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Resilience, Self-Efficacy, and Burnout among Nursing Students in Palestine

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الاقرار

أنا الموقع أدناه، مقدّم الرسالة التي تحمل العنوان:

Resilience, Self-Efficacy, and Burnout among Nursing Students in Palestine

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Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name: **اسم الطالب:**

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List of Abbreviations

ICN	International Council of Nursing
PNIPH	Palestinian National Institute of Public Health
CD-RISC 10	Connor-Davidson Resilience Scale 10-Item
RS	Resilience Scale
GSES	The General Self-Efficacy Scale
ProQOL	Professional Quality of Life Scale
SOWN	State of the World's Nursing
GPA	Grade Point Average
ERIC	Education Resources Information Center
TRC	Trait Resilience Scale
NURS Model	Nursing Universal Retention and Success Model.

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Abstract

Introduction: Given the global shortage of nurses and the desire to provide safe and high-quality care, maintaining a healthy nursing workforce is crucial. Nurse burnout is one of the widely discussed topics in the world of psychology and organizational behavior. In today's complex healthcare system, resilience and self-efficacy are critical nursing characteristics to survive adversity. Recently, efforts have been made to understand the roles of resilience and self-efficacy in determining the psychological adjustment of employed nurses. As nursing students are the future of the nursing workforce, it is important to advance our understanding of their impact on this population.

Aim: The study aimed to assess the levels of resilience, self-efficacy and burnout, and to examine the relationship between these three measures, and to identify the factors that contribute to these three variables.

Methods: A cross-sectional descriptive correlational study was conducted using an online survey on 409 undergraduate nursing students from three large nursing institutions in West Bank-Palestine. The study used The Connor-Davidson Resilience Scale (CD-RISC 10) to assess resilience, The General Self-Efficacy Scale (GSE) to assess self-efficacy, and The Burnout

Sub-scale from the Professional Quality of Life Scale (ProQOL) to assess burnout.

Results: Moderate levels of resilience, self-efficacy, and burnout was found in the participants. The analysis revealed a positive correlation between resilience and self-efficacy *(r= .68),* whereas a negative correlation was found in burnout with resilience (*r=-.35),* and self-efficacy*(r=-.21).* In addition, the study findings showed that half of the students 47% were not satisfied/convinced when joined the nursing program, and half of the students 50.9% do not view themselves working in nursing as a lifelong career. In this study, higher resilience and self-efficacy were associated with (male gender, wanted to study nursing, playing exercise/sports, working, living on campus, receiving support from friends and family, viewing nursing as a lifelong career, and studying for a week or more of the exam). Whereas, not receiving support from family & friends, not exercising, smoking, not viewing nursing as a lifelong career, higher academic level, lower GPAs, studying an hour or less daily, and study in a day or less of the exam were all associated with higher burnout.

Conclusion: It's widely acknowledged that a growing nursing shortage is on the horizon. The alarming rate of burnout among nurses around the world is contributing to this shortage. Resilience and self-efficacy in baccalaureate nursing students might play an important role in decreasing nursing shortage by enhancing academic and future success, decreasing future burnout and intention to leave. Therefore, gaining a better

understanding of the role of resilience on nursing student cumulative success might be helpful in developing curricula and teaching/learning practices that promote retention in both nursing programs and future career.

Keywords: Resilience, Self-efficacy, Burnout, Nursing Students.

Chapter One
Introduction

This descriptive-correlational research study examined the relationship between Resilience, Self-efficacy, and Burnout Among Undergraduate Nursing Students in Palestine. This chapter includes the background of the study, the problem statement, the significance of the study, study implications, study purpose, the research questions, hypotheses, and the definition of terms.

1.1 Background

Globally, the study of nursing is reported by students to be stressful (Edwards et al., 2010; Oner Altiok and Ustun 2013; Walker and Mann, 2016; Tung et al., 2018). Nursing students are frequently exposed to a variety of stressors that might negatively impact their academic performance and overall health (Santos et al.,2010). These stressors include challenging course subjects, extended study periods, the anxiety of clinical training, and the need for critical thinking. In addition, Nursing students have been found to face similar stress-related occupational health risks to staff nurses for example; stress related to academic and clinical staff's expectations (Khater et al., 2014), exposures to death, communicable diseases, and social problems of patients (Hodges et al., 2005; Thomas & Revell, 2016; Yasmin et al., 2018), handling emergencies (Lopez et al., 2018), a lack of professional knowledge and skills (Kaldal et al., 2018), providing care for acutely ill patients in situations with limited staff and

resource (Zhao et al., 2014) and the overriding fear of committing medical errors (Pulido-Martos et al., 2011). On a personal level, nursing students are dealing with greater financial pressure as well as the difficulties of combining their personal and professional life (MacDonald et al., 2016; Turner and McCarthy, 2017). Thus, nurses' turnover rate is considered among the highest rates for professional groups and the rates across the world are considered high, ranging from 15 to 44% (Alotaibi, 2008; Duffield et al., 2014; Hart, 2005; Roche et al., 2015).

The global nursing shortage is a well-recognized issue. In 2020, the first State of the World's Nursing (SOWN) report, published by the World Health Organization (WHO), disclosed that the global nursing workforce was at 27.9 million and estimated a global shortage of 5.9 million nurses. Studies showed that 89% of these nurse shortages were concentrated in low- and lower middle countries. With the aging of the nursing workforce, 17% of nurses internationally are projected to retire within the next ten years, and 4.7 million additional nurses will need to be educated and employed just to maintain current workforce numbers, and in total 10.6 million additional nurses will be needed by 2030 (World Health Organization, 2020).

With this considerable estimated nursing shortage, nurses need to be effectively and competently prepared for entry into practice. To meet the increasing demands for qualified nurses, Nursing institutions are increasing their student enrollments. However, the turnover rate in the nursing

profession and the attrition in nursing students is high. The attrition rate in baccalaureate nursing is around 50% (Beauvais et al., 2014; Merkley, 2015). A survey by The International Council of Nurses (ICN) in December 2020 found that close to 90% of the responding National Nursing Associations (NNAs) revealed they are somewhat or extremely concerned that heavy workloads and insufficient resourcing, burnout and stress are the drivers for nurses leaving. Moreover, 20% of NNAs surveyed reported an increase in the number of nurses leaving the profession as a result of the Covid-19 pandemic (The International Council of Nurses, 2021).

Factors affecting academic & clinical performance, attrition, and retention have been an issue of increasing concern for undergraduate nursing schools across the world due to the high incidence of nursing student attrition. Attrition in nursing students is a complicated phenomenon influenced by a variety of factors, including psychological factors such as motivation and stress, demographic factors such as age and gender, and poor academic performance (Beauvais et al., 2014; Jeffreys, 2015). Although we can't completely eradicate attrition, we can do more to understand it and the factors that drive it. In Nursing, approximately 15% to 20% of nursing students drop out during their first and second years of school owing to poor academic performance (Khalaila, 2015). In an effort to reduce nursing student attrition in the future, whether in school or at work, research regarding the factors influencing academic performance or professional success is warranted. Academic achievement and future retention are

complex and multifaceted phenomena determined by the interplay of both cognitive and non-cognitive factors (Jeffreys, 2015). Grade point average (GPA) and prerequisite test scores are examples of cognitive factors that have been found to be important in predicting future academic performance (Pitt et al., 2012). Despite vast understanding of the link between cognitive factors such GPA and academic achievement, nursing school dropout remains high. Hence, research recognizing the influence of non-cognitive factors linked with academic success and future retention has increased in recent years. Non-cognitive factors for instance resilience, emotional intelligence, self-efficacy, and mindfulness have the ability to influence academic underachievement, attrition, and future retention (Beauvais et al., 2014; Taylor & Reyes, 2012). However, the influence of resilience and self-efficacy in determining the psychological adjustment (burnout) in nursing students has received limited attention and needs further clarification.

Individuals' resilience is defined as their capacity to bounce back or cope well with stress when faced with adversity, especially when recovering from extremes of trauma, deprivation, danger, and severe disturbance (Atkinson et al., 2009; Jackson et al., 2007; Schetter & Dolbier, 2011). Cyrulnik adds that resilience is an individual's, 'ability to succeed, to live and to develop in a positive way despite the stress or adversity that would normally involve the real possibility of a negative outcome' (Cyrulnik, 2009, p. 2). Resilience improves coping, adaptive capacities, and well-being, resulting in cumulative success and greater self-compassion (Chow

et al., 2018; Ríos-Risquez et al., 2016; Stephens, 2013; Neff & McGehee, 2010). According to research, resilience can counteract the negative effects of stress and enhance adaptation to adversity. McAllister and Lowe (2011) demonstrated that resilience was critical for nurses to find meaning in their experiences and to effectively control their reactions to stressors faced in the work environment. Therefore, resilience is critical for practicing nurses who operate in a chaotic workplace (Hodges et al., 2005). For nurses to be efficient in their profession, resilience has to become a crucial attribute (Taylor & Reyes, 2012). To fulfill the demands of the profession, nurses must be able to adapt, learn new skills, and adjust easily in an ever-changing work environment. The nurse's understanding of and capacity to use resilience may assist him to recover from difficult situations in the hospital setting. Nurses practicing in the discipline must develop personal resilience in order to adapt to workplace adversity (Pines et al., 2014). This personal application of resilience enables the nurse to cope with the stress and anxiety that occurs within a dynamic and hectic workplace.

For nursing students, resilience is also an important concept. Nursing student resilience is defined as an individualized process of development that occurs as a result of successfully navigating perceived stress and adversities using personal and protective factors (Stephens, 2013). Nursing students experience stressors that might have an impact on their overall success and ability to meet academic goals (Reyes et al., 2015). According to research, the perceived stress of nursing school alone has resulted in higher attrition from nursing schools (Taylor & Reyes, 2012). The presence

of resilience has the potential to alleviate some of the stress associated with nursing school. According to research, nursing students with higher degrees of individual resilience had higher levels of well-being and better overall psychological health (Chow et al., 2018; Ríos-Risquez et al., 2016). In addition, resilience helped nursing students deal with the unique challenges of nursing practice and overcome adversity in their future clinical work (Cleary et al., 2018; Li et al., 2014). Growing research suggests that resilience is not a fixed trait which may be acquired through targeted interventions (McAllister & McKinnon, 2009). According to research, resilience training programs are effective strategies for practicing nurses to enhance their individual resilience (Lee et al., 2015; Magtibay et al., 2017; Mealer et al., 2014). For nursing students, resilience is a process that nursing students develop over time after being exposed to the clinical setting (Lopez et al., 2018).

Self-efficacy is considered a predictor of student mastery (Gore, 2006; Harvey & McMurray, 1994; Jackson, 2002; Lewis, 2011; Pajares, 1996). Self-efficacy is defined as “people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994). Academic, clinical, and general self-efficacy has been identified in the literature as important components of student success (Andrew & Vialle, 1998; Jerusalem & Schwarzwer, 1992; Lewis, 2011). Self-efficacy has been found as a predictor of student problems, career progression, cognitive engagement, nursing education competence, academic achievement, attrition, clinical

performance, sense of belonging, and psychological health (Harvey & McMurray, 1994; Levett-Jones et al., 2008; Ofori & Charlton, 2002; Walker et al., 2006). In nursing research, self-efficacy is also deemed to be an active role in nursing staff performance, attitude, resilience, and work satisfaction (Gillespie et al., 2007; Mealer et al., 2012; Windsor, 1987).

The tasks, workload, and physical and psychological demands of the nursing profession have been associated with vulnerability to burnout (Adriaenssens et al., 2015; Lima da Silva et al., 2012), a psychological syndrome that develops as a result of continuous emotional and interpersonal stressors in the workplace, resulting in emotional exhaustion, indifference to others, and job dissatisfaction (Maslach & Leiter, 2016; Maslach et al., 2001). International research has focused on burnout among health students, primarily nursing students (Cavalcanti et al., 2014; da Silva et al., 2014; Ferri et al., 2015; Tomaschewski-Barlem et al., 2014). The levels of burnout found are alarming, as this syndrome can hinder professional growth, put patient safety at risk, and help create consequences to the student's physical and mental health, such as sleep disturbances, depressive symptoms, and suicidal ideation, alcohol, and other drug abuses (Dyrbye et al., 2014; Dyrbye & Shanafelt, 2015; Jackson et al., 2016; Maslach et al., 2001).

Lately, attempts have been made to understand the role of resilient and other non-cognitive factors in influencing the psychological adjustment (Burnout) in employed nurses. Because nursing students are the future of

the nursing workforce, it's critical to learn more about the factors that influence resilience and self-efficacy in this population. Thus, this study aimed to assess the levels of, and examine the relationship between resilience, self-efficacy, and burnout, and to identify the factors that contribute to these three variables in undergraduate nursing students.

1.2 Problem Statement

Given the global shortage of nurses and the desire to provide safe and high-quality care, maintaining a healthy nursing workforce is critical (Nooney et al., 2010; Poghosyan et al., 2010; Haddad & Toney-Butler, 2020). Nurse burnout is a widespread phenomenon and is considered one of the most popular topics in the world of psychology and organizational behavior (Alfuqaha & Alshra'ah, 2018; Maslach & Leiter, 2016; Mudallal et al., 2017). The WHO recently declared burnout as an "occupational phenomenon" in the International Classification of Diseases 11th revision (ICD-11), identifying burnout as a serious health issue. Although burnout occurs in all occupations, it is regarded to be more widespread among professions that require a high level of personal connection and empathy, mainly medical and nursing health care workers (Alfuqaha & Alshra'ah, 2018; Alqahtani et al., 2019; Ribeiro et al., 2014). Among these professions, Burnout has been linked with high turnover intentions, financial loss, and lower patient safety (Bakhamis et al., 2019). In Palestine the nursing profession suffers a shortage in the nursing workforce, which could be justified as in other countries due to the increase in the nurses'

annual turnover rate, the high number of female nurses, and the unappealing working circumstances. (2019, PNIPH). A recent study by Alshawish & Nairat, (2020) revealed high level of emotional exhaustion and depersonalization among nurses in West Bank-Palestine compared with other international countries. Hamdan & Hamra, (2017) also revealed that burnout was very high among nurses in Palestinian hospitals in comparison with other surrounding regions, and burnout was significantly associated with workers' intention to leave work.

Nursing is becoming ever more demanding because of manpower shortages, burnout and various other challenges associated with nursing practice (Hart et al., 2012). With this considerable estimated nursing shortage, nursing institutions are increasing their student enrollments.

Nursing students on the other hand, commonly experience anxiety and stress during their initial clinical training and practice (Amen Ahmed, 2015). Stress during this period can result in several negative outcomes, such as poor academic performance, diminished personal well-being, and elevated burnout levels (Kernan & Wheat, 2008; Gibbons, 2010). Studies revealed that burnout originates in student life can continue to develop during professional practice (Edwards et al., 2010; Reis et al., 2015), and this is expected to lead to a decline in the size and caliber of the nursing workforce (Chang and Dealy, 2012). Nursing students also face high level of stress after graduation. Work-related stress has recognized as the main challenge for the nursing profession throughout the world and has negative

emotional, physical, and psychological effects on the nurse (Mark & Smith, 2011). These stressors include physical demands, management issues, lack of resources, and difficulty balancing home and work responsibilities. All these are detrimental to the achievement of preparing a competent and even affecting nursing students' aspirations to take up a clinical post after graduation (Wu & Norman, 2006).

To overcome this adversity, nursing students have to be resilient. Resilience is considered a vital characteristic for nurses to survive today's complex healthcare system, and the competing priorities and challenges with which nurses are confronted may make it difficult to develop resilience characteristics (Dyer & McGuinness, 1996; Rutter, 1985). Resilience is crucial for nursing students to survive adversity and prepare them for undertaking professional role after graduation. It is important to note that resilience is not merely an indicator of well-being but is a process that enables an individual to remain healthy or to recover quickly after adversity (Rutten et al., 2013). Previous studies have found that resilience has an impact on learning experience, academic performance, course completion, decrease burnout, and in the longer-term professional practice (Reeve et al., 2013; Guo et al., 2017). On the other hand, self-efficacy in nursing students was found to help them feel competent in meeting the entry level in clinical fields, accept this challenging role, and was also found to be a good indicator to predict nursing students' performance in clinical practice (Zengin, Pınar, Akinci, & Yildiz, 2013). Furthermore, evidence suggest that job satisfaction and intention to stay in a profession

are enhanced by a strong sense of self-efficacy (Duggleby, Cooper, & Penz, 2009; Lee & Ko, 2010).

