NEAR EAST UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES

GENERAL PSYCHOLOGY

MASTER PROGRAM

MASTER'S THESIS

THE RELATIONSHIP BETWEEN DEPRESSION, ANXIETY, STRESS AND ACADEMIC PERFORMANCE AMONG UNIVERSITY STUDENTS.

FATUMA HABIIBU NAKIWALA

NICOSIA

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PREPARED BY

FATUMA HABIIBU NAKIWALA

20157631

THESIS ADVISOR

ASSIST. PROF. DENIZ ERGÜN

NICOSIA

2018

NEAR EAST UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES

General Psychology Master Program

Thesis Defence

The Relationship Between Depressıon, Anxiety, Stress and Academic Performance among University Students

We certify the thesis is satisfactory for the award of degree of

Master of GENERAL PSYCHOLOGY

Prepared by

Fatuma HABIIBU NAKIWALA

Examining Committee in charge

29.01.2018

Prof. Dr. Ebru Çakıcı	**Near East University**
	Department of Psychology
Prof. Dr. Fatma Gül Cirhinlioğlu	**Near East University**
	Department of Psychology
Asst. Prof. Dr. Deniz Ergün	**Near East University**
	Department of Psychology (Supervisor)

Approval of the Graduate School of Social Sciences

Prof. Dr. Mustafa SAĞSAN
Director

ABSTRACT
THE RELATIONSHIP BETWEEN DEPRESSION, ANXIETY, STRESS AND ACADEMIC PERFORMANCE AMONG UNIVERSITY STUDENTS.

Fatuma Habiibu Nakiwala

Thesis Advisor: Assist. Prof. Deniz Ergün

January – 2018, Pages 83

The major goal of university students is to excel in their career or profession which is manifested through their academic performance. However as they work towards achieving their goal, they encounter mental disorders like depression, anxiety and stress. And due to these mental disorders, students emotional states are destabilised which in turn affect their academic performance. The purpose of this study was to establish the relationship between depression, anxiety, stress and academic performance of university students. A cross-sectional study was conducted that comprised of 359 participants from various departments at Near East University. The questionnaire included three sections; the first and second gathered information pertaining to the sociodemographic characteristics of the student and his/her parent/guardian respectively and the third section included Depression Anxiety Stress Scale (DASS-42). It was found that there was a statistically significant difference between students' academic performance and depression, anxiety and stress means scores. Depression, anxiety and stress were predominantly highest among students with low academic performance as compared to those with moderate and high academic performance. A statistically significant difference between nationality and stress scores was found. The stress mean scores of local students were higher than that of International students. As a result, depression, anxiety and stress had negative effect on the grades of university students. Therefore, where appropriate, university authorities should set up intervention programs to assess the mental states of students, and opportunities for psychological assistance to university students.

Key Words: Depression, Anxiety, Stress, Academic Performance, University Students

ÖZ
ÜNİVERSİTE ÖĞRENCİLERİNDE DEPRESYON, KAYGI, STRES VE AKADEMİK PERFORMANS ARASINDAKİ İLİŞKİ

Fatuma Habiibu Nakiwala

Tez Danışmanı: Yrd. Doç. Dr. Deniz Ergün

Ocak – 2018, 83 sayfa

Üniversite öğrencilerinin temel amacı, akademik performansları ile kariyerlerinde veya mesleğinde üstün olmaktır. Bununla birlikte, amaçlarına ulaşmak için çalıştıklarında, depresyon, kaygı ve stres gibi ruhsal bozukluklarla karşılaşırlar. Ve bu ruhsal rahatsızlıklardan dolayı, öğrencilerin duygusal durumları dengesizleşmekte ve bu da onların akademik performansını etkilemektedir. Bu araştırmanın amacı üniversite öğrencilerinin depresyon, kaygı, stres ve akademik performansları arasındaki ilişkiyi ortaya koymaktır. Yakın Doğu Üniversitesi'ndeki çeşitli bölümlerden 359 katılımcıyı içeren kesitsel bir çalışmadır. Anket üç bölümden oluşmaktadır; öğrencinin sosyodemografik özelliklerine ve birinci / ikinci kişinin ebeveyn / velisine ilişkin birinci ve ikinci toplanan bilgiler, üçüncü bölüm de ise Depresyon Kaygı Stres Ölçeği (DASS-42) bulunmaktadır. Öğrencilerin akademik performansı ile depresyon, kaygı ve stres puanı ortalamaları arasında istatistiksel olarak anlamlı bir fark olduğu bulunmuştur. Depresyon, kaygı ve stress, ağırlıklı olarak akademik performansı düşük olan öğrenciler arasında, orta ve yüksek akademik performansa göre yüksek bulunmuştur. Uyruk ve stres puanı arasında istatistiksel olarak anlamlı fark bulunmuştur. Stres puan ortalamaları yerel öğrencilerin, Türkiyeli ve uluslararası öğrencilere göre daha yüksektir. Sonuç olarak, depresyon, kaygı ve stres üniversite öğrencilerinin notlarını olumsuz etkilemektedir. Bu nedenle, uygun olduğu durumlarda, üniversite otoriteleri, öğrencilerin ruhsal durumlarını değerlendirmeye yönelik müdahale programları oluşturmalı ve düşük notlara sahip üniversite öğrencilerine psikolojik yardım alabilecekleri olanaklar yönlendirmelidir.

Anahtar Kelimeler: Depresyon, Kaygı, Stres, Akademik Performans, Üniversite Öğrencileri.

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ACKNOWLEDGEMENT

I thank the Almighty Allah for His immense favours and provisions and thus enabling me to complete this thesis. Alhamdulillah.

I take this opportune moment to thank my thesis supervisor Dr. Deniz Ergün for the great contribution to this work. It's through your guidance and moral support that this thesis became possible. I'm so grateful.

I also thank my mum for the encouragement and prayers, I thank you so much. May Allah reward and protect you.

I thank all my siblings too for the encouragement.

ABBREVIATIONS
DASS – Depression Anxiety Stress scale

CGPA – Cumulative grade point average

GPA – Grade point average

SPSS – Statistical package for social scientists

US – United States

WHO – World Health Organisation

CHAPTER I

1 INTRODUCTION

1.1 Background to the study

Depression, anxiety and stress are worldwide mental disorders and therefore affect university students from all parts of the globe. Students' depression, anxiety and stress levels can escalate or drop depending on the situation, task or obligation at hand. Obligations that are thought to intensify the abovementioned mental disorders might include lessons, tests, projects, heavy work load for revision, not forgetting examinations to mention but a few. The social aspects also contribute to whether a student will have stable emotions or not. These might include relationship with fellow students, participating in an extracurricular activity or not, place of residence, nationality, age, gender, dwelling status, sponsor at university, housing type at school, relationship status, guardian's/parent's education level, guardian's/parent's income status, and marital status. All these factors are thought to escalate depression, anxiety and stress in an individual student. And once these mental disorders are manifested in an individual student, his/her normal functioning will be impaired or compromised. Thus, unable to fulfil their would be obligations or responsibilities as students. As for depression for example, it considerably affects students to the extent that they end up being less productive in as far as their academic and social obligations are concerned. And thus translate into low grades. This was clearly demonstrated by a study that indicated that depressed students were found to have impaired functioning and this was evident through profoundly missing classes, exams and assignments. As if that was not enough, they were also found to have dropped courses and considerably missed social activities. (Hysenbegasi et al 2005). Also higher clinical depressive symptoms were found among students who failed to pass or complete a course as compared to those who successfully completed the requirements within each semester (Sokratous et al 2014).

Depression, anxiety, and stress also contribute quite enormously in blocking or hampering students' career path. Therefore, the effects of all this is realised through sinking their academic grades or their grade point average (GPA) as the student will not be in position to concentrate in class, unable to easily accomplish homework assignments, projects, difficulty relating with fellow students, difficulty to fall asleep or staying awake at night, dropping out of school to mention but a few. So by and large, the aforementioned mental disorders greatly affect the learning process and later translate into poor grades or low GPA/CGPA.

1.2 Depression

World Health Organisation (2017) defines depressive disorders to emotions and feelings of unhappiness, loss of interest or desire, self-blame or truncated pride, troubled sleep or appetite, fatigue, and little attentiveness. Depression can be long lasting or persistent, considerably weakening a person's capability to be productive in his/her day today activities. It can also trigger suicidal feelings when it reaches extremely severe level. However,

it should be noted that depression is treatable and individuals can be able overcome this nightmare and hence function normally once again.

Prevalence of depression

It should be noted that depression is prevalent across gender, regions and affects all ages as well. Globally, depression was found to be 4.4% by the year 2015. Depression was found to be more common among females than males with 5.1% and 3.6% respectively. Prevalence varies in terms of region, from a low of 2.6% among males in the Western Pacific Region to 5.9% among females in the African Region. As for age, depression reaches its climax in older adulthood by 7.5% for females aged 55-74 years and above and 5.5% for males. Depression is also evident among young people with 15 years and below, but at a lower level as compared to older age groups. 322 million represents the total number of people living with depression worldwide. Almost half of these people live in the South-East Asian region and Western Pacific region, including India and China. During the years 2005 and 2015 depression was found to have increased by 18% due to the overall growth of the global population, as well as a proportionate increase in the age groups at which depression is more prevalent as reported by World Health Organisation (2017).

Depression is also prevalent across nations with low, middle and high incomes all around the globe. Kessler and Broment (2014) found that in both high income and low-middle income countries, respondents screened positive for depression with 52.3% and 54.1% respectively. Also the screen-positive rate varied widely for different counties, from less than 30% in Japan and the Pondicherry region of India to 60% or more in France, New Zealand, the US, São Paulo, and Ukraine. It was also found that the lifetime prevalence was higher in high income 14.6% than low-middle income 11.1% countries. The lowest prevalence was also found with less than 10% in low-middle income countries that included Pondicherry, Mexico, Shenzen, and South Africa. Likewise, in high income countries that included France, Netherlands, New Zealand, and the US, depression was prevalent with the highest rates of greater than 18%.

