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DETERMINING THE STRESS AND ANXIETY LEVELS OF NURSING STUDENTS

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NEAR EAST UNIVERSITY

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DEPARTMENT OF NURSING

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Approval

We certify that we have read the thesis submitted by **SANDRA CHIKWANA** titled **"DETERMINING THE STRESS AND ANXIETY LEVELS OF NURSING STUDENTS"** and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Educational Sciences.

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Declaration

I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

SANDRA CHIKWANA

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Above all l thank God for guiding me, protecting me throughout, Great is Thy Faithfulness.

Sandra Chikwana

Abstract

Determining The Stress And Anxiety Levels Of Nursing Students

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Purpose: The aim of this study is to determine the stress and anxiety levels of undergraduate nursing students.

Materials and Methods:A descriptive study was conducted using self-administered questionnaire in relation to stress and anxiety levels in nursing students to 223 International nursing students at Near East University in TRNC, studying in English. Data was collected using an online google questionnaire, a Gad-7 Scale and Perceived Stress Scale,during the period of December 2022 and January 2023.The average scores were determined by adding the sum of the scores for each item.Statistical Package of Social Sciences (SPSS) 25.0 was used for analysing and evaluating numbers(n), mean, median, standard deviation and percentages.

Results: Overall 223 students (182(81.6%) females and(41(18.4%) males took part in the study. Mann-Whitney and Kruskal Wallis tests was used to compare Gad-7 and PS scale with socio-demographic characteristics. The majority of the students (80%) reported experiencing moderate stress, as measured by a mean perceived stress scale score of 22.00 and a median of 21.0, 93% reported experiencing mild anxiety, as measured by a mean of 7.43 and a median of 6.0. Senior nursing students reported feeling more anxious than freshmen. Students in their first and final years reported higher stress levels than in the other years. The findings of Pearson correlation revealed a positive correlation between perceived stress and anxiety with coefficients of ($r = 0.243$, $p = 0.000$).

Conclusion: Students' stress and anxiety sensations are needed to strengthen the mechanisms of coping against situations. This will help to alleviate stress and anxiety and create a suitable learning environment in the classroom.

Key Words:Stress, Anxiety, Nursing Students

Özet

Hemşirelik Öğrencilerinin Stres ve Kaygı Düzeylerinin Belirlenmesi

Sandra Chikwana

Hemşirelik

Haziran 2023

Amaç: Bu çalışmanın amacı hemşirelik lisans öğrencilerinin stres ve kaygı düzeylerini belirlemektir.

Gereç ve Yöntem: Araştırma, Yakın Doğu Üniversitesi Hemşirelik Fakültesinde öğrencilerinin stres ve kaygı düzeylerinin belirlemesi amacı ile tanımlayıcı olarak yapılmıştır. Araştırmanın evreni, Kuzey Kıbrıs Türk Cumhuriyeti Yakın Doğu Üniversitesi Fakültesi Hemşirelik Bölümün de 2022-2023 Eğitim– Öğretim yılında eğitim gören toplam 320 öğrenciden oluşmuştur. Örneklem seçimine gidilmemiş ve araştırmaya gönüllü olarak katılmayı kabul eden tüm öğrenciler (N=223) örneklem kapsamına alınmıştır. Veriler, Aralık 2022 ve Ocak 2023 tarihleri arasında çevrimiçi olarak, Gad-7 Ölçeği ve Algılanan Stres Ölçeği kullanılarak toplanmıştır. Ortalama puanlar, her bir madde için puanların toplanmasıyla belirlenmiştir. Sosyal Bilimler İstatistik Paketi Sayı(n), ortalama, ortanca, standart sapma ve yüzdelerin analizi ve değerlendirilmesi için (SPSS) 25.0 programı kullanılmıştır.

Bulgular: Çalışmaya toplam 223 öğrenci (182) kız ve (41) erkek katılmıştır. Gad-7 ve PS ölçeğinin sosyo-demografik özelliklerle karşılaştırılmasında Mann-Whitney ve Kruskal Wallis testi kullanılmıştır. öğrencilerin çoğunluğu (%80), ortalama algılanan stres ölçeği puanı 22.00 ve medyan 21.0 ile ölçüldüğü üzere orta düzeyde stres yaşadığını bildirdi; %93'ü, ortalama 7.43 ve medyan 6.0 ile ölçüldüğü üzere hafif düzeyde kaygı yaşadığını bildirdi. Son sınıf hemşirelik öğrencileri birinci sınıf öğrencilerine göre daha kaygı hissettiklerini bildirmişlerdir. İlk ve son sınıftaki öğrenciler diğer yıllara göre daha yüksek stres seviyeleri belirlenmiştir. Pearson korelasyon bulguları, algılanan stres ve kaygı arasında ($r = 0.243$, p) katsayılarıyla pozitif bir ilişki olduğunu bulunmuştur.

Sonuç: Öğrencilerin Stres ve Kaygı hisetikleri durumlara karşı başa çıkma mekanizmalarının güçlendirmeye ihtiyaç vardır. Bu, stresi ve kaygıyı hafifletmeye ve sınıfta elverişli bir öğrenme ortamı yaratmaya yardımcı olacaktır.

Anahtar Kelimeler: Stres, Anksiyete, Hemşirelik Öğrencileri

Table of Contents

CHAPTER IV

CHAPTER V

CHAPTER VI

List of Tables

List of Abbreviations

TRNC:	Turkish Republic of North Cyprus
MNE:	Ministry of National Education
PSS:	Perceived Stress Scale
GAD- 7	Generalized Anxiety Disorder

CHAPTER I

Introduction

Stress is a multifaceted concept that dwells on changes in interaction between people and their surroundings. Even while a certain amount of stress is important to inspire and push people to reach their goals, if stress persists for long can impair concentration, problem-solving, decision-making, and other skills that are crucial for students' learning (Rathnayake and Ekanayaka, 2016). Despite extensive research concerning stress and anxiety, it remains a major concern among nursing students globally, it has increased in developing and wealthy nations and is one of the biggest problems in the world affecting the health sector particularly stress in nursing practice, mainly in universities(Pulido-Criollo, et al., 2018 ; Sanad, 2019).states that it is a result of expectations that surpass students capabilities, which affects their abilities to adapt, think, and feel.

Many different elements that contribute to stress and anxiety among nursing students in the clinical training and academic setting have been discussed in the literature. One of the key elements that contributes to anxiety and stress is the initial clinical encounter(Jimenez, et al., 2010). The fear of making errors when conducting clinical techniques, department assessments, a limitation of nursing staff assistance, and the discrepancy between what is learnt in class and what is implemented in the clinical facility are other factors(Stevens, et al., 2019 ; Wu,et al., 2021). Studies conducted show that stress and anxiety in nursing students is due to academic, clinical and personal pressures (Onieva-Zafra, et al., 2020; Pulido-Martos, et al., 2011). Academic issues dealing with classroom learning, clinical pertaining to hospital practice and personal pressures involving personal matters.

Watson, et al., (2009) research discovered that stress increased as the level of training advanced however, in some cases Onieva-Zafra, et al., (2020) noted that stress declined according to years of education. Stress in the classroom has been linked to anxiety and inadequate coping mechanisms, which has been affecting nursing students' academic performance. Stress can also impair nursing students' capacity to understand clinical requirements, engage with patients, and fulfilling learning objectives(Sanad, 2019). The process of learning and teaching requires that pupils adjust to ongoing societal changes, like the development of technology and

knowledge of human (Kurebayashi, et al., 2012). This has to be done in a way that does not increase stress and anxiety that is already present in students.

Statement of the Problem

Skilled employment with major physical and mental demands and little personal liberty have been investigated extensively and recognized as having high levels of occupational stress. A good illustration of a job with high stress levels is nursing, which requires nurses to often communicate with other experts in order to do their duties (Decker & Shellenbarger, 2012). Nursing students work together with nursing staff to care for patients and their families. The reaction to stress takes place whether the stressor is bodily, mental, or a combination of the two. Personal responses to stress are the result of past experiences rather than unique occurrences. As student nurses are faced with a variety of difficult situations during their academic career, the stress response is comprehensively influenced by the continuous interaction of defence mechanisms, character, and support networks(Jimenez, et al., 2010). Early studies classified stress symptoms into three groups. Physical reaction symptoms predominated, raising worries about an elevated heart rate, hypertension, migraines, and gastritis(Behere, et al., 2011). Mental signs of anxiety were identified as a lack of regard for oneself, and rage. In students who used less coping techniques, smoking, drinking, weight fluctuations, and substance usage were manifested in their behaviour (Timmins, et al., 2011). Nursing student stress was primarily characterized by Gibbons, et al., (2008, 2009a) as psychological stress, such as handling a dying patient and the mourning family.

Experiences with role clarity, uncertainty, and overload were all identified as sources of conflict(Raymond and Sheppard, (2017). Tests are the most frequent source of stress for students in academic settings (Gibbons, et al. 2008; Shaban, et al., 2012) noted that especially time for examinations was an another important worry, particularly for female pupils who had kids. Additional stressors mentioned included disagreements with doctors and poor patient and family emotional preparedness, issues with supervisors as well as challenging peer interactions(Wu, et al., 2021 ; Lamichhane, 2019). Each patient often has interactions between many doctors and a student nurse, which frequently results in challenging communication and a lack of coherence for a plan of treatment (Christensson, et al., 2010). High levels of stress are common in first-year nursing students and they can result in feelings of failure,

low self-esteem, irritation, and melancholy, some studies also noted that the levels of stress and anxiety decreases as they progress in years of study(Watson, et al., 2009). However, Abas, 2017 ; Oner and Ustun , 2013 ; Pulido-Criollo, et al., 2018 argue that stress levels of nursing students differ according to discernment,culture, class of the pupils.