Since nursing students are the future of the nursing workforce, it is critical that we expand our understanding and determine whether burnout and future turnover intention are developed before working; while attending nursing school, and if non-cognitive factors such as resilience and self-efficacy can reduce burnout and turnover intention, as this will help us to find a support plan that can reduce exhaustion to help nursing students to adapt successfully to university and clinical life and to transfer this adaptation to their roles as nurses.

1.3 Significance of the Study

This study will help us to understand whether burnout and future turnover intention in nursing students are developed before practicing as registered nurses (during the years of study), and to understand the protective factors that can help us in reducing burnout and future turnover intention. There is no published research in Palestine that investigates the levels of, and correlation between resilience, self-efficacy and burnout in undergraduate nursing students in Palestine. Therefore, this will be the first study to investigate the levels of, and correlation between resilience, self-efficacy, and burnout among undergraduate nursing students in Palestine.

1.4 Aims of the Study

The aims of this study were to:

1. Describe the levels of individual resilience, self-efficacy, and burnout among undergraduate nursing students.
2. Determine if a relationship existed between individual resilience, self-efficacy, and burnout in nursing students.
3. Determine if a relationship existed between individual resilience, self-efficacy, and burnout with students characteristics, for example, (Gender, academic year, smoking, GPA, wanted to study nursing, viewing nursing as a lifelong career, playing exercise/ sports, working, residence, receiving support from family and friends, study hours, and preparing for an exam).

1.5 Research Questions

The following research question guided this study:

1. What are the levels of resilience, self-efficacy, and burnout among nursing students?
2. Is there a relationship between resilience, self-efficacy, and burnout among nursing students?
3. Is there a significant difference between resilience, self- efficacy, burnout and other variables (Gender, academic year, smoking, GPA,

wanted to study nursing, viewing nursing as a lifelong career, playing exercise/ sports, working, residence, receiving support from family and friends, study hours, and preparing for an exam).

1.6 Research Hypothesis

1. There is no significant relationship between resilience, self-efficacy, and burnout among nursing students.

2. There are no significant differences at 0.05 between resilience, self-efficacy, and burnout with students characteristics (gender, academic year, smoking, GPA, wanted to study nursing, viewing nursing as a lifelong career, playing exercise/ sports, working, residence, receiving support from family and friends, study hours, and preparing for an exam).

1.7 Definition of Terms

1.7.1 Resilience

Conceptual definition. Is the ability of individuals to bounce back or to cope successfully with stress when faced with adversity, especially recovering from extremes of trauma, deprivation, threat, and significant disruption (Atkinson, Martin, & Rankin, 2009; Jackson, Firtko, & Edenborough, 2007; Schetter & Dolbier, 2011). It’s also defined as the ability to overcome adversity and includes how one learns to grow stronger from the experience (McAllister & McKinnon, 2009).

Operational definition**.** Operationally, resilience is defined as the ability to "thrive in the face of adversity" (Connor and Davidson's, 2003). Connor and Davidson resilience scale (CD-RISC) is a survey-based measure of resilience. The scale uses a five-point Likert scale ranging from 0-4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4), with higher scores reflect greater resilience.

1.7.2 Self-Efficacy

Conceptual definition. Is a person's belief in his or her capabilities to plan and execute courses of action that produce given attainments (Bandura, 1993).

Operational definition. General self-efficacy refers to a broad and stable sense of personal competence to deal effectively with a variety of stressful situations. General self-efficacy scale (GSE) is correlated to emotion, optimism, work satisfaction (Schwarzer & Jerusalem, 1995). The GSE scale includes 10 items. Possible responses are not at all true (1), hardly true (2), moderately true (3), and exactly true (4), yielding a total score between 10 and 40. Higher scores indicate higher self-efficacy.

1.7.3 Burnout

Conceptual definition. Is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of

negativism or cynicism related to one's job; and reduced professional efficacy (WHO,2019).

Operational definition. Stamm, (2010) defines burnout as lingering feelings of hopelessness and fatigue that interfere with the ability to perform effectively at work. Burnout is one of the elements of compassion fatigue (CF), and symptoms of burnout may include feeling of being trapped, overwhelmed, “bogged down”, and unsatisfied by one’s job. The burnout subscale from the Professional Quality of Life Scale Version 5 (ProQol5) (Stamm, 2010) will be used to assess burnout in this study. The scale consists of 10 items, and possible response are’ 1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often. The sum of burnout questions of 22 or less indicate low burnout, between 23-41 indicate moderate burnout, and 42 or greater indicate high burnout.

Summary

Nursing shortage remains problematic worldwide. Nurse burnout which is considered one of the most popular topics in the world of psychology and organizational behavior is considered a contributing factor to nursing shortage. Evidence suggests the burnout experienced by nursing students often leads to loss of confidence in nursing and acts as a negative factor leading to frustration with studying their nursing major. The higher degree of exhaustion experienced during academic life indicates that job skill levels during the first year after graduation are poor and the correlation with turnover intention is high. Research argues that this kind of burnout

that originates in student life can continue to develop during professional practice which in turn leads to a decline in the size and caliber of the nursing workforce. Since nursing students are the future of the nursing workforce, it is critical that we expand our understanding and determine whether burnout and future turnover intention are developed before the working phase; while attending nursing school, and weather enhanced resilience and self-efficacy contributes to lower burnout and future retention.

Chapter Two
Review of the Literature

2.1 Literature Review Search Strategy

This study aimed to assess the levels of and examine the relationship between resilience, self-efficacy, and burnout, and to identify the factors that contribute to these three variables. A review of the literature was conducted from the disciplines of nursing, psychology, and behavioral and social sciences using the following search terms: Resilience AND Nursing Students, Self-efficacy AND Nursing Students, Burnout AND Nursing Students, Nursing student success, Retention AND Attrition in nursing students, Resilience AND Nursing education, nursing student, nurse, and resiliency. The search for the literature was through the following electronic databases: PubMed, Science Direct, Google Scholar, Semantic Scholar, APA PsycNet, Cumulative Index to Nursing and Allied Health (CINAHL), and Education Resources Information center (ERIC). An initial search yielded 578 articles. Searches were limited to peer-reviewed, full text research articles, English language, and articles published within the last 10 years. Publications were extended for relevant seminal research, particularly relating to concept analysis. Through this search, a variety of primary sources were obtained. Additional evidence was found by manually searching the reference lists of relevant articles. For this literature review, specific search criteria and the exclusion of non-relevant articles resulted in 31 primary sources.

The purpose of this literature review was to shed light on the concepts of resilience, self-efficacy, and their theoretical properties. Furthermore, their importance in the nursing profession, nursing education, and how they affect burnout and intention to leave in nursing and nursing students. As a result, the literature review is divided into four primary sections: 1. Theoretical review of resilience, 2. Theoretical review of self-efficacy, 3. Resilience in overcoming stress, intention to leave, and burnout in the nursing profession, and 4. Resilience and nursing students. The Fourth section is further subdivided into subsections of prominent themes related specifically to nursing students.

2.2 Theoretical Review of Resilience

Resilience is considered as a "state," or a "trait," or a combination of the two (Wagnild, 2009). Existing research backs up the idea that everyone has some level of resilience (Rutter, 1993; Tusaie & Dyer, 2004; Tusaie & Patterson, 2006). Anthony (1974) conducted early research on children who appeared invulnerable or resilient to adversity and discovered that some children performed well despite numerous risks and hardships. As the study progressed, it became clear that each person reacted to different situations with varying degrees of resiliency (Luthar et al., 2000).

Individual resilience has been defined as the ability to rise above adversity, adapt better than expected in the face of significant adversity, and recover from and overcome difficult situations in one's life (Criss et al., 2002; Martin & Marsh, 2006; Tusaie et al., (2007). Regardless of the nature of

adversity or stress, the event must be interpreted as either physically or psychologically traumatic by the individual (Stephens, 2013). The occurrence must pose a significant threat, causing people in similar situations to adjust their coping mechanisms in the face of the possibility of a negative outcome (Windle, 2011).

It's also important to realize that the antecedents of resilience don't all have the same severity and can range from acute to chronic in nature (Windle, 2011). In addition to a traumatic or adverse event, protective factors have been identified as an important antecedent to resilience in the literature. According to Stephens (2013), protective factors are required for resilience to occur. Positive emotions, humor, self-efficacy, flexibility, competence, social support, faith, optimism, effective coping, and self-knowledge are all protective factors for resilience (Stephens, 2013). There was sufficient evidence in the literature to confirm the importance of the presence of protective factors to develop or enhance resilience, whether it was a necessary attribute or antecedent of resilience (Stephens, 2013). The outcomes or end-points that occur as a result of the antecedents and attributes of resilience are all positive in nature (Windle, 2011). Effective coping and psychological or physical adjustment were the most commonly mentioned outcomes of resilience in the literature (Dyer & McGuinness, 1996; Stephens, 2013). Integration, personal control, personal or professional growth, positive adaption, confidence, and increased self-efficacy are some of the other outcomes of resilience (Caldeira & Timmins, 2016; Garcia-Dia et al., 2013; Stephens, 2013; Taylor & Reyes, 2012). The

maintenance of normal or better functioning despite adversity or stress through effective coping or psychological or physical adjustment was a common theme among all of the outcomes. The consequences of poor resilience, on the other hand, should be considered because they have a significant impact on the individual. Low resilience can lead to an increased risk of mental illness, anxiety, depression, and burnout (Simmons & Yoder, 2013; Wagnild & Collins, 2009). Furthermore, individuals' resilience may deteriorate if they no longer believe they are capable of meeting challenges (Wagnild & Collins, 2009). Feelings of being overwhelmed and a loss of purpose for life may arise in these circumstances.

2.3 Theoretical Review of Self-Efficacy

With his article "Self-efficacy: Toward a Unifying Theory of Behavioral Change," published in Psychological Review, Albert Bandura was the founding researcher of self-efficacy theory. Bandura (1977) stated, “Efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences” (p. 194). Self-efficacy was discovered to be an important component of workplace behaviors and attitudes (Bandura, 1978). If a person believes an activity is beyond their capabilities, they will avoid it; however, if they believe they are capable of completing a task, they will succeed at it (Bandura, 1978). Wood and Bandura (1989, p.408) expanded the definition of self-efficacy to include "beliefs in one's abilities to

mobilize motivation" to complete a specific task related to a job function. According to research, personal motivation and motivation theories are directly related to efficacy and self-efficacy theory (Bandura 1986). To build up a person’s sense of perceived self-efficacy a person must acquire their beliefs through one or more efficacy principles (Bandura, 1977). The four efficacy principles presented by Bandura are mastery experiences, vicarious experiences, verbal persuasion, and the physiological and psychological state of the individual. Pajares (1995) discussed the contributions of Bandura's social cognitive theory, which examined how efficacy influences human behavior and motivation, as he investigated and compiled notable research in the area of self-efficacy. First, self-efficacy has an impact on people's decision-making. Second, a person's self-efficacy determines how much time and effort they will put into a task. Perseverance and persistence are also determined by self-efficacy, and these characteristics are linked to a greater sense of efficacy. Self-efficacy beliefs influence our choices, our effort, and our persistence through adversity and emotions (Henson, 2001).

2.2.1 Prevalence of Resilience and It’s Contributing Factors

Resilience is considered a crucial element for nurse clinicians. Personal resilience is required of nurses working in the field to respond to workplace adversity (Pines et al., 2014). According to the studies, nurse clinicians are moderately resilient. The prevalence of resilience in a group of professional nurses was investigated by Koen et al., (2011). In this cross-sectional study,

surveys were given to a group of nurses practicing in South Africa (N = 312). The Resilience Scale-RS (Wagnild & Young, 1993) was used to assess resilience. Results revealed 43% of the participants had high resilience, 47% had moderate resilience, and 10% had low resilience. A similar study by Maia et al., (2017) used a qualitative descriptive approach to examine resilience levels of nurses practicing in Brazil. The nurses working on a medical surgical unit were surveyed. The results revealed that 58% of the participants presented excellent conditions of resilience.

In addition to the exploration of resilience levels, several studies looked into the attributes, characteristics, or contributing factors to resilience among practicing nurses. Positive coping skills, optimism, a positive attitude, and work-life balance were all attributes of resilience for practicing nurses (Cameron & Brownie, 2010; Tubbert, 2016). Mealer, Jones, & Moss, (2012) were the first to demonstrate this in a qualitative study. In order to identify mechanisms used by highly resilient nurses (N = 27), semi-structured interviews with intensive care nurses were conducted. The CD-RISC (Connor & Davidson, 2003) was used to measure resilience. Spirituality, a supportive social network, optimism, and having a resilient role model were identified as characteristics used by highly resilient nurses to cope with stress in the workplace. These positive coping skills and psychological characteristics were essential to managing the stressful work environment.

2.2.2 Resilience in Overcoming Stress

Working in the healthcare industry has been linked to high stress levels (Dehvan et al., 2018). It was hypothesized that resilience mitigated the stress's negative effects. Meyer and Shatto (2018) conducted a pilot study examining resiliency and its relationship to transition to practice among new nurses (N = 17) using the Wagnild & Young Resilience Scale. The study revealed that resilience was found to be important in reducing the stress of transitioning from student nurse to practicing nurse, Moreover, the findings supported the hypothesis that resiliency aided new nurses' transition to practice.

In Palestine, only one quantitative study was identified which aimed to investigate job stressors, coping, and resilience among nurses and was conducted by Elqerenawi et al., (2017) in Gaza Strip. By using the Connor-Davidson resilience scale-25 items among 275 nurses, the study revealed a total resilience mean of 72.6 (SD=12.79) indicating a moderate level of resilience, and a negative correlation between resilience and stress was found. Results also indicated that physician not being present when a patient dies ($p < 0.001$), and too many non-nursing tasks required, such as clerical work negatively predicted resilience ($p < 0.01$). The study also revealed the mean score of nurses work stressors was 88.7. Attending a patient's death, not being present when a patient dies, being criticized by a supervisor, and fear of making a mistake while treating their patients were the most commonly reported job stressors by nurses. Nurses frequently

used religious coping such as feeling comfort in religious beliefs, thinking what next steps they have to take, having a strategy about what to do about a situation what to do, and learn to live with the situation as coping strategies with stress. While using drugs to feel better and to get through was the least commonly used coping strategy.

2.2.3 Resilience in Overcoming Intention to Leave and Burnout

Since resilience has been recognized as a protective factor in times of crisis, the (COVID-19) pandemic is considered the current leading crisis in the 21st century worldwide. A recent cross-sectional design by Alameddine et al., (2021) was utilized to survey nurses practicing at a major public hospital in Lebanon. The study aimed to Investigate the degree of resilience, and associated factors, of nurses practicing at a major public hospital and COVID-19 main referral center in Lebanon. A total of 265 nurses responded to the questionnaire, and results showed low level of resilience with a mean resilience score of 66.91 (SD = 13.34). Nurses' resilience was also positively associated with job satisfaction, male gender and negatively associated with intention to quit and exposure to violence.

Many studies in the literature examined the relationship between resilience and stress-related variables for practicing nurses such as burnout. Guo et al. (2017) investigated the prevalence and extent of burnout in nurses, as well as its relationship with personal resilience, using a cross-sectional design. A total of 1,061 Chinese nurses were used in this study and filled both the burnout inventory scale and the CD-RISC (Connor & Davidson, 2003)

measuring resilience. The research revealed that a lack of resilience was a strong predictor of burnout (r = 0.2-0.4, p.001), and low levels of individual resilience was found to be associated with higher levels of emotional exhaustion, cynicism, and reduced professional efficacy. In addition to the previous, Kutluturkan et al., (2016) conducted a descriptive study with 140 oncology nurses and discovered a negative relationship between resilience and burnout.