1.3 Anxiety

According to WHO (2017), defines anxiety disorders to include moods of nervousness & fright. In other words, a person who has anxiety disorder will tend to be trembling or shakiness, sweating, palpitating of the heart, choking, feeling that he/she is going to die to mention but a few. Anxiety also tends to be persistent in some individuals. It is treatable; therefore individuals with anxiety disorders should never lose hope and can thus be helped to return to normal functioning.

Prevalence of anxiety

By the year 2015, anxiety was estimated to be 3.6% globally. Anxiety disorders do occur quite often among females as compared to their male counterparts with 4.6% as compared to 2.6% globally. In the Americas, 7.7% of the female population suffer from anxiety disorder and males, 3.6%. The occurrence of anxiety disorders do not vary significantly with age, though there was a noticeable tendency towards lower occurrence among older age groups.

By the year 2015, a total 264 million people had anxiety disorders worldwide, reflecting a 14.9% increase since 2005, due to population growth and ageing.

1.4 Stress

Stress is a situation that includes lack of balance between a person and his or her environment. In other words, once stress sets in, an individual tends to offer less incentives that can gratify his/her prospects hence a mismatch (Healey, 2002)

Stress is a physical response to an undesirable situation (Oxington, 2005).

There are numerous definitions of the concept stress; however for purposes of this study the ones highlighted above can suffice.

1.5 Academic performance

This study considers academic performance to be the students' outcome of education. In other words, academic performance also includes how well a student realises his/her aims of an education endeavour or undertaking.

1.6 International students

This study looks at an international student as one who relocates from his/her motherland to another country for educational purposes.

CHAPTER II

2.1 LITERATURE REVIEW

Previous studies show relationships between depression, anxiety, stress and academic performance. There was a negative correction between depression and academic performance, and a positive relationship between anxiety and academic performance. Academic levels of students had a statistically significant effect on their reported level of depression (Kugbey 2015). In one study, students with low grades were found to have higher mental disorders that include depression, anxiety and stress as compared to those with high grades. (Aris et al 2011). Depressive symptoms were significantly related to grade point average (Stapleton & Brunetti 2013). There was a statistically significant relationship between severe depression and lower GPA among students (Craig et al 2014). Another study indicated that low achievers had higher level of depression compared to high scorers (Sindhu 2016). Sokratous et al (2014) a statistically significant relationship was found between low academic performers and clinical depressive symptoms. In another study among medical students, there was a statistically significant correlation between students who had more severe depression as they had low academic grades. (Yeh et al 2007). In the US, students with lower GPA were more depressed (Jihan et al 2012). In another study, results indicated that there was a relationship between academic performance and depression (Yi-Chun et al 2007). There was a statistically significant difference between low and high depression groups on students' academic performance (Ude & Ofoke Sunay 2017). In a study carried out by Hysenbegasi et al (2005) found that there was a negative relationship between depression and student's academic performance.

In contrast however, in one study there was no effect of depression on student's academic performance (Khurshid et al 2015) In a study carried out by DeRoma et al (2009), also indicated that there was no statistically significant relationship between depression and grade point average of students.

As for anxiety and academic performance, previous studies revealed the following results. It was revealed that there was a negative association between anxiety and academic performance. (Vitasaria et al 2010). In a study that was carried out by Nadeem et al (2012), revealed that there was a significant   relationship between anxiety and academic performance, the higher the anxiety the lower the academic performance and vice versa. There was a statistically significant difference between low and high anxiety groups on students' academic performance (Ude & Ofoke 2017). Results revealed a statistically significant relationship between anxiety and academic performance (Yeh et al 2007). Another study shows that there was a significant negative relationship between anxiety and achievement (Singh & Thukral 2009). A negative association between anxiety and academic performance according to a study by (Nadeem et al 2012). There was low anxiety among students with grade point average of 3.80 and less than excellent students as per the study that was carried out by (Bahri et al 2013). In one study however, shows that there was no significant relationship between anxiety and achievement (Shibli et al 2012). Therefore, largely studies show that there is a relationship between anxiety and academic performance.

As for stress and academic performance, previous studies revealed crucial findings. In one study, there was a significant relationship between academic performance and stress, increase in the level of stress would mean decrease of academic performance (Sohail 2013). However, one study showed an insignificant relationship between stress and academic performance. There was an insignificant relationship between stress and academic performance (Farhan & Khan 2015). In another study, there was an insignificant relationship between stress and academic performance. However much stress is a negative aspect to some few students, to some they are in a better situation when it is present as it enables them to attain better academic performance (Harlina et al 2014). Another study however, revealed that no stress factors significantly affected the academic performance of students (Kamarudin et al 2009).

Kugbey (2015) showed that male students experienced higher levels of depression, anxiety and stress as compared to their female colleagues. In a study among Kenyan University students more females had depressive symptoms compared to males but the difference was not statistically significant (Othieno et al (2014). The occurrence of clinical depressive disorders was found to be more intense among females (Sokratous et al 2014). The average depression in males was higher than their female counterparts (Al-Qaisy 2011). However, in some studies there was no statistically significant difference between gender and depression. In a study that was carried out by Chen et al (2013), results revealed that there was no significant relationship found between depressive symptoms and gender. In a study carried out by Ghaderi et al (2009) found no gender difference in depression, stress and anxiety between male and female students.

In some studies, anxiety was found to have a relationship with gender. It was found that the average anxiety among females was higher as compared to males (Al-Qaisy 2011). There was a statistically significant difference in terms of gender and anxiety. Female students were found to have higher anxiety as compared to their male counterparts (Jung et al 2015). Another study indicated a significant difference between gender and anxiety (Sevim et al 2015).

There was a relationship between gender and stress as per the study that was carried out by (Shamsuddin et al 2013). Elias et al (2011), in their study found that final year students were the most stressed category of students, followed by middle year students and first year students were the least stressed category of students. Chen et al (2013), in their study revealed that there was no significant relationship between year of study and depressive symptoms.

In another study, it was found that there was an insignificant relationship between stress, gender and residency (Harlina et al 2014). In a study by Nilofer et al (2012) indicated a significant gender difference in the academic performance of medical students. Male students were better academic performers as compared to their female counterparts. Another study revealed that females perform better on academic achievement than males (Numan & Syeda 2017). Female students performed better than males according to (Singh 2015).

There was no relationship between depressive symptoms and year of study as per the study that was carried out among Cypriot students. (Sokratous et al 2014).

Anxiety and academic achievement of males and females indicated no significant difference. This may be due to the high anxiety score of the girls as compared to boys (Singh & Thukral 2009).

In a study that was carried out in Malaysia, a significant relationship was found between monthly income and stress (Shamsuddin et al 2013).

In another study, findings showed an association between place of birth with anxiety and depression (Shamsuddin et al 2013).

In relation to dwelling status and depression, a study carried out by (Sokratous et al 2014) revealed that students from rural areas had higher clinical depressive disorders as compared to students in cosmopolitan areas.

Key words: Depression, anxiety, stress, academic performance, and International students.

2.2 PROBLEM STATEMENT

This study was aimed to ensure that depression, anxiety and stress are always in check and therefore can only have minimal or least impact on the academic performance of University students as they cannot be completely eliminated. As well as ensuring that irrespective of their backgrounds/sociodemographic characteristics, students are less predisposed to the above mentioned mental disorders while at campus most importantly. Establishing the relationship between depression, anxiety, stress and academic performance among university students is very

crucial as it will equip them with knowledge and hence be able to cope or deal with them. Not only that but also an opportunity for the University to retain more students as the dropout rate or transfers to other universities will be minimised. Parents' or/and guardians' resources will not be put to waste as the study will ensure that students obtain better grades through regulating depression, anxiety and stress. The only and most reliable method for this study was purposive sampling specifically maximum variation sampling that involved tracing participants/students right from their study/classrooms as this enabled the researcher to obtain a considerable number of participants from specific departments rather than getting a handful from all or from so many departments. In other words the researcher concentrated on few and specific departments at Near East University. Depression, anxiety and stress mainly and directly impact students' academic performance in a way that if any or all of these mental disorders are beyond normal levels then in most cases students cannot escape their effects. These effects will then be manifested through irregular attendance of lessons, lack or poor concertation, poor performance or low GPA, dropout from school to mention but a few. However, other researchers are encouraged to further explore this subject as it is such a complicated but also an important issue due to its nature and thus, this investigation will not eradicate it purse but rather ensure that it is minimised among students through regulating it. Further exploration of this subject will also expand on the already existing body of knowledge. The subject under investigation mainly affects university students at school, in their dormitories or halls of residence as well as in their homes to some extent. This problem requires that it is dealt with ASAP in order to enable students sail much easier through their academic careers or professions with less or minimal psychological obstacles.

CHAPTER III

3.1 METHODOLOGY

3.2 Sample and procedure

A cross-sectional study was carried out among University students at Near East University from late January to Early June, 2017. Purposive sampling but more specifically maximum variation sampling was used in order to gain greater insights into the conditions and in this case the emotional states of students as well as their sociodemographic aspects. The researcher then purposely administered questionnaires in person right from students' classrooms. It should be noted that students who made it clear that they were not willing to answer the questionnaire were excluded from the study. Also to note is that only departments that allowed the researcher to access students from their classes were considered. Permission to carry out this survey was sought from the ethical committee at Near East University. Verbal consent was also obtained from Heads of departments. A total of 400 questionnaires were distributed to students, 4 were not returned, 37 were excluded from the study as they had more than 5 unanswered questions thus 359 questionnaires were analysed yielding 90 percent.

