



Can We Predict Turnover Intention in Palestinian Nursing Students? The Relationship between Resilience, Burnout and Turnover Intention

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Abstract

Introduction: Globally, nursing is perceived as a demanding and stressful profession. In recent studies, the psychological well-being of employed nurses has been given considerable attention. Considering that nursing students are the future of the nursing workforce; it is important that we increase our understanding of the importance of resilience in this population.

Aim: This study examines turnover intention and burnout among Palestinian nursing students and how resilience and sociodemographic factors affected these outcomes.

Methods: The study included 409 nursing students from three major institutions in the West Bank-Palestine. The data was collected using the Connor-Davidson Resilience Scale, Burnout scale, as well as key demographic data, including the intention to leave the nursing profession in the future.

Results: Participants displayed moderate levels of resilience and burnout, and the analysis revealed a negative correlation between resilience and burnout ($r = -0.35$). The study findings indicated that almost half of the students were not satisfied with their nursing major and half of them intended to leave the nursing profession in the future. Higher resilience was associated with intention to stay in the nursing profession, male gender, satisfaction with nursing major, employment, living on campus, receiving support from friends and family, and studying a week or more before the exam. While intentions to leave nursing, lack of support from family and friends, higher academic levels lower GPAs, studying an hour or less per day, and studying one day before an exam were all associated with higher burnout.

Conclusion: Effective measures should be taken to reduce students' burnout and turnover intention.

Keywords: Resilience; Burnout; Intention to leave; Nursing Students

Abbreviations: CD-RISC 10: Connor-Davidson Resilience Scale; ProQol5: The Professional Quality of Life Scale Version 5; GPA: Grade Point Average.

Background

The physical and psychological demands innate in nursing work have been associated with vulnerability to burnout [1,2]. A psychological state characterized by emotional exhaustion and withdrawal from one's job

(cynicism) [3]. Several studies have examined burnout among health students, primarily nursing students [4-6]. The levels of burnout found in these studies are alarming, since this syndrome can impede professional growth, compromise patient safety, and negatively impact the physical and mental health of students [7-9].

Turnover intention refers to the psychological and behavioral tendency for employees to leave their current organization or profession. Turnover intention is deemed as

one of the struggles that several health-care organizations face, leading to inadequate nurse staffing, elevated work stress, and job dissatisfaction [10,11]. Burnout is among the many interrelated factors that contribute to nurses leaving their careers [12,13]. Nurses' turnover intention has been extensively studied, but little is known about nursing students' turnover intentions. A Swedish population-based study of three distinct cohorts found 10% (in two cohorts) and 20% (in the third cohort) of new graduates intended to leave their profession after one year [14]. Kovner and Djukic reported that in the United States, more than a quarter (26%) of the nursing graduates leaves their first job within the first two years of their career [15]. In South Korea, 17.6% of nursing students had turnover intentions within 2 years of employment [16]. Another study was conducted in nine regions of Korea by Yu & Kang [17], aimed to examine factors affecting turnover intention of 443 new graduate nurses in three transition periods found that At 0 to 6 months, the factors were work schedule, desired hospital, orientation duration, becoming part of a team, professional development, and practical support; at 7 to 12 months, the factors were work schedule and desired hospital; and at 13 to 18 months, the factor was professional development, which accounted for 31%, 22.9%, and 12.6%, respectively, of the reasons for turnover intention.

Moreover, Lin, et al. [18], conducted a study aimed to assess perceived occupational turnover intention among nursing students and associated factors (fear of COVID-19 and life satisfaction) among 1020 undergraduate nursing students at Fujian Medical University, China. The results revealed the total turnover intention score range was 3 to 15, and the mean was 9.2 (SD \pm 2.5). Nearly half of the students (49.1%) reported that they would choose not to be on a nursing course if given a choice, 45.4% often think of not going into the nursing profession in the future, and 23.7% would consider entering a healthcare industry that has zero contact with patients.