Similarly, Rushton et al., (2015) conducted a cross-sectional study on 114 nurses working in high-intensity work environments such as pediatric, neonatal, oncology, and critical care units. By using the CD-RISC (Connor & Davidson, 2003) to measure resilience, the study found a negative correlation between resilience and emotional exhaustion ($r = .13$, $p < .001$), and individual resilience was found to protect nurses from emotional exhaustion and to positively contribute to personal accomplishment. Throughout a range of work experience levels, higher levels of resilience were linked to increased hope and lower stress levels.

Finally, Lanz & Bruk-Lee, (2017) examined the role of resilience in reducing negative workplace outcomes like conflict, turnover, burnout, and injuries. The Resilience Scale by (Wagnild & Young, 2016) was used to assess resilience in a group of 97 nurses working in a variety of medical settings across the United States. According to the findings, nurses with lower resilience levels had more conflict-related negative job effects. Nurses with higher levels of resilience had less conflict and were better at

rebounding. This study indicated that resilience is a valuable trait for nurses to develop in order to reduce the negative effects of conflict on their jobs.

2.2.4 Resilience, Self-efficacy, and Burnout in Nursing Students

In a variety of areas, resilience and its application to the nursing student population has been studied. The review of literature looked into nursing students' resilience levels and how they were developed or built. The majority of existing literature indicates that significant relationships were revealed between resilience and mindfulness, happiness, and self-efficacy (Benada & Chowdhry, 2017; Rios-Risquez et al., 2016). Whereas fewer studies assessed burnout in nursing students and its relationship to resilience and self-efficacy (Rees et al., 2016). Finally, few studies have been conducted to investigate the relationship between resilience and academic success, and between resilience and burnout among nursing students. No studies were found on the relationship between resilience and intention to stay in the profession in the future in the nursing student population.

According to the literature, resilience is an important attribute for nursing students. Nursing students face a variety of stressors in both their academic and personal lives. Additionally, academic pressure, faculty and student incivility, and stress related to the clinical setting, such as exposure to death, dying, and communicable disease, can all affect nursing students (Hodges et al., 2005; Thomas & Revell, 2016).

little amounts of recent research examined the state of resilience among nursing students. To investigate nursing students' understanding and enactment of resilience, Reyes et al. (2015) conducted a constructivist, grounded theory. In-depth interviews were used on 38 baccalaureate nursing students from Canada. Thematic analysis revealed a common process of ‘pushing through’ as nursing students’ understanding of resilience. Participants reported using this process to withstand challenges in their personal and academic lives.

Jackson, (2018) studied the resilience process on nine graduate nursing students. Thematic analysis of in-depth interviews revealed a common resilience process characterized by the ability to manage challenges with the help of passion and support. Similarly, Wahab et al., (2017) looked at new graduate nurses' understanding of resilience. Nine new graduate nurses from Singapore were chosen in this qualitative study. Thematic analysis from in-depth interviews revealed a common understanding of resilience as persevering and overcoming obstacles, adapting to new situations, and taking control of ones learning.

Aside from investigating nursing students' understanding of resilience, little research has been carried on their resilience levels. Tambag and Can (2018) conducted a cross-sectional study to assess the resilience of 659 undergraduate students in the health sciences. The researchers also aimed to figure out what factors affected this population's resilience. The average resilience levels for this group were found to be unsatisfactory (183.09),

despite the fact that the scale's highest score was 250. In addition, students in their final year showed higher levels of resilience. The findings backed up the theory that students' resilience grew over time as they progressed through education. In addition to the previous, a cross-sectional study by Chow et al., (2018) which aimed to investigate Resilience and well-being among 678 university nursing students in Hong Kong. By using the 10-item Connor-Davidson Resilience Scale (CD-RISC-10), the results revealed relatively lower scores of resilience which ranged from 7 to 40 with a mean of 24 (SD = 5.7). When comparing the resilience levels of undergraduate and postgraduate students, the total scores were found to be 23.8 and 24.9 respectively.

In Palestine, Alkaissi et al., (2017) conducted a cross-sectional study to quantify resilience and to investigate the contribution of demographic variables to resilience levels among 314 nursing students from An-Najah National University. The students answered the Trait Resilience Scale (TRC), State Resilience Scale (SRC), and Personal demographics. The findings of this study revealed a Mean (SD) of Trait Resilience Scale 71.50 (±7.51) and for State Resilience Scale 62.63 (±6.742). The findings showed that 70/314 (22.3%) of nursing students have an extreme trait resilience scale (65-75) and 135/314 (43.0%) of nursing students have an extreme state resilience scale (87-90). According to the findings, there was a statistically significant relationship between extreme trait resilience and personal characteristics. The study found that students with high trait resilience scale scores were nonsmokers ($p = 0.046$), studied every day

(p = 0.000), and had a family income of more than 5000 NIS (p = 0.015). The study was also shown that the students who have recorded extreme scores of state resilience scale were female students (P = 0.046), first-year students (P=0000), students with no diseases (P= 0. 008), students who have siblings (0.040), students who are not travelling every day (P= 0.032), students who have part time work (P = 0.035), students studying every day (P = 0.006), and students living with other students (P = 0.034).

The majority of existing research indicates that resilience has a significant impact on psychological development. Multiple studies have linked resilience to improved psychological well-being (Chow et al., 2018; He et al., 2018; Smith & Yang, 2017). Resilience among nursing students is strongly linked to improved psychological well-being. Xuhua He et al., (2018) conducted a cross-sectional, descriptive, predictive study to investigate predictors of psychological well-being among 538 nursing students in Australia. The CD-RISC (Connor & Davidson, 2003) was used to measure resilience, and the study revealed that resilience was the strongest predictor of psychological well-being (B = 0.44, p <.001). Furthermore, students with higher levels of resilience reported higher levels of overall psychological well-being.

Chow et al. (2018) revealed similar results in their study. A population of university nursing students (N = 678) was surveyed using the CD-RISC (Connor & Davidson, 2003) in a cross-sectional, descriptive, and correlational study. This study discovered a moderately positive

relationship between resilience and perceived well-being (r =.378, p=.000). Resilience was also found to be an important predictor of perceived well-being (B = 0.259, p < .001).

Rios-Risquez et al. (2016) identified a positive link between resilience and psychological health. This study employed a cross-sectional design with 116 nursing students from Spain. In this study, the CD-RISC (Connor & Davidson, 2003) and other measures were used to assess resilience. According to the findings of this study, there was a significant negative relationship between resilience and emotional exhaustion (r = -0.55, p< .01). Furthermore, a significant positive relationship between resilience and psychological health was identified. Because resilience was associated with lower levels of psychological discomfort and burnout, higher resilience scores predicted better perceived psychological health.

Fewer studies have examined the relationship between resilience and nursing student academic success. Beauvais et al. (2014) conducted a descriptive, correlational study to examine the relationship between emotional intelligence, psychological empowerment, resilience, and spiritual well-being and academic success in 124 undergraduate and graduate nursing students from a single private Catholic nursing institution. Nursing students in their first year were not included in this study. In this study, the RS (Wagnild & Young, 1993) was used to assess resilience levels. The findings revealed a significant relationship between psychological empowerment, resilience, spiritual well-being, and academic

success. The study's results concluded that resilience might play an important role in persistence through the challenges of nursing education.

Furthermore, to identify characteristics of nursing students with high academic resilience, Hwang and Shin (2018) conducted a descriptive cross-sectional study. A total of 254 junior and senior level nursing students from South Korea were used in this study. A variety of questionnaires were used to assess academic resilience, clinical practice stress, clinical practice satisfaction, and social-affective capability. Although Academic resilience differs slightly from individual resilience, the common theme of "overcoming stress" is consistent with the definition of individual resilience. The study's findings revealed that students with higher academic resilience were more likely to continue their studies. Furthermore, students with higher resilience had a lower proportion of respondents with a GPA below 3.0. This study found a link between academic resilience and academic achievement.

According to the literature, resilience has been linked to increased happiness, self-efficacy, positive coping mechanisms, and decreased burnout among nursing students. Benada and Chowdhry (2017) investigated the link between resilience and positive psychological outcomes as happiness and mindfulness in a correlational study. 70 Nursing students from India were included in this study. The RS (Wagnild & Young, 1993) was used to assess resilience. The findings revealed a positive relationship between happiness, resilience, and mindfulness.

Rees et al., (2016) conducted a cross-sectional study between July 2014 and July 2015, which aimed to test the newly developed ICWR-1 (The international collaboration of workforce resilience model) of individual psychological resilience on 422 student nurses from across Australia and Canada. As predicted by the model, results from the CD-RISC showed positive relationships between resilience and mindfulness ($r = .627$, $p < .01$), self-efficacy ($r = .666$, $p < .01$), and adaptive coping ($r = .131$, $p < .01$). Additionally, burnout had a significant negative relationship to resilience ($r = -.486$, $p < .01$), and higher mindfulness, higher self-efficacy, and coping scores were associated with lower burnout. These findings offered support for the development of programs for students that teach mindfulness skills, adaptive coping skills and strategies directly designed to bolster self-efficacy as a potentially important approach to strengthening student nurse resilience and thereby potentially preventing burnout. Similarly, Chamberlain et al. (2016), investigated resilience in 240 third-year nursing students in Australia. The CD-RISC (Connor & Davidson, 2003). The results found that resilience natively correlated with compassion fatigue ($r = -0{\cdot}472, P < 0{\cdot}001$), and compassion fatigue correlated positively with burnout ($r = 0{\cdot}529, P < 0{\cdot}001$). This study emphasized the importance of developing resilience in nursing students in order to improve their overall psychological health.

Škodová & Bánovčinová, (2018) also identified a significant negative relationship between resilience and maladaptive coping strategies in a correlational study that was conducted on 150 baccalaureate nursing

students. Findings revealed that participants with fewer resources for positive coping strategies had lower resilience scores. Likewise, Li et al. (2014) found similar results in their cross-sectional study on 202 nursing students from China. According to the survey results, students with moderate resilience had a greater ability for posttraumatic growth/ coping ability. In the nursing student population, these studies suggested that resilience is important for mindfulness, self-efficacy, coping, and a reduction in negative thinking.

2.2.5 Building Resilience in Nursing Students

Building resilience in nursing students has received little attention. Based on the literature, it appeared that there were ways to influence resilience levels in the nursing student population. Pines et al. (2014) conducted a quasi-experimental, pretest-posttest study with a group of 60 undergraduate nursing students. The intervention in this study used didactic and simulated training to teach resiliency skills, improve perceptions of empowerment, and increase knowledge of conflict resolution. The results of this study revealed that students' empowerment and stress resiliency did not change significantly after training.

Škodová & Lajčiaková, (2015) conducted a similar study using a quasi-experimental, pretest-posttest design to investigate the effect of psychosocial training on improving coping. Psychosocial training aimed at improving social interaction and communication was conducted on 97 university students in the health professions. According to the findings,

resiliency training resulted in a significant reduction in burnout syndrome, an increased sense of coherence, and increased resilience levels. The findings of this study suggested that targeted training could significantly boost nursing students' resilience.

According to research, other factors influenced the development of resilience in nursing students, in addition to training programs. Lopez et al. (2018) carried out a qualitative study to investigate the impact of clinical placement and its relationship to resilience building. A group of 126 Singaporean nursing students (junior and senior level) participated in audio-recorded interviews. According to the study's thematic analysis, nursing students felt stressed when they were first placed in clinical. The majority of students dealt with this challenge by talking with their peers. Finally, after accumulating clinical experience, students were able to adapt. According to the findings of this study, resilience develops over time and after the clinical experience.

Summary

This chapter presented literature relevant to individual resilience, self-efficacy, and burnout and prominent themes for each subsection were identified. The literature provided compelling evidence of the psychological benefits of resilience for both practicing nurses and nursing students. Resilience improved overall psychological well-being, enhanced self-efficacy and reduced stress in both populations (He et al., 2018; Rees et al., 2016; Meyer and Shatto, 2018). The literature also indicated that

resilience could be built or improved. Targeted intervention in resiliency training has been shown to be effective in both practicing nurses and nursing students (Škodová & Lajčiaková, 2015).

Although the literature has shown that resilience is a beneficial variable to the nursing students, understanding resilience in nursing students is still in its infancy (Jeffreys, 2015; Thomas & Revell, 2016). Gaps persist in the literature regarding whether or not nursing burnout formulates during the working phase or before while attending nursing school, and weather intention to stay in the profession in the future is enhanced by a strong resilience and self -efficacy in undergraduate nursing students. In light of the gaps identified in the literature, more research is needed to clarify and confirm the understanding if a relationship exists between resilience, self-efficacy, and burnout in undergraduate nursing students.

Chapter Three
Methods

The primary purpose of this study was to examine the relationship between resilience, self-efficacy, and burnout in baccalaureate nursing students. In this chapter, the methodology used to carry out the study is presented. Included are descriptions of the research design, setting, sample, procedures, instruments, data analysis, and ethical considerations.

3.1 Study Design

A descriptive-correlational research study approach was used to conduct this investigation. A descriptive-correlational design is appropriate for the purpose of examining the relationship among variables (Polit & Cheryl Tatano Beck, 2004). For this study, the research design of correlation was chosen to answer the research questions.

The variables included in the study are presented in Figure 1

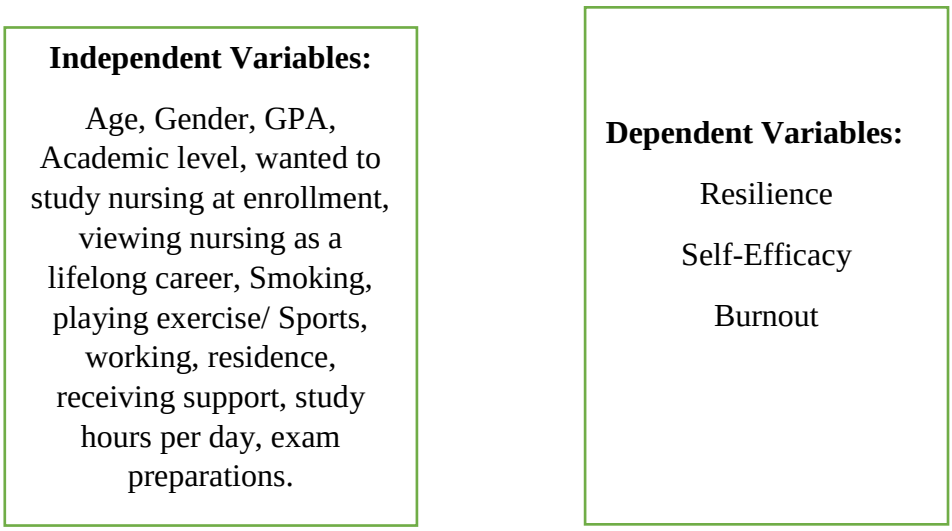

Figure 1: Study variables.

Resilience, general self-efficacy, and burnout were measured using three measures. The independent variables (age, gender, GPA, study hours per day, employment, receiving support) were not manipulated in this study. These variables were chosen based on evidence from the NURS model (Jeffreys, 2015), which suggested that academic factors, student profile characteristics, professional integration factors, and environmental factors all had a significant impact on retention in undergraduate nursing education. Other variables were also added to this study such as wanted to study nursing at enrollment and viewing nursing as a lifelong career to investigate their relationship with burnout.

3.2 Setting

In order to consider the sample from different representative areas of the West Bank with varying demographic backgrounds that reflected the nursing student population as a whole. The setting for this study included three large university institutions. From the South-Bethlehem University; from the middle- Birzeit university; from the North- An najah National university. All the universities agreed to participate in the study. Due to the COVID-19 pandemic and transition to online learning, data collection for the entire sample was recruited electronically.

3.3 Sample and Sampling Method

This study used a nonprobability convenience sampling plan to obtain participants. The target population for this research study included all nursing students currently enrolled in a baccalaureate nursing program

from different academic years. Since this group of students readily reflected the desired research population, all students currently enrolled in an accredited baccalaureate nursing program at the three mentioned universities were eligible for the study. Any unwilling students or those who do not submit the survey were excluded.

The sample size for this study was calculated based on 95% CI and a 5% margin of error by using the Raosoft sample size calculator (Raosoft, 2004), and the recommended sample was 320. All students within the baccalaureate nursing program from the mentioned nursing institutions were given the opportunity to participate in the study.