3.3 Materials

A survey questionnaire was administered to university students at Near East University. They were selected from specific departments including International business, Marketing, Accounting ,Computer Information System, Economic sciences, Economics, Politics, International relations, International Law, Law, Banking and Finance, Business Administration, Arts and sciences, Construction technology, Electrical engineering, Civil Engineering, Mechanical Engineering, Food Engineering, Computer Engineering, Psychology, Veterinary Medicine, Architecture and Theology. The survey questionnaire comprised of three sections. Section one obtained data relating to the student's sociodemographic or personal aspects. These included age, gender, and year of study, faculty, social group, caretaker or guardianship, dwelling status, housing type, nationality, relationship status, academic performance (CGPA), sponsor at university, extracurricular activity. Section two obtained information pertaining to the sociodemographic aspects of parent or guardian. It included marital status, education level, and income status. Also three-point Likert scales were included on the part of sociodemographic aspects to establish the level of agreement (agree, neutral, disagree), attitude (pleasing, neutral, displeasing), level of satisfaction

(satisfactory, neutral, unsatisfactory), and quality (good, fair, poor) of participants. The third and last section obtained data pertaining to student's emotional states. Precisely, the depression, anxiety & stress scale (DASS-42) was employed to ascertain their emotional states.

3.4 Depression Anxiety Stress Scales (DASS – 42)

DASS requires an individual to provide the details of his/her psychological circumstances. The DASS is beneficial in different settings for example clinicians can make use of it as well as normal individuals. Primarily, the DASS is widely used to measure the emotions of individuals. The depression anxiety and stress scale was found to have high central dependability thus able to yield significant insights in a range of situations. The DASS should then be useful to academicians and clinicians.

The assessment scale came into place through testing a considerably huge number of respondents both the young and the old from diverse backgrounds. This assessment scale can as well be used to young people of twelve years since there has not been any persuasive proof to reject it. It was also tested on a number of patients with different ailments hence appropriate for use on people with different complaints. Dependability scores of the three items of depression anxiety and stress were found to be closely linked.

The DASS is comprised of three fourteen-item subscales, for a total of forty two queries. The queries are scored on a four-point Likert scale. Let us say, in response to the question, "I was bothered by trivial things," the client could opt for an answer which best suits his/her condition. Matching answers for every item are scored zero to three and are; zero suggests "Did not apply to me at all", one suggests "Applied to me to some degree or some of the time," two suggests "Applied to me to a great degree or a good part of time," three suggests "Applied to me very much or most of the time,". DASS scores are from zero to forty two for every subscale. Total score is computed by adding up the scores for every subscale. Depression scale items include three, five, ten, thirteen, sixteen, seventeen, twenty one, twenty four, twenty six, thirty one, thirty four, thirty seven, thirty eight, & forty two. Anxiety scale items include; two, four, seven, nine, fifteen, nineteen, twenty, twenty three, twenty five, twenty eight, thirty, thirty six, forty, & forty one. Stress scale items include; one, six, eight, eleven, twelve, fourteen, eighteen, twenty two, twenty seven, twenty nine, thirty two, thirty tree, thirty five, & thirty nine. Interpretation is done according to the following suggestions; Depression subscale score and interpretation zero to nine suggests no evidence of depression, ten to thirteen suggests mild depression, fourteen to twenty suggests moderate depression, twenty one to twenty seven suggests severe depression, greater or equal to suggests extremely severe depression. Anxiety subscale score and interpretation, zero to seven suggests no evidence of anxiety, eight to nine suggests mild anxiety, ten to fourteen suggests moderate anxiety, fifteen to nineteen suggests severe anxiety, greater or equal to twenty suggests extremely severe anxiety. Stress subscale score and interpretation, zero to fourteen suggests no evidence of stress, fifteen to eighteen suggests mild stress, nineteen to twenty five suggests moderate stress, twenty six to thirty three suggests severe stress and greater or equal to thirty four suggests extremely severe stress.

Depression Anxiety and Stress Scale is based on a dimensional rather than a conception of emotional illness. The supposition on which the DASS development was based (and which was long-established by exploratory information) is that the differences between depression, anxiety, and stress experienced by normal subjects and the clinically distressed, are basically differences of degree. The depression anxiety and stress scale thus has no direct consequences for the allocation of patients to distinct diagnostic categories hypothesised in classificatory arrangements like the Diagnostic and statistical manual and International Statistical Classification of Diseases and related Health Problems. However, recommended cut-offs for conventional severity labels (normal, moderate, severe) are given in the Depression Anxiety and Stress Scale guidebook.

A raw score for the three subscales and the total raw score are given as output. In addition, each of the three subscales percentiles based on a community sample (n ☐ 2914) are computed.

Developer

Lovibond, S.H. Lovibond. P.F. (1995). Manual for depression Anxiety Stress Scales (2nd ed.). Sydney: Psychology Foundation.

The Turkish DASS was also used to cater for the Turkish speaking students. This translation of the DASS into Turkish was carried out by Ahmet Akin and Bayram Çetin. Psychological Counselling and Guidance Department Sakarya University Turkey.

Scoring the Turkish DASS

The items are in the same order as the English DASS. The English DASS scoring template will not match the layout of the Turkish questionnaire, but it will indicate which items contribute to each scale.

3.5 DATA ANALYSIS

Data analysis was done by the help of IBM SPSS statistics 21 version (Statistical Package for Social Sciences). Frequencies were run for all the variables. One-way ANOVA and Independent samples t-Test analyses were also computed in order to compare the means for two or more groups and thus established the relationships and differences between them.

3.6 Objectives of the study

1. To establish the relationship between depression, anxiety, stress and academic performance among University students.

2. To discover the relationship between sociodemographic characteristics and depression, anxiety and stress.

3. To find out the relationship between nationality and academic performance of University students.

4. To identify the category of students that is more susceptible to depression, anxiety and stress among International, Cypriot and Turkish students.

3.7 Hypotheses

1. Academic performance among University students has a statistically significant relationship with depression, anxiety and stress.

2. There is a statistically significant relationship between depression, anxiety, stress and sociodemographic factors.

3. There is no statistically significant difference between nationality and academic performance of University students.

4. Depression, anxiety and stress are more prevalent among international students than Cypriot and Turkish students.

3.8 Significance of the study

This study will ensure that university students get an understanding that their academic performance is greatly affected by depression, anxiety and stress and hence be in position to keep them in check or regulate them as much as possible. The study will also enable students to know that sociodemographic factors also play a big role in causing depression, anxiety and stress which in turn curtail their academic performance. Further still, it will profit the University through retaining more students who would have otherwise transferred to other Universities or dropped out completely due to these mental disorders and poor academic performance. Consequently, the University will get more returns at the end of the day. Lastly, parents and/or guardians will be able to get value for money through investing in education of their sons and daughters who can be in position to regulate their emotional states. Hence, enabling them to do better in school and in turn contribute to the advancement and development of nations and the world by and large.

3.9 Scope of the study

The study focused on establishing the relationship between depression, anxiety, stress and academic performance among University students.

A questionnaire was administered that ensured that socio-demographic aspects and emotional states of students are available for the study. Data collection was done during the spring semester 2016/2017 academic year at Near East University only in departments that gave permission to the researcher to have access to students' right from their classrooms or lecture theatres.

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CHAPTER IV

4.1 RESULTS

Table 1a.

Demographic characteristics of participants

		n (%)
Gender	Male	206(57.5)
	Female	152(42.5)
Year of study	1st year	89(24.8)
	2nd year	63(17.5)
	3rd year	108(30.1)
	4th year	79(22)
	5th year & above	20(5.6)
Nationality	Cypriot	59(16.4)
	Turkish	164(45.7)
	International	36(37.9)
Guardian/caretaker	Both parents	301(84.1)
	Single parent	30(8.4)
	Grandparent	5(1.4)
	Sibling	8(2.2)
	Self	11(3.1)
	Husband	3(0.8)
Perception of support given to you by your caretaker/guardian	Satisfactory	290(83.3)
	Neutral	41(11.8)
	Unsatisfactory	17(4.9)

Table 1a. The sample of the present study comprised of 359 students, 206 (57.5%) were males and 152 (42.5%) were females. In as far as the year of study is concerned, 89 (24.8%) were in first year, 63 (17.5%) second year, 108 (30.1%) third year, 79 (22%) fourth year and 20 (5.6%) fifth year and above. Thus, having majority of students

from third year as compared to the rest of the years. Nationality of participants was categorised into Cypriots, Turkish and International students with 59 (16.4%), 164 (45.7%), and 136 (37.9%) respectively. For guardian/caretaker, 301 (84.1) were cared for or got support from both parents, 30 (8.4%) were cared for by a single parent, 5 (1.4%) grandparent, 8 (2.2%) sibling(s), 11 (3.1%) self, and 3 (0.8%) by husband. Participants were asked about the perception of support given by the guardian/parent, 290 (83.3%) were satisfied, 41 (11.8%) are impartial or neutral, and 17 (4.9%) were unsatisfied.

Table 1b.

Demographic characteristics of participants

		n (%)
Sponsor at University	Government	11(3.1)
	Parent(s)	282(78.8)
	Government and parent(s)	29(8.1)
	Grandparent(s)	7(2.0)
	Sibling(s)	9(2.5)
	Self	15(4.2)
	Husband	4(1.1)
	Aunt	1(0.3)
I am satisfied with my sponsor	Agree	273(81.5)
	Disagree	40(11.9)
	Neutral	22(6.6)
Dwelling status in your native country	Urban	265(74.6)
	Semi-urban	50(14.1)
	Rural	40(11.3)
The dwelling status in my native country has a negative impact on my academic performance	Agree	123(34.7)
	Neutral	148(41.8)
	Disagree	83(23.4)

Table 1b. Participants were asked about their sponsor at University. 11 (3.1%) were sponsored by government/state, 282 (78.8%) by parent(s), 29(8.1%) by government and parent(s), 7 (2.0%) by grandparent(s), 9 (2.5%) by sibling(s), 15 (4.2%) by self, 4(1.1%) by husband, and 1(0.3%) by an aunt.