Contrariwise, individuals' resilience is defined as their ability to bounce back or cope well with stress when faced with adversity, especially after suffering extremes of trauma, deprivation, danger, and severe disturbance [19,20]. Resilience is an important quality of a nurse to survive and adapt to stressful working environments, maximize personal ability, and establish supportive systems [21,22]. Research has shown that resilience was negatively correlated with burnout. Alameddine, et al. [23] in their study in Lebanon found that nurses' resilience was positively associated with job satisfaction and negatively associated with intention to leave. Moreover, Guo, et al. [22] in their study of 1,061 Chinese nurses found that low levels of individual resilience was a strong predictor of burnout ($r = 0.2-0.4$, $p.001$), and low levels of individual resilience correlated with greater

levels of emotional exhaustion, cynicism, and reduced performance.

In light of the previous literature, nurse turnover intention is a global concern and has been associated with burnout. Despite this, few studies have shown a relationship between turnover intention, burnout, and resilience in nursing students. Therefore, this study examines turnover intention and burnout among Palestinian nursing students and how resilience and sociodemographic factors affected these outcomes.

Methods

Study Design and Participants

This descriptive correlation cross-sectional study was conducted among undergraduate nursing students. To obtain a representative sample of nursing students from different districts of the West Bank with a variety of demographic backgrounds, three large universities were included in this study. 409 nursing students completed a self-administered questionnaire.

Measurements and Data Collection

The Connor and Davidson Resilience Scale (CD-RISC 10) were used to measure resilience. The resilience scale used in this study is one of the most commonly used instruments to assess resilience among adults, nurses and nursing students [24]. Research in the community of nursing populations suggests that this measure is a valid and reliable measure of resilience across a range of normal and clinical populations [25-27]. The degree of internal consistency (Cronbach's α) in this study was examined and found to be 0.937.

The Burnout Scale was obtained from the Professional Quality of Life Scale Version 5 (ProQol5) to measure burnout. Although the ProQol5 was initially developed for emergency personnel, the scale has been used internationally as well as psychometrically validated for different target populations, including the nursing population [28-30]. The degree of internal consistency (Cronbach's α) in this study was examined and found to be 0.860.

In this study, the intention to leave was measured in the form of a Yes/No question in the questionnaire: "Do you intend to remain in the nursing profession for the rest of your life?". In addition, several key demographics were also included based on previous research studies, including (Age, Gender, Academic year, GPA, satisfaction with Nursing Major, residence, work, support, average study hours/day, and method often used to prepare for exams).

Statistical Analysis

Following review of the completed surveys for missing data, the data was analyzed using IBM SPSS Statistics version 28.0. Pearson's correlation was used to determine the relationship between resilience and burnout. An independent sample t-test, a one-way analysis of variance (ANOVA), and a post-hoc analysis were utilized to examine the differences between the scales. The significance of statistical association was tested using a 95% confidence interval and p-value ≤ 0.05 .

Ethical Consideration

The Institutional Review Board approval was obtained from one of the participating universities before the study was conducted. Additionally, respondents were well informed

about the purpose of the study. The data was collected after receiving written informed consent from each participant. During all phases of data processing and analysis, the data was kept anonymous and confidential.

Results

Sociodemographic characteristics

A total of 409 nursing students completed the survey. The socio-demographic profile of the participants is presented in Table 1. The majority of respondents were female students, 68.2%. In relation to the nursing major, 46.9% of those who entered the university expressed dissatisfaction with their choice. In addition, 50.9% reported they intended to leave the nursing profession in the future.

	Variables	Frequency (%)
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 (Grade Point Average)	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%)
Satisfied with Nursing Major	Yes	217 (53.1%)
	No	192 (46.9%)
Turnover Intention	Yes	208 (50.9%)
	No	201 (49.1%)
Working	Yes	128 (31.3%)
	No	281 (68.7%)
Living on Campus	Yes	83 (20.3%)
	No	326 (79.7%)
Receiving support from family and friends	Yes	307 (75.1%)
	No	102 (24.9%)
Average study hours/day	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%)
Method often used to prepare for exams	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%)

Table 1: Participants' Demographics (N= 409).

Measures	N	Mean (SD)
Resilience	409	28.51 (6.7)
Burnout	409	25.3 (6.9)

*N: Number of Participants, SD: Standard Deviation

Table 2: Mean and SD of the Study Measures.

Correlation between Resilience and Burnout

The resilience mean was 28.51, and the standard

deviation was 6.72. A total of 202 respondents (49.4%) had average resilience levels, 39 (9.5%) had low levels, and 168 (41.1%) had high resilience levels. The mean burnout was 25.32, and the standard deviation was 6.92. A total of 209 respondents (51.1%) had average burnout levels, 113 (27.5%) had low levels, while 87 (21.3%) had high levels. The Person Correlation analysis revealed an inverse correlation between burnout and resilience. Table 3 represents The Person Correlation analysis between resilience and burnout.