3.4 Inclusion and Exclusion Criteria

Only baccalaureate nursing students across academic years form the selected institutions were included in the study. Graduate nursing students were excluded from the study.

3.5 Instruments

Three instruments were used in this study. (CD-RISC) (Connor and Davidson, 2003) was used to measure resilience, The General Self-Efficacy Scale (GSES) (Schwarzer & Jerusalem,1995) was used to measure self-efficacy, and the burnout scale was taken from the Professional Quality of Life Scale Version 5 (ProQol5) (Stamm, 2010) to measure burnout. A demographic data sheet developed by the primary investigator was also used to gather demographic and other variable data.

3.5.1 Validity and Reliability

3.5.1.1 Resilience Scale

The Connor and Davidson (2003) resilience scale is a survey-based measure of resilience. Evidence from previous studies in the community of nursing populations (Gillespie, 2007) suggests that this scale is a valid and reliable measure of resilience for a range of normal and clinical populations (Connor, Davidson, & Lee, 2003). This scale was used in this study because is one of the most common instruments to assess resilience amongst adults, nursing, and nursing students (Gras et al., 2019). The original scale contains 25 items, the scale uses a five-point Likert scale ranging from 0-4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4) with higher scores reflect greater resilience. Factor analyses have indicated that the 25-item measure is multifactorial, consisting of factors such as hardiness (10 items) social support/ purpose (4 items), faith (2 items), and persistence (7 items). For the present study, we elected to use the shorter 10-item version because factor analyses have found this version to be a pure measure of the central core construct of resilience that retains the excellent psychometrics of the longer version (Campbell-Sills & Stein, 2007). This was considered to be important for the present study where other conceptually similar construct is being investigated, such as self-efficacy. The CD-RISC has been validated in a variety of countries and cultures, such as Australia (Burns & Anstey, 2010), China (Wang et al., 2010; Yu et al., 2011), India (Singh &

Yu, 2010), Korea (Jung et al., 2012), South Africa (Jorgesen & Seedat, 2008), Spain (Manzano-García & Ayala-Calvo, 2013), Turkey (Karairmak, 2010) and the United (Burrow-Sánchez et al., 2014). The scale was also reliable and valid in the Arabic culture and was used to measure resilience in Egypt, Jordan, and Syria (Alduraidi et al., 2020; Alqudah, 2013; Abd El-Ghafar et al., 2018). Based on the psychometric analyses completed with this instrument, it was clear that the CD-RISC did measure what it claimed to measure. Overall, the internal consistency of the CD-RISC was adequately demonstrated in a number of studies. Lamond et al. (2009) reported a four-factor CD-RISC structure in a sample of 1,395 women, the alpha for the whole scale was .923. Singh & Yu, (2010) reported a four-factor structure when using the CD-RISC in a sample of 256 Indian undergraduate students, individual alphas for the factors ranged from .69 to .80 and was .89 for the entire scale. Furthermore, the scale demonstrated adequate reliability Cronbach's $\alpha = .81$ in a study involved a total of 449 student nurses in southwestern Nigeria (Aloba et al., 2016). To determine reliability of the measures in this study, internal consistency reliability was measured using Cronbach's alpha. The Cronbach's alpha for the Connor and Davidson Resilience Scale (CD-RISC) in this study was 0.851 and was acceptable for this scale. The Cronbach's alpha from this sample was consistent with the original instrument psychometric evaluation, which showed an internal consistency reliability coefficient 0.89 (Connor & Davidson, 2003). In this study, the scale was used in the Arabic language;

the Arabic scale was requested by the researcher from the author and was sent in the Arabic language by E-mail. Refer to Annex 1.

3.5.1.2 The General Self-Efficacy Scale (GSES)

The Schwarzer & Jerusalem (1995) General self-efficacy scale refers to a broad and stable sense of personal competence to deal effectively with a variety of stressful situations. GSE is a universal construct, which means that it characterizes a basic belief that is inherent in all individuals. The GSE scale includes 10 items. A typical item is, “Thanks to my resourcefulness, I can handle unforeseen situations.” Possible responses are not at all true (1), hardly true (2), moderately true (3), and exactly true (4), yielding a total score between 10 and 40, with higher scores indicating higher self-efficacy. The psychometric properties of the scale were assessed with samples across 25 nations and the results obtained confirmed that perceived general self-efficacy appears to be a unidimensional and universal construct that yields meaningful relations with other psychological constructs (Luszczynska et al., 2005; Scholz et al., 2002). High reliability, stability, and construct validity of the GSE have been confirmed and the scale has been adapted to 28 languages (Schwarzer & Jerusalem, 1995).

The Cronbach’s alpha for the General Self-Efficacy Scale (GSES) in this study was 0.899 and was acceptable for this scale. The Cronbach’s alpha from this sample was consistent with the instrument psychometric evaluation, which was tested in a sample of 19,120 participants from 25

nations and showed internal consistency reliability ranging from 0.76 to 0.90, with the majority in the high 0.80s (Scholz et al., 2002). In this study, the scale was used in the Arabic language that was available online at the author website in different languages including Arabic.

3.5.1.3 The Burnout Scale

The burnout scale is a subscale, taken from the Professional Quality of Life Scale Version 5 (ProQol5) (Stamm, 2009). The Professional Quality of Life Scale version 5 (ProQoL-5) has 30 items and represents attempts to combine earlier subscales on compassion satisfaction with compassion fatigue (Stamm, 2009). It has three subscales: compassion satisfaction, which evaluates the pleasure clinicians derive from their work as a result of being exposed to traumatizing situations; compassion fatigue or secondary traumatic stress items, which evaluate potential distress due to exposure to a variety of traumatized clients (i.e., critical care patients); and burnout items, which evaluate feelings of hopelessness and frustration after little accomplishments (Sacco et al., 2015). Although the ProQOL was originally developed for emergency personnel and trauma counselors, the scale has been utilized internationally and also has been psychometrically validated in different studies for various target populations (Stamm & Com, 2010). The ProQOL-5 subscales have been reported to have statistically acceptable internal consistency values, ranging from 0.75 to 0.88 (Stamm, 2002). The Burnout scale consists of 10 items, and possible response are’ 1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often. The sum of

burnout questions of 22 or less indicate low burnout, between 23-41 indicate moderate burnout, and 42 or greater indicate high burnout. The burnout scale was used in different international studies on nursing and nursing students to measure burnout (Rees et al., 2016), as well as among nurses and physicians in Arabic countries as Egypt and Jordan (Al Barmawi et al., 2019; El-Shafei et al., 2018). The average score on the burnout scale is 50 (SD 10; alpha scale reliability .75) (Stamm, 2009). The Cronbach's alpha for the burnout scale in this study was 0.759. The Cronbach's alpha in this study was consistent with the original instrument psychometric evaluation, which showed internal consistency reliability coefficient .75 (Stamm, 2009). In this study, the scale was used in the Arabic language and was available online in the Arabic language at the author website.

3.5.1.4 Demographic Data Sheet

The demographic data sheet was developed by the researcher. The demographic data survey consisted of 12 questions with some variables adapted directly from the NURS (Jeffreys, 2015) model. The survey included both demographic questions and close-ended questions. Demographic questions included Academic level, gender, and residence. Close-ended questions included GPA, smoking, playing exercise, working, receiving support, wanted to study nursing at enrollment, viewing nursing as a life career, study hours per day (hour or less; 2-3 hours; 4 hours; more than 4 hours), and how to prepare for an exam (start studying before a week

or more from the exam; start studying before days from the exam; start studying before a day or less from the exam). Refer to Annex 2 to view the full questionnaire in the Arabic language.

3.6 Pilot study

A pilot study was conducted on 5% of the sample size (n=16) of undergraduate nursing students from one institution (Birzeit University), to determine the clarity of the questionnaire, and to estimate the time needed. Furthermore, the internal consistency for the three scales was measured using the Cronbach's alpha. The scale analysis revealed a Cronbach's alpha 0.937 for resilience, 0.939 for self-efficacy, and 0.860 for burnout measures. All the three measures demonstrated acceptable ranges. Overall, the final survey appeared to be well-designed, easy to score, and easy to interpret. The instrument appeared to be appropriate and acceptable for studying subjects from a wide range of populations and backgrounds. The questionnaire was easy to read and complete. The questionnaire had a low respondent burden because it could be completed in 10 minutes or less. The instrument appeared to be very simple to administer, process, and score making it a desirable tool for the current study. Because the instrument was piloted with the nursing student population and its satisfactory evaluation as stated above, it was a desirable instrument for the current research study.

3.7 Data Collection

Due to the COVID-19 pandemic and the transition to online learning, it was difficult to reach all nursing students manually. Therefore, in order to

give an equal opportunity to all nursing students to participate in the study, the researcher e-mailed the three universities to participate in the study after explaining the necessary details to understand the study, the universities were also informed that the data could be collected electronically due to the Covid-19 Pandemic. After all of the three universities agreed to participate in the study (Refer to Annex 4), the researcher mailed the link of the questionnaire (Google Form link) to the universities, and they distribute the questionnaire electronically through university portals. The questionnaire was also electronically distributed to nursing students groups on social media platforms to increase the number of respondents. All the data were collected from 31st May-29th June 2021.

Consent form explaining the purpose, nature and requirements for the study was attached to the questionnaire. The time to fill out the questionnaire was less than 10 minutes, and individuals were informed that no identifying information would be included on the survey (Anonymity) and the risks for participation were minimal; therefore, they were encouraged to respond to the survey as accurately as possible. It was also explained that completion of the survey represented consent for the study. Individuals were then instructed to complete the survey if they wished to participate in the study. The email of the researcher was also written on the consent, in the event that the research needs to be clarified further. To avoid missing data in the study, the survey was designed in such a way that the student could not submit his answers if some information were missing.

To maintain the confidentiality of the data, surveys were saved on a private account that could be only accessed by the researcher.

3.8 Ethical Considerations

Institutional Review Board approvals were obtained from An-najah National University prior to data collection (Refer to Annex 3). No foreseeable risks were associated with this research project. Completion of the survey constituted as informed consent, and no identifiable information was included in the survey (Anonymity). Confidentiality was maintained by numerically coding the completed surveys and destruction of data once the research was completed.

3.9 Data Analysis

The data were analyzed by a professional statistician using the IBM SPSS Statistics version (28) in two stages. The first stage involved analyzing and computing descriptive statistics as well as data distribution for each variable. The second stage of the data analysis was to describe the association of each variable. Completed surveys were reviewed for missing data, and the sum of total scores of resilience, self-efficacy, and burnout scales was done manually by the primary investigator. To ensure the accuracy of data, each individual score was double checked with a calculator. The data were collected and transcribed into a Microsoft Excel spreadsheet, which was then uploaded into SPSS for analysis. The data were reviewed and evaluated for correct entries, outliers, and missing information. To evaluate the frequencies and distributions, data for all

variables were analyzed and examined using frequency and descriptive statistics. The demographic data were examined to provide a thorough description of the sample in order to generalize the findings. Range, mean, and standard deviations were assessed for each variable. The primary goals of the analysis were to identify associations among variables through intra- and inter-subject comparisons; thus, correlational analysis was used to complete associations between variables. T-tests and ANOVA analysis were used to examine whether there are significant differences in group means.

3.10 Management of Subject Attrition

Subject attrition was not a concern as the survey was administered one time only. Participants were selected and surveyed during a single moment in time; therefore, subject attrition was not possible in this research study.

3.11 Missing Data

Missing data was not a concern as the electronical survey was designed in such a way that the student could not submit his answers if some information were missing.

3.12 Data Security

Electronic data were kept on an encrypted flash drive on a password-protected computer that only the researcher had access to. The data were compiled using a secure, password-protected Microsoft-Excel spreadsheet.

Because no identifying information was used in any form of the data, the individuals' anonymity was preserved.

Summary

This quantitative study used a descriptive-correlational design to examine the relationship between resilience, self-efficacy, and burnout in undergraduate nursing students. An electronically survey method was used for data collection via Google form. This study used a nonprobability convenience sampling plan to obtain participants from three large institutions: An-najah National University, Birzeit University, and Bethlehem University. Data analysis techniques included descriptive statistics of the research sample, internal consistency reliability for the survey tool, correlation analysis, and T-tests and ANOVA analysis were used to answer the research questions. This chapter explained the methods used in this quantitative study, and the next chapter will present the results obtained with these methods.

Chapter Four
Results

4.1 Overview

In this descriptive-correlational research study, a survey was used to examine the levels of, and the relationship between resilience, self-efficacy, and burnout among undergraduate nursing students. In addition, relationships between all study variables were explored. At first, descriptive statistics for all demographic and variable data were analyzed. Then, the internal consistency reliability coefficients for the three measures (CD-RISC, GSES, and Burnout) were measured with Cronbach's alpha. Then, Correlational analysis was used to determine significant relationships between the three measures. Finally inferential statistics were used to draw conclusions based on extrapolations.

4.2 Descriptive Statistics

A total of 409 nursing students completed the study survey. The sample included 220 (53.8%) students from An-najah national university, 133 (32.5%) from Birzeit university, and 56 (13.7%) from Bethlehem university. 131 (32 %) of the students were at their first-year academic level (Freshman's), 98 (24%) were at their second-year (Sophomores), 89 (21.8%) were at their third-year (Juniors), 91 (22.2%) were at their fourth-year (Seniors). For the total sample (n = 409), 279 (68.2%) were female students, 127 (31.1%) were male students, and 3 students preferred not to answer.

Students reported their GPA scores as the following: 44 (10.8%) reported high GPA scores (A (88-100)), 116 (28.4%) reported scoring (B (80-87.9)), 110 (26.9%) reported scoring (B- (76-79.9)), 83 (20.3%) reported scoring (C (70-75.9)), 48 (11.7%) reported scoring (C- (65-69.6)), and 8 students (2%) reported scoring less than C-.

For the total sample, 123 (30.1%) reported smoking cigarettes/ hookah, 204 (49.9%) reported playing exercise/sports, 128 (31.3%) reported working beside studying, 83 (20.3%) reported living in university dorm, 307 (75.15) reported receiving support from friends and family. For the total sample, 217 (53.1%) answered yes regarding if they wanted to study nursing when they joined the university, whereas approximately half of the students 192 (46.9%) didn't want to study nursing when they joined the university. 201 (49.1%) reported (yes) regarding viewing nursing as a lifelong career, whereas, more than half of the students 208 (50.9%) reported (no) regarding viewing nursing as a lifelong career. Regarding the daily study hours, the majority of the students 138 (33.7%) reported studying from 2-3 hours daily, and regarding how students prepare for an exam, the majority of the students 223 (54.5%) reported studying days before the exam. Frequencies and percentages for participants' demographics are presented in Table1.

Table 1: Participants' Demographics

Independent Variables	The type of Answer	Frequency (%)
The university that the student is enrolled at	An-Najah National University	220 (53.8%)
	Birzeit University	133 (32.5%)
	Bethlehem University	56 (13.7%)
	Total	409 (100%)
Academic Year	First	131 (32%)
	Second	98 (24%)
	Third	89 (21.8%)
	Fourth	91 (22.2%)
Gender	Male	127 (31.1%)
	Female	279 (68.2%)
	Prefer not to answer	3 (0.7%)
GPA	A (88-100)	44 (10.8%)
	B (80-87.9)	116 (28.4%)
	B- (76-79.9)	110 (26.9%)
	C (70-75.9)	83 (20.3%)
	C- (65-69.9)	48 (11.7%)
	Less than C-	8 (2%)
Wanted to study nursing when I joined the study	Yes	217 (53.1%)
	No	192 (46.9%)
I see myself working in the nursing profession all my life	Yes	201 (49.1%)
	No	208 (50.9%)
Smoking cigarettes or hookah	Yes	123 (30.1%)
	No	286 (69.9%)
Doing Sports/ Exercise	Yes	204 (49.9%)
	No	205 (50.1%)
Working while studying	Yes	128 (31.3%)
	No	281 (68.7%)
Living in Campus/ Dorm	Yes	83 (20.3%)
	No	326 (79.7%)
Receiving support from family and friends	Yes	307 (75.1%)
	No	102 (24.9%)
Average daily study hours	An hour or less	119 (29.1%)
	2-3 Hours	138 (33.7%)
	4 Hours	75 (18.3%)
	More than 4 Hours	77 (18.8%)
The method usually used to prepare for an exam	Start Studying a week or more before the exam	66 (16.1%)
	Start Studying days before the exam	223 (54.5%)
	Start Studying a day or less before the exam	120 (29.3%)

Note. This table reviews the participants' demographics (Frequencies and Percentages); university, academic year, gender, GPA, wanted to study nursing, viewing self-working in nursing lifelong, smoking, exercise, working, residence, receiving support, daily study hours, and method used to prepare for an exam.