Participants were asked to identify the level of satisfaction with their sponsor. 273 (81.5%) agreed that they are satisfied, 40 (11.9%) were neutral or impartial, 22 (6.6%) disagreed or are not satisfied with the sponsor.

The dwelling status of participants in their home country was also asked. 265 (74.6%) are from urban residence and are the majority, 50 (14.1) semi-urban and 40 (11.3) rural. They were asked whether the dwelling status in their home country has a negative impact on academic performance 23 (34.7% agreed, 148 (41.8) neutral and 83 (23.4%) disagreed implying that in their view it does not have a negative effect.

Table 1c.

Demographic characteristics of participants

		n (%)
Housing type while at school	Owner	84(23.7)
	Dormitory	101(28.5)
	Rented	170(47.9)
GPA/CGPA	3 & above	115(33.5)
	2-2.99	184(53.6)
	1.99 & below	44(12.8)
Perception of academic performance at University	Good	219(61.0)
	Fair	99(27.6)
	Poor	41(11.4)
Relationship with fellow students in class	Good	241(67.1)
	Fair	80(22.3)
	Poor	38(10.6)
I find it easy to accomplish/finish class work	Agree	224(62.9)
	Neutral	99(27.6)
	Disagree	33(9.2)
Relationship status	Girl/boyfriend	148(42)
	Married	27(7.7)
	Single	168(47.7)
	Engaged	6(1.7)
	Searching	6(1.7)
	Widow	1(0.3)
Do you participate in any extracurricular activity?	Yes	253(79.1)
	No	67(20.9)

Table 1c. They were asked to identify the housing type at school. 84 (23.7%) owner, 101 (28.5%) dormitory and resided in rented houses 170 (47.9%). This therefore indicates that majority of students reside in rented houses.

Students reported their GPA and a considerable percentage 115 (33.5%) had 3 and above implying that they are successful, majority of them 184 (53.6%) had 2-2.99 implying that they are less successful and 44 (12.8%) had 1.99 and below implying that they are unsuccessful students. 219 (61.0%) perceived their academic performance as good, 99 (27.6%) as fair and 41 (11.4%) as poor.

The question about relationship with fellow students in class, 241 (67.1%) student reported that they have a good relationship, 80 (22.3%) fair relationship and 38 (10.6%) poor relationship. They were asked whether it is easy to

accomplish/finish class work, 224 (62.9%) of them agreed that it is easy, 99 (27.6%) were impartial or neutral and 33 (9.2%) disagreed.

Participants also reported their relationship statuses, 148 (42%) were in a relationship (girl/boyfriend), 27 (7.7%) were married, 168(47.7%) were single, 6(1.7%) were engaged, 2 (0.6%) were searching, and 1(0.3%) were widowed.

Participants were asked to indicate whether they participate in any extracurricular activity. 253 (79.1%) opted for yes meaning that they do participate in an extracurricular activity and 67 (20.9%) opted for no option meaning that they do not participate in any extracurricular activity.

Table 2.

Demographic characteristics of parent/guardian

		n (%)
Parent's marital status	Married	297(83.2)
	Separated	17(4.8)
	Divorced	27(7.6)
	Widowed	8(2.2)
Perception about your relationship with your parents	Pleasing	276(77.5)
	Neutral	62(17.4)
	Displeasing	18(5.1)
Father's education level	Illiterate	9(2.5)
	Elementary	2(22.9)
	High school	110(30.6)
	University & above	157(43.9)
Mother's education level	Illiterate22(6.1)	
	Elementary	111(30.9)
	High school	100(27.9)
	University & above	126(35.1)
Parent's/Guardian's monthly income status	High	79(22.1)
	Moderate	246(68.9)
	Low	32(9.0)

Table 2 displays the parent's/guardian's sociodemographic characteristics such as marital status, student's perception of her/his relationship with parents, education level and monthly income. 297 (83.2%) are married, 17 (4.8%) were separated, 27 (7.6%) divorced 8 (2.2%) widowed. Perception of student's relationship with his/her parents. 276 (77.5%) reported their perception as pleasing, 62 (17.4%) as impartial/neutral, 18 (5.1%) as displeasing. About Father's education, 9 (2.5%) are illiterate, 82 (22.98%) elementary level, 110 (30.6%) high school, 157 (43.9%) university and above. For mother's education, 22 (6.1%) are illiterate, 111 (30.9%) attained elementary level of education, 100 (27.9%) high school level of education and 126 (35.1%) university and above. Participants reported their parents' monthly income. 79 (22.1) as high, majority reported it as moderate 246 (68.9%) and 32 (9%) as low income.

Table 3.

Comparison of DAS mean scores of participants according to gender

Male	Female	t (p)
m±sd	m±sd	

Anxiety	12.43±8.94	10.01±7.98	2.70(0.00)*
Depression	12.57±9.75	10.21±8.66	2.41(0.01) *
Stress	15.50±9.64	14.27±8.50	1.26(0.10)

*p ≤ 0.05   **p < 0.001

The comparison of depression, anxiety and stress mean scores according to gender as analysed by using independent samples t-Test, indicated that there was a statistically significant difference between males and females anxiety and depression mean scores. It was revealed that male participants had higher anxiety mean scores (t=2.70, p=0.00) and higher depression mean scores (t=2.41, p=0.01) than females. There was no statistically significant difference between gender and stress scores (t=1.26, p=0.10).

Table 4.

Comparison of DAS mean scores of participants according to year of study

	1st year	2nd year	3rd year	4th year	5th year & above	
	m±sd	m±sd	m±sd	m±sd	m±sd	F (p)
Anxiety	12.15±8.49	11.27±7.87	10.11±8.49	12.75± 8.85	20.25±10.50	1.36(0.24)

Depression	12.29±9.69	10.02±7.66	10.38±9.19	14.11±9.71	9.65±10.42	729(0.02)*
Stress	14.75±9.53	14.90±7.67	14.86±9.11	16.29±9.48	11.60±10.80	1.104(0.36)

*p ≤ 0.05   **p < 0.001

Table 4. Using One-way ANOVA method, results indicated that there was no statistically significant difference between year of study and anxiety scores of participants (F=1.36, p=0.24). Also there was no statistically significant difference between year of study and mean stress scores of participants (F=1.10, p=0.36). Though, a statistically significant difference between year of study and depression scores of participants was found (F=2.72, p=0.02). In advanced analysis with Tukey, there was not any statistical significant difference among the groups. The mean score of depression in 4th grade group was higher than the other groups.

Table 5.

Comparison of DAS mean scores of participants according to nationality

	Cypriot	Turkish	International	F (p)
	m±sd	m±sd	m±sd	
Anxiety	11.37±8.51	11.73±8.57	10.96±8.88	0.290(0.74)
Depression	11.37±8.51	11.73±8.57	10.96±8.88	0.60(0.55)
Stress	17.54±9.30	15.60±8.94	12.96±8.94	6.16(0.00)*

*p ≤ 0.05   **p < 0.001

Table 5. Using One-way ANOVA method, results indicated that there was no statistically significant difference between nationality and anxiety scores of participants (F=0.29, p=0.74). There was not statistically significant difference between nationality and depression scores of participants (F=0.60, p=0.55). Although, there was a statistically significant difference between nationality and stress scores (F=6.16, p=0.00). The mean stress scores of Cypriot students was higher than that of Turkish and International students.

Table 6.

Comparison of DAS mean scores of participants according to guardian/caretaker

	Father &Mother m±sd	Single parent m±sd	Grand parent m±sd	Sibling m±sd	Self m±sd	Husband m±sd	F (p)
Anxiety	11.42±8.70	11.13±8.73	15.80±8.99	12.75±7.60	10.09±7.96	9.00±1.73	0.40 (0.84)
Depression	1.60±9.33	11.23±10.22	14.00±9.57	11.88±8.91	10.73±10.08	9.33±8.32	0.12(0.99)
Stress	15.08±9.21	11.13±8.73	15.80±8.99	12.75±7.60	10.09±7.96	9.00±1.73	0.77(0.58)

*p ≤ 0.05   **p < 0.001

Table 6. One-way ANOVA method was executed and the results showed that there was no statistically significant difference between support provided by the guardian/caretaker and depression, anxiety and stress scores of

participants. As the p values for all the three emotional states depression, anxiety and stress were (F=0.12, p 0.99), (F=0.40, p=0.84), and (F=0.77, p=0.58) respectively. In advanced analysis with Tukey, there was not any statistical significant difference among the groups.

Table 7.

Comparison of DAS mean scores of participants according to satisfactory level of guardian/caretaker's support

	Satisfactory	Unsatisfactory	Neutral	F (p)
	m±sd	m±sd	m±sd	
Anxiety	10.86±8.37	14.35±8.46	14.73±9.88	4.69(0.01)*
Depression	10.82±9.10	14.18±8.88	16.39±10.27	7.20(0.00)*
Stress	14.53±9.13	15.59±7.74	17.68±9.83	2.18(0.11)

*$p \leq 0.05$ **$p < 0.001$

Table 7 indicates, using One-way ANOVA method that there is a statistically significant difference between participants' level of satisfaction of support by guardian/caretaker and anxiety and depression scores as the p values were (F=4.69, p=0.01) and (F=7.20, p=0.00) respectively. However, there is no statistically significant relationship

between participants' level of satisfaction of support by guardian/caretaker and stress scores as the p value was (F=2.18, p=0.11).

Table 8.