Purpose of the Study

This study aims to evaluate the stress and anxiety levels experienced by nursing students at Near East University while they are enrolled in classes.

Research Questions. The research questions used in this study to examine stress and anxiety levels among undergraduate nursing students were:

- What is the stress level of nursing students ?
- What is the anxiety level of nursing students?
- Do the stress and anxiety levels of nursing students differ according to demographic characteristics?
- Is there a relationship between stress and anxiety levels of nursing students?

Significance of the Study. Stress and anxiety adversely affects nursing students, academic performance, clinical practice , health and wellness. Furthermore, understanding the effects of stress and anxiety is insufficient without developing coping strategies for the students to implement in the event they experience it during their years of study. The nursing profession will benefit directly from this study in a number of ways, including a deeper knowledge of the factors that cause stress and anxiety in nursing students ; the levels that are most at risk in nursing education; learn which strategies are most likely to be effective. The results of this study will also be assessed in light of relevant worldwide evidence, with any discrepancies or agreements being highlighted.

University administrators and teaching staff may utilize the findings, which are also presented in a form that makes them easily accessible, to further investigate the issues revealed by the study and offer better strategies for managing stress and anxiety thereby encouraging a pleasant practical training experience. A significant role for school administration and nursing staff is essential in order to provide

information on counselling, learning programs of ways to cope and reviewing course load (Pulido-Criollo, et al., 2018; Shaban, et al., 2012).

Limitations

The interventions that should be used in nursing education are not determined by this study. The study was also restricted to nursing students at Near East University, therefore is restricted to the viewpoints of Near East University nursing students, and it is not possible to draw any broad conclusions from it.

CHAPTER II

Literature Review

Numerous inherent personal elements, such as low self-esteem, a lack of confidence, weak decision-making skills, poor self-control, a propensity for self-blame, and bad social behaviours, have been connected to feelings of stress among students in general(Chen, et al., 2013 ; Chernomas, et al., 2013). According to theoretical models like Neumen's Model of Stress, stress is caused by the fragility of a client system (personal-surroundings-staff), stressful components combine to generate stress. Although some client-generated stimuli can produce stress, they can also activate consequences that can be either good or harmful, therefore it is important to look at how stress affects nursing students throughout their academic careers(Graham, et al., 2016 ; Davis, 2018). Nursing students encounter the following pressures on a daily basis: (a) Intrapersonal pressures, such as learned reflexes, ideas, and feelings within the person. (b) Interpersonal pressures describe unfavourable interactions among students, patients, and staff, such as patient or student expectations for their function in a hospital. (c) Extra-personal influences are those that influence a person from a distance, for instance the student's financial situation(Pulido-Criollo, et al., 2018). Thus stress is an outcome of interaction between a person and the environment, in nursing pupils their main stressors are linked to hospital practice and education life that are constantly severe, exhaustive and repetitive(Pulido-Criollo, et al., 2018).

Definitions of Terms

Stress: Stress is not a kind of mental disorder, though high levels of it can lead illness and disorders. It is a common occurrence in daily life that can either have positive or negative consequences. Different people react differently to stress; an event that one person feels threatening may be easily tolerated or even enjoyed by another. As a result, the person's assessment of the stressor and estimation of his or her potential to respond to it both significantly contribute to the person's impression of stress as a negative or positive state of mood. However, it is still commonly accepted that stress can cause anxiety. The mind reacts by displaying anxiety

symptoms when it senses something dangerous.(Mohr, 2009, p.423; Videbeck, 2012, p.227).

According to Selye (1974) there are three phases of stress response which are alarm, resistance and exhaustion. During the alarm reaction stage, stress causes the body to send signals from the hypothalamus to the adrenal gland, which releases norepinephrine and adrenaline for energy, and to the liver, which converts glycogen reserves to glucose for food in order to get the body ready for prospective defence demands. In the resistance stage, the digestive system slows down in order to divert blood to the body's defence-related organs. In order to pump this highly fed and oxygenated blood to the muscles so they can defend the body by engaging in fight, flight, or freeze responses, the respiratory system takes in more oxygen and the heart pumps faster and harder. The body's reactions relax and the glandular, organ, and systemic reactions diminish if the person learns to cope with the stress.The exhaustion stage develops when a person reacts negatively to anxiety and stress: body reserves are diminished or the emotional aspects are not addressed, causing continuous stimulation of physiologic responses and little store capacity.(p 39). Thus, the body's automatic self-preservation functions are produced by autonomic nervous system reactions to stress and anxiety.

Stress is experienced in the clinical and learning environments due to the demands that come along with them being viewed as either good or bad. These demands may have pleasant or harmful repercussions, like bodily symptoms(Behere, et al., 2011), feelings of tension, worry, fear, or threat, whether they are internal or external in nature (Kurebayashi, et al., 2012). Feelings of discomfort are universally viewed as a bad thing that impairs an individuals overall effectiveness. This discomfort is a result of a circumstance or event that causes stress and leads to a physiological response from the body seeking equilibrium and regaining balance. Nursing students encounter stress in a variety of settings; as a result of inadequate theoretical learning, a lack of clinical practice skills,assuming patient responsibility, time constraints, lack of enthusiasm and social interactions, relationship with the opposite gender, new roles, and living in a foreign environment may all be interpreted as stress which can affect their studies or harm their well being with time(Oner Altiok and Ustun, 2013 ; Lamichhane,2019).

As it boosts motivation and excitement, stress is regarded as helpful in moderation (Gibbons, 2010). Yet, mismanaged stress or inability to cope with persistent stress may be detrimental to a person's health and well-being (Watson et al., 2008). Persistent stress may have an impact on a nursing student's ability to study, make decisions, and think critically, even leaving the nursing program might be motivated by stress (Sheu et al., 2002 ;Watson et al., 2008). Negative emotions including melancholy, anxiety, concern, anger, low self-esteem, regret, grieving, mental breakdown, depression, a sense of loneliness, insomnia may also result from unmanaged stress for nursing students (Labrague, 2014). Furthermore, high levels of stress have an impact on student's health in every way which includes the onset of conditions like high blood pressure , cardiovascular disease, and immunological diseases. Literature indicates that stress experienced throughout undergraduate study may cause psychological or emotional damage during a nursing student's professional career, which can eventually compromise the standard of patient care(Shaban, et al., 2012).

Prevalence of Stress in Universities

Stress is seen as the changing relationship between people and the environment which necessitates a response to a situation, this can either be positive or negative(Rathnayake and Ekanayaka, 2016 ; Pulido-Criollo, et al., 2018). In this relationship, the individual may feel as though the demands, constraints, and possibilities associated to profession threaten to exceed their capabilities. In the event of a breakdown, this connection may result in changes to cognition, emotion, and behaviour(Pulido-Martos, et al., 2011). While students may be more motivated under low or moderate levels of stress, encouraged to persevere in their academic work and reach their goals, excessive stress can have a detrimental impact on pupils, contributing to sadness, hopelessness and thus hurting their health and academic performance. Turner and McCarthy, (2017) in a research they conducted noted that nursing students were more likely to feel stressed than medical students or other non-nursing healthcare students partially due to the fact that nursing curricula required concurrent study in classroom and hospital settings, than others.Its psychological element affects nursing students' well-being and academic performance (Pulido-Martos, et al., 2011). Due to this, a substantial amount of research has been

conducted to ascertain the levels and causes of stress throughout the preparation of future nurses(Timmins and Kaliszer, 2002). Although stress is inevitable and generally difficult to manage, using effective coping mechanisms might help students achieve better academic achievements(Gibbons,2010 ; Riley, et al., 2019).

Factors that contribute to Stress

Academic, practical training, and personal difficulties are the main sources of stress for nursing students which are frequently demanding, repetitious, and exhausting (Jimenez, et al. 2010 ; Chernomas and Shapiro, 2013). It was reported by World Health Organization (WHO), in a study by Gomathi, et al.(2017) that stress-related diseases would rank among the top causes of disability in 2020.

Academic and Practical Training Factors. Minimal time off for vacations or breaks, a failure to balance work and spare time, an excessive amount of homework, difficulty focusing, poor performance in class, obtaining a lower grade than projected, being unable to appreciate presentations in lectures, trouble understanding the language used by educators, a lack of involvement in studies, lack of inter-personal relationship with instructors, a substantial disagreement with teaching staff, practicals, and skipping class frequently. Students get more anxious before their final exam and written test, as well as their practical cycle(Chernomas and Shapiro, 2013 ; Gomathi, et al., 2017 ; Hirsch, et al., 2015 ; Sanad, 2019).

Moreover, they encounter stress in hospital setting, including demand to execute procedures accurately, concern of making errors, time constraints, and working with a number of challenging patients. Stressors for student nurses include inexperience, being afraid to err, discomfort with being examined by academic staff, an increase in patient load, uneasiness regarding providing patients incorrect information or medicine, and worry about potentially injuring a patient(Blomberg, et al., 2014 ; Pulido-Martos, et al., 2011; Watson et al.,2009).