4.3 Resilience, Self-efficacy, and Burnout Levels

To answer the first research question regarding the levels of resilience, self-efficacy and burnout among nursing students, the arithmetic means and standard deviation of the total responses of the sample members were found in the three scales.

In the measure of resilience scores using the CD-RISC which ranges from (0-40), if the total score was (20 or less), this was considered as low resilience level. Students' scores ranging from (21-30) were considered to have an average resilience, while students who scored more than 30 on the CD-RISC were considered to have a high resilience level. Regarding the General Self-efficacy Scale if the total score on the scale which ranges from (10-40) was (less than 25), this was considered as low self-efficacy. If students reported a score from a (25 – less than 35), the score was considered an average self-efficacy level, while a total of 35 or more on the GSES was considered a high self-efficacy. Regarding the burnout scores which ranges from (10-50), scoring (22 or less) indicated a low level of burnout, scores ranging from (23-41) indicated an average burnout, and scores that were (more than 41) indicated high level of burnout.

The results of the analysis showed that the level for these three measures was with the average ranges as presented in Table 2. The mean of resilience was (28.51), and the standard deviation was (6.72). 202 (49.4%) had average levels, 39 (9.5%) had low levels, whereas 168 (41.1%) had high resilience levels. The mean of self-efficacy was (30.14), and the

standard deviation was (5.60). 210 (51.3%) had average levels, 21 (5.1%) had low levels, whereas 178 (43.5%) had high levels of self-efficacy. The mean of burnout was (25.32), and the standard deviation was (6.92). 209 (51.1%) had average levels, 113 (27.6%) had low levels, whereas 87 (21.3%) had high levels of burnout. Table 2 presents results regarding the three measures in term of means, standard deviations, and levels.

Table 2: Means and SD of the Three Measures (Resilience, Self-efficacy, and Burnout)

The Measures	N	Mean	SD	The level
Resilience Measure	409	28.51	6.72	Average Resilience
Self-Efficacy Measure	409	30.14	5.60	Average Self-Efficacy
Burnout Measure	409	25.32	6.92	Average Burnout

Note. N: Number, SD: Standard Deviation.

4.4 Inferential Statistics

Correlational analysis was completed using Pearson Correlation. The primary purpose of this correlational analysis was to identify relationship between resilience, self-efficacy, and burnout. The test results show as in Table 3 that there is an inverse relationship between burnout and resilience, where the value of the correlation coefficient was (-0.35), and this value indicates a weak inverse correlation between the two measures, and this inverse relationship explains that whenever there is a decrease in the resilience there is an increase in the burnout and vice versa. The results also showed an inverse relationship between burnout and self-efficacy, with a value of the correlation coefficient (-0.21); this value indicates a weak inverse correlation between the two measures, and this relationship

explains that whenever there is an increase in self-efficacy, there is a decrease in burnout, and vice versa. The results also revealed a positive relationship between resilience and self-efficacy, and the value of the correlation coefficient was (0.68); this value indicates a good positive correlation between the two measures, and this value indicates that whenever there is an increase in resilience, there is an increase in self-efficacy, and whenever there is a decrease in resilience, there is a decrease in self-efficacy.

To answer the second research question based on the results, the relationship between these scales was an inverse relationship between burnout on the one hand and resilience and self-efficacy on the other hand, while the results revealed a positive correlation between resilience and self-efficacy. This means that higher resilience and self-efficacy among nursing students contribute to lower burnout.

Table 3: Correlational Analysis between the Three Measures (Resilience, Self-efficacy, and Burnout)

Measures / **The Correlations**		**Burnout Scale**	**Self-Efficacy Scale**	**Resilience Scale**
Burnout Scale	Pearson Correlation	1	-0.21-**	-0.35-**
	Sig. (2-tailed)		0.000	0.000
Self-Efficacy Scale	Pearson Correlation	-0.21-**	1	0.68**
	Sig. (2-tailed)	0.000		0.000
Resilience Scale	Pearson Correlation	-0.35-**	0.68**	1
	Sig. (2-tailed)	0.000	0.000	

Note: **. Correlation is significant at the 0.01 level (2-tailed).

To answer the third research question, Inferential Statistics (t-test and ANOVA) were used. A post hoc test was also used after finding statistically significant results to determine from where the differences truly came. The answer for the third research question was guided by the third hypothesis (There are no statistically significant differences at 0.005 between resilience, self- efficacy, burnout, and other variables (gender, smoking, GPA, academic year, wanting to study nursing, viewing nursing as a life career, doing exercise, working, residence, receiving support, study hours, and how to prepare for an exam)).

To test this hypothesis, an independent sampling t-test was used depending on the variables (Gender, smoking, wanted to study nursing, viewing nursing as a life career, doing exercise, working, residence, receiving support) with resilience, self-efficacy, and burnout. In addition, one way ANOVA was used depending on the variables (GPA, Academic level, daily study hours, and exam preparation) with resilience, self-efficacy, and burnout.

4.5 Statistical significance

4.5.1 Gender

Regarding the gender variable, the results show that there are statistically significant differences in the three scales as seen in Table 4, as it was found from the analysis that the levels of burnout among males were higher than females (p= 0.003), this indicates that the burnout among females is lower than in males. Furthermore, the results revealed a statistically significant

differences in the measure of resilience in favor of males (p= 0.040), this indicates that the level of resilience in males is higher than in females. Regarding self-efficacy, there were statistically significant differences in the measure of self-efficacy in favor of males (p=0 .018), the result indicated that the level of self-efficacy in males is higher than in females.

Table 4: Significant difference in Gender in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout).

Group Statistics	The Measures		N	Mean	Std. Deviation	t- test value	P Value
Gender	Burnout	Male	127	26.73	6.76	3.00	0.003
		Female	279	24.56	6.76		
	Self-Efficacy	Male	127	31.15	5.54	2.37	0.018
		Female	279	29.75	5.52		
	Resilience	Male	127	29.57	6.33	2.06	0.040
		Female	279	28.13	6.66		

Note. N: Number, SD: Standard Deviation.

4.5.2 Smoking

Regarding the smoking variable, the results shown in Table 5 indicate that there is a statistically significant difference with burnout, as it was found from the analysis that the level of burnout for yes is higher than for no (p= 0.001). This indicates that the burnout among no-smokers is lower than in smokers. On the other hand, there were no statistically significant differences in the self-efficacy and resilience measures to this variable.

Table 5: Significant difference in Smoking in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t-value	P value
Smoking cigarettes or hookah	Burnout	Yes	123	27.02	7.34	3.32	0.001
		No	286	24.58	6.61		
	Self-Efficacy	Yes	123	30.19	6.47	.10	0.068
		No	286	30.12	5.19		
	Resilience	Yes	123	28.76	7.28	.51	0.369
		No	286	28.40	6.47		

Note. N: Number, SD: Standard Deviation.

4.5.3 Wanting to Study Nursing

Regarding the variable wanting to study nursing when joined the study/university, the results in Table 6 show that there were no statistically significant differences in both the burnout and self-efficacy measures. However, there was a statistically significant difference in the resilience depending on the variable wanted to study nursing (p= 0.008). The result indicates that the levels of resilience of those who wanted to study nursing when joined the university were higher than that of those who did not want to study this major.

Table 6: Significant difference in Wanted to Study Nursing in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t- value o	P value
Wanted to study nursing when I joined the study/ university	Burnout	Yes	217	24.79	6.91	-1.64	0.101
		No	192	25.91	6.89		
	Self-Efficacy	Yes	217	30.26	5.53	.47	0.636
		No	192	30.00	5.69		
	Resilience	Yes	217	29.33	6.71	2.65	0.008
		No	192	27.58	6.63		

Note. N: Number, SD: Standard Deviation.

4.5.4 Viewing Nursing as a Lifelong Career

Regarding viewing nursing as a lifelong career variable, the results in Table 7 show a statistically significant difference in burnout (p =0 .001). The results indicate that students who viewed themselves working in the profession as a life-long career had lower levels of burnout compared to those who did not view themselves working in this profession throughout their lives. Moreover, the result showed a statistically significant difference in the measure of resilience (p = 0.001), the results indicate that the level of resilience of those who viewed themselves working in the nursing profession throughout their lives was higher than those who did not. On the other hand, there was no significant difference between self-efficacy and this variable.

Table 7: Significant difference in Viewing Nursing as a life-long career in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t-value o	P value
I see myself working in the nursing profession all my life (viewing nursing as a life-long career)	Burnout	Yes	201	24.12	6.60	-3.47	0.001
		No	208	26.47	7.04		
	Self-Efficacy	Yes	201	30.49	5.36	1.25	0.210
		No	208	29.80	5.82		
	Resilience	Yes	201	29.68	6.51	3.53	0.000
		No	208	27.37	6.74		

Note. N: Number, SD: Standard Deviation.

4.5.5 Playing Exercise/ Sports

Regarding the variable playing exercise/sports, the results found a statistically significant differences in the three scales. As shown in Table 8 The result showed a statistically significant differences in burnout (p= 0.001). The results indicate that students who exercise/ play sports have lower levels of burnout compared to those who do not exercise/ play sports. In addition, the results also showed that students who exercise/ play sports have higher self-efficacy (p = 0.000) compared to those who do not exercise/ play sports. Furthermore, the results revealed a statistically significant differences in the measure of resilience (p= 0.001), this indicates that students who exercise/ play sports have higher resilience compared to those who do not exercise/ play sports.

Table 8: Significant difference in Exercise/ Play sports in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t-value	P value
Exercise/ Play Sports	Burnout	Yes	204	24.29	6.74	-3.02	0.003
		No	205	26.34	6.96		
	Self-Efficacy	Yes	204	31.15	5.26	3.70	0.000
		No	205	29.13	5.75		
	Resilience	Yes	204	29.86	6.14	4.15	0.000
		No	205	27.16	7.01		

Note. N: Number, SD: Standard Deviation.

4.5.6 Working

Regarding the working variable, as shown in Table 9 the results revealed a statistically significant difference in both resilience and self-efficacy scales. Students who work along with their study have higher resilience

(p = 0.005), and self-efficacy (p = 0.001) compared to students who do not work. However, there was no statistically significant difference in the burnout measure.

Table 9: Significant difference in Working in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t-value	P value
Working beside studying	Burnout	Yes	128	25.41	7.23	.18	0.858
		No	281	25.27	6.79		
	Self-Efficacy	Yes	128	31.47	5.26	3.28	0.001
		No	281	29.53	5.65		
	Resilience	Yes	128	29.89	6.50	2.84	0.005
		No	281	27.88	6.74		

Note. N: Number, SD: Standard Deviation.

4.5.7 Residence

Regarding the residence variable, the results revealed as in Table 10 that students living in university dorms have higher resilience (p = 0.024), and self-efficacy (p = 0.034) compared to those who do not live-in university dorms. whereas no statistically significant difference was found with the burnout measure.

Table 10: Significant difference in Residence in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t-value	P value
Living in university dorm	Burnout	Yes	83	24.96	6.63	-.52	0.605
		No	326	25.40	7.00		
	Self-Efficacy	Yes	83	31.30	5.40	2.13	0.034
		No	326	29.84	5.62		
	Resilience	Yes	83	29.99	6.69	2.26	0.024
		No	326	28.13	6.69		

Note. N: Number, SD: Standard Deviation.

4.5.8 Receiving Support from Friends and Family

Regarding receiving support variable, as shown in Table 11 the results revealed that students who do not receive support from family and friend have higher burnout compared to those who receive support (p= 0.001). Moreover, students who reported receiving support from friends and family have higher resilience levels (p= 0.001). However, no relationship was found with the self-efficacy measure.

Table 11: Significant difference in Receiving Support in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

Group Statistics	The Measures		N	Mean	Std. Deviation	t-value	P value
Receiving support from family and friends	Burnout	Yes	307	24.09	6.37	-6.52	0.000
		No	102	29.00	7.23		
	Self-Efficacy	Yes	307	30.44	5.14	1.65	0.101
		No	102	29.24	6.75		
	Resilience	Yes	307	29.30	6.32	4.21	0.000
		No	102	26.13	7.34		

Note. N: Number, SD: Standard Deviation.

4.5.9 Academic Year

Regarding the academic year, the results of the one-way analysis of variance seen in Table 12, show that there is a statistically significant difference in burnout (p= 0.015), whereas no statistically significant differences were found in the measures of resilience and self- efficacy.

A post hoc test was done to determine from where the differences truly come from. Table 12.1 shows the differences that appeared in the burnout measure, and the differences were in favour of the Third- and Fourth-Year

Nursing Students when compared with First Year Nursing Students. The results indicate that the level of burnout in the third- and fourth-year nursing is higher compared to those in the first year of their study.

Table 12: Significant difference in Academic Year in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

ANOVA						
Academic Year		**Sum of Squares**	**df**	**Mean Square**	**F**	**P value**
Burnout	Between Groups	498.72	3	166.24	3.54	0.015
	Within Groups	19029.59	405	46.99		
	Total	19528.31	408			
Self-Efficacy	Between Groups	156.56	3	52.19	1.67	0.172
	Within Groups	12634.50	405	31.20		
	Total	12791.06	408			
Resilience	Between Groups	180.57	3	60.19	1.34	0.262
	Within Groups	18249.66	405	45.06		
	Total	18430.23	408			

Note. F: is a value on the F Distribution, P: The level of statistical significance.

Table 12.1: Academic Year in Relation to Burnout

Post Hoc Tests				
Multiple Comparisons				
LSD				
Dependent Variable	**(I) Academic Year**	**(J) Academic Year**	**Mean Difference (I-J)**	**P value**
Burnout	First Year Students	Second Year Students	-.73-	0.424
		Third Year Students	-2.42-*	0.011
		Fourth Year Students	-2.52-*	0.007
	Second Year Students	First Year Students	.73	0.424
		Third Year Students	-1.69-	0.094
		Fourth Year Students	-1.79-	0.074
	Third Year Students	First Year Students	2.42*	0.011
		Second Year Students	1.69	0.094
		Fourth Year Students	-.10-	0.922
	Fourth Year Students	First Year Students	2.52*	0.007
		Second Year Students	1.79	0.074
		Third Year Students	.10	0.922

4.5.10 GPA

Regarding the GPA variable, the results of the one-way analysis of variance test in Table 13 shows that there is a statistically significant difference in burnout (p= 0.027), whereas no statistically significant differences were found in self-efficacy and resilience measures.

A post hoc test was done to determine from where the differences truly came from. Table 13.1 shows the differences that appeared in the burnout measure. The differences between A (88-100) and C- (65-69.9) in favor of C-, indicate that levels of burnout for this rate are higher than those for A (88-100), as well as the differences between A (88-100) and Less than C- were in favor of this rate, indicating that levels of burnout for this rate are higher than those for A (88-100). The differences between B (80-87.9) and Less than C- were in favor of this rate, indicating that levels of burnout for this rate are higher than those for B (80-87.9). The differences between B- (76-79.9) and Less than C- were in favor of this rate, indicating that levels of burnout for this rate are higher than those for B- (76-79.9). Finally, the differences between C (70-75.9) and less than C- were in favor of this rate, indicating that levels of burnout for this rate are higher than those for C (70-75.9).

Table 13: Significant difference in GPA in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

ANOVA						
GPA		**Sum of Squares**	**df**	**Mean Square**	**F**	**P value**
Burnout	Between Groups	599.69	5	119.94	2.55	0.027
	Within Groups	18928.62	403	46.97		
	Total	19528.31	408			
Self-Efficacy	Between Groups	43.75	5	8.75	.28	0.926
	Within Groups	12747.31	403	31.63		
	Total	12791.06	408			
Resilience	Between Groups	291.13	5	58.23	1.29	0.266
	Within Groups	18139.10	403	45.01		
	Total	18430.23	408			

Note. F: is a value on the F Distribution, P: The level of statistical significance.