Comparison of DAS mean scores of participants according to sponsor

	Depression	Anxiety	Stress
	m±sd	m±sd	m±sd
State	9.91±4.70	15.45±8.11	19.36±7.54
Parent & State	11.94±9.55	11.55±8.64	15.02±9.21
Parent	9.52±8.39	8.31±6.77	11.69±9.03
Grandparent	15.14±12.70	16.71±12.60	21.43±10.65
Sibling	13.22±10.90	14.89±9.87	16.79±8.74
Myself	7.27±7.75	7.80±7.21	14.33±9.13
Husband	14.00±1.63	13.00±2.16	12.00±2.44
Aunt	11.00	4.00	11.00
F (P)	1.54(0.15)	2.02(0.05)	0.99(0.43)

*p ≤ 0.05   **p < 0.001

Table 8 indicates, using One-way ANOVA method that there is a statistically significant difference between Students' sponsor and anxiety scores as the p value is (F=2.02, p=0.05). There was no statistically significant difference between participants' sponsor and depression and stress scores as the p value were (F=1.54, p=0.15) and (F=0.99, p=0.43) respectively.

Table 9.

Comparison of DAS mean scores of participants according to satisfaction level of sponsor

	Agree	Disagree	Neutral	F (p)
	m±sd	m±sd	m±sd	
Anxiety	10.70±8.26	17.14±8.60	14.33±9.54	8.38(0.00)*
Depression	10.70±8.94	17.18±9.82	15.08±9.94	2.87(0.06)
Stress	14.23±9.08	18.36±8.70	16.43±9.33	8.36(0.00)*

*p ≤ 0.05   **p < 0.001

Table 9 indicates, using One-way ANOVA method that there is a statistically significant difference between student satisfaction level of sponsor and anxiety and stress scores as the p value were (F=8.38, p=0.00) and (F=8.36, p=0.00) respectively. There was no statistically significant difference between satisfaction level of sponsor and depression (F=2.87, p=0.06).

Table 10.

Comparison of DAS mean scores of participants according to dwelling status

	Urban	Semi-Urban	Rural	F (p)
	m±sd	m±sd	m±sd	
Anxiety	10.93±8.73	13.00±8.50	12.30±7.78	1.48(0.23)
Depression	11.28±9.53	11.48±8.69	13.48±9.12	0.96(0.39)
Stress	14.74±9.25	13.80±8.53	17.80±9.32	2.40(0.10)

*$p \leq 0.05$ **$p < 0.001$

Table 10 indicates, using One-way ANOVA method that there is no statistically significant difference between dwelling status of participants and the three emotional states of depression, anxiety and stress with p values (F=1.48, p=0.39), (F=0.96, p =0.23) and (F=2.40, p=0.10) respectively. According to tukey analysis, there was not any statistical significant difference among the groups.

Table 11.

Comparison of DAS mean scores of participants according to effect of dwelling status on academic performance

	Agree	Disagree	Neutral	F (p)
	m±sd	m±sd	m±sd	
Anxiety	12.20±9.04	9.86±8.20	12.37±8.34	3.96(0.02)*
Depression	12.69±9.70	9.76±9.08	13.06±8.91	4.80(0.00)*
Stress	15.11±8.70	14.08±9.60	16.29±9.09	1.57(0.21)

*p ≤ 0.05   **p < 0.001

Table 11. Using One-way ANOVA method, there was a statistically significant difference between anxiety and depression scores and effect of dwelling status on academic performance of participants. The p values were (F=3.96, p=0.02), (F=4.80, p=0.00) for anxiety and depression respectively. Though for stress and academic performance there was no statistically significant difference as the (F=4.57, p=0.21).

Table 12.

Comparison of DAS mean scores of participants according to housing type

	Owner occupied m±sd	Dormitory m±sd	Rented m±sd	F (p)
Anxiety	11.88±8.19	11.11±8.42	11.37±8.97	0.19(0.82)
Depression	12.79±9.16	11.38±9.42	11.09±9.38	0.96(0.39)
Stress	17.32±9.40	14.93±8.78	13.90±9.12	3.99(0.01)*

$*p \leq 0.05$ $**p < 0.001$

Table 12. Using One-way ANOVA method, showed that there was no statistically significant difference between housing type at school and anxiety and depression scores as the p values were (F=0.19, p=0.82) and (F=0.96, p=0.39) respectively. But as for stress, it had a statistically significant difference with housing type while at school (F=3.99, p=0.01). According to tukey analysis, there was no statistical significant difference among the groups.

Table 13

Comparison of DAS mean scores of participants according to GPA

	3.00 & above	2.00-2.99	1.99 & below	F (p)
	m±sd	m±sd	m±sd	
Anxiety	9.01±7.65	12.39±8.70	15.30±8.86	10.57(0.00)*
Depression	8.97±8.36	12.79±9.72	15.45±8.83	10.04(0.00)*
Stress	12.27±8.92	16.51±8.10	18.32±8.47	10.87(0.00)*

*p ≤ 0.05   **p < 0.001

Table 13. Using One-way ANOVA method results show that there were statistically significant differences between students GPA and depression, anxiety and stress scores as the p value were; (F=10.04, p=0.00), (F=10.57, p=0.00), (F=10.87, p=0.00) respectively. Depression, anxiety and stress were predominantly highest among students with low GPA as compared to those with moderate and high GPA.

Table 14.

Comparison of DAS mean scores of participants according to perception of academic performance

	Good	Poor	Fair	F (p)
	m±sd	m±sd	m±sd	
Anxiety	10.10±8.20	16.22±9.65	12.30±8.30	9.945 (0.00)*
Depression	10.21±8.84	17.12±10.41	12.28±9.14	0.341(0.00)*
Stress	13.89±8.98	18.98±9.50	15.73±9.02	5.939 (0.00)*

*p ≤ 0.05   **p < 0.001

Table 14. Using One-way ANOVA method, there was a statistically significant difference between perception of academic performance and depression, anxiety and stress scores among participants. The p values were obtained as (F=9.94, p=0.00) for anxiety, (F=10.34, p=0.00) for depression and (F=5.93, p=0.00) for stress. Thus, students' perception on their academic performance has a relationship with their emotional states. Students who perceive their academic performance as poor have higher mean depression, anxiety and stress scores as compared to those who perceive it to be fair or good as seen in table 14 above.

Table 15.

Comparison of DAS mean scores of participants according to relationship with fellow students

	Good	Poor	Fair	F (p)
	m±sd	m±sd	m±sd	
Anxiety	10.16±8.26	15.32±10.07	13.30±8.10	8.740(0.00)*
Depression	9.88±8.62	16.84±11.76	14.16±8.76	13.997(0.00)*
Stress	13.80±8.10	19.05±10.10	16.56±9.02	7.155(0.00)*

*p ≤ 0.05   **p < 0.001

Table 15. One-way ANOVA method shows that there is a statistically significant difference between student's relationship with fellow students and depression, anxiety and stress scores. The p values were as follows, anxiety (F=8.74, p=0.00), depression (F=13.10, p=0.00) and stress (F=7.16, p=0.00). The mean scores of students who have a poor relationship with fellow students have higher mean anxiety, depression and stress scores as compared to those who have a better relationship.

Table 16.

Comparison of DAS mean scores of participants according to their ease in accomplishing class work

	Agree	Neutral	Disagree	F (p)
	m±sd	m±sd	m±sd	

Anxiety	10.68±8.46	11.57±8.09	16.12±10.01	5.90 (0.00)*
Depression	10.72±9.12	11.70±8.24	17.45±12.05	7.70 (0.00)*
Stress	14.14±9.10	15.07±8.50	20.33±10.21	6.73 (0.00)*

*p ≤ 0.05   **p < 0.001

Table 16. Using One-way ANOVA method, results show that there is a statistically significant difference between ease in accomplishing class work and depression, anxiety and stress scores of participants. The p values for depression, anxiety and stress are henceforth, (F=7.70, p=0.00), (F=5.90, p=0.00), and (F =6.73, p=0.00) correspondingly. This therefore shows that students, who find it hard to accomplish class work, have higher mean depression, anxiety and stress scores as compared to categories of students who find it easy and even those who are impartial.

Table 17.

Comparison of DAS mean scores of participants according to relationship status

	Boy/girlfriend	Married	Single	Engaged	Searching	Widow	F(p)
	m±sd	m±sd	m±sd	m±sd	m±sd	m±sd	
Anxiety	11.66±8.78	15.33±9.88	10.74±8.22	6.00±6.17	5.00±7.08	8.00	2.10(0.07)
Depression	11.86±9.96	15.37±10.71	11.05±8.63	5.17±6.61	3.00±0.00	8.00	1.96(0.09)

| Stress | 15.45±9.20 | 17.41±9.80 | 14.29±9.10 | 9.00±8.10 | 4.50±2.12 | 11.001.70(0.13) |

*p ≤ 0.05   **p < 0.001

Table 17. Using One-way ANOVA method, there was no statistically significant difference between relationship status and depression, anxiety and stress scores as the p values were (F=2.10, p=0.07), (F=1.96, p=0.09) and (F=1.70, p=0.13) respectively. According to tukey analysis, there was no any statistical significant difference among the groups.

Table 18.

Comparison of DAS mean scores of participants according to extracurricular activity

	Yes	No	F (p)
	m±sd	m±sd	
Anxiety	10.73±9.47	11.67±8.54	0.12 (0.72)
Depression	11.57±10.60	11.57±9.14	0.42 (0.51)
Stress	15.07±10.20	14.83±8.92	2.28 (0.13)

*p ≤ 0.05 **p < 0.001

Table 18. Using independent samples analysis, there was no statistically significant difference between extracurricular activity and depression, anxiety and stress mean scores. P values were, for depression (F=0.42, p=0.72), (F=0.12, p=0.51) and stress (F=2.28, p=0.13). According to tukey analysis, there was no statistical significant difference among the groups.

Table 19.

Comparison of DAS mean scores of participants according to parent's marital status

	Married m±sd	Separated m±sd	Divorced m±sd	Widowed	Never married	F(p)	m±sd	m±sd
Anxiety	10.97±8.65	12.65±8.23	13.81±7.89	12.38±8.61	16.00±9.91	1.40(0.23)		
Depression	11.22±9.50	13.94±8.58	13.93±8.92	8.50±6.70	14.13±7.80	1.18(0.32)		
Stress	14.87±9.73	14.65±7.59	17.44±8.87	10.50±7.08	14.63±7.77	0.978(0.41)		

*p ≤ 0.05 **p < 0.001

Table 19. Using One-way ANOVA method, there was no statistically significant difference between parent's marital status and depression, anxiety and stress scores. P values were, for depression (F=1.40, p=0.32), (F=1.18,

p=0.23) and stress (F=0.98, p=0.41). According to tukey analysis, there was no statistically significant difference among the groups.

