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The Emotional Intelligence and the Associated Factors among Nursing Students

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Abstract

Introduction: Emotional intelligence, or the capacity to cope one's emotions, makes it simpler to form good connections with others and do caring duties. Nursing students can enroll a health team in a helpful and beneficial way with the use of emotional intelligence. Nurses who can identify, control, and interpret both their own emotions and those of their patients provide better patient care. The purpose of this study was to assess the emotional intelligence and to investigate the relationship and differences between emotional intelligence and demographic characteristics of nursing students. **Methods:** A cross-sectional study was carried out on 381 nursing students. Data collection was completed by "Schutte Self Report Emotional Intelligence Test". Data were analyzed with the Statistical Package for Social Science. An independent t test, ANOVA, and Pearson correlation, multiple linear regression were used. **Results:** The results revealed that the emotional intelligence mean was 143.1 ± 21.6 (ranging from 33 to 165), which is high. Also, the analysis revealed that most of the participants 348 (91.3%) had higher emotional intelligence level. This finding suggests that nursing students are emotionally intelligent and may be able to notice, analyze, control, manage, and harness emotion in an adaptive manner. Also, academic year of nursing students was a predictor of emotional intelligence. Furthermore, there was positive relationship between the age and emotional intelligence ($p < 0.05$). The students' ability to use their EI increased as they rose through the nursing grades. **Conclusion:** This study confirmed that the emotional intelligence score of the nursing students was high. Also, academic year of nursing students was a predictor of emotional intelligence. In addition, a positive relationship was confirmed between the emotional intelligence and age of nursing students.

Keywords

Students, Nursing, Emotional Intelligence

1. Introduction

Nursing students experience intense emotions and stress because of their clinical practice and rotations [1] [2] [3]. The rigors of nursing practice, such as growing workloads, coping with illness or death, tight deadlines, and contempt for hierarchy, cause substantial perceived stress in this profession [4]. Nurses may be exposed to dying patients due to the nature of their work. Their deaths can elicit a multitude of feelings, including compassion, grief, and helplessness [5] [6] [7]. Furthermore, one of the most important issues in nursing is the possibility of infectious illness exposure and transmission [8]. It might be hard for a nurse who takes patient care seriously to not have enough time to dedicate to each individual patient or communicate compassionately with their family members [9]. This is a physically and emotionally demanding profession that emphases on delivering technical and compassionate treatment [10]. As well, more awareness of emotional work improves patient care (e.g., respect for integrity and dignity, support) [11].

Emotional intelligence (EI) has been shown by certain researches to have a favorable impact on emotional exertion [12]. The successfully recognize, assess, use, and manage emotions is referred to as emotional intelligence (EI) [13] [14]. EI is a skill that must be acquired via active listening, involvement, and participation; it cannot be taught in a lecture setting [15]. Nursing students can enroll a health team in a helpful and beneficial way with the use of emotional intelligence [16]. Nurses who can identify, control, and interpret both their own emotions and those of their patients provide better patient care [17]. Additionally, methods for coping with job uncertainty and pressure are enhanced to a higher degree of quality when emotional intelligence and correctly managed emotion are present at work [18]. By exhibiting genuine emotional responses, showing empathy, communicating emotions without creating conflict, and controlling natural emotions like disgust, annoyance, and frustration in nurse-patient interactions, emotional intelligence can assist nurses in managing both their own and their patients' emotions [19]. Nurses can manage numerous clinical problems by perceiving the scenario from the patients' viewpoints and empathizing with their emotions [20].

The nursing students must manage a variety of clinical instances, adjust to varied teaching styles and expectations from instructors, work autonomously toward goals, and manage challenges [20]. Furthermore, several components of academic work, such as taking tests and performing nursing procedures in health care settings, may be deemed very stressful. These situations necessitate intense emotional regulation [21].

Previous studies documented lack of time, scarcity of resources, and inadequate staffing levels may be barriers to fostering emotional intelligence in clinical settings [22] [23]. While community nursing seems to shape more emotionally intelligent nurses, fast-paced clinical environments like the emergency department seemed to create "constraints" to the development of emotional intel-

ligence [24] [25]. Emotional intelligence in nurses is influenced by intangible elements including culture, environment, personal experiences, and the duties and obligations they perform in their line of work [25].