Table 13.1: GPA in Relation to Burnout

Post Hoc Tests				
Multiple Comparisons				
LSD				
Dependent Variable	**GPA (I)**	**GPA (J)**	**Mean Difference (I-J)**	**P value**
Burnout	A (88-100)	B (80-87.9)	-1.97-	0.105
		B- (76-79.9)	-1.30-	0.290
		C (70-75.9)	-2.09-	0.103
		C- (65-69.6)	-2.90-*	0.043
		Less than C-	-8.52-*	0.001
	B (80-87.9)	A (88-100)	1.97	0.105
		B- (76-79.9)	.68	0.459
		C (70-75.9)	-.12-	0.905
		C- (65-69.6)	-.93-	0.431
		Less than C-	-6.55-*	0.009
	B- (76-79.9)	A (88-100)	1.30	0.290
		B (80-87.9)	-.68-	0.459
		C (70-75.9)	-.79-	0.426
		C- (65-69.6)	-1.60-	0.177
		Less than C-	-7.23-*	0.004
	C (70-75.9)	A (88-100)	2.09	0.103
		B (80-87.9)	.12	0.905
		B- (76-79.9)	.79	0.426
		C- (65-69.6)	-.81-	0.516
		Less than C-	-6.43-*	0.012
	C- (65-69.6)	A (88-100)	2.90*	0.043
		B (80-87.9)	.93	0.431
		B- (76-79.9)	1.60	0.177
		C (70-75.9)	.81	0.516
		Less than C-	-5.63-*	0.032
	Less than C-	A (88-100)	8.52*	0.001
		B (80-87.9)	6.55*	0.009
		B- (76-79.9)	7.23*	0.004
		C (70-75.9)	6.43*	0.012
		C- (65-69.6)	5.63*	0.032

4.5.11 Daily Study Hours

Regarding the daily study hours variable, the results of the one-way analysis of variance test as shown in Table 14 reveals a statistically significant differences in the burnout measure (p= 0.007), while there were no statistically significant differences in self-efficacy and resilience measures.

In order to determine from where the differences truly came from, a post hoc test was done. As seen in Table 14.1, the differences that appeared in the burnout measure were in favor of the study rate of an hour or less, meaning that students who study for an hour or less on a daily basis have higher levels of burnout compared to students who study more.

Table 14: Significant difference in Daily study hours in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

ANOVA						
Daily study hours		**Sum of Squares**	**df**	**Mean Square**	**F**	**P value**
Burnout	Between Groups	578.84	3	192.95	4.12	0.007
	Within Groups	18949.47	405	46.79		
	Total	19528.31	408			
Self-Efficacy	Between Groups	175.84	3	58.61	1.88	0.132
	Within Groups	12615.22	405	31.15		
	Total	12791.06	408			
Resilience	Between Groups	63.52	3	21.17	.47	0.706
	Within Groups	18366.72	405	45.35		
	Total	18430.23	408			

Note. F: is a value on the F Distribution, P: The level of statistical significance.

Table 14.1: Daily Study Hours in Relation to Burnout

Post Hoc Tests				
Multiple Comparisons				
LSD				
Dependent Variable	**(I) Average daily study hours**	**(J) Average daily study hours**	**Mean Difference (I-J)**	**P value**
Burnout	An hour or less	2-3 Hours	2.1287*	0.013
		4 Hours	2.5724*	0.011
		More than 4 Hours	3.1184*	0.002
	2-3 Hours	An hour or less	-2.1287-*	0.013
		4 Hours	.4438	0.651
		More than 4 Hours	.9897	0.310
	4 Hours	An hour or less	-2.5724-*	0.011
		2-3 Hours	-.4438-	0.651
		More than 4 Hours	.5460	0.623
	More than 4 Hours	An hour or less	-3.1184-*	0.002
		2-3 Hours	-.9897-	0.310
		4 Hours	-.5460-	0.623

4.5.12 Preparing for the Exam

Regarding the method used by the students to prepare for an exam, the results of the one-way analysis of variance test in Table 15 show that there are statistically significant differences in the burnout and resilience measures (p= 0.001). Whereas no statistically significant differences were found with the self-efficacy measure.

A post hoc test was done to determine from where the differences truly came from. Table 15.1 shows the differences that appeared in the burnout and resilience scales. The differences in burnout were in favor of the method (start studying a day or less before the exam), meaning that students who use this strategy have higher levels of burnout. Results also showed that the differences in resilience were in favor of the method (start studying a week or more before the exam), meaning that students who use this strategy have higher levels of resilience.

Table 15: Significant difference in The Method Used to prepare for an exam in Relation to The Three Measures (Resilience, Self-efficacy, and Burnout)

ANOVA						
The Method Usually Used to Prepare for an Exam		**Sum of Squares**	**df**	**Mean Square**	**F**	**P value**
Burnout	Between Groups	642.95	2	321.48	6.91	0.001
	Within Groups	18885.36	406	46.52		
	Total	19528.31	408			
Self-Efficacy	Between Groups	88.66	2	44.33	1.42	0.244
	Within Groups	12702.39	406	31.29		
	Total	12791.06	408			
Resilience	Between Groups	623.16	2	311.58	7.10	0.001
	Within Groups	17807.08	406	43.86		
	Total	18430.23	408			

Note. F: is a value on the F Distribution, P: The level of statistical significance.

Table 15.1: Preparing for an Exam in Relation to Burnout and Resilience Measures

Post Hoc Tests				
Multiple Comparisons				
LSD				
Dependent Variable	**(I) The Method usually used to prepare for an exam**	**(J) The Method usually used to prepare for an exam**	**Mean Difference (I-J)**	**P value**
Burnout	Start Studying a week or more before the exam	Start Studying days before the exam	-1.80-	0.060
		Start Studying a day or less before the exam	-3.76-*	0.000
	Start Studying days before the exam	Start Studying a week or more before the exam	1.80	0.060
		Start Studying a day or less before the exam	-1.96-*	0.011
	Start Studying a day or less before the exam	Start Studying a week or more before the exam	3.76*	0.000
		Start Studying days before the exam	1.96*	0.011
Resilience	Start Studying a week or more before the exam	Start Studying days before the exam	2.57*	0.006
		Start Studying a day or less before the exam	3.82*	0.000
	Start Studying days before the exam	Start Studying a week or more before the exam	-2.57-*	0.006
		Start Studying a day or less before the exam	1.25	0.097
	Start Studying a day or less before the exam	Start Studying a week or more before the exam	-3.82-*	0.000
		Start Studying days before the exam	-1.249-	0.097

The answer for the third research question based on the results show that higher resilience was associated with variables: Wanted to study nursing when joined the university, viewing nursing as a life career, male gender, playing exercise/ sports, working beside studying, living on campus/dorm, and exam preparation (Start studying a week or more before the exam). Whereas, higher self-efficacy was associated with playing exercise/ sports, working beside studying, living on campus/ dorm, receiving support from friends and family, and male gender. Results also showed that higher burnout was associated with variables: not playing exercise, not receiving support from family & friends, smoking, not viewing nursing as a life career, higher academic level, lower GPAs, male gender, exam preparation (Start studying a day or less before the exam), and daily study hours (an hour or less).

Summary

This descriptive-correlational research study used a survey to examine resilience, self-efficacy, and burnout as well as, other variables with a sample of 409 baccalaureate nursing students. The sample was taken from three large nursing institutions and consisted primarily of female participants. The sample included nursing students from freshman to senior levels. The study variables were measured with a demographic survey, CD-RISC, GSES, and burnout measures. Reliability of the three measures in this sample was within acceptable ranges for Cronbach's alpha. The primary research question was answered using correlational analysis. The

results showed a weak inverse relationship between burnout on one hand and resilience and self-efficacy on the other hand. Furthermore, the results showed a good positive relationship between resilience and self-efficacy. The results also revealed that the level for the three measures were within the average ranges. High resilience and self-efficacy were associated with (male gender, wanted to study nursing, playing exercise, working, living on campus/ dorm, receiving support, viewing nursing as a life career, and exam preparation (studying a week or more before the exam). Whereas, not receiving support from family & friends, not exercising, smoking, not viewing nursing as a life career, students with higher academic levels, lower GPAs, studying an hour or less on a daily basis, and studying a day or less before the exam were all associated with higher burnout. The results presented above clearly indicated relationships among many of the examined variables included in this study. A more detailed summary and a discussion of the findings are presented in the next chapter.

Chapter Five
Discussion and Conclusions

5.1 Overview

Burnout in nursing is considered one of the most popular topics in the world of psychology and organizational behavior. The evolution of burnout in university students over the years that they study has been the object of analysis in different studies; however, there have been few studies researching its relationship with individual psychological variables as resilience and self-efficacy and even fewer studies that have focused upon nursing students and future turnover intention (Sharififard et al., 2020; Kim et al., 2021). Since nursing students are the future of the nursing workforce, it is critical that we expand our understanding and determine whether burnout and future turnover intention in the nursing profession are developed during years of study and whether this burnout and intention to leave is reduced by a strong sense of resilience and self-efficacy. Therefore, the purpose of this non-experimental, descriptive-correlational study was to determine the levels of, and the relationship between resilience, self-efficacy, and burnout in baccalaureate nursing students from three large nursing institutions in Palestine. Analysis included descriptive statistics of the sample, psychometric properties of the three scales, correlational analysis, and inferential statistics. Psychometric analysis of the three scales for this sample found acceptable reliability, as demonstrated by satisfactory ranges of internal consistency estimates from Cronbach’s alpha.

This chapter presents a detailed discussion of the results and conclusions based on the results of this study. Additionally, this chapter presents study significance, limitations, and recommendations for future research in this topic.

5.2 Levels of Resilience, Self-efficacy, and Burnout among Undergraduate Nursing Students.

5.2.1 Resilience

The results showed that the majority of the participants had an average resilience, and the mean resilience score among nursing students was 28.51 and the Standard Deviation (SD) = 6.72. The mean of resilience in this study was similar to the mean of resilience in 194 Indian students which were 26.31±6.28 (Mathad, 2017). However, the mean of resilience in this study was considered low compared to other studies that used the same measure. For example, the mean of 240 nursing students from Australia was (37 ± 7) (Chamberlain et al., 2016), the mean of 439 nursing students from Saudi Arabia was (32.26 ±5) (Grande et al., 2021), and more than 81% of nursing students sample in Egypt were highly resilient (Metwally Elsayed et al., 2020). As result, the findings of this study may be attributed to the stressful academic and clinical environment in Palestine especially since the data was collected during the COVID-19 pandemic.

5.2.2 General Self-efficacy

The results of this study revealed that the majority of participants had an average self-efficacy, the mean of self-efficacy in this study was 30.14 and the Standard Deviation (SD) = 5.60. These findings were similar to the findings found in Iran; the mean of self-efficacy in a study by Soudagar et al., (2013) was 29.78 [Standard Deviation (SD) = 5.82], and in a study by Dadipoor et al., (2021) the mean was 30 [Standard Deviation (SD) = 6.64]. In comparison, the scores of the GSES in this study were higher than the scores in the study on Third-year nursing students in China, which the mean of their self-efficacy score was 23.62±3.98 (Yifan & Xiaohan, 2018). Bandura argued that students with low levels of self-efficacy would tend to avoid situations that led to failure in the past (Bandura, 1993). When this occurs in nursing it can lead to an educational catastrophe. Students would avoid specific tasks that they perceive, and this may result in failure during their education. These students would have less clinical self-esteem and may leave their profession. This may describe some part of high attrition in nursing students (McLaughlin et al., 2008)

5.2.3 Burnout

The findings of this study revealed that the participants had an average to high burnout levels. The mean of burnout was 25.3 [Standard Deviation (SD) = 6.92], whereas 21.3% of the sample had high burnout. The high burnout in this study is concerning compared with finding in other studies. Abram & Jacobowitz, (2020) found that the mean of burnout using the

same measure used in our study was 23 in 119 nursing students from the US. Lopes & Nihei, (2020) found that 6% of 284 nursing students from Brazil presented with high burnout. Quina Galdino et al., (2020) found that 10.5% of 114 nursing students from Brazil had indicative for burnout syndrome. The high burnout in our study was still considered high when was compared with burnout in registered nurses working in Arabic and surrounding countries. Alshawish & Nairat, (2020) found that the prevalence of burnout was10.6% among 207 nurses and midwives working in the Palestinian governmental primary health care centers in the north of the West Bank. In addition, Al Barmawi et al., (2019) found in their study in Jordan that the majority of nurses had low burnout. However, higher burnout compared to those in our study were found in a longitudinal study by Rudman & Gustavsson, (2012) who revealed high burnout in Swedish nursing students (from 30% to 41%) across 3 years in higher education. Increase in depressive mood and less fulfilment with life, arising stress in academic, clinical and personal life, online learning, and the consequences of Covid-19 pandemic can be attributed to the high burnout levels.

5.3 Correlation Between Resilience, Self-efficacy, and Burnout

The findings in this study revealed an inverse correlations between burnout and resilience (r= -.35), between burnout and self-efficacy (r= -.21), and a positive correlation between resilience and self-efficacy (r=.68). These findings are congruent with the findings in previous literature in which self-efficacy predicted resilience (Ching & Cheung, 2021), and whereas burnout

negatively correlated to resilience (r = - 0.55, p< .01) (Rios-Risquez et al. 2016), (*r* = - 0·472, *P* < 0·001) (Chamberlain et al.,2016), (r = -.486, p < .01) (Rees et al., 2016). Higher self-efficacy was also associated with lower burnout (Rees et al., 2016).

Resilience is considered an essential element for nursing students to survive adversity and prepare them for undertaking professional role after graduation (Stephens, 2013; Hodges, Troyan, & Keeley, 2010), whereas perceived self-efficacy in nursing students was found to help them feel competent in meeting the entry level in clinical fields and to accept this challenging role (Masoudi Alavi, 2014). These findings support the development of programs for students that teach skills that are directly designed to bolster resilience and self-efficacy thereby potentially preventing burnout.

5.4 Association Between Socio-demographic Profile of the Participants to the Three Measures (Resilience, Self-efficacy, and Burnout)

The study revealed that almost half of the students 47% did not want to study nursing when they enrolled at university, and half of the students 50.9% do not view themselves working in nursing as a lifelong career. On the other hand, students who viewed themselves working in the nursing profession lifelong had higher resilience (p=.001), and lower burnout (p=0.001).

According to Flinkman et al., (2010) literature review, nurses' intention to leave the profession varied from 4% up to 54% across the studies internationally. A recent study was conducted in South Korea by Kim et al., (2021) aimed to identify predictors of turnover intention within 2 years of employment among 3rd and 4th nursing students, the study found that 17.6% had turnover intention within 2 years of employment. Another recent study in China by (Lin et al., 2021) aimed to assess perceived occupational turnover intention among 1020 nursing students and associated factors (fear of Covid-19 and life satisfaction), the results showed that nearly half of the participants (49.1%) reported they would not choose to be on a nursing course if given a choice, 45.4% thought of not going into the nursing profession in the future, and 23.7% considered entering a healthcare industry that has zero contact with patients. Additionally, Ulupınar & Aydogan, (2021) found that 42.5% (n=428) new graduate nurses who were in the first years of their career had considered leaving nursing. In Sweden, 10–20% of new graduates have considered leaving the profession (Rudman et al., 2010). In the Arabic counties no studies were found regarding intention to leave in undergraduates. The findings of this study are somehow disappointing, students reported a higher percentage of not viewing nursing as a lifelong career before actually starting to practice nursing compared to those in previous studies who intended to leave either before practicing nursing or after being newly employed. Students in general are expected to have the desire to purse their dream and study their major based on their preferences. Academic and

clinical stress, theory-practice gap (Scully, 2011), changes in health (Olvera Alvarez et al., 2019), poor academic performance (Dube & Mlotshwa, 2018), low satisfaction about their field of study (Hakim, 2014), low resilience (Chow et al., 2018), covid-19 pandemic (Lin et al., 2021), online learning (Masha'al et al., 2020). Furthermore, unrealistic job expectations, poor work conditions, work demands that exceed resources, increased work hazards, poor autonomy and control over practice (Jawabreh, 2016; PNIPH, 2019; Hamdan, 2017, Abukhader et al., 2020). These all considered reasons behind nursing students intention to not view nursing as a lifelong career in Palestine.