Measures The Correlations		Burnout Scale	Resilience Scale
Burnout Scale	Pearson Correlation	1	-0.35**
	Sig. (2-tailed)		0
Resilience Scale	Pearson Correlation	-0.35**	1
	Sig. (2-tailed)	0	

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

Table 3: Correlation Analysis between Resilience and Burnout.

Significant Differences in Resilience and Burnout

Results indicated that the following variables were associated with higher resilience: being a male, satisfied with the Nursing Major, intending to stay in the profession, working, living on campus, receiving support from friends and family, and starting to study a week or more before the exam.

Regarding the burnout measure, the results showed that students receiving support from friends and family have a lower level of burnout. In contrast, male students, students intending to leave the nursing profession in the future, higher academic year (third and fourth years), low GPAs, and students who started studying a day or less before the exam were associated with higher levels of burnout with significant differences. Table 4 represents the significant differences.

Variables	Resilience	Burnout
Gender (Male)	↑ p= 0.040	↑ p=0.003
Satisfied with Nursing Major (Yes)	↑ p= 0.008	
Turnover Intention (No)	↑ p= 0.001	↓ p= 0.001
Working (Yes)	↑ p= 0.005	
Live on Campus (Yes)	↑ p= 0.024	
Receiving support from Family and Friends (Yes)	↑ p= 0.001	↓ p= 0.001
Academic Year (Senior students compared to Junior students)		↑ p= 0.015
GPA (Lower GPA Compared to Higher GPA)		↑ p= 0.027
Average study hours/day (Students who study of an hour or less)		↑ p= 0.007
Method often used to prepare for exams		
(Start studying a day or less before the exam)		↑ p= 0.001
(Start studying a week or more before the exam)	↑ p= 0.001	

Table 4: Significant Differences in Resilience and Burnout.

Discussion

The results indicated that most of the participants had average resilience scores. The mean resilience measured in this study was similar to that measured in 194 Indian students, which was 26.31 ± 6.28 [31]. However, the mean level of resilience in this study was low compared with other studies that utilized the same measure. In Australia, the mean of 240 nursing students was (37 ± 7) [32], in Saudi Arabia, the mean was (32.26 ± 5) [33], and in Egypt, over 81% of nursing students were highly resilient [34]. Accordingly, the results of this study may be attributed to the stressful academic and clinical environment in Palestine, particularly as the data were collected during the COVID-19 pandemic.

Our study findings revealed that the participants experienced average burnout, while 21.3% of the sample experienced high levels of burnout. This study indicates a high level of burnout, compared with other studies. According to Abram & Jacobowitz [35], the mean burnout rate among 119 American nursing students was 23. Lopes & Nihei [36] found that 6% of 284 nursing students from Brazil experienced high burnout levels. The burnout rate in this study was considered high in comparison with burnout rates among registered nurses working in Arabic countries and surrounding regions. A study by Alshawish & Nairat [37] found that burnout was present in 10.6% of nurses and midwives working in the Palestinian government's primary healthcare centers in the north of the West Bank. In addition, Al Barmawi, et al. [38] found that most nurses in Jordan had low burnout rates. The elevated level of burnout can be attributed to depressive moods and arising stress in academic, clinical, and personal life, low satisfaction about their field of study, online learning, and the consequences of the Covid-19 pandemic [39-41]. Combined with, the poor work conditions, demands exceeding resources, increased work hazards, insufficient autonomy, and the unrealistic job expectations in Palestine [40,42-44].

The results of this study showed an inverse correlation between burnout and resilience ($r = -0.35$). The finding is in line with previous studies in which burnout negatively correlated with resilience ($r = -0.55, p^* 0.01$) [45], ($r = -0.472, P^* 0.001$) [28], and ($r = -0.486, p^* 0.01$) [29].