The emotional and interpersonal abilities of health care professionals are highly valued in the contemporary health care setting, and nursing staff in particular should take this into consideration [26]. The emotional intelligence of nursing students, however, is an aspect of increasing concern as it may affect their capacity to deliver patient-centered and compassionate care [27]. Despite the known prominence of emotional intelligence in nursing care and practice, there is limited research addressing the relationship and differences between emotional intelligence and demographic characteristics of nursing students. Therefore, the purpose of this study was to assess the emotional intelligence level and to investigate the relationship and differences between emotional intelligence and demographic characteristics of nursing students. This study strive to promote worthy insights for educational institutions, nursing programs, and healthcare stakeholders to better train nursing students for the complex emotional demands of patient care in the changing healthcare environment.

2. Literature Review

The promotion of adaptive functioning and resilience under pressure would result from include this psychological component in training [28] [29] [30]. Additionally, these students were able to handle the pressure at work more successfully [31]. The ability to cope one's emotions, or emotional intelligence (EI), makes it easier to have healthy connections with other people and do caring tasks [32]. This characteristic is essential for future nursing professionals who experience great stress levels when handling critical conditions such as patient pain or death during clinical practice [6].

Several studies indicated that EI associated with good conflict management skills with instructors, promote clinical communication, and better relationships with patients and their families [21] [33] [34]. People with greater emotional intelligence perform more successfully, accurately, and precisely at work [35]. Emotions play a significant part in nursing practice [36] [37]. According to Ayed *et al.* and Moawed *et al.*, one of the key characteristics of student nurses that affects how well they perform in areas like clinical decision-making, critical thinking, evidence-based practice, as well as application in practice is emotional intelligence [38] [39]. Emotional intelligence (EI) in nursing can also improve patient satisfaction [40].

To deliver high-quality care, a nurse needs to be able to relate to patients, control their own emotions, and sympathize with patients [41]. Nursing students typically find themselves in strange, sensitive social settings. The ability of a nursing student to think critically, study effectively, make good judgments, and sympathize with patients and their families can all be impacted by their emotional intelligence (EI) [42].

Previous research showed that nursing students' perceptions of EI varied. A study of nursing students in Slovenia revealed a substantial difference in emotional intelligence between students in their first (M = 154.40) and third (M = 162.01) years of study. Furthermore, nursing students' emotional intelligence varies with age and study years, suggesting that emotional intelligence skills may be acquired [43]. Another research of Australian nursing students found that emotional intelligence and the use of emotions to solve issues improved during the nursing program [44]. Thamizhselvan and Vembu found that the average EI level was supported by the majority of participants (62.8%) [45]. Sinha *et al.* found that 15% of Nepali nursing students had high EI and 46% had normal EI [46].

Additionally, Shahin discovered that nearly all Saudi nursing students (97.1%) supported average-to-high levels of EI [47]. Another study done in Saudi Arabia discovered that emotional intelligence (r = 0.279) was substantially (0.001) associated with academic accomplishment among nursing students [48]. According to a different survey done in Egypt and Saudi Arabia, most students reported having a fair degree of emotional intelligence [39].

3. Methods

Design and setting

A cross-sectional study was conducted at Arab American University which is the largest nursing school in Palestine, with a student body of 2000 nursing students. The nursing program is four years and obtain a baccalaureate in nursing.

Research questions

1) What is the emotional intelligence level of nursing students at Arab American University?

2) What are the predictors of the emotional intelligence among the nursing students?

Sample

Using Raosoft software, the sample size was determined with the population size maintained at 2000 and the response distribution at 50%. The margin of error and confidence interval were set at 5% and 95%, respectively. The estimated sample was 377 and in order to combat the attrition rate, 415 students signed up for the study in total. A proportionate sample of students from a four-year nursing school was selected and 381 participants filled the questionnaires.

Inclusion and exclusion criteria

The inclusion criteria were students in the baccalaureate-nursing program enrolled in the first, second, third, and fourth year. Exclusion criteria students who didn't agree to participate.