Table 20.

Comparison of DAS mean scores of participants according to perception of their relationship with parent

	Pleasing	Neutral	Displeasing	F (P)
	m±sd	m±sd	m±sd	
Anxiety	10.83±8.38	12.34±8.87	17.33±9.60	5.36(0.00)*
Depression	10.97±9.13	12.48±9.88	17.17±9.30	4.16(0.01)*
Stress	14.70±9.09	15.48±9.56	17.78±9.60	1.06(0.34)

*p ≤ 0.05   **p < 0.001

Table 20. Using One-way ANOVA method, it was revealed that there is a statistically significant difference between student's relationship with the parent and anxiety and depression scores. The p values were obtained as follows; anxiety (F=5.36, p=0.00) and (F=4.16, p=0.01) for depression. And, there was no statistically significant relationship between student's relationship with the parent and stress scores (F=1.06, p=0.34).

Table 21.

Comparison of DAS mean scores of participants according to father's education

	Illiterate m±sd	Elementary m±sd	High school	University & above	F (p)	m±sd	m±sd
Anxiety	13.11±11.92	11.73±8.69	11.15±7.48	11.34±9.18	0.20(0.90)		
Depression	13.56±11.57	12.00±9.56	11.76±8.34	11.11±9.86	0.33(0.80)		
Stress	14.22±11.61	14.22±11.61	15.19±7.88	14.55±9.89	0.30(0.83)		

*p ≤ 0.05   **p < 0.001

Table 21. Using One-way ANOVA method, there was no statistically significant difference between father's education and depression, anxiety and stress scores. Anxiety (F=0.20, p=0.90), depression (F=0.33, p=0.80), stress (F=0.30, p=0.83). According to tukey analysis, there was no statistical significant difference among the groups.

Table 22.

Comparison of DAS mean scores of participants according to mother's education

	Illiterate m±sd	Elementary above m±sd	High school	University &	F (p)	m±sd	m±sd
Anxiety	12.64±10.29	12.21±8.31	11.00±8.49	10.81±8.68	0.74(0.52)		
Depression	13.14±10.88	12.75±9.12	10.70±9.58	10.95±9.06	1.27(0.29) Stress		
15.00±9.87	16.30±9.13	15.05±9.28	13.75±8.93	1.53(0.20)			

*p ≤ 0.05   **p < 0.001

Table 22. Using One-way ANOVA method, an amazing result was found and there was no statistically significant difference between mother's education and depression, anxiety and stress scores of participants. Anxiety (F=0.74, p=0.52), Depression (F=1.27, p=0.29), and stress (F=1.53, p=0.20). According to tukey analysis, there was no statistical significant difference among the groups.

Table 23.

Comparison of DAS mean scores of participants according to parent's/guardian's monthly income status

	High	Moderate	Low	F (p)
	m±sd	m±sd	m±sd	
Anxiety	11.15±8.76	10.69±8.11	17.34±9.66	8.90(0.00)*
Depression	11.16±9.54	10.92±8.99	17.63±9.88	7.630(0.00)*
Stress	15.04±9.50	14.50±9.03	18.53±8.90	2.77(0.07)

*p ≤ 0.05   **p < 0.001

Table 23. Using One-way ANOVA method, the results show that there was a statistically significant difference between parents/guardian's monthly income and anxiety and depression scores as the p values were (F=8.90, p=0.00) and (F=7.63, p=0.00) respectively. Though there was no statistically significant relationship between parents/guardian's monthly income and stress scores with (F=2.77, p=0.07).

CHAPTER V

5.1 DISCUSSION

The purpose of this study was to establish the relationship between depression, anxiety, stress and academic performance among University students.

The present study found that students with low GPA have high levels of depression, anxiety and stress. Also implying that the lower the GPA the higher the depression, anxiety and stress and the higher the GPA the lower the depression, anxiety and stress among University students. This finding was consistent with previous studies. It was found that, there was a significant relationship between academic performance and depression, anxiety and stress (Aris et al 2011).

Many studies' results showed that there was a relationship between depression and academic performance (Kugbey 2015; Sokratous et al 2014 Jihan and colleagues 2012; Stapleton & Brunetti 2013; Bryan et al 2014). Previous studies thus support the hypothesis that stated that academic performance among university students has a statistically significant relationship with depression. However, a study in Pakistan is inconsistent with the current study as there was no effect of depression on student's academic performance (Khurshid et al 2015).

Previous studies indicated a significant association between anxiety and academic performance. That's studies carried out by (Singh 2015; Nadeem 2012; Yeh et al 2007; Farooqi et al 2012; Numan and Hasan 2017; and Bahri et al 2013). Therefore, it has been noted that previous studies support the hypothesis which stated that academic performance among university students has a statistically significant relationship with anxiety as indicated above. However, one previous study is in contradiction with the current study by Shibli (2012) which indicated that there was significant association between anxiety and academic achievement. Generally, there is a significant association between anxiety and academic achievement.

And also for stress, a previous study concurs with the findings of the present study. It was found that there was a statistically significant difference between students GPA and stress. A significant relationship was evident between academic performance and stress, in other words the higher the level of stress the lower will be the academic performance (Sohail 2013). A previous study supported the hypothesis that stated that academic performance among university students has a statistically significant relationship with stress. However, some of the previous studies are not in agreement with these results. A minor relationship between stress and academic performance of students was evident (Farhan & Khan 2015). Another study, found that there was an insignificant relationship between stress and academic performance. In other words, however much stress is a negative aspect, to some they

are in a better situation when it is present as it enables them to attain better academic performance (Harlina et al 2014). Another study however, revealed that no stress factors significantly affected the academic performance of students (Kamarudin et al 2009). So, according to all the previous studies pertaining to stress and academic performance, it can be concluded that stress affects students differently. Since it was evident that some students will have poor academic performance as a result, to some it affects them insignificantly , to some it motivates them to do better and to some it does not affect them in any way.

The present study revealed a statistically significant difference between nationality and stress scores. There were more participants with higher mean stress scores as compared to depression and anxiety but Cypriots had the highest mean scores for all the three mental disorders. Students from Cyprus having the highest mean stress scores than students from other nationalities leave room for more questions to be answered. As it is believed that since they are near their parents and relatives, are expected to be getting all the requisite psychological support or advice needed. In a Malaysian study, non-Malay students had lower depression symptoms as compared Malay students. They also had lower anxiety symptoms than Malay students (Bahri et al 2013). Therefore, the hypothesis that stated that depression, anxiety and stress are more prevalent among international students than Cypriot and Turkish students was thus rejected. Though for the case of a Malaysian study it was depression that was higher and not stress as is the case for the current study, so we can then conclude that native students tend to have at least one of the mental disorders as compared to students from other countries or international students.

The current findings revealed a statistically significant difference between GPA/CGPA and nationality of participants. International students obtained higher GPA/CGPA than Cypriots and Turkish students. Most probably because, they are motivated to work harder in fear of travelling back to their home countries with low grades which might prove to be a big disappointment to their parents or sponsors. Also because international students travel abroad to another country with the aim of getting better education. Therefore, they make sure that they do better in terms of their GPA/CGPA, which may not be the case with Cypriot and Turkish students. The null hypothesis that mentions that there is no significant difference between nationality and academic performance of university students was thus rejected as per the current study results.

The current study also found that there was a significant difference between males and females anxiety and depression scores. The study showed males with higher mean anxiety and depression scores than females. Therefore, the current study is consistent with a study that was carried out by (Kugbey 2015) which showed that male students experienced statistically significant higher levels of depression, anxiety and stress than female students. Yet another study was not consistent with the current study as there was no gender difference in depression, stress and anxiety between male and female students (Ghaderi 2009). In a study among Kenyan University students, more females had depressive symptoms compared to males but the difference was not statistically significant (Othieno 2014). In another study it was also found out that anxiety among females is higher than males, while the depression is higher among males than females (Al-Qaisy 2011). Students showed higher level of anxiety among females as compared to males (Singh 2015). Also, clinical depressive symptoms were higher

among female students (Sokratous et al 2014). There was a statistically significant relationship between stress and gender, stress was more among females than males (Shamsuddin 2013).

A statistically significant difference between year of study and depression scores of participants was found. Depression was more among fourth year students as compared to other years. This is so most probably because they are in their final year of study as it is the case for most of the courses/programmes and thus they are striving to ensure that they attain a better GPA than ever before which can in turn improve their academic performance. And also because the future is uncertain in terms of their career, implying that some of them may not be sure about getting their dream job, some are not sure whether they will go for further education soon after their undergraduate degree and so on and so forth. And this is so true in the case of students who are from the developing world. So, these and more factors are thought to trigger depression among final/fourth year students. Previous studies revealed contrary findings as compared to the current study though. A study carried out in Kenya revealed that depression levels were recorded with the highest levels among first year students followed by those in the third year (Othieno 2014). In as far as depression and year of study are concerned; a study by Sokratous et al (2014) revealed no statistically significant difference.

A statistically significant difference between stress and housing type while at school was found. International students who resided in rented houses had higher mean stress scores as compared to Cypriot and Turkish students.

A statistically significant difference was found between student's relationship with fellow course mates and depression, anxiety and stress scores. Students with poor relationship had higher mean depression, anxiety and stress scores as compared to those with either fair or good relationship.

There was a statistically significant difference between ease in accomplishing class work and depression, anxiety and stress scores of participants. Students, who found it hard to accomplish class work, had higher mean depression, anxiety and stress scores than those who find it easy.

