. *Journal of Clinical Psychology, (40)*5, 1235-1241.

- Walliman, N. (2011). *Your research project: Designing and planning your work*. London, England: SAGE Publications.
- Wang, C. C. D., & Mallinckrodt, B. (2006). Acculturation, attachment, and psychosocial adjustment of Chinese/Taiwanese international students. *Journal of Counseling Psychology, 53*(4), 422.
- Warren, J. (2004). *Facing death: Epicurus and his critics*. Oxford, England: Oxford University Press.
- Wass, H., & Neimeyer, R. A. (1995). *Dying: Facing the facts*. Philadelphia, PA: Taylor & Francis.
- Wong, W. Y. (2009). The growth of death awareness through death education among university students in Hong Kong. *OMEGA-Journal of Death and Dying, 59*(2), 113-128.
- Wu, I. J. (2011). *Learning strategies used by international students from Taiwan in a university context: A case study*. (Master's thesis.) Retrieved from <http://hdl.handle.net/10211.4/351>.
- Yackley-Franken, N. (2007). *Teens in Saudi Arabia*. Minneapolis, MN: Compass Point Books.
- Yalom, I. D. (1980). *Existential psychotherapy* (vol. 1). New York, NY: Basic Books.

Appendix A

Invitation Letter To Saudi Arabian Cultural Mission (SACM)

St. Mary's University

Invitation Letter for SACM: Dissertation Project

Dear SACM,

I am Siham Alswayel, a Ph.D. student at St. Mary's University, San Antonio, TX. I am conducting a survey research, as a part of my dissertation, involving Saudi students titled "An Examination of Death Anxiety, Psychological Depression, and Adult Attachment Patterns among Saudi Students in the U.S.A."

I am looking for your assistance by sending this survey to Saudi students studying in the U.S. of America via email or your Facebook official page after getting the approval of IRB. This research is beneficial for Saudi student's community in the U.S.A., since it will help in shedding the light on some difficulties that face the Saudi students in the U.S.A. and will help the mental health clinicians to better understand and support the Saudi students. I hope to have 382 participants for this project.

I will use the following procedure: I am collecting data to investigate the relationship between death anxiety, psychological depression and adult attachment patterns among Saudi students in the U.S.A. I will use a Qualtrics survey that includes a demographic form and three validated questionnaires to measure death anxiety, psychological depression and adult attachment patterns.

The participation is voluntary and anonymously.

Your cooperation is highly appreciated.

Kindly check

Siham Alswayel

Appendix B

Invitation Letter For Participation

St. Mary's University

Invitation Letter for Participation: Dissertation Project

Dear participant,

This letter is an invitation for your voluntary participation in a dissertation project titled “An Examination of Death Anxiety, Psychological Depression, and Adult Attachment Patterns among Saudi Students in the U.S.A.”

I will use the following procedures:

This project is focused on the Saudi students who are studying in the U.S.A. The goal of this project is to investigate the relationship between death anxiety, psychological depression, and adult attachment patterns among Saudi students in the U.S.A. I hope to have a minimum of 382 participants for my study. The participation in this survey is voluntary, and you can withdraw at anytime you want. You have to agree on the consent form in order to start the survey. The survey consists of demographic form, Arabic Scale of Death Anxiety (ASDA), Center for Epidemiological Studies Depression Scale Revised (CESD-R), and Relationship questionnaire. The survey is designed to take not more than 25 mins.

Your responses and contact information are kept confidential electronically in passworded folders in the computer of the researcher. Your information will not be used by any other party or for any other study other than this study.

There is no direct benefit for your participation in this survey. Your participation will benefit the Saudi students' community in the U.S.A, which will help the mental health clinicians to better serve them.

If you have any questions or concerns about this research study or if any problem arises, please contact the principal investigator: Siham Alswayel at (210) 901-3328, E-mail: salswayel@stmarytx.edu. You may also contact the faculty advisor for this research study. Esteban Montilla, PhD. at (210) 438-3736. E-mail: rmontilla@stmarytx.edu.

ANY QUESTIONS REGARDING YOUR RIGHTS AS A RESEARCH PARTICIPANT MAY BE ADDRESSED BY THE ST. MARY'S UNIVERSITY INSTITUTIONAL REVIEW BOARD HUMAN SUBJECTS. ONE CAMINO SANTA MARIA. SAN ANTONIO, TX 78228. CHAIR, INSTITUTIONAL REVIEW BOARD. 210-436-3736. or email at IRBCommitteechair@stmarytx.edu. ALL RESEARCH PROJECTS CARRIED OUT BY INVESTIGATORS AT ST. MARY'S UNIVERSITY ARE GOVERNED BY REQUIREMENTS OF THE UNIVERSITY AND THE FEDERAL GOVERNMENT.

Your collaboration and participation in this project is appreciated.

If you agree to participate, kindly click on the following link:
http://stmarys.az1.qualtrics.com/jfe/form/SV_ekTokJ2Eusf9Jyt

Sincerely,
Siham Alswayel

Appendix C

Informed Consent Form

Title: An Examination of Death Anxiety, Psychological Depression, and Adult Attachment Patterns among Saudi Students in the U.S.A.

Principal Investigator: Siham Alswayel
Department of Counseling and Human Services
(210) 9013328
Salswayel@stmarytx.edu

Dissertation Faculty Adviser: Esteban Montilla, Ph.D.
Department of Counseling and Human Service.
(210) 438-6400.
rmontilla@stmarytx.edu

Dear participant,

I appreciate your participation in this survey research titled “An Examination of Death Anxiety, Psychological Depression, and Adult Attachment Patterns among Saudi Students in the U.S.A.”