Instruments

The instrument was composed of two sections, the first included demographic characteristics such as, age, gender, and academic year. The second section was the Schutte Self Report Emotional Intelligence Test (SSEIT). The SSEIT was used

to measure EI and was developed by Schutte *et al.* [49]. It is a self-administered instrument containing 33 items distributed on four subscales including the perception of emotions, social skills or managing others' emotions, managing emotions in the self, and utilizing emotions. Each item is ranked on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Total scale scores were calculated by summing all items. The scores ranged from 33 to 165, whereas higher scores indicating more EI. Also, the total score may be calculated and classified as follows; Low= less than 50%; Moderate = 50% - 75%; and High = more than 75% [42].This tool is valid and reliable, in which Cronbach's alpha was 0.90 [49]. The Cronbach's alpha for the current study was 0.88. Permission from authors was obtained to be used in this study.

Data collection and Ethical consideration

The ethical approval attained from Arab American University. The participants were briefed by the researchers about the purpose of the study. The possibility of leaving the study at any moment was made clear to the students. The informed consent was provided to the students who consented to participate. The study's voluntary nature and the fact that it won't impact the participants' educational experience were explained to the participants. The questionnaire was accomplished in English version.

Data analysis

Data cleaning has been done to handle errors or missing data. These data were also analyzed with the Statistical Package for Social Science (SPSS) (Version 23; SPSS Inc., Chicago, Illinois). The data are within normal distribution. For continuous data, the mean and standard deviation were calculated. For categorical variables, percentages and frequencies were determined. Additionally, an independent t test, ANOVA, and Pearson correlation, multiple linear regression were employed, and results were deemed significant if the P value was less than 0.05.

4. Results

Participants' characteristics

Three hundred and eighty one students out of 415 nursing students completed the study, with a response rate of 92.8%. The analysis revealed that the mean age of the participants was 20.8 ± 2.5 years. The analysis also revealed that more than half of the students, 216 (56.7%), were female. Regarding academic year level, 90 (23.6%) enrolled in the first year, 95 (24.9%) in the second year, 96 (25.2%) in the third year, and 100 (26.2%) in the fourth year level, as seen in Table 1.

Research questions results

Also, the analysis indicated that most of the participants 348 (91.3%) had higher emotional intelligence level, as seen in Table 2.

The analysis indicated that the emotional intelligence mean was 143.1 ± 21.6 (ranging from 33 to 165), which is high. Also, "perception of emotions" was the highest domain 44.4 ± 7.2 while "utilizing emotions" was the lowest" 26.3 ± 4.0, as seen in Table 3.

Table 1. Demographic characteristics of the participants (N = 381).

Characteristic		n (%)	M (SD)
Age			20.8 (2.5)
Gender	Male	165 (43.3)	
	Female	216 (56.7)	
Academic year level	First year	90 (23.6)	
	Second year	95 (24.9)	
	Third year	96 (25.2)	
	Fourth year	100 (26.2)	

M = mean; SD = standard deviation.

Table 2. Distribution of study participants by the level of emotional intelligence.

Level Emotional intelligence	n (%)	M (SD)
Low	22 (5.8)	
Middle	11 (2.9)	
High	348 (91.3)	
Total emotional intelligence		143.1(21.6)

Table 3. Distribution of emotional intelligence domains (N = 381).

Emotional intelligence domain	M (SD)
Perception of emotions	44.4 (7.2)
social skills or managing others' emotions	38.4 (5.6)
managing emotions in the self	34.2 (5.3)
utilizing emotions	26.3 (4.0)
Total emotional intelligence	143.1 (21.6)

An ANOVA test was used to assess the difference between the emotional intelligence mean score and the academic year of the nursing students. The results indicated that there was a significant difference between the emotional intelligence score mean and academic year ($P < 0.05$). Also, Scheffe post hoc analysis indicated that the fourth year had statistically significantly more emotional intelligence than the second or first year ($P < 0.001$). An independent t test was used to assess the difference between the gender and the emotional intelligence mean score and the analysis revealed no a significant difference ($P > 0.05$). Pearson correlation test was used to assess the relationship between the age and the emotional intelligence of nursing students. The analysis revealed that there was a small positive relationship between the age and emotional intelligence ($P < 0.05$), as seen in Table 4.

A multivariable regression analysis was utilized to identify the emotional

Table 4. Relationship and differences between emotional intelligence and demographic characteristics (N = 381).