There was a statistically significant difference between student's relationship with the parent and anxiety scores. Students, who pointed out that their relationship with their parent is displeasing, had higher mean anxiety scores as compared to other groups.

There was a statistically significant difference between parents/guardian's monthly income and anxiety and depression mean scores. Students whose parents had low monthly income had higher mean anxiety and higher mean depression scores as compared to the other groups.

Amazingly enough however, thought-provoking results were also found. First and foremost is that as per the current study, there was no statistically significant difference found between mother's education level and students' emotional states i.e. depression, anxiety and stress. Although, it is well known that mother's education plays a big role in the wellbeing or emotional stability of her off-spring(s) and in this case the student(s). But as for one previous

study, contrary findings were found where students whose mothers attained tertiary level of education had low anxiety as compared to those whose mothers attained below the same level of education (Saiful Bahri et al 2013).

Further still, there was no statistically significant difference between parent's/guardians marital status and depression, anxiety and stress. This kind of result is surprising because realistically, for a student whose parents divorced or separated is expected to be experiencing trauma of some kind and to also have missed a father figure and/or mother's care and love which eventually destabilises his/her psychological emotions. This is however contrary to what the researcher had predicted.

Also, there was no statistically significant difference between extracurricular activity and depression anxiety and stress. Yet it is well known that for example students who do not participate in any extracurricular activity tend to have mood swings thus anxiety depression and stress are the exact emotions that characterise this category of students. However, this result was also in contradiction to what the researcher expected.

There was no statistically significant difference between support provided by the guardian/caretaker and depression, anxiety and stress scores of participants. Support is something that is basic and paramount in the wellbeing as well as functioning of a student. Then, one wonders how all the groups turn out to be the same in terms of depression anxiety, stress and support provided by the guardian/caretaker. This is also in contradiction to what the researcher had anticipated.

There was no statistically significant difference between dwelling status of participants and the three emotional states of depression, anxiety and stress. Yet in most cases, students who reside in rural areas tend to have depression or anxiety or stress or all the three emotional states.

Lastly, there was no statistically significant difference between student's relationship status and depression, anxiety and stress. For example, girl/boyfriend relationships since there is no oath observed and in some cases might be conducted without the approval of parents, they tend to suffer or encounter conflicts and misunderstandings between the parties involved and as such destabilise their psychological emotions. This is also contrary to what the researcher expected.

It can thus be concluded that, given these unexpected revelations, students might have been biased or intended to present themselves in a favourable light.

This study encountered a number of limitations. Being a cross-sectional study, the researcher was limited to get to a point of generalising the findings as it would not be truly representative of the entire population at Near East University. There was no assessment or input of the psychologist in as far as the emotional states of respondents were concerned. Therefore, the findings of this study might not be absolutely relied on as the responses were entirely the views of respondents and thus might not escape biases. And also, some participants might have opted to present themselves in a favourable light. There were considerably more participants who are from turkey as

compared to the other two groups that is the Cypriots and international students. In other words, the three groups of participants were not proportional and this could have affected the results in some way.

5.2 CONCLUSION

In conclusion, depression, anxiety and stress greatly affect the academic performance of university students. Sociodemographic factors also trigger depression, anxiety and stress which in turn lessen students' academic performance. Therefore, approaches or interventions towards helping students deal with or keep the above mental disorders in check should be intensified by University authorities. Since, it is predicted that once these mental disorders are minimised, students can be able to sail much easier through their academic career.

First and foremost, the researcher recommends that longitudinal studies be utilised for future researchers/studies so as to ensure an in-depth or comprehensive study as well as obtaining well-grounded results and as such include students from all departments at Near East University. Longitudinal studies will also enable the results to be generalised and relied on as they take longer time frame than cross-sectional studies. Now that it has become apparent that depression, anxiety and stress are threats to the academic performance of students, University authorities should therefore consider increasing resources in the counselling centre so that they can extensively render psychological support or counselling adequately and timely to the entire Near East University students' population. Related studies should be carried out pertaining to depression, anxiety and stress among university students as there is not enough of the similar kind that have been carried out in Cyprus. This will also help to reaffirm the current findings or discover new revelations on the same idea and more especially on the surprising or amazing results. Future researchers are also recommended to include more socio-demographic characteristics as the current study was not that exhaustive to really include all of them, of which are also thought to have associations or relationships with students' emotional states as well as their academic performance. The researcher also recommends that other factors like weather conditions, skin color, feeding arrangement, political state in native country should be considered for future studies and find out their link with depression, anxiety and stress and academic performance of University students.

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WHO REPORT 2017.

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APPENDICES

Appendix I: YOUTH SURVEY FORM (English version)

This questionnaire is part of the study carried out among young people in the TRNC.

This is an anonymous questionnaire – it will not include your name or any other information which would identify you individually.

The questionnaire is designed for scientific purposes. It is important that you answer each question thoughtfully and frankly so that the results of the information gathered can be used for the good of the society.

If there is any question you do not want to answer, please just leave it blank.

This is not a test. There are no right or wrong answers. You can think of each of your answers as a vote.

If you give wrong or misleading answers, all the efforts made in this study will be in vain.

The questionnaires will be collected randomly and without any identifying features and the envelopes will not be opened till taken to the evaluation centre. Data analysis will be strictly confidential.

Thank you for your contribution to the study.

Section I: Demographic Information/ data about the student

1. What is your age? ……………………..

2. What is your year of study?

a. First year   b. Second year c. Third year d. Fourth year e. Others, specify…………………….

3. What is your gender?

a. Male   b. Female

4. What is your nationality?

a. Cypriot   b. Turkish   c. Nigerian   e. Syrian   f. Libyan

d. Zimbabwean   g. Others specify: ----------------------------

5. What is your social group?

a. Black   b. White   c. Asian   d. Arabian   e. Latino   f. Others,   specify……………………..

6. What is your department?..

7. Who takes care of you or guardianship/caretaker?

a. Both parents (mother and father)   b. Single parent, specify   c. Grandparent

d. Sibling   e. Self   f. Husband

8. What is your perception of the support given to you by your caretaker/guardian?

a. Satisfactory   b. Unsatisfactory   c. Neutral

9. Who is your sponsor at University?

a. The government/the state   b. My parent(s)   c. Both the government/state and my parent(s)

d. My grandparent(s)   e. My sibling(s)   f. Myself   g. Others, specify ………………………….

10. I am satisfied with my sponsor.

a. Agree   b. Disagree   c. Neutral

11. What is your dwelling status in your native country?

a. Urban   b. Semi-Urban   c. Rural/village

12. The dwelling status in my native country has a negative impact on my academic performance?

a. Agree   b. Disagree   c. Neutral

13. What is your housing type while at school?

a. Owner occupied   b. Dormitory   c. Rented house   d. Others, specify…………………………

14. What is your CGPA/GPA?

a. 3.00 and above   b. 2.00-2.99   c. 1.99 and below

15. How do you perceive your academic performance at University?

a. Good   b. Poor   c. Fair

16. What is your relationship with your fellow students in class?

a. Good   c. Poor   d. Fair

17. I find it easy to accomplish/finish class work.

a. Agree   c. Disagree   d. Neutral

18. What is your relationship status?

a. In a relationship (boyfriend/girlfriend)   b. Married   c. Others,
specify…………………………………………..

19. Do you participate in any extracurricular activity?

a. Yes   b. No

Section II (Demographic information of caretaker/guardian)

1. What is your parents' marital status?

a. Married   b. Separated   c. Divorced   d. Widowed   e. Never married

2. Perception about your relationship with your parents?

a. Pleasing   c. Displeasing d. Neutral

3. What is your Father's education level?

a. Illiterate   b. Elementary level   c. High school   d. University and above

4. What is your Mother's education level?

a. Illiterate   b. Elementary level   c. High school   d. University and above

5. What is your parents' or guardian's monthly income status?

a. High   b. Moderate   c. Low

Section III DASS

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1	I found myself getting upset by quite trivial things	0 1 2 3
2	I was aware of dryness of my mouth	0 1 2 3
3	I couldn't seem to experience any positive feeling at all	0 1 2 3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0 1 2 3
5	I just couldn't seem to get going	0 1 2 3
6	I tended to over-react to situations	0 1 2 3
7	I had a feeling of shakiness (eg, legs going to give way)	0 1 2 3
8	I found it difficult to relax	0 1 2 3
9	I found myself in situations that made me so anxious I was most relieved when they ended	0 1 2 3
10	I felt that I had nothing to look forward to	0 1 2 3
11	I found myself getting upset rather easily	0 1 2 3
12	I felt that I was using a lot of nervous energy	0 1 2 3
13	I felt sad and depressed	0 1 2 3
14	I found myself getting impatient when I was delayed in any way (eg, lifts, traffic lights, being kept waiting)	0 1 2 3
15	I had a feeling of faintness	0 1 2 3

16	I felt that I had lost interest in just about everything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life wasn't worthwhile	0	1	2	3
22	I found it hard to wind down	0	1	2	3
23	I had difficulty in swallowing	0	1	2	3
24	I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	I felt down-hearted and blue	0	1	2	3
27	I found that I was very irritable	0	1	2	3
28	I felt I was close to panic	0	1	2	3
29	I found it hard to calm down after something upset me	0	1	2	3
30	I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	I was unable to become enthusiastic about anything	0	1	2	3
32	I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	I was in a state of nervous tension	0	1	2	3

34	I felt I was pretty worthless	0	1	2	3
35	I was intolerant of anything that kept me from getting on				
	With what I was doing	0	1	2	3
36	I felt terrified	0	1	2	3
37	I could see nothing in the future to be hopeful about	0	1	2	3
38	I felt that life was meaningless	0	1	2	3
39	I found myself getting agitated	0	1	2	3
40	I was worried about situations in which I might panic and				
	Make a fool of myself	0	1	2	3
41	I experienced trembling (eg, in the hands)	0	1	2	3
42	I found it difficult to work up the initiative to do things	0	1	2	3

Appendix 2: GENÇLİK ANKET FORMU

Bu anket KKTC'de gençler arasında yürütülen çalışmanın bir parçasıdır.