The purpose of this research is to investigate the relationship between death anxiety, psychological depression, and adult attachment patterns among Saudi students in U.S. universities.

Participants would benefit by contributing to the Saudi student community when they will help the researcher in obtaining the required data regarding the current study. In addition, this study would help the mental health clinicians to better serve the Saudi students in the United States of America.

There are no known risks linked with this research project, and your participation is totally voluntary. You have the right to refuse participating and withdrawing at any time you want without any penalty or punishment.

You will complete a survey posted on Qualtrics Survey software, and the results of this survey will be analyzed by the SPSS software. The estimated time to finish the survey is approximately 25 minutes.

The survey includes demographic information (e.g., age, gender, marital status, education level), the Arabic Scale of Death Anxiety (ASDA), Center for Studies Depression Scale Revised (CESD-R) and The Relationship questionnaire developed by Bartholomew and Horowitz (1991). To guarantee the confidentiality, the survey will not include questions about your name or any

contact information. The data will be stored in the researcher double locked password-protected computer.

There is no future use for participants data other than the current research purpose: An Examination of Death Anxiety, Psychological Depression and Adult Attachment Patterns among Saudi students in U.S. of America.

If you have any additional questions or you face any problems while doing this research study, please contact the Principal Investigator; Siham Alswayel, at (210) –901_3328. E- mail: salswayel@stmarytx.edu. You may also contact the faculty adviser for this research study, Esteban Montilla, PhD., at (210) 438-6406. E-mail: rmontilla@stmarytx.edu.

ANY QUESTIONS REGARDING YOUR RIGHTS AS A RESEARCH PARTICIPANT MAY BE ADDRESSED BY THE ST.MARY’S UNIVERSITY INSTITUTIONAL REVIEW BOARD HUMAN SUBJECTS. ONE CAMINO SANTA MARIA. SAN ANTONIO, TX 78228. CHAIR, INSTITUTIONAL REVIEW BOARD. 210-436-3736 or email at IRBCommitteeChair@stmarytx.edu. ALL RESEARCH PROJECTS CARRIED OUT BY INVESTIGATORS AT ST. MARY’S UNIVERSITY ARE GOVERNED BY REQUIREMENTS OF THE UNIVERSITY AND THE FEDERAL GOVERNMENT.

Checking the “yes” button below indicates that you have read carefully and understood the above information, you voluntarily agree to participate, and you are a Saudi Arabian student 18 years of age or over in US universities. Checking “NO” indicates that you are not interested in participating in this research study.

Appendix D

Demographic Form

What is your age?

What is your marital status?

- a. Single
- b. Married
- c. Separated
- d. Divorced
- e. Widowed
- f. Other

What is your gender?

- a. Male
- b. Female
- c. Other

Appendix E

Center of Epidemiologic Studies Depression Scale Revised (CESD-R)

Below is a list of the ways you might have felt or behaved. Please check the boxes to tell me how often you have felt this way in the past week or so.	Last Week				Nearly every day for 2 weeks
	Not at all <i>or</i> Less than 1 day	1 - 2 days	3 - 4 days	5 - 7 days	
My appetite was poor.	0	1	2	3	4
I could not shake off the blues.	0	1	2	3	4
I had trouble keeping my mind on what I was doing.	0	1	2	3	4
I felt depressed.	0	1	2	3	4
My sleep was restless.	0	1	2	3	4
I felt sad.	0	1	2	3	4
I could not get going.	0	1	2	3	4
Nothing made me happy.	0	1	2	3	4
I felt like a bad person.	0	1	2	3	4
I lost interest in my usual activities.	0	1	2	3	4
I slept much more than usual.	0	1	2	3	4
I felt like I was moving too slowly.	0	1	2	3	4
I felt fidgety.	0	1	2	3	4
I wished I were dead.	0	1	2	3	4
I wanted to hurt myself.	0	1	2	3	4
I was tired all the time.	0	1	2	3	4
I did not like myself.	0	1	2	3	4
I lost a lot of weight without trying to.	0	1	2	3	4
I had a lot of trouble getting to sleep.	0	1	2	3	4
I could not focus on the important things.	0	1	2	3	4

Appendix F

The Relationship Questionnaire (RQ)

Following are four general relationship styles that people often report. Place a checkmark next to the letter corresponding to the style that best describes your or is closest to the way you are.

___ A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

___ B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

___ C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

___ D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Now please rate each of the relationship styles above to indicate how well or poorly each description corresponds to your general relationship style.

Style A						
1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly
Style B						
1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly
Style C						
1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly
Style D						
1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly

Appendix G

The Arabic Scale of Death Anxiety (ASDA)

	No	A little	Not Much	Much	Very Much
I fear death whenever I become ill.					
I fear looking at the dead.					
I fear visiting graves.					
The possibility of having a surgical operation terrifies me.					
I am afraid of suffering a heart attack.					
I worry that death may deprive me of someone dear to me.					
I am apprehensive of unknown things after death.					
I am afraid of looking at the corpse.					
I fear the torture of the grave.					
I fear getting a serious disease.					
Witnessing the burial process terrifies me.					
I dread walking in the graveyards.					
I am preoccupied with thinking about what will happen after death.					
I am afraid of sleeping and not waking up again.					
The pain accompanying death terrifies me.					
I get upset by witnessing a funeral.					
The sight of dying person frightens me.					
Talking about death upsets me.					
I am afraid of getting cancer.					
I fear death.					