This study revealed that nearly half of the students were not satisfied with their nursing major, and half of them intended to leave the nursing profession in the future. In contrast, nursing students who intend to stay in the profession had greater resilience and lower burnout. The intention of nurses to leave the profession ranges from 4 to 54% across international studies [46]. Kim, et al. [16] found that 17.6% of 3rd and 4th year nursing students had a plan

to leave within two years of their career. In a Chinese study, 45.4% of nursing students thought of not going into the nursing profession in the future [18]. There were no studies in Arabic countries addressing the intention of undergraduate students to leave. In this study, students indicated that they intended to leave the nursing profession in the future before actually beginning to practice nursing as opposed to those in previous studies who intended to leave after starting to practice nursing. The high level of dissatisfaction and intention to leave the nursing profession may be explained by the fact that in Palestine, college majors are determined by students' high school scores rather than their individual preferences. To ensure the development and retention of skilled nursing workforce within the nursing profession, it is essential that nursing students are allowed to choose their majors according to their preferences, encouraged by professional roles, respect and recognition. This should be followed by higher wages, a reduction in workload, improvements to occupational health and safety, and career advancement opportunities [18].

In addition, it was found that male nursing students were more resilient than female students. The survey findings are in tandem with findings of previous research [23,47]. Boardman, et al. [48] found that resilience is more heritable among men than women. Aside from the genetic factor, in Arabic countries, when faced with adversity, women are more likely to rely on familial and community protective factors, while men depend more on individual protective factors [49]. Additionally, gender inequalities and patriarchal practices in the Arabic countries remains a challenge. Despite the fact that females in some Arab countries have reached parity with males in education and literacy, their involvements in the paid labor force are the lowest in the world [50].

In this study, students who worked parallel to their nursing studies showed higher levels of resilience. Ching & Cheung [51] found that having a paid job predicted resilience. Work assists in developing resilience by fostering competence in the face of workplace adversity and increasing professional growth [52]. Students who live on campus had higher resilience; this finding was in congruent with the findings of Dawson & Pooley 2013 [53]. The study 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 decide based on their interests.

The study's findings revealed that students at higher academic levels (3rd and 4th year) have higher burnout than those in their first and second years. These findings were consistent with those of Quina Galdino, et al. [54] who

found that the more advanced the school year, the higher the exhaustion ($p=0.003$), depersonalization ($p<0.001$), and low academic effectiveness ($p=0.012$) scores. In this regard, the results may be explained by the fact that students with higher educational levels have advanced subjects and a higher practical workload, as well as the requirement to interact with nurses and patients as part of their internship. Moreover, the proximity to graduation creates uncertainty, doubts, and concerns regarding integration into the labor market, approval in the selection process, and expectations of professional success. In the study, students with lower GPAs, studying an hour or less per day, and studying a day or less before the test demonstrated higher levels of burnout. Similarly, Rahmatpour, et al. [55-57] revealed in their study of 303 students that lower GPAs ($\beta = 1.17$, $P = 0.002$), Students with less interest in their field of study ($\beta = 0.42$, $P = 0.000$), and Students who postponed their studies to the close of the semester, close to examinations ($\beta = 0.22$, $P = 0.000$) were associated with greater academic burnout. Higher GPAs are associated with greater self-confidence and decreased academic burnout. Additionally, waiting until the exam day to study can result in the student becoming more stressed and more academically burnt out.

Conclusion

It's widely acknowledged that the nursing shortage is on the horizon. In contrast to burnout, the findings of this study revealed that resilience plays an important role in decreasing the intention to leave nursing profession in the future. In conclusion, effective measures should be taken to reduce students' burnout and turnover intention. To ensure the development and retention of skilled nursing workforce within the nursing profession, collaboration and commitment from universities, nursing educators and teaching hospitals or affiliated health centers is essential to support the development of their students' resilience to provide the best academic and clinical experience for nursing students.

Limitation of the Study

It is possible that the results of this study have been affected by the outbreak of Covid-19 that occurred at the time of this study. Moreover, this study based its measurement of turnover intention on one question. Therefore, it is recommended that a similar study be conducted with qualitative and quantitative measures to assess turnover intentions.

Availability of data and materials

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

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Ethics Declaration

Ethics approval and consent to participate

The Institutional Review Board was approved by one of the universities prior to data collection. This research project posed no foreseeable risks, and the survey contained no identifiable information. During all phases of data processing and analysis, the data was kept anonymous and confidential.

Consent for publication

Not applicable.

Competing interests

No potential conflict of interest was reported by the authors.

Availability of Data and Materials

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

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