Bu anonim bir ankettir. Adınızı veya bireysel olarak sizi tanımlayabilecek diğer bilgileri içermez.

Anket bilimsel amaçlarla tasarlanmıştır. Toplanan bilgilerin sonuçları toplumun iyiliği için kullanılacaktır. Her soruya açıkçası düşüncerek cevap vermek önemlidir. Cevap vermek istemediğiniz bir soru varsa, sadece boş bırakın. Bu bir test değil. Doğru ya da yanlış cevap yoktur. Her cevabı bir oy olarak düşünebiliriz. Yanlış veya yanıltıcı cevaplar verirseniz, bu çalışmada yapılan tüm çabalar boşa gidecek. Anketler rastgele ve herhangi bir

tanımlama özellikleri olmadan toplanacak ve değerlendirme merkezine götürülene kadar zarflar açık olmayacaktır. Veri analizi kesinlikle gizli olacak.

Çalışmamıza verdiğiniz katkılardan dolayı teşekkür ederiz.

Bölüm I: Demografik Bilgiler

1. Yaşınız nedir?. ………………..

2. Kaçıncı sınıftasınız?

a. İlk yıl b. İkinci yıl c. Üçüncü yıl d. Dördüncü yıl e. Diğerleri, belirtin……………

3. Cinsiyetin nedir?

a. Erkek   b. Kadın

4. Uyruğunuz nedir?

a. Kıbrıslı b. Türk c. Nijeryalı d. Suriyeli e. Libyan f. Zimbabwe g. Diğerleri, belirtin:…

5. Sosyal grubun ne ?

a. Siyah b. Beyaz c. Asya d. Arap e. Latin f. Diğerleri, belirtin…………………………

6. Bölümün nedir? ....

7. Bakımından kim sorumludur?

a. Her iki ebeveyn (anne ve baba) b. Tek ebeveyn, c. Büyük ebeveyn d. Kardeş e. Öz f. Koca

8. Size bakmaktan sorumlu kişi/ebeveyn tarafından size verilen desteğe sizin algınız nedir?

a. Tatmin edici   b. Yetersiz   c. Nötr

9. Üniversitenizde sponsorunuz kim?

a. Hükümet / Devlet   b. Benim ebeveyn (ler)   c. Hükümet / Devlet ve benim ebeveyn (ler)   d. Benim büyükbaba (ler)   e. Benim kardeş (ler)   f. Ben   g. Diğerleri, belirtin

10. Sponsorumdan memnunum?

a. Katılıyorum.   b Katılmıyorum.   c. Kötr

11. Ülkenizde nerede yaşıyorsunuz?

a. Kentsel   b. Yarı Kent,   c. Kırsal / Köy

12. Konut durumunun, akademik performansınız üzerinde olumsuz bir etkisi vardır.

a. Katılıyorum.   b. Katılmıyorum   c. Nötr

13. Konut tipi okulda iken nedir?

a.Oturduğu yerin sahibi   b. Yurt   c. Kiralanmiş ev   d. Diğerleri, belirtin……….

14. GPA/CGPA ne?

a. 3,00 ve üzeri   2,00-2,99   c. 1,99 ve altında

15.Akademik performansınızı nasıl değerlendirirsiniz?

a. İyi   b. Kötü   c. Adil

16. Sınıfta diğer öğrenciler ile ilişkiniz nasıldır?

a. İyi   b. Kötü   c. Adil

17. Bu sınıfı bitirince kolay iş bulabilirsiniz.

a. Katılıyorum.   b. Katılmıyorum   c. Nötr

18. İlişki durumun nedir?

a. Bir ilişki (erkek / kız)   b. Evli,   c. Diğerleri, belirtin....................................

19. Eğer herhangi bir ders dışı aktiviteye katılıyorsanız belirtirmisiniz?...........................

Bölüm II (Bakmakla yükümlü kişi/ Ebeveyn Demografik Bilgiler)

1. Ailenin medeni durumu nedir?

a. Evli   b. Boşanmış c. Dul   d. Hiç evlenmedi

2. Anne ile ilişkiniz hakkında Algınız?

a. Hoş   b. Nahoş   c. Nötr

3. Babanın eğitim düzeyi nedir?

a. Okur yazarlığı yok   b. Başlangıç seviyesi,   c. Lise ö   d. Üniversite ve üstü

4. Annenin eğitim düzeyi nedir?

a. Okur yazarlığı yok   b. Başlangıç seviyesi,   c. Lise ö   d. Üniversite ve üstü

5. Ailen ya da üyelerinin aylık gelir durumu nedir?

a. Yüksek   b. Orta   c. Düşük

Bölüm III: Türk DASS

Lütfen her bir ifadeyi bugün dâhil son bir haftayı dikkate alarak size ne kadar uygun olduğuna göre işaretleyiniz. Her sorunun karşısında bulunan; 0 bana hiç uygun değil, 1 bana biraz uygun, 2 bana genellikle uygun ve 3 bana tamamen uygun anlamına gelmektedir.

1	Oldukça önemsiz şeylerden dolayı keyfim kaçtı.	0	1	2	3
2	Ağzımın kuruduğunu fark ettim.	0	1	2	3
3	Hiç olumlu duygu yaşamadım.	0	1	2	3
4	Nefes alıp vermede güçlük yaşadım (örneğin; fiziksel egzersiz yapmamama rağmen çok hızlı nefes alma veya nefes alamama)	0	1	2	3
5	Hiçbir işime başlayamadım.	0	1	2	3
6	Olaylara gereğinden fazla tepki gösterdim.	0	1	2	3
7	Kendimi takatsiz hissettim (örneğin; bacakların				

	tutmaması)	0	1	2	3
8	Rahatlamakta güçlük yaşadım.	0	1	2	3
9	Beni sıkıntıya sokan öyle zamanlar oldu ki, onlar bitince kendimi rahat hissettim.	0	1	2	3
10	Beklediğim veya umduğum hiçbir şey olmadığını hissettim.	0	1	2	3
11	Keyfimin çok kolay kaçtığını hissettim.	0	1	2	3
12	Çok fazla sinirsel enerji kullandığımı hissettim.	0	1	2	3
13	Kendimi üzgün ve karamsar hissettim.	0	1	2	3
14	Herhangi bir nedenden (örneğin; asansör veya trafik ışığında bekletilme) dolayı geciktirildiğimde sabırsızlandığımı hissettim.	0	1	2	3
15	Kendimi yorgun ve zayıf hissettim.	0	1	2	3
16	Neredeyse her şeye olan ilgimin kaybettiğimi hissettim.	0	1	2	3
17	Bir insan olarak değerli olmadığımı hissettim.	0	1	2	3
18	Oldukça hassas ve alıngan olduğumu hissettim.	0	1	2	3
19	Herhangi bir fiziksel çaba harcamama veya fazla sıcak olmamasına rağmen yoğun biçimde terledim (örneğin; ellerin terlemesi)	0	1	2	3
20	Herhangi bir neden olmamasına rağmen korktuğumu hissettim.	0	1	2	3
21	Hayatın değerli olmadığını hissettim.	0	1	2	3
22	Gevşemekte zorlandım.	0	1	2	3
23	Yutkunmakta güçlük yaşadım.	0	1	2	3

24	Yaptığım hiçbir şeyden zevk almadığımı fark ettim.	0	1	2	3
25	Herhangi bir fiziksel çaba harcamadığım halde kalbimin hareketlerini fark ettim (örneğin; kalp atışlarımın hızlanması veya düzensizleşmesi)	0	1	2	3
26	Kendimi perişan ve kederli hissettim.	0	1	2	3
27	Çabuk hırçınlaştığımı fark ettim.	0	1	2	3
28	Kolayca paniğe kapıldığımı hissettim.	0	1	2	3
29	Beni gerginleştiren herhangi bir şeyden sonra rahatlamakta güçlük yaşadığımı fark ettim.	0	1	2	3
30	Basit fakat alışılmadık şeylerin üstesinden gelemeyeceğim diye kaygılandım.	0	1	2	3
31	Herhangi bir şeyi yapmak için heyecanlı ve coşkulu olamadım	0	1	2	3
32	Yaptığım işin bölünmesine tahammül edemediğimi fark ettim.	0	1	2	3
33	Gergin bir durumdaydım.	0	1	2	3
34	Oldukça değersiz olduğumu hissettim.	0	1	2	3
35	Yaptığım işe engel olan hiçbir şeye tolerans gösteremedim.	0	1	2	3
36	Dehşete kapıldığımı hissettim.	0	1	2	3
37	Gelecekte ümit verici hiçbir şey göremedim.	0	1	2	3
38	Yaşamın anlamsız olduğu hissine kapıldım.	0	1	2	3
39	Kışkırtılmaya uygun olduğumu hissettim.	0	1	2	3
40	Gülünç duruma düşme ve paniğe kapılma riski olan durumlardan dolayı endişelendim.	0	1	2	3

| 41 | Vücudumun titrediğimi hissettim (örneğin; ellerimin titremesi) | 0 | 1 | 2 | 3 |
| 42 | Yapacağım şeylere başlamakta güçlük yaşadım. | 0 | 1 | 2 | 3 |

Appendix 3 CV

Fatuma Habiibu Nakiwala. Born on 18th Feb, 1983. A Ugandan by nationality. I did Social work and social administration (SWASA) for my undergraduate program from Islamic University in Uganda – Kampala Campus from 2004 – 2007. I researched about: An analysis of late marriages in Makindye division. I worked as an Administrative secretary with Uganda Muslim Teachers' association from 2008 – 2009. Currently, I work as a teaching assistant at Islamic University in Uganda from 2009 – November 2015. I joined Near East University on 23rd Nov, 2015 in the department of General Psychology to Jan, 2018.

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