The results of this study showed that male nursing students have higher resilience and self-efficacy compared to females. The findings of the study are in tandem with findings of previous research (Alameddine et al., 2021; Aloba et al., 2016). Boardman et al., (2008) found that the heritability of resilience is higher among men compared to women. This implies that genetic factors play an important role in heritable resilience to environmental stressors, as mediated by more proximate measures of psychological functioning. Furthermore, the findings of this study demonstrate that gender differences in resilience factors are influenced by the idea that men and women have different personality traits that influence how they cope with adversity. In the Arabic countries for instance, men tend to communicate less and taught to suppress their emotions during the time of adversity as they receive less help and empathy than women who communicate more and earn more empathy and other forms of support.

Women are more likely to rely on familial and community protective factors, while men rely more on individual protective factors (Sun & Stewart, 2007). Although Atoum & Al-Momani, (2018) study showed no significant effect for gender on perceived self-efficacy in Jordanian students. The findings of this study were congruent with other studies where higher self-efficacy was associated male gender (Fallan & Opstad, 2016; Wang et al., 2019). The findings could be interpreted in the context of the Arabic culture were the concept of "men are more able" was deeply-rooted. Males are supposed to learn how to be independent, ambitious, and strong because they are expected to play a leading role in Arabic society whereas, females are taught to be dependent and to submit to males' decisions. This traditional thinking is considered a key in understanding gender differences, traditional gender roles may contribute to an individual s GSE. Therefore, it's worthy to explore gender differences in GSE in other Arabic countries.

This study also revealed that students who are working parallel of their nursing studies have higher resilience and self-efficacy and the majority of them were males. Discussion on workers' work-life balance has been ongoing since the 1980s. Maintaining a good work and life balance is considered one of the progressing issues faced by academics in higher education institutions (Kinman & Jones, 2008). Ching & Cheung, (2021), which found that having a paid job predicted resilience. Working aids in the development of resilience by fostering competence in the face of, and professional growth following, workplace adversity (Caza & Milton, 2011).

Additionally, Badri & Panatik, (2020) in his recent study that aimed to examine the role of self-efficacy as a moderator between the influence of job autonomy towards academics' work-life balance, endorsed the positive influence of individual self-efficacy to further improve work-life balance condition, affirming in his study that self-efficacy as a resourceful individual disposition can increase the likelihood to achieve greater work-life balance.

The findings of this study showed that students who exercise/ play sports have higher resilience, self-efficacy, and lower burnout compared to those who do not exercise/play sports. Many studies have found that physical activity/exercise is one frequently mentioned factor for promoting resilience (Wu et al., 2013; McEwen, 2016). The beneficial weight of physical activity on resilience can be attributed to that it can induce positive physiological and psychological improvements, guard against the effects of stressful events, and minimize several neurological diseases (Arida & Teixeira-Machado, 2021). Moreover, Gorroño & Europa, (2013) revealed in his study that people who are physically active have higher levels of general self-efficacy and life satisfaction and that there is a positive relationship between these constructs. Ersöz, (2017) also revealed that participants' general self-efficacy and psychological well-being levels were high and depression levels were low when comparing those who exercise and those who do not.

The findings of this study also revealed that students who live on campus have higher resilience and self-efficacy. This finding was consistent with the finding in the study by Dawson & Pooley, (2013) which revealed that perceived parental autonomy support in first year university students was associated with higher resilience. Perceived parental autonomy support enables students to rely on themselves, make their own decisions, encouraging them to explore, find and make decisions based on their interests values and goals which in turn develop resilience.

The results also revealed that students who receive support from family and friends have higher self-efficacy whereas, higher burnout was associated with not receiving support. Studies have shown that individuals are able to redefine a difficult situation as less threatening when they perceive a high level of support from their social network, and regulate emotions like mistrust, anxiety and fear more effectively (Sippel et al., 2015). Wang et al., (2017) in their study found that friends support had a significant positive direct effect on self-efficacy ($\beta = .179$, $p = .037$). Furthermore, a meta-analysis of 19 studies and 95,434 participants established that social support was negatively correlated with student burnout (Kim et al., 2017). Therefore, receiving support from society is crucial for university students as it affects their motivation towards study.

Results also showed that students who smoke have higher burnout compared to those who do not. Similarly, Kinnunen et al., (2016) in his study on 10,325 schoolchildren in six medium-sized European cities found

that daily smoking was most common among those who had a high level of school burnout, whereas daily smoking was least common among those whose level of school burnout was low. The larger research literature on cigarette smoking suggests that experiences of stressful events and the resulting emotional or psychological distress play a critical role in cigarette use (Kassel et al., 2003). Furthermore, the stress and coping model of substance use (Wills & Filer, 1996) proposes that people who have more stress, feelings of distress, and a lack of other coping resources (e.g., social support) may smoke cigarettes to cope with stress.

The findings of the study revealed that students in higher academic levels (3^{rd} and 4^{th} year) have higher burnout compared to those in their first and second years. The results of this study were in harmony with the longitudinal study by Rudman & Gustavsson, (2012) which found an increase in study burnout (from 30% to 41%) across 3 years in higher education was found, and levels of both exhaustion and disengagement increased significantly across the years in education ($p < 0.001$). Similarly, Quina Galdino et al., (2020) found that the more advanced the school year, the higher were the exhaustion ($p=0.003$), depersonalization ($p<0.001$) and low academic effectiveness ($p=0.012$) scores. This finding may be related to the fact that students at higher academic levels have advance subjects, higher practical workload, and are required to experience activities as nurses in training in the internship field. Furthermore, the proximity to the completion of the course brings uncertainties, doubts and concerns

regarding insertion in the labor market, approval in selective processes, as well as expectations regarding professional success (Mota et al., 2016).

The results of the study also showed that students with lower GPAs, studying an hour or less on a daily basis, and studying a day or less of the exam have higher burnout. In comparison, students who start studying a week or more before the exam have higher resilience. Along with educational characteristics, Rahmatpour et al., (2019) similarly revealed in his study on 303 students at Guilan University of Medical Sciences that lower GPA ($\beta = -1.17$, $P = 0.002$), Students with less interest in their field of study ($\beta = -0.42$, $P = 0.000$), Students who postponed their studies to latter days of the semester which are close to examinations ($\beta = 0.22$, $P = 0.000$) were associated with higher academic burnout. Studies indicated that GPA is the most important predictive factor of academic burnout (Nikodijevic et al., 2012). It has been proposed that there is a reciprocal relationship between academic burnout and GPA; when students are disappointed and miserable as a result of academic burnout, they are less likely to participate in class activities; consequently, demonstrate lower educational achievements. Therefore, increasing students' GPAs may help them avoid academic burnout. Lee et al., (2010) study showed that students with higher GPAs have more self-confidence and experience less academic burnout. Furthermore, postponing the study to the latter days of the exam or semester can cause the student to become more stressed and consequently have more academic burnout.

5.5 Implications of the Study

The potential implications of this study are significant to the nursing profession in several ways. First, this study has the potential to help identify individual resilience and self-efficacy as a possible component in nursing student academic achievement. Nursing educators may have a greater knowledge of the influence that both resilience and Self-efficacy have on student performance, and future turnover intention if this relationship can be established. Knowledge of the impact of both resilience and Self-efficacy could help nursing educators better identify nursing students at risk of poorer academic performance. The findings of this study may aid nurse educators in better understanding how increasing student resilience and self-efficacy can counteract the detrimental impacts of perceived stress in nursing school, which in turn could lead to higher student psychological well-being, independence, confidence, persistence, academic, and future success, thus; future job satisfaction and intention to stay in a profession (lowering burnout).

Secondly, knowledge of the influence of both resilience & self-efficacy and their relationship to academic and future success is essential for planning and developing nursing programs that ensure the best outcomes for both the institution and student. Having a better understanding of the impact of resilience & self-efficacy could help nurse educators to construct curriculum, teaching/learning techniques, and interventions that enhance

nursing program retention (Taylor & Reyes, 2012), therefore, decreasing the nursing shortage in the future.

Finally, knowledge of the influence of resilience & self-efficacy could be used to support the notion that both of them benefits nursing students in their academic and professional career. Individual resilience contributes to a better and more positive college experience, as well as coping for future difficulties and challenges (Stephens, 2013). Furthermore, the development of resilience could assist with individual post-traumatic growth and improve the ability to cope with clinical stress (Li et al., 2015). Individual resilience has the potential to improve student satisfaction, student retention, and contribute to students' future successes as nursing professionals (Stephens, 2013). As a result, nursing students who are better equipped with resilience are more likely to succeed and become stronger leaders within the nursing profession, regardless of the challenges and barriers they may experience (Stephens, 2013; Thomas & Revell, 2016).

Thus, this research provides nurse educators with the knowledge to support student resilience and self-efficacy development. Thus, helping with decreasing burnout in nursing students, increasing future retention, and building success in their future academic and professional careers.

5.6 Conclusion

It's widely acknowledged that a growing nursing shortage is on the horizon. The alarming rate of burnout among nurses around the world is contributing to this shortage. The rigor of nursing education has contributed

to a significant problem in student attrition and burnout. Despite growing interest in the impact of non-cognitive factors such as resilience and self-efficacy, scarcity of literature on the topic in nursing students is still remained. Internationally little research was done to examine these three variables in nursing students, whereas no studies discussed these variables in nursing students from Arabic counties were found. Therefore, this study attempted to examine the relationship between resilience, self-efficacy, and burnout in undergraduate nursing students in Palestine.

In this study, the participants have a moderate levels of resilience, self-efficacy and burnout. The result of the analysis revealed a positive correlation between resilience and self-efficacy, whereas negative correlation in resilience, self-efficacy with burnout was observed. However, in unsatisfactory findings the study found that almost half of the students 47% were not satisfied/convinced when joining the nursing program, and half of the students 50.9% do not view themselves working in nursing as a lifelong career. In this study, higher resilience and self-efficacy were associated with (male gender, wanted to study nursing, playing exercise/sports, working, living on campus/ dorm, receiving support from friends and family, viewing nursing as a lifelong career, and studying before a week or more of the exam). Whereas, not receiving support from family & friends, not exercising, smoking, not viewing nursing as a lifelong career, higher academic year, lower GPAs, studying an hour or less on a daily basis, and studying a day or less of the exam were all associated with higher burnout.

Without any questions, previous research indicated that both resilience and self-efficacy are important attributes for nurses and nursing students alike. Based on this research, resilience and self-efficacy in baccalaureate nursing students might play an important role in decreasing nursing shortage by enhancing overall success and decreasing future burnout and intention to leave. In addition, gaining a better understanding of the role of resilience on nursing students cumulative academic and future success might be helpful in developing curricula and teaching/learning practices that promote retention in both nursing programs and future careers. Additionally, knowledge of the impact of resilience could support the need for resiliency training for the student nurse population.

5.7 Strength and Limitations of the Study

Since recent efforts are trying to investigate burnout and intention to leave the profession in nursing students internationally, this study is considered the first of its kind to investigate these three variables together especially, burnout in undergraduate nursing students in Palestine and Arabic counties. However, since this study was conducted during the Covid-19 pandemic, the results of study could be affected by the pandemic especially, due to the high academic and clinical stress, online learning, fear of contracting coronavirus, and the great pressure that nurses received in Palestine in the time of the pandemic.

5.8 Recommendations for Future Research

Resilience is an important personal attribute that contributes to nursing students' cumulative successes, and reduce burnout (Stephens, 2013; Guo et al., 2017). Increasing self-efficacy promote independence and confidence, and evidence suggests that job satisfaction and intention to stay in a profession are enhanced by a strong sense of practice self-efficacy (Duggleby et al., 2009; Lee & Ko, 2010). Therefore, further research is needed to continue to add to the existing body of evidence regarding nursing student resilience, self-efficacy and burnout. The significant relationships identified here and in previous research support future research regarding the clarification of how resilience, along with other significant factors as self-efficacy, might reduce burnout and intention to leave the profession in the future. Further research as well as confirmatory and foundational evidence are still needed to justify the relationship between resilience, self-efficacy and burnout in nursing students especially in the Arabic countries. Furthermore, generalizability of the current study results is needed.

Therefore, it is recommended that a similar study with a higher number of participants from various nursing institutions and more geographic locations to be established. A longitudinal study on nursing students from the time of their study to practicing the profession might be needed to identify changes in resilience, self-efficacy, burnout, and intention to stay in the profession.

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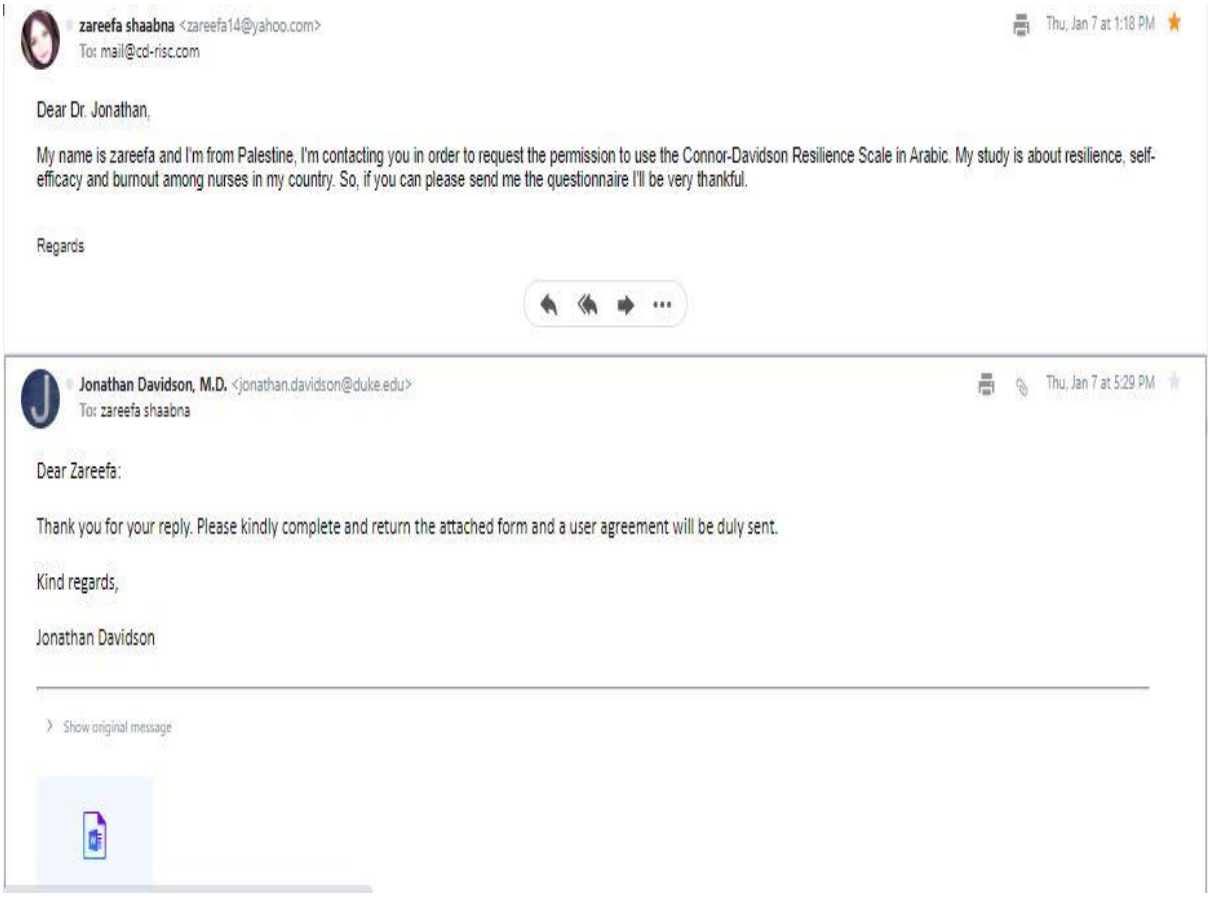
Annexes

Annex 1

Approval to use the Connor Davidson Resilience Scale (CD-RISC 10)



zareefa shaabna <zareefa14@yahoo.com>
To: mail@cd-risc.com

Thu, Jan 7 at 1:18 PM

Dear Dr. Jonathan,

My name is zareefa and I'm from Palestine, I'm contacting you in order to request the permission to use the Connor-Davidson Resilience Scale in Arabic. My study is about resilience, self-efficacy and burnout among nurses in my country. So, if you can please send me the questionnaire I'll be very thankful.