Personal Factors

According to research nursing students had stress experienced as a result of a change in living conditions, poor phone service, a lack of recreational opportunities, and substandard measures for security. Changes in dietary habits, involvement or

civil partnership, feelings of loneliness in the dorm, poor sleep, new obligations in life, personal concerns, parental pressure, deteriorating health, death of a close friend or relative, money difficulties, and shift in religious beliefs , conflict with room-mates, alteration in social activities, disputes with close friends,pressures of balancing academic with work, family, and other commitments. Furthermore, making it difficult for students to benefit from the necessary support networks and relaxation that interpersonal interactions give(Amanya, et al., 2017 ; Onieva-Zafra, et al.,2020;Raymond and Sheppard, 2017).

Health issues associated with Stress

Stress can cause harmful symptoms like drug and alcohol addiction, disordered eating, uncontrolled use of illicit substances, sleep disturbances, disengagement, suicide, psychological disorders, and even psychological symptoms(Patterson,2016). Hence learning throughout these years could be impaired owing to stress reactions caused, undergraduate nursing students are thought of as being in one of the most vulnerable stages of their lives(Timmins, et al., 2011; Pulido-Criollo, et al., 2018).

Stress may have physical, emotional, and behavioural repercussions on students, making it more challenging for them to succeed academically(Gomathi, et al., 2017; Zhao, et al., 2014).

Physical and Psychological issues

A racing pulse, raised blood pressure, excessive sweating of the palms,chest ache and tension; neck, jaw, and back pain, headache, stomach cramps, nausea, shaking, exhaustion, vulnerability to mild illnesses, itchiness. Inability to pay attention, lowered confidence and self-esteem, and disordered ideas a reduced feeling of purpose in life, a lack of power or an excessive demand for power, self - criticism and evaluations, trouble making decisions, and perspective loss. Reclusive and unable to interact, under or overeating, reckless and vulnerable to accidents, irritable, aggressive, or obsessive, fidgeting, cursing, accusing, tossing, and punching. Lack of time for leisure pursuits due to working longer hours, working from home, procrastinating on crucial tasks, managing time poorly under pressure, and working

without breaks. Frustrated, furious, depressed, envy, uneasy, nervous, hyper vigilant, unnecessary guilt, terror, changes in mood, and prone to tears (Mohr, 2009, p.431; Pulido-Martos, et al., 2011 ; Watson, et al., 2009).

Management of Stress in nursing students

Depending on an individual's traits and the environment in which stressors are present, different coping mechanisms are used. One of the greatest methods to deal with stress has been shown to be the employment of problem-solving techniques(Onieva-Zafra, et al., 2020).Students' learning, clinical performance, and well-being are all known to be improved by problem-based coping strategies(Shaban, et al., 2012). Also effective time management, social support, a positive self-evaluation, and participation in leisure activities are often used strategies to lessen student stress. While emotional based therapies are the least effective methods of dealing with stress and have been proven to be detrimental to students' health(Labrague, et al., 2016 ; Hirsch, et al., 2015).

Mental Support

Psychological assistance intended at promoting a sense of competence, self-efficacy, and self-worth as well as practical support geared at completing academic objectives(Gomathi, et al., 2017; Zhao, et al., 2014). Positive thoughts as a healthy coping strategy involves speaking to parents, frequently praying, depending more heavily on one's religion, using a step-by-step method to overcome issues, and sharing problems with friends(Bam et al., 2015; Reeve, et al., 2013; Yamashita, et al., 2012).The methods of professional assistance, such as seeking professional counselling, speaking with a teacher, or using humour(Lamichhane, 2019 ; O'Brien, 2013). While the usual maladaptive coping strategy was to place blame on oneself.

Environment For learning That Are Student-Centred: A nurturing, encouraging teaching atmosphere changes the interaction between instructors and students into a cooperative venture that fosters professional sociability and competence.

Nursing department may promote students' perseverance, perceived self-efficacy, and success in nursing by fostering a caring and supportive learning environment(Levett-Jones, et al., 2019 ; Raymond and Sheppard, 2017).

Mentoring And Modelling using Peers and Staff

Peer mentoring is a form of assistance when a more knowledgeable or experienced individual acts as a mentor to a less knowledgeable person in order to encourage the latter's professional and personal growth (Kachaturoff, et al., 2020).In medical settings, peer support and one-on-one mentor-ship can help students feel less anxious, as a result of this rapport, students may ask questions and communicate openly without fear about facing consequences from nursing professors.Peer mentor-ship has been linked to improved nursing student retention, engagement, and skill proficiency(Gomathi, et al., 2017 ; Ross, J. G. (2019).

Assessment of Self

The use of this tactic, professors and students may interact in a controlled educational environment while also integrating their own knowledge, clinical experience, and participation. By thinking back on conversations and interventions, the reflective learning paradigm enables the learner to critically assess their practice. The act of sharing one's learning experiences stimulates communication between people, cooperation, and the generation of new information(Onieva-Zafra, et al., 2020).

Network For Professional and Social Support

Efficient stress management can result from a combination of social support, coping strategies, and personality type classification. Distress can be decreased and harmful levels of stress can be avoided by providing intellectual, social, and behavioural support networks and systems(Levett-Jones, et al., 2019; Timmins, et al., 2011).

Stress reduction based on mindfulness

To practice mindfulness, a person must focus to their conscious experience with a dispassionate, objective, and open mindset. Hence, the person acquires understanding of the kind and intensity of their feelings and thoughts, the capacity to distinguish between thinking and feeling or behaviour, and a more regulated psychological state that reduces stress.Thus a stress-coping program based on a

mindfulness meditation method may be useful in lowering the tension and anxiety of nursing students(O'Brien, 2013; Onieva-Zafra, et al., 2020).

Advanced Learning Strategies

Nursing faculty members can adopt a proactive stance by giving prompt and helpful feedback on homework, establishing reasonable and clear course requirements, investigating cutting-edge methods for instruction and learning assessment, preparing students for clinical experience, and assisting them as they provide care(Gibbons, et al., 2008).

Anxiety: Is a spectrum of feelings that alerts us to prospective threats that we should be concerned about. Most significantly, these feelings enable us to assess possible dangers and react appropriately to them, either by accelerating our reflexes or concentrating our attention.Vague and bothersome emotion brought on by exposed ongoing stress as well as a variety of stimuli(Sanad, 2019). Anxiety is one of the key prognostics of stress which is sparked by anything viewed as a threat. The emotion of being terrified or threatened by an obvious external stimulation that the individual perceives as posing a threat to them is what is known as fear, as opposed to anxiety. It cannot be avoided and may spur the individual to respond to a challenge or handle a catastrophe. When anxiety is suitable for the circumstance, it is thought of as a natural emotion that goes away after the issue has been handled(Abas, 2017). Significant subject distress is when anxiety turns pathological and greatly limits an individual's performance and becomes an issue when the individual is unable to control it from rising to a level where it hinders their ability to meet basic needs(Sreenu, et al., 2021).

There are four levels of anxiety that affect a person in different ways, both physically and emotionally these are mild, moderate, severe, and panic.

Mild anxiety is the perception that something is off and needs extra attention, aided by sensory stimuli, so goal-oriented activities like concentrating when preparing for a test are achieved.Physical symptoms include agitation, fidgeting, Gastrointestinal "butterflies," trouble falling asleep, and hypersensitivity to noise.

M**oderate anxiety** the person has unsettling sensation that something is unquestionably wrong; they become tense or irritated. With help from others, a person with moderate anxiety may still absorb information, work through issues, and pick up new skills. Although they have trouble focusing on things on their own, they may be guided back to the subject.

Severe anxiety a person experiences panic, more basic survival instincts take control, defensive reactions follow, and cognitive abilities drastically deteriorate. When anxiety is severe, it is difficult to reason and think clearly.Vital signs rise and muscles stiffen. The individual paces, exhibits restlessness, irritability, and anger, or engages in other comparable emotional-psycho-motor activities to decompress like pacing, grimacing, hand-wringing, and gross motor tremors.

Panic the emotional-psycho-motor domain prevails which is accompanied by reactions such as fight, flight, or freeze. Vital signs are dramatically increased by an adrenaline rush. The sole cognitive activity is on the person's defence, and pupils widen to allow more light to enter the eye.(Mohr, 2009, p. 424; Videbeck, 2012, p. 228). According to DSMV anxiety is caused by situations and maturation crisis which are demonstrated by the following traits in behaviour a person can have reduced productivity,excessive activity, fidget, looking about, hyper-vigilance, sleeplessness, poor eye contact, restlessness, scan behaviour, worry over even minor changes in one's life. Another trait of anxiety is seen by emotions of an individual which include anger, apprehension, distress, dread, feeling of unworthiness, helpless, increase in uneasiness, irritation, worry, regret, self-focus, jittery. They can also have physical symptoms like sweating, shaking, quavering in voice, sympathetic symptoms such as incontinence, elevated heart rate, dilated pupils and cognitive symptoms like confusion, memory lapse,, negative thinking(NANDA-I, 2015-2017, p. 323)

Generalized Anxiety Disorder

Young individuals are typically affected by this illness, which is the most frequent type of anxiety disorder. Compared to males, women are more likely to be impacted. Although having some level of worry is natural, GAD sufferers struggle to regulate it to the point that it interferes with their everyday lives. Instead than

causing anxiety over a single event, it makes people nervous about a variety of events and difficulties. Generalized anxiety is more pervasive and permeates the sufferer's everyday life than a phobia, which concentrates on a particular thing or circumstance(Lee and Kim, 2019).

Anxiety Health Problems

The effects of anxiety can be seen when it is a symptom of other bodily issues that are more evident or curable and are thus more likely to be given priority in any subsequent medical intervention. Anxiety issues are prevalent in people with cardiovascular illness(Behere, et al., 2011); GAD sufferers have been found to have an elevated risk of coronary heart disease, gastrointestinal issues, arthritis, migraines, allergies, and thyroid disease. Several research have revealed a connection between anxiety and decreased white blood cell activity, a symptom of immune system weakened, as well as a four times greater likelihood than the general population for those with anxiety disorders to acquire high blood pressure(Luo, et al., 2019 ; Stevens, et al., 2019).

Nursing interventions

A number of stress management strategies for nursing students have been proposed, and it is necessary to take a holistic approach to stress reduction that includes problem-solving skills, time management strategies, relaxation methods, and other treatments. Although the use of complementary treatments to treat stress and anxiety is not new, interest in how energy or biofield therapies like(EFT) might lessen anxiety and enhance feelings of well-being has grown(Patterson, 2016 ; Turner and McCarthy, 2017).

Anxiety interventions

When working with a student with anxiety it is important to be composed and non-threatening. Since anxiety is infectious, it can spread from staff to students or the other way around. When a staff or nurse is calm, the student feels more secure.

Assure them that they are safe and secure. The physical presence of the nurse can communicate this. At this moment, do not leave the them alone. They could be worrying about their lives. A trustworthy person's presence gives them a sense of comfort and guarantees their personal protection. To communicate medical experiences to them , use plain language and succinct statements that are presented gently and clearly as they might not be aware of other terms. They may be unable to understand anything except the most basic message when they are really nervous. It's possible to get hyperventilation when feeling really anxious(Townsend, 2015, p. 176).

Carbon dioxide (CO2) levels in the blood drop as a result of hyperventilation, which may produce light-headedness, a fast heartbeat, shortness of breath, tingling or numbness in the hands or feet, and syncope. Help them breathe into a little paper bag that is being held over their mouth and nose if hyperventilation starts to happen. They should alternate between six to twelve natural breaths and brief bouts of diaphragmatic breathing(Townsend, 2015, p. 176).

It is also vital to reduce the amount of stimulus in their immediate surroundings ,low lighting, few people, plain décor because a stimulating setting can make one feel more anxious. Sedatives can be given in accordance with a doctor's prescription. The efficacy of a drug and any potential negative effects should be examined. Explore potential causes for the occurrence with them once the intensity of anxiety has decreased. The first stage in educating them to stop the increase of their anxiety to identify the precipitating factor(s). Teach the students how to recognize the signs and symptoms of rising anxiety as well as measures to stop it such as deep breathing exercises, physical activity, brisk walking, jogging, and meditation. The best approach for each student is one that is chosen by them and in addition help them understand that modest anxiety is normal and can act as a catalyst for change. (Townsend, 2015, p. 177 ; (Videbeck, 2011,p. 231). These interventions will help keep their anxiety at a level that allows them to solve problems. They will be able to express verbally the warning signals and symptoms of rising anxiety and stop it from advancing to panic

Stress interventions

These are ways students may use to relieve or cope with stress during their studies. Health education which would involve teaching the students on how to leave

healthy and have adequate nutrition as good diet is crucial for overall health as well as for physical development and mind. The nutritional status of an individual can shield an individual from or make them more susceptible to chronic illness. Diet therapy is used in various medical treatments for disorders. Therefore, the science of nutrition is both preventative and curative(Townsend, 2015, p. 357).

Family, group, and individual therapy, as well as medication management, are nursing treatments that are helpful when dealing with students. Talking with teenagers and collaborating with their parents should receive special emphasis. The evaluation of nursing care must pay particular attention to counter transference difficulties and the requirement for students' objective measures(Gail, 2013, p.707b). Also, integrating the physical, mental, and spiritual forces that improve health and well-being is the goal of exercising. It has been shown that exercise is particularly beneficial for reducing stress and enhancing overall physical and psychological fitness. It was further discovered that it improves circulation of oxygen to body tissues therfore reducing stress and exhaustion and boosting vitality(Townsend, 2015, p. 367).

Relaxation interventions

A wellness program that included an art therapy class revealed that participants felt more at ease, self-aware, and empowered while also encouraging self-care and stress management. The art consisted of two images of an emotional self-portrait. Two sheets of paper were used for two distinct drawings. The second drawing was a significantly better experience, and the participants reported feeling more upbeat and at ease after it(Hensel, et al., 2012). Self-care is a requirement for engaging in nursing practice, and self-care includes managing stress. Increased self-awareness, introspection, and understanding of oneself, others, and recuperation process are all benefits for nurses(Zhao, et al., 2014). As another facet of self-care, art therapy also fosters spiritual development (Pender et al., 2006). One's ability to recognize, articulate, and live out their own particular value systems is a key factor in spiritual progress (Seaward, 2009). Another intervention is music therapy and aromatherapy using essential oils.

Emotional freedom Technique/intervention(EFT)

More typical with acupuncture, a popular Chinese medicinal treatment (Patterson, 2016). To help with fear desensitization, EFT combines tapping on meridian points with concentration on the thing you're afraid of or the unpleasant feeling. Additionally, a declaration of self-acceptance is repeated. It is hypothesized that this repetition helps with restructuring the mind, a well-known psychotherapy procedure where the patient recognizes and corrects unfavourable ideas (Church, 2010). By applying this non-traumatic physical stimulation and simultaneously presenting the fear with self-acceptance, the negative physical reaction that is connected to that memory and other comparable memories is blocked (Craig, 2010). Tapping the meridian points reduces tension. Furthermore, the Western medical school of thought, stated that acupressure and acupuncture work by triggering the body's natural morphine-like compounds known as endorphins, which act as the body's painkillers. Asthma, dysmenorrhea, cervical discomfort, insomnia, anxiety, depression, substance misuse, stroke rehabilitation, and pregnancy nausea have all been successfully treated using this method(Townsend, 2015, p. 356).

Peer Support

Peer mentoring is a form of assistance when a more knowledgeable or experienced individual acts as a mentor to a less knowledgeable person in order to encourage the latter's professional and personal growth (Kachaturoff, et al., 2020).In medical settings, peer support and one-on-one mentor-ship can help students feel less anxious, as a result of this rapport, students may ask questions and communicate openly without fear about facing consequences from nursing professors.Peer mentor-ship has been linked to improved nursing student retention, engagement, and skill proficiency(Gomathi, et al., 2017 ; Ross, J. G. (2019).

Mindfull Meditation

This involves focusing conscious experience with a dispassionate, objective, and open mindset. Hence, the person acquires understanding of the kind and intensity of their feelings and thoughts, the capacity to distinguish between thinking and feeling or behaviour, and a more regulated psychological state that reduces

stress.Thus a stress-coping program based on a mindfulness meditation method may be useful in lowering the tension and anxiety of nursing students(O'Brien, 2013; Onieva-Zafra, et al., 2020).

Social Support system

Stress can be decreased and avoided by providing intellectual, social, and behavioural support networks and systems like counselling, reflection on conversation and learning stimulates communication between people, cooperation(Levett-Jones, et al., 2019; Onieva-Zafra, et al., 2020 ; Timmins, et al., 2011).

CHAPTER III

Methodology

Research Design

This research is a descriptive study to determine the stress and anxiety levels of nursing students currently enrolled at Near East University.

Participants/Population and Sample/Study Group

The study population of this research are current undergraduate nursing students at Near East University who are able to communicate in English.

Sample Procedures.

The entire department will be included in the study and the sample size will be determined using Raosoft sample size calculator with 95% confidence level and 5% standard error; with a minimum of 175 participants out of 320 Near East University English undergraduate nursing students (Raosoft, 2004). The study in total had 223 participants. Nursing students who refuse to participate will not be counted as part of the sample size.

Data Collection Tools / Materials.

To gather data and measure crucial variables, the study used a self-administered questionnaire with closed-ended questions.The questionnaire is divided into three sections, each with closed-ended questions as follows.

Section 1.

This section was composed by researchers and consisted of 12 socio demographic questions of the students including a few like gender, class, country, age and other questions relating to the students experience with stress and anxiety.

Section 2.

GAD-7 Scale

This tool determines likely cases of generalized anxiety disorder and evaluates the severity of symptoms. It is a self-administered questionnaire developed by(Spitzer, et al., 2006) which consist of a 4 point GAD scale with 7 items. The respondent is prompted to rate the intensity of each of their problems during the last two weeks in each question. The possible answers include Not at all(0), A few days (1), More than half the days(2) and Nearly every day(3), then the adding the value of the 7 items.

0-4 : minimal anxiety

5-9: mild anxiety

10-14: moderate anxiety

15-21: severe anxiety

The Gad-7 overall score ranges from 0 to 21.