Regards

Jonathan Davidson, M.D. <jonathan.davidson@duke.edu>
To: zareefa shaabna

Thu, Jan 7 at 5:29 PM

Dear Zareefa:

Thank you for your reply. Please kindly complete and return the attached form and a user agreement will be duly sent.

Kind regards,

Jonathan Davidson

Show original message

Annex 2

The Study Consent Form and Questionnaire

Resilience, Self-Efficacy, and Burnout among Nursing Students in Palestine

المرونة النفسية، الكفاءة الذاتية والاحتراق النفسي لطلبة التمريض في الجامعات الفلسطينية

أنا الطالبة زريفة حربي شعابنة تخصص ماجستير تمريض الصحة النفسية المجتمعية في جامعة النجاح الوطنية أقوم بعمل دراسة علمية لإستكمال الحصول على درجة الماجستير بإشراف الدكتورعدنان سرحان بعنوان المرونة النفسية، الكفاءة الذاتية والإحتراق النفسي لطلبة التمريض في الجامعات الفلسطينية (جامعة النجاح الوطنية، جامعة بيرزيت، وجامعة بيت لحم).

يعتبر الطالب مؤهلا للمشاركة في الدراسة اذا كان يدرس البكالوريوس في التمريض على مختلف السنوات الدراسية.

سأقوم بتقديم استبيان اسئلة للاجابة علية (مدة الاجابة لا تتجاوزال 5 دقائق)، سيكون هذا الاستبيان سري "أي لا يتطلب ذكر الاسم" مع مراعاة سرية اجابة كل طالب وعدم افصاح اي معلومة تتعلق بشخصيته والاستكفاء بالاستفادة من النتائج بالجانب البحثي والاحصائي فقط.

وأؤكد بأن الاجابات التي يقدمها المشارك لن تتم مشاركتها مع الطاقم الاكاديمي للجامعة التي ينتمي اليها و سوف تعامل بياناته بسرية تامة ولن يطلع عليها سوى الباحث.

وأؤكد أن مشاركتك في هذه الدراسة هي مشاركة طوعية, ولن يتم تعويضك أي مبلغ مادي من أجل الاجابة علما بأن لك حق الانسحاب من الدراسة في أي وقت تشاء دون ابداء الاسباب, ولن تقع عليك اي عواقب سلبية, وانه لن يتم ممارسة اي ضغوطات عليك من اجل استكمال الدراسة.

وفي حال وجد لديك أي استفسار تستطيع مراسلة الباحثة من خلال الايميل (zareefa14@yahoo.com)

سيتم اعتماد اجابتك على هذا البحث بمثابة الموافقه على الاشتراك بالدراسة, و شكر لك على موافقتك المشاركة في هذه الدراسة.

الاستبيان

1. الجامعة التي تنتمي اليها
   i. جامعة النجاح الوطنية
   ii. جامعة بيرزيت
   iii. جامعة بيت لحم
2. السنة الدراسية التي تنتمي اليها
   i. السنة الدراسية الاولى
   ii. السنة الدراسية الثانية
   iii. السنة الدراسية الثالثة
   iv. السنة الدراسية الرابعة
3. الجنس
   i. ذكر
   ii. انثى
4. ما هو معدلك التراكمي الجامعي ؟
   i. A (88-100)
   ii. B (80-87.9)
   iii. B- (76-79.9)
   iv. C (70-75.9)
   v. C- (65-69.6)
   vi. Less than C-
5. كنت أرغب بدراسة التمريض عند الالتحاق بالدراسة
   i. نعم
   ii. لا

6. أرى نفسي اعمل في مهنة التمريض طيلة حياتي
   i. نعم
   ii. لا

7. تدخين السجائر او الارجيلة
   i. نعم
   ii. لا

8. ممارسة الرياضة
   i. نعم
   ii. لا

9. العمل اثناء الدراسة
   i. نعم
   ii. لا

10. اسكن سكن جامعي في فتره دراستي
   i. نعم
   ii. لا

11. اتلقى الدعم المعنوي من العائلة و الاصدقاء
   i. نعم
   ii. لا

12. معدل الدراسه اليومية بالساعات
   i. ساعة أو أقل
   ii. 2–3 ساعات
   iii. 4 ساعات
   iv. أكثر من 4 ساعات

13. الألية التي اعتمدها عادة للتحضير للامتحان

i. أبدأ بالدراسة قبل اسبوع أو أكثر من الامتحان

ii. أبدأ بالدراسة قبل ايام من الامتحان

iii. أبدأ بالدراسة قبل يوم أو أقل من الامتحان

	مقياس المرونة النفسية	ليس صحيحا على الاطلاق	نادراً ما صحيخ	احيانا ما صحيح	غالبا صحيح	صحيح معظم الاحيان
1	لدي القدرة للتكيف مع التغيرات في الحياة					
2	لدي القدرة على التعامل مع أي شيىء يحدث لي					
3	أحاول ان ارى الجانب الفكاهي او الهزلي من المشاكل عندما اواجهها					
4	اضطراري للتعامل مع التوتر و الاجهاد النفسي يجعلني اقوى					
5	أميل الى استعادة توازني بعد مرض او اصابة او غيرها من الصعوبات					
6	أعمل على تحقيق اهدافي بغض النظر عن الصعوبات التي تعترض طريقي					
7	أستطيع أن أركز و أفكر بوضوح تحت الضغط					
8	لا أحبط بسهولة عندما أفشل					
9	أفكر في نفسي كشخص قوي					
10	أستطيع أن أتعامل مع أحاسيسي السيئة و المؤلمة					

	أستبيان الكفاءة الذاتية	لا	نادرا	غالبا	دائما
1	اذا عارضني شخص ما, أستطيع ايجاد طرق و وسائل لتحقيق ما أبتغيه				
2	أستطيع دائما حل المشاكل الصعبة اذا اجهدت نفسي بما فيه الكفاية				
3	يسهل علي تحقيق أهدافي و نواياي				
4	اذا فوجئت بمواقف غير متوقعة, أعرف دائما كيف أتصرف				
5	أعتقد بأنني قادر على معالجة المشاكل بشكل جيد حتى ولو كانت مفاجئة				
6	أنظر الى المصاعب بنفس هادئة "برزانة" و ذلك لاعتمادي الدائم على قدراتي الذاتية				

7	لا يعنيني ما يحدث لي من مشاكل على الاطلاق لأنني أستطيع التخلص منها بكل بساطة				
8	أجد حلا لكل مشكلة تواجهني				
9	عندما أواجه مشكلة جديدة, أعرف كيف أتعامل معها				
10	عندما يضعني أحدهم أمام مشكلة ما, أعرف كيف أتخلص منها بسهولة, لأنني أملك أفكارا عديدة تساعدني على حلها				

مقياس الاحتراق النفسي		أبدا	نادرا	أحيانا	غالبا	غالبا بشدة
1	أشعر وكأني سجين لعملي كمقدم للمساعدة					
2	أشعر وكأني عالق بسبب نظام العمل/الشفتات					
3	أشعر بضغط كبيرغامرلأن حجم الشفتات يبدو وكأنه لا ينتهي					
4	عملي كمقدم للمساعدة يشعرني بالأرهاق					
5	انخفضت إنتاجيتي في الدوام ؛ لأنني لا أنام كفاية جراء الصدمات التي أصابت أحدهم					
6	أنا هو الشخص الذي لطالما أردت أن أكونه					
7	أنا سعيد					
8	أنا شخص حنون جدا (Caring person)					
9	أشعر بالارتباط بالأخرين					
10	لدي معتقدات تسندني					

Annex 3

IRB Approval

An-Najah National University
Faculty of medicine Sciences Health
Institutional Review Board

جامعة النجاح الوطنية
كلية الطب وعلوم الصحة
لجنة اخلاقيات البحث العلمي

Ref: Mas. March.*2021/23*

IRB Approval Letter

Study Title:

Resilience, Self-efficacy, and Burnout Levels Among Undergraduate Nursing Students in Palestine

Submitted by:
Zareefa Shaabna

Supervisor:
Adnan Sarhan

Date Approved:
25th March 2021

Your Study Title "**Resilience, Self-efficacy, and Burnout Levels Among Undergraduate Nursing Students in Palestine**" viewed by An-Najah National University IRB committee and was approved on 25th March 2021

Hasan Fitian, MD

IRB

IRB Committee Chairman
An-Najah National University

Annex 4

The Acceptance of the Three Universities to Participate in the Study.

Birzeit University

---------- Forwarded message ---------
From: <Chair.nursing@birzeit.edu>
Date: Wed, May 26, 2021 at 12:04 PM
Subject: RE: تسهيل مهمة طالبه ماجستير صحة نفسية/جامعة النجاح
To: <nursing@najah.edu>
Cc: <aidah@najah.edu>

عزيزتي د.عائدة القيسي المحترمة
تحية طيبة

نرحب بالطالبة زريفة ، ونعلمكم بالموافقة على طلبكم تسهيل مهمتها في جمع البيانات.
ارجو اعلامها التواصل معنا للتنسيق.

أطيب الامنيات

خالد ياسين
رئيس دائرة التمريض

From: Faculty of Nursing [nursing@najah.edu]
Sent: Sunday, May 23, 2021 2:24 PM
To: Head of Department of Nursing
Cc: Aidah Alkaisi
Subject: تسهيل مهمة طالبه ماجستير صحة نفسية/جامعة النجاح

--

Faten Dweikat
Office of the Director of Nursing and Midwifery Department
College of Medicine and Health Sciences
An-Najah National University
+970 92345113 | Ex: 88 2167
+970 92345982

Bethlehem University

BETHLEHEM UNIVERSITY
Dean of Research

Date: 15 June 2021

Re: **"المرونة النفسية، الكفاءة الذاتية، والاحتراق النفسي لطلبة التمريض في الجامعات الفلسطينية"**

Dear Ms. Zareefa Shaabna,

The above-referenced has been APPROVED following a full review by experts in the field and/ or the Research Council (RC) at Bethlehem University. The experts/ Council concluded that it is in line with Bethlehem University guidelines governing the protection of participants' rights.

Please, be advised that this approval does not grant permission to distribute the questionnaire to BU faculty and staff via email, without prior notification and approval of the DOR. This approval is valid as far as there is no change in the procedure of data collection or modification in any aspect of the research protocol. This approval does not also replace any departmental or any other approval that may be required.

Furthermore, it is anticipated that you will inform participants of the purpose of the research and explain to them the way the data will be used. Please, download the consent form from the DOR website and make sure that each participant completes the form and understand it.

Finally, Bethlehem University kindly requests that you submit either a soft or a hard copy of the final product of your research (e.g., master's thesis, publication, etc.) to the Office of Dean of Research for copy right protection and future references.

Thank you for your interest in Bethlehem University and you may have our best wishes for success in conducting this research project.

Sincerely,
Jamil Khader
Dr. Jamil Khader
Dean of Research
Professor of English

P. O. Box: 9 - Bethlehem - Palestine Tel: 274 1241 - Fax: 2744440

An-Najah National University

جامعة النجاح الوطنية

كليه الدراسات العليا

المرونة النفسية والكفاءة الذاتية والاحتراق النفسي لدى طلبة التمريض في فلسطين

إعداد

زريفة شعابنة

إشراف

د. عدنان السرحان

قدمت هذه الأطروحة استكمالا لمتطلبات الحصول علي درجه الماجستير في برنامج تمريض الصحة النفسية المجتمعية، من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس- فلسطين.

2021

المرونة النفسية والكفاءة الذاتية والاحتراق النفسي لدى طلبة التمريض في فلسطين

إعداد

زريفة شعابنة

إشراف

د. عدنان السرحان

الملخص

مقدمة: نظرًا للنقص العالمي في أعداد الممرضين والرغبة في توفير رعاية آمنة وعالية الجودة، فإن الحفاظ على قوة عاملة تمريضية صحية أمر بالغ الأهمية. الإحتراق النفسي هو أحد الموضوعات التي نوقشت على نطاق واسع في عالم علم النفس والسلوك التنظيمي. في عصرنا الحالي، تعد المرونة النفسية والكفاءة الذاتية من الخصائص التمريضية الحاسمة للتغلب على الشدائد في نظم الرعاية الصحية. في الآونة الأخيرة، بذلت جهود لفهم دور المرونة والكفاءة الذاتية في تحديد التكيف النفسي (الإحتراق النفسي) للممرضين العاملين. ولأن طلاب التمريض هم مستقبل القوى العاملة التمريضية، فمن المهم تعزيز فهمنا لتأثيرهم على هذه الفئة.

هدف الدراسة: هدفت الدراسة إلى تقييم مستويات وفحص العلاقة بين المرونة النفسية، الكفاءة الذاتية، والإحتراق النفسي وتحديد العوامل التي تساهم في هذه المتغيرات.

الطرق: تم إجراء دراسة ارتباطية مقطعية من خلال توزيع الاستمارة البحثية عبر الإنترنت على 409 طلاب جامعيين يدرسون التمريض على مختلف السنوات الدراسية في ثلاثة جامعات في الضفة الغربية – فلسطين. احتوى الاستبيان على مقياس كونور– ديفيدسون لقياس المرونة النفسية، ومقياس الكفاءة الذاتية العام، ومقياس والإرهاق النفسي.

النتائج: تم العثور على مستويات معتدلة من المرونة والكفاءة الذاتية والإحتراق النفسي بين الطلاب. وكشفت النتائج عن وجود علاقة إيجابية بين المرونة والكفاءة الذاتية ($r = 0.68$)، بينما وجد ارتباط سلبي بين الإحتراق والمرونة ($r=-.35$) وبين الإحتراق والكفاءة الذاتية ($r=-.21$). بالإضافة إلى ذلك، أظهرت نتائج الدراسة أن نصف الطلاب 47٪ لم يكونوا راضيين / مقتنعين

بتخصص التمريض عند التحاقهم بالجامعة، ونصف الطلاب 50.9٪ لا يرون أنفسهم يعملون في التمريض كمهنة مدى حياتهم. في هذه الدراسة، ارتبطت المرونة والكفاءة الذاتية العالية بـ (ذكر الجنس، الرغبة بدراسة التمريض، لعب التمارين/ الرياضة، العمل، السكن في الحرم الجامعي، تلقي الدعم من الأصدقاء والعائلة، رؤية/ اعتبار التمريض مهنة على مدى الحياة، والبدء بالدراسة قبل أسبوع أو أكثر من الامتحان). في حين أن عدم تلقي الدعم من العائلة والأصدقاء، عدم ممارسة الرياضة، التدخين، عدم رؤية/ اعتبار التمريض مهنة على مدى الحياة، الطلبة في المستوى الأكاديمي العالي، المعدل التراكمي المنخفض، الدراسة لمدة ساعة أو أقل يوميًا، والدراسة قبل يوم أو أقل من الامتحان كلها كانت مرتبطة مع احتراق نفسي أعلى.

الخلاصة: من الواضح جدا أن النقص المتزايد في التمريض أصبح يلوح في الأفق. يساهم معدل الإحتراق المقلق بين الممرضين حول العالم في هذا النقص. وقد أوضحت النتائج أن المرونة النفسية والكفاءة الذاتية قد تلعب دورًا مهمًا في تقليل النقص في مهن التمريض من خلال تعزيز النجاح الأكاديمي والمستقبلي، وتقليل الإحتراق ونية المغادرة مستقبلاً. لذلك، قد يكون اكتساب فهم دور المرونة النفسية في النجاح التراكمي لطلاب التمريض مفيدًا في تطوير المناهج وممارسات التدريس/ التعلم التي تعزز البقاء في كل من برامج التمريض والوظائف المستقبلية.

الكلمات المفتاحية: المرونة، الكفاءة الذاتية، الإحتراق النفسي، طلاب التمريض.