Gad-7 The questionnaire's reliability was determined and Cronbach alpha for this study is 0.86

Section 3

Perceived Stress Scale

The Perceived Stress Scale is developed by (Cohen, et al., 1983) and the participants' perceptions of the degree of stress they encounter in particular circumstances are measured using this scale.The questions are meant to measure the participant's stress-related feelings during the past month. The replies are Never(0), Almost Never(1), Sometimes(2), Fairly Often(3),Very Often (4).

Response to the four positive stated items (items 4, 5, 7 and 8) must first be reversed in order to determine the total PSS score (i.e., 0 => 4; 1 => 3; 2 => 2; 3 => 1; 4 => 0). The PSS score is then calculated by adding up all of the components. Higher scores represent higher perceived stress levels.

This specific questionnaire consists of 10 items, and the possible total scores are between 0 to 40.

Scores ranging from 0-13 would be considered low stress.
Scores ranging from 14-26 would be considered moderate stress.
Scores ranging from 27-40 would be considered high stress

Perceived stress scale The questionnaire's reliability was determined and Cronbach alpha for this study is 0.57.

Data collection Procedures

Data was collected using a web composed questionnaire from goggle and Gad-7 Scale, Perceived Stress Scale between December 2022 and January 2023. The questionnaire was distributed by the researchers to group administrators of nursing students in each year levels via Whatsapp. Completion of the online questionnaire took about 10 minutes.

Data Analysis

The data was analysed using version 25.0 of Statistical Package Social Sciences (SPSS). Descriptive statistic measures such as frequency, mean,standard deviation,mean rank was calculated. Kolmogorov-Smirnov was used to check normality. The data was not normally distributed therefore Kruskal Wallis and Mann-Whitney tests were used.

CHAPTER IV

Findings and Discussion

Findings

Table 1. ***Socio-demographic Characteristics of Participants (n=223)***

Characteristics		**n**	**%**
Gender	Male	41	18.4
	Female	182	81.6
Age	18-25	168	75.3
	26-30	38	17
	31-35	9	4
	36-40	8	3.6
Marital Status	Single	210	94.2
	Married	13	5.8
Ethnic groups	Nigeria	116	52
	Zimbabwe	65	29.1
	Kenya	10	4.5
	Cameroon	6	2.7
	South Africa	3	1.3
	Others	23	10.3
Level of Education	First year	50	22.4
	Second year	55	24.6

	Third year	51	22.9
	Final year	67	30
GPA	0-1.0	2	0.9
	1.1-2.0	25	11.2
	2.1-3.0	125	56.1
	3.1-4.0	71	31.8
Classroom hours	Less than 12 hours	78	35
	12-14	84	37.7
	15-16	45	20.2
	17-18	12	5.4
	More than 18 hours	4	1.8
Test in next 7 days	Yes	183	82.1
	No	40	17.9
Test in last 7 days	Yes	206	92.4
	No	17	7.6
Substance taken when stressed	Nothing	170	76.2
	Alcohol	36	16.1
	Drugs	17	7.6
Anxiety disorder diagnosis	Yes	34	15.2
	No	189	84.8

Mental/chronic Disorder	Yes	8	3.6
	No	215	96.4

Table 1 displays the 223 responses obtained for this study. Based on the response from those who actively participated in the evaluation through the provided questionnaire, the findings were determined. Majority of the 223 participants were females (81.6%) as opposed to men (18.4%) with ages of 18 and 25(75.3%) of them being African students from Nigeria and Zimbabwe. All of the students contacted were International nursing students pursuing undergraduate degree at Near East University, with the majority of participants (30%) in their final year, second (24.6%), first and third years with each having (22.9%), (94.2%) of the students are single,(5.8%) are married.

Pertaining to GPA(0.9 %) was obtained for 0-1.0, (11.2%) students with 1.0-2.0, (56.1%) had 2.1-3.0 and (31.8%) 3.1-4.0. Students with class hours less than 12 hours were (35%) , (37.7%) for 12-14 hours, (20.2%) for 15-16 hours, (5.4%) for 17-18 hours and (1.8%) for more than 18 hours. 82.1% reported having exams in next 7 days, (17.9%) had no exam,(92.4%) had taken an exam in last 7 days, (7.6%) had no exam in last 7 days. 76.2% students noted that they do not take anything when stressed, while (16.1%)drank alcohol and (7.6%) used drugs when stressed. 84.8% have no anxiety disorder diagnosis, (15.2%) have anxiety disorder diagnosis. (96.4%) have no mental or chronic disorder, (3.6 %) have a mental or chronic disorder.

Table 2. Descriptive Statistics Student scores for Gad-7 and PSS

The analysis from the anxiety and stress scale measure used total participants of 223

Scale			**This Study**				
	Min	**Max**	**Min**	**Max**	**Mean**	**Median**	**±SD**
Gad-7	0	21	0	21	7.43	6.0	6.43
PSS	0	40	7	35	22.00	21.0	8.52

Analysis of 223 participants' responses to the anxiety and stress scale is shown in table 2, 7.43 is the mean for anxiety scores, meaning that in total students have mild anxiety. The minimum is 0 and maximum 21 for Gad-7 scale. 22.00 is the mean for stress showing that overall most students have moderate stress with 7 as minimum and maximum of 35 in the study while, the scale minimum is 0 and maximum 40 points for Perceived Stress Scale.

Table 3 Comparison of socio-demographic Characteristics of Participants with Anxiety

Variable		**n**	$\bar{x}$	**SD**	**MR**	**U**	**Pvalue**
Marital Status	Single	209	7.43	6.44	144.57	-0.58	0.60
	Married	14	7.36	6.26	145.78		
Gender	Female	182	7.34	6.31	143.94	-0.46	0.71
	Male	41	7.81	6.95	147.68		
Test in next 7 days	Yes	183	7.35	6.47	143.45	-1.17	0.31
	No	40	7.77	6.12	150.13		
Test in last 7 days	Yes	206	7.28	6.43	142.55	-1.94	0.18
	No	17	9.28	5.81	170.11		
Anxiety disorder diagnosis	Yes	34	11.50	6.41	192.80	-3.93	0.00*
	No	189	6.70	6.13	136.02		
Mental/chronic disorder diagnosis	Yes	8	13.13	6.62	210.67	-2.41	0.06
	No	215	7.22	6.31	142.20		

Table 3 shows comparison of socio-demographic characteristics of participants with anxiety employed using Mann-Whitney test for marital status,

gender, test in next 7 days, test in last 7 days, anxiety disorder diagnosis and mental/ chronic disorder diagnosis and there was no statistical significant difference except in anxiety disorder diagnosis with (p= 0.00), meaning the variable thus had effect on anxiety levels as ($p<0.05$).

Table 4 Comparison of socio-demographic Characteristics of Participants with Anxiety

Variable		n	$\bar{x}$	SD	MR	KW	Pvalue
Age	18-25	168	7.22	6.37	110.50	26.78	0.33
	26-30	38	8.18	6.67	119.50		
	31-35	9	6.11	5.85	101.10		
	36-40	8	9.75	6.40	134.35		
Ethnicity	Nigeria	116	7.33	6.58	111.28	39.11	0.48
	Zimbabwe	65	7.58	6.43	113.95		
	Kenya	10	9.30	5.84	132.20		
	Cameroon	6	9.33	5.77	131.92		
	South Africa	3	7.33	6.31	114.38		
	Others	23	6.17	5.90	100.73		
Level of Education	First year	50	7.25	6.22	110.85	34.47	0.23
	Second year	55	6.85	6.45	106.89		
	Third year	51	8.41	6.45	122.05		
	Final year	67	7.28	6.44	111.09		
GPA	0-1.0	2	15.00	8.49	173.04	46.08	0.26
	1.1-2.0	25	8.76	5.84	127.87		
	2.1-3.0	125	7.18	6.14	110.26		
	3.1-4.0	71	7.18	6.84	109.36		
Classroom timetable	Less than 12 hours	78	7.32	6.82	110.68	56.22	0.26
	12-14 hours	84	6.77	6.11	106.34		
	15-16 hours	45	8.22	5.99	120.97		
	17-18 hours	12	9.83	6.81	134.80		
	More than 18 hours	4	7.20	4.95	114.60		
Substance taken when stressed	Nothing	170	6.56	6.20	90.42	148.48	0.00*
	Alcohol	36	8.92	5.80	105.19		
	Drugs	17	13.00	5.76	138.37		

Table 4 compares the socio-demographic details of participants who reported having anxiety using Kruskal Wallis test for age, ethnicity, level of education, Gpa, classroom timetable and substance taken when stressed there was no statistical significant difference except for substance taken when stressed as ($p<0.05$) which is ($p= 0.00$) , meaning the variable thus had effect on anxiety levels.

Table 5 Comparison of socio-demographic Characteristics of Participants with Stress

Variable		n	$\bar{x}$	SD	MR	U	Pvalue
Marital Status	Single	209	22.08	8.57	113.09	-0.96	0.43
	Married	14	20.79	7.46	103.60		
Gender	Female	182	22.35	8.60	114.65	-1.15	0.31
	Male	41	20.50	8.01	103.17		
Test in next 7 days	Yes	183	22.34	8.61	114.77	-1.92	0.21
	No	40	20.45	7.59	102.06		
Test in last 7 days	Yes	206	22.30	8.39	114.44	-1.99	0.23
	No	17	18.29	8.59	88.84		
Anxiety disorder diagnosis	Yes	34	22.65	7.85	114.53	-1.58	0.28
	No	189	21.88	8.59	112.14		
Mental/chronic disorder diagnosis	Yes	8	22.50	9.27	113.65	-0.82	0.51
	No	215	21.98	8.49	112.46		

Table 5 shows comparison of socio-demographic characteristics of participants with stress employed using Mann-Whitney test for marital status, gender, test in next 7 days, test in last 7 days, anxiety disorder diagnosis and mental/ chronic disorder diagnosis there was no statistical significant difference as ($p>0.05$), the variable thus had no effect on stress levels.

Table 6 Comparison of socio-demographic Characteristics of Participants with Stress

Variable		n	$\bar{x}$	SD	MR	KW	Pvalue
Age	18-25	168	22.66	8.05	116.85	88.06	0.19
	26-30	38	19.92	9.82	98.23		
	31-35	9	21.00	9.89	109.29		
	36-40	8	19.13	5.71	92.03		
Nationality	Nigeria	116	22.50	8.82	116.30	38.59	0.58
	Zimbabwe	65	21.88	8.17	111.34		
	Kenya	10	20.80	7.25	103.06		
	Cameroon	6	20.67	6.94	101.27		
	South Africa	3	22.67	10.95	109.52		
	Others	23	20.61	8.26	103.87		
Level of Education	First year	50	23.00	7.26	118.50	84.58	0.14
	Second year	55	20.98	8.59	105.20		
	Third year	51	21.88	9.14	111.19		
	Final year	67	22.16	8.45	114.92		
GPA	0-1.0	2	23.50	3.54	124.98	186.10	0.00*
	1.1-2.0	25	21.52	9.77	108.05		
	2.1-3.0	125	22.48	7.98	115.39		
	3.1-4.0	71	21.28	8.16	108.58		
Classroom timetable	Less than 12 hours	78	21.69	8.69	111.55	81.04	0.26
	12-14 hours	84	22.31	8.38	115.17		
	15-16 hours	45	22.29	7.77	111.59		
	17-18 hours	12	21.75	9.44	110.13		
	More than 18 hours	4	19.60	5.78	96.25		
Substance taken when stressed	Nothing	170	21.68	8.55	110.78	131.37	0.01*
	Alcohol	36	22.89	7.10	118.55		
	Drugs	17	23.29	8.16	116.96		

Table 6 compares the socio-demographic details of participants who reported having stress using Kruskal Wallis test for age, ethnicity, level of education, Gpa, classroom timetable and substance taken when stressed there was no statistical

significant difference except for GPA with (p=0.00) and substance taken when stressed(p=0.01) as (p<0.05), meaning the variables thus had effect on stress levels.

Table 7 Correlation between Anxiety(Gad-7) and Stress Scale(PSS)

		Stress scale	**Anxiety scale**
Stress	**Pearson Correlation**	1	.243
	Sig (2-tailed)		0.000
	n	223	223
Anxiety	**Pearson Correlation**	.243	1
	Sig (2-tailed)	0.000	
	n	223	223

** Correlation is significant at 0.01 level

Table 7 scores show that there is a positive relation between stress and anxiety, students with stress will experience anxiety.

CHAPTER V

Discussion

Stress and anxiety is a concept important for human beings and their daily functioning. However, the levels of these need to be neither too low nor too high(Gibbons, 2010). Throughout their education and training, nursing students both in developing and developed nations are regularly exposed to many stresses, which can either directly or indirectly impair their learning, clinical performance and well being(Pulido-Martos et al., 2012 ; Watson et al., 2008). Unchecked or untreated stress may cause physical and mental breakdowns in biological systems like the human body due to demands that exceeds ones capabilities, resulting in detrimental health effects (Pulido-Criollo, et al., 2018 ; Zheng,et al., 2022). Since nursing students are regularly exposed to many stresses this research was studying the stress and anxiety levels of nursing students in the past month and 2 weeks respectively using PSS and Gad-7 scales.In Table 1, socio-demographic results showed that there were 223 participants, and the majority were female. Most of the students ranged in age from 18 to 25, most were single, the majority were from Nigeria, and most were enrolled in their final year of university.Many students also had GPA of 2.1 -3.0 and There was a roughly similar high percentages in number of hours spent in classroom for 12-14 and those that had less than 12 hours. Many students also stated that they had test in the next 7 days, while majority also claimed having had tests in the recent 7 days. Notably, more students reported "taking nothing when stressed", had no "anxiety disorder diagnosis "and had no "mental or chronic disorder diagnosis", despite these findings a few participants stated differently. Kurebayashi, et al.(2012) also found a positive relationship between stress and anxiety in nursing students. In their study, they established that whenever there is an increase in stress levels, anxiety levels are also elevated, which was noticed in this study as the participants experienced moderate stress and mild anxiety. High levels of unmanaged stress and anxiety can have major effects on students' academic performance, clinical work, and personal life(Oner Altiok and Ustun, 2013 ; Lamichhane,2019). Table 2 showed the descriptive statistics student scores for stress and anxiety as measured by the Gad-7 and PSS. Findings from Table 2 showed that nursing students had mild levels of anxiety, which is in congruence with (Abas, 2017 ; Mohamed Mohamed Bayoumi et al., 2012, Sanad, 2019) who discovered that nursing students experienced low levels

of anxiety and moderate levels of stress was also reported which supports the studies by Hamaideh et al. (2016) ; Onieva-Zafra, et al. (2020) ; Zheng et al. (2022) that reported nursing students having moderate stress levels.

In Table 3's Mann-Whitney U test on the Gad-7 analysis on Characteristics of Participants with Anxiety for marital status, gender, test in the next 7 days, test in the last 7 days, mental/chronic disorder diagnosis, the results showed no statistically significant difference as ($p>0,05$), but there was a statistically significant difference for anxiety disorder diagnosis as ($p<0.05$). In this study single students had high levels of anxiety, it could be contributed by the fact that they were more single students than married, however with regards to gender, Hamaideh et al. (2016) ; Tully (2004) ; Zheng et al. (2022) found that females were more stressed than males and had higher levels of stress, which is similar to this research. This could be because women have so many obligations to full fill, including those traditionally associated with women, like housekeeping and looking after children(Jeong and Koh, 2012).

The results of the Kruskall Wallis tests on the comparison of socio demographic characteristics of participants with anxiety in relation to age, ethnicity, level of education, GPA, and classroom timetable revealed no significant differences in the respondents' scores, with the exception of substance used when stressed($p<0.05$) as shown in Table 4. Students' anxiety levels rise as they advance in their nursing studies, with most senior students experiencing the greatest levels(Wedgeworth, 2016), the current study found also that students in their third and fourth year were more anxious than their Juniors. Shrestha, et al. (2021) stated that the students' increased stress could have been brought on by the pressure to finish their education and their career anxieties. In Table 5, using the Mann-Whitney U there was also little difference when looking at the socio demographic data of participants with stress in relation to marital status, gender, tests in the upcoming week, tests in the previous week, diagnosis of anxiety disorder, and diagnosis of mental or chronic disorder as ($p > 0.05$). In previous studies it was discovered that students who had been diagnosed with anxiety or mental disorders were likely to be affected or have high levels of stress and anxiety than other students, which can lead them to taking substances and drinking alcohol as reported in this study. This was

also noted by Savitsky, et al. (2020) who found that moderate and severe anxiety were shown to be highly correlated with the element of mental disorder with students who admitted to using alcohol, sedative medicines, or binge eating had increased probabilities of experiencing moderate and severe anxiety. This is similar to a research by Soares and Oliveira, (2013), who reported that alcohol, tobacco, and marijuana were the three substances that nursing students used the most frequently when stressed. They also noted that 3.4% of nursing students developed tobacco dependency as a result of stress. Thus making it important for students to get guidance. The results of the Kruskall Wallis tests on the socio demographic characteristics of participants with stress in relation to age, ethnicity, level of education, and class timetable revealed no significant differences in the respondents' scores, with the exception of GPA and substance used when stressed as ($p<0.05$), as shown in Table 6. The students in this research reported being stressed about their Gpa especially those that had low Gpa scores, had high levels of stress which is similar to a research by Shaban et al. (2012), were students reported feeling stressed about their academic performance (GPA) and in particular about getting bad grades. Finally, the relationship between stress and anxiety was examined using Pearson correlation and the scores in Table 7 show that there is a positive relation between stress and anxiety, students with stress will experience anxiety.

CHAPTER VI

Conclusion and Recommendations

Conclusion

There is no doubt in the research that nursing students are more likely to have mental health problems, compared to their other students who are not enrolled in nursing school, they experience higher levels of stress and anxiety. Although the participants' overall scores in the present study were lower than what is described in other literature, they nevertheless exhibited mild levels of anxiety and moderate levels of stress.The unpredictability of today's events make stress worse, which can lead to anxiety. Anxiety frequently emerges in persistently stressful circumstances. The shortage of nurses has become a worldwide problem due to the many daily life challenges the health professionals face including their demanding career and also the emerging of new diseases. Nursing students are far more prone than the overall population to encounter stress and anxiety. Therefore, the purpose of this study was to ascertain the stress and anxiety levels of undergraduate nursing students.

The study had its limitations which should also be taken into account when evaluating its results. There sample size in this research was very small with 223 participants studying nursing in English at Near East University. More definitive data would have been produced by a sample that was significantly more diverse, incorporating various universities in North Cyprus. However, more research may be carried out. Even so, this study is crucial for the profession of nursing as it will contribute to the body of knowledge in this area.

Recommendations

This study has shed some light on nursing students, who are crucial members of our society and who, while in school, are going through stress and anxiety that, if not managed, might have long-term effects on society. The study offers the following recommendations:

- Some students find it hard to talk to other peers when facing stress and anxiety, hence there should be counselling centres where they can go to, without fear of being judged or ridiculed.
- Health education programs which teach the students other healthy coping mechanisms like sports, teaching relaxing exercises, encouraging eating healthy balanced meals.
- Funding of programs that prevent students from abusing drugs.
- Provide treatment options for severe cases of stress and anxiety, and also for students with mental/chronic disorders.
- Encourage students to have adequate sleep as it is vital for their mental health in the nursing field.
- Promoting students to be supportive of one another during stressful times during their studies, as this will enable them to be able to use this skill even when they become nurses.

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Appendices

Appendix A : Questionnaire

Participants' consent is required before administering this questionnaire. The questionnaire is divided into three sections, each with questions linked to 1. Participant descriptive data, 2 and 3 are Self-reported questionnaire measuring the severity of stress and anxiety in students.

INFORMED CONSENT FORM

At Near East University, I am a masters nursing student performing a research study named Assessing the levels of state anxiety in nursing students. Please read the following research material. Your readiness to return the completed form indicates your willingness to participate in this study.

Purpose of the project: The main goal of the research is determining which nursing students in Near east university in North Cyprus have the highest levels of stress and anxiety, furthermore, which variables may be leading to their heightened anxiety levels.

If you decide to participate, you will be asked to fill out a questionnaire about the subject. The participation time commitment will be roughly 15 minutes. There are no risks involved in participating in this study. This survey will assist in addressing the study questions. The information you provide will be kept private and only shared with the study team. No names will be mentioned for the purpose of the research.

Voluntary Participation:

Participation in this study is entirely voluntary. If you opt not to participate, there are no negative implications. Please remember that if you choose to participate, you can stop at any time and refuse to answer any specific question.

For any queries about this research, kindly contact:

StudentResearcher: Sandra Chikwana **Phone/email**: +905338821528/ sandratayengerwa35@gmail.com

Supervisor: Assist. Prof.Dr. SaminehEsmaeilzadeh**Email:**samin.esmaeilzadeh@neu.edu.tr

SECTION 1: Demographic section

1. Select your gender

☐ Male

☐ Female

2. Choose a group that corresponds to your age.

☐ Under 18

☐ 18-29

☐ 29-40

☐40-65

3. **Marital Status (tick box)**

☐Single

☐Married

4. **Ethnicity:**……..

5. Level of education: (tick box)

☐First year

☐ Second year

☐ Third year

☐ Final year

6. GPA of student:

☐ 0-1.0

☐ 1.1-2.0

☐ 2.1-3.0

☐ 3.1-4.0

7. **What are your current class hours?(tick box)**

☐Less than 12 hours

☐12-14

☐15-16

☐17-18

☐more than 18 hours

8. Do you have an exam coming up in the next seven days?(tick box)

☐Yes

☐No

9. Have you had an exam within the last seven days?(tick box)

☐Yes

☐No

10. What do you take when you are feeling stressed?

☐ Drugs

☐ Alcohol

☐ Nothing

11. Have you ever had an anxiety disorder diagnosis?(tick box)

☐Yes

☐No

12. Do you suffer from any mental or chronic disorder diagnosis?(tick box)

☐Yes

☐No

SECTION 2:

GAD_7 Anxiety

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several Days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritated	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3
COLUMN TOTALS(+)				

Total **score**

_____

0-4 : minimal anxiety
5-9: mild anxiety
10-14: moderate anxiety
15- 21: severe anxiety

***** seven- item scale (GAD-7) has shown reliability, validity, and adequate sensitivity(89%)and specificity(82%**).**

Section 3

Perceived Stress Scale

You are asked about your emotions and ideas from the previous month in the questions on this scale. Please mark the circle that represents HOW Frequently you experienced or thought in a particular manner with a "X" in each case to express your reaction.The PSS score is then calculated by adding together all of the components. Higher scores represent higher perceived stress levels.

Questions and response	**1. Never**	**2. Almost Never**	**3. Sometimes**	**4.Fairly often**	**5.Very often**
1. How frequently did something unexpected happen in the past month make you upset?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
2. How regularly did you feel powerless to manage the significant events in your life over the past month?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
3. How frequently did you feel anxious and "stressed" throughout the past month?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
4. How frequently in the last month have you believed in your ability to	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**

address your personal issues?					
5. How frequently have you felt like things were working according to your expectation over the past month?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
6. How frequently did you feel overwhelmed by everything you had to perform in the past month?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
7. How many times in the past month were you able to curb annoyances in your life?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
8. How frequently did you feel in control of the situation in the past month?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**
9. How frequently have you become enraged in the past month as a result of circumstances that were beyond your control?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**

10.How many times in the past month did you feel as though your problems were becoming insurmountable?	**1.Never**	**2. Almost Never**	**3. Sometimes**	**4. Fairly often**	**5. Very often**

*This specific questionnaire consists of 10 items, and the possible total scores are between 0 to 40.The PSS score is then calculated by adding up all of the components. Higher scores represent higher perceived stress levels.

Total scores

0-13: low stress.

14-26: moderate stress.

27-40: high perceived stress

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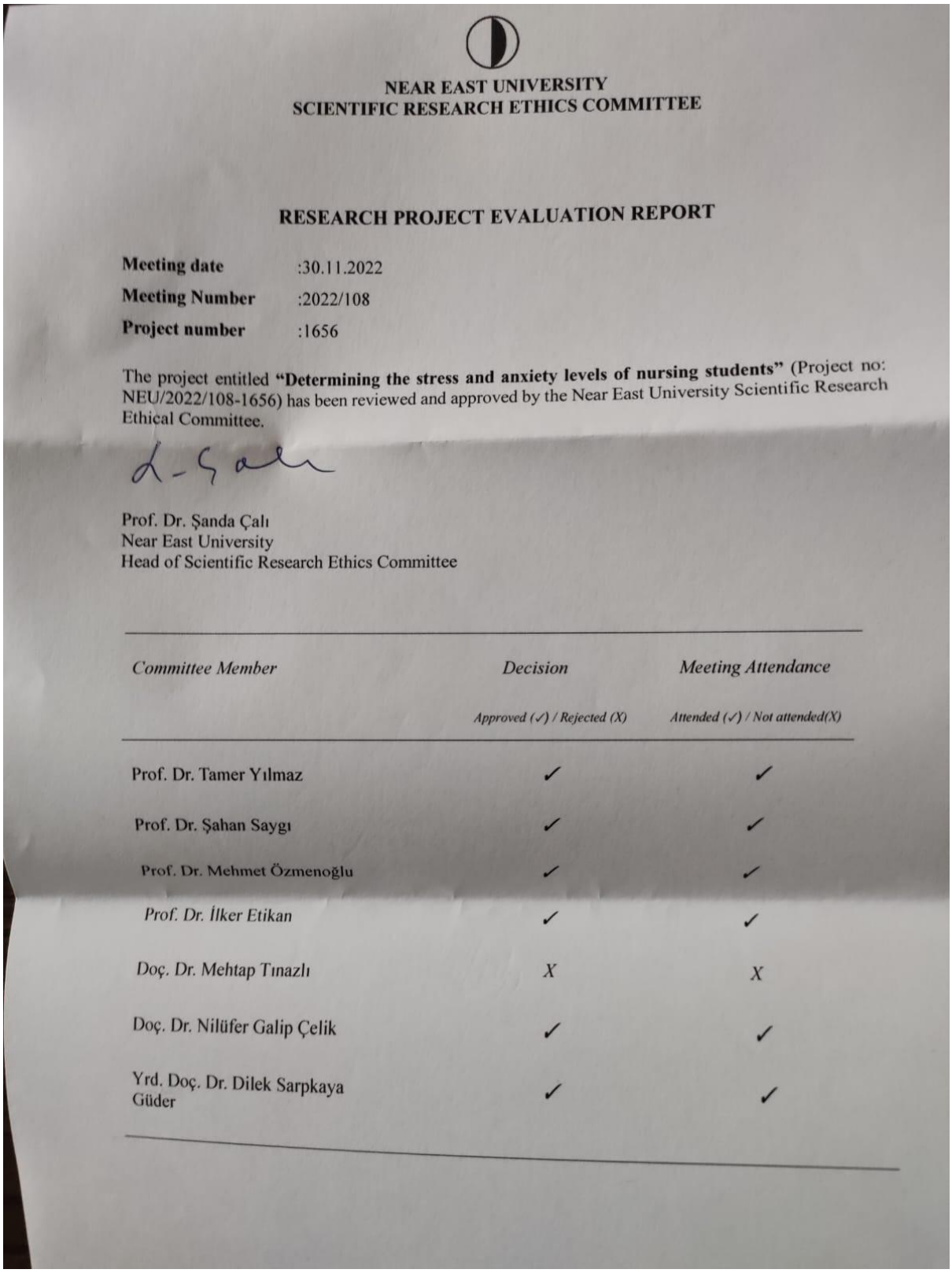
Appendix B

Ethical Approval Form



NEAR EAST UNIVERSITY
SCIENTIFIC RESEARCH ETHICS COMMITTEE

RESEARCH PROJECT EVALUATION REPORT

Meeting date :30.11.2022
Meeting Number :2022/108
Project number :1656

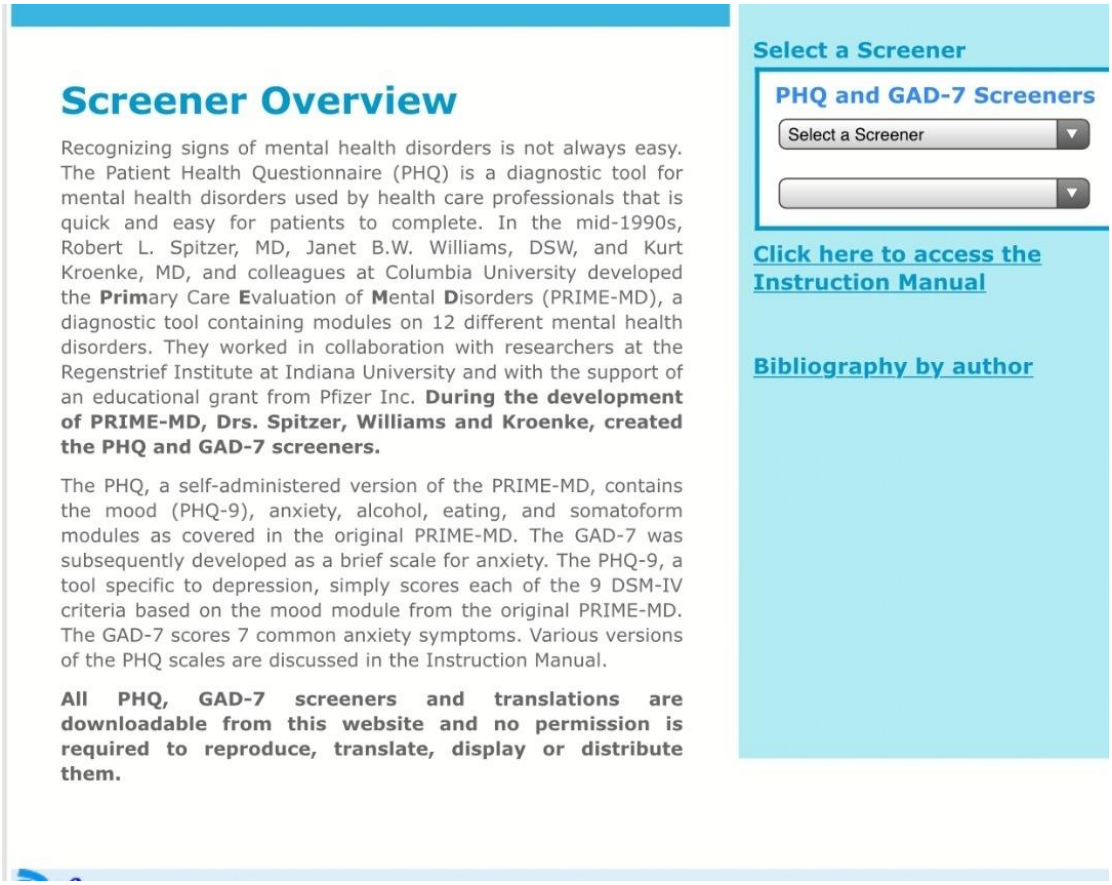
The project entitled **"Determining the stress and anxiety levels of nursing students"** (Project no: NEU/2022/108-1656) has been reviewed and approved by the Near East University Scientific Research Ethical Committee.

Prof. Dr. Şanda Çalı
Near East University
Head of Scientific Research Ethics Committee

Committee Member	*Decision*	*Meeting Attendance*
	Approved (✓) / Rejected (X)	*Attended (✓) / Not attended(X)*
Prof. Dr. Tamer Yılmaz	✓	✓
Prof. Dr. Şahan Saygı	✓	✓
Prof. Dr. Mehmet Özmenoğlu	✓	✓
Prof. Dr. İlker Etikan	✓	✓
Doç. Dr. Mehtap Tınazlı	*X*	*X*
Doç. Dr. Nilüfer Galip Çelik	✓	✓
Yrd. Doç. Dr. Dilek Sarpkaya Güder	✓	✓

Appendix C

Scale Permission Letter



Screener Overview

Recognizing signs of mental health disorders is not always easy. The Patient Health Questionnaire (PHQ) is a diagnostic tool for mental health disorders used by health care professionals that is quick and easy for patients to complete. In the mid-1990s, Robert L. Spitzer, MD, Janet B.W. Williams, DSW, and Kurt Kroenke, MD, and colleagues at Columbia University developed the **Prim**ary Care **E**valuation of **M**ental **D**isorders (PRIME-MD), a diagnostic tool containing modules on 12 different mental health disorders. They worked in collaboration with researchers at the Regenstrief Institute at Indiana University and with the support of an educational grant from Pfizer Inc. **During the development of PRIME-MD, Drs. Spitzer, Williams and Kroenke, created the PHQ and GAD-7 screeners.**

The PHQ, a self-administered version of the PRIME-MD, contains the mood (PHQ-9), anxiety, alcohol, eating, and somatoform modules as covered in the original PRIME-MD. The GAD-7 was subsequently developed as a brief scale for anxiety. The PHQ-9, a tool specific to depression, simply scores each of the 9 DSM-IV criteria based on the mood module from the original PRIME-MD. The GAD-7 scores 7 common anxiety symptoms. Various versions of the PHQ scales are discussed in the Instruction Manual.

All PHQ, GAD-7 screeners and translations are downloadable from this website and no permission is required to reproduce, translate, display or distribute them.

PERMISSION FOR USE OF THE PERCEIVED STRESS SCALE

I apologize for this automated reply. Thank you for your interest in our work.

PERMISSION FOR USE BY STUDENTS AND NONPROFIT ORGANIZATIONS: If you are a student, a teacher, or are otherwise using the Perceived Stress Scale (PSS) without making a profit on its use, you have my permission to use the PSS in your work. Note that this is the only approval letter you will get. I will not be sending a follow-up letter or email specifically authorizing you (by name) to use the scale.

PERMISSION "FOR PROFIT" USE: If you wish to use the PSS for a purpose other than teaching or not for profit research, or you plan on charging clients for use of the scale, you will need to see the next page: "Instructions for permission for profit related use of the Perceived Stress Scale".

QUESTIONS ABOUT THE SCALE: Information concerning the PSS can be found at https://www.cmu.edu/dietrich/psychology/stress-immunity-disease-lab/index.html (**click on scales on the front page)**. Questions about reliability, validity, norms, and other aspects of psychometric properties can be answered there. The website also contains information about administration and scoring procedures for the scales. Please do not ask for a manual. There is no manual. Read the articles on the website for the information that you need.

TRANSLATIONS: The website (see URL above) also includes copies of translations of the PSS into multiple languages. These translations were done *by other investigators*, not by our lab, and we take no responsibility for their psychometric properties. If you translate the scale and would like to have the translation posted on our website, please send us a copy of the scale with information regarding its validation, and references to relevant publications. If resources are available to us, we will do our best to post it so others may access it.

Good luck with your work.

Sheldon Cohen
Robert E. Doherty University Professor of Psychology
Department of Psychology
Baker Hall 335-D
Carnegie Mellon University
Pittsburgh, PA 15213

Appendix D

CURRICULUM VITAE

1. PERSONAL INFORMATION

NAME, SURNAME: DATE of BIRTH and PLACE:	SANDRA CHIKWANA 10 OCTOBER 1980, ZIMBABWE
CURRENT OCCUPATION: STUDENT ADDRESS of CORRESPONDENCE: NEAR EAST UNIVERSITY TELEPHONE: 05338821528 E-MAIL: sandratayengerwa35@gmail.com	

2. EDUCATION

GRADE	NAME OF INSTITUTE	GRADUATION YEAR
MASTERS	NEAR EAST UNIVERSITY	2023
UNDERGRADUATE	CYPRUS INTERNATIONAL UNIVERSITY	2020
HIGH SCHOOL	ST JAMES HIGH AND INYATHI	1994-1999

Appendix E: Turnitin Report

TEZ

ORİJİNALLİK RAPORU

%14	%13	%6	%
BENZERLİK ENDEKSİ	İNTERNET KAYNAKLARI	YAYINLAR	ÖĞRENCİ ÖDEVLERİ

BİRİNCİL KAYNAKLAR

1	docs.neu.edu.tr İnternet Kaynağı	%5
2	dspace2.creighton.edu İnternet Kaynağı	%1
3	de.scribd.com İnternet Kaynağı	%1
4	www.ajol.info İnternet Kaynağı	%1
5	neu.edu.tr İnternet Kaynağı	%1
6	Paul Ratanasiripong, Nop Ratanasiripong, Duangrat Kathalae. "Biofeedback Intervention for Stress and Anxiety among Nursing Students: A Randomized Controlled Trial", ISRN Nursing, 2012 Yayın	<%1
7	clinicaltrials.gov İnternet Kaynağı	<%1
8	www.tandfonline.com İnternet Kaynağı	