Socio-demographic Characteristic		n	Emotional intelligence		
			M(SD)	Test	P. Value
Age		381		r = 0.11	0.039
Gender	Male	165	141.1 (24.5)	t = 1.5	0.147
	Female	216	144.5 (19.1)		
Academic year	First year	90	139.0 (27.3)	F = 4.2	0.006
	Second year	95	140.1 (23.9)		
	Third year	96	143.8 (22.5)		
	Fourth year	100	148.9 (6.5)		

The mean difference is significant at the 0.05 level.

Table 5. Predictors of emotional intelligence: multiple regression analyses

Predictor	B	Beta	t	P. Value	95.0% Confidence Interval	
					Lower Bound	Upper Bound
Age	0.279	0.033	0.558	0.577	−0.704	1.261
Gender	4.058	0.093	1.833	0.068	−0.295	8.411
Academic year	3.192	0.165	2.829	0.005	0.973	5.411

intelligence predictors among nursing students. As shown in Table 5, the independent variables (age, gender, and academic year) were entered into the model of predictors. The overall model was statistically significant (P ≤ 0.002, R = 0.198, R^2 = 0.039, adjusted R^2 = 0.032). This stated that 3.9% of the variance in academic year was illuminated by the whole model. The findings revealed that academic year was a predictor of emotional intelligence (P < 0.05).

5. Discussion

According to the results of the current study, most students exhibit high levels of emotional intelligence. Also, perception of emotions was the highest domain and utilizing emotions was the lowest. These findings were in line with those of the Indian study by Meti, which discovered that 96.25% of nursing students had greater levels of emotional intelligence [50]. In addition, the findings of the study are similar with those of Gaballah *et al.*, who reported that the majority of nursing students at Egypt's Port Said University exhibited high emotional intelligence [51]. However, this finding is contradicted by the Thamizhselvan and Vembu study, which revealed that 37.2% of nursing students reported a high degree of emotional intelligence [45]. This finding was also higher than that of the Abou Hashish and Bajbeir study, which found that 54.9% of nursing students showed a high degree of emotional intelligence [52]. This finding suggests that nursing students are emotionally intelligent and may be able to notice, ana-

lyze, control, manage, and harness emotion in an adaptive manner; they might use this knowledge to guide their thoughts and actions. Furthermore, this outcome may be related to the students' favorable assessment of the relevance of emotional intelligence as a critical nursing ability, which may help them demonstrate better ranges of interaction competences and collaboration, as well as perform more successfully within the team.

According to the current study, fourth-year students had higher EI scores than first- or second-year students did. Also, academic year of nursing students was a predictor of emotional intelligence. Additionally, the results of this study also showed a relationship between participant age and emotional intelligence. These findings, which are corroborated by recent longitudinal research by Budler *et al.*, show that emotional intelligence rises with experience over time [43]. Also, the Orkin *et al.* study supports similar results [53]. Similar results have been reported by Thomas *et al.*, who found that the EI considerably rose with study level, demonstrating that the EI has risen with time [54]. The results could imply that emotional intelligence can be enhanced. Over the course of their education, students may also develop and mature [44]. Age has a big impact on one's emotional development, as Por *et al.* observed in their study, which indicated a high positive correlation between nursing students' age and EI [31]. EI and age strongly correlate, according to Ishii [55]. Competence increases when EI changes as a result of experiences [56]. However, these results were not supported by Snowden *et al.* and Štiglic *et al.* studies, which didn't find differences between age and EI [57] [58]. First-year students probably need some time to become used to academic learning and may experience access issues for different courses, which can cause emotional overload and higher than average levels of stress. Their ability to use their EI increased as they rose through the nursing grades. In our study, EI ratings improved with age and were greater than the prior years for students at each level.

The current study's findings showed that females had more EI than males, although there was no statistically significant difference. This result wasn't supported by literatures which indicated that males and females have different levels of emotional intelligence (EI) [55] [57] [59]. This may attributed to the students' uneven gender distribution in the current study. Therefore, another study including an equal number of male and female nursing students is necessary.

Strengths and limitations of the study

This study is the first study carried in Palestine among nursing students. The cross-sectional design and self-reported measures were noted as study limitations. The causal-effect relationship among factors was not examined using a cross-sectional method, and the subjectivity of self-reported surveys is a problem. As a result, further longitudinal studies must be done in the future.

Recommendations and implications for practice

In light of the study results, it is recommended that training and studies be conducted in order to maintain the students' levels of emotional intelligence.

Further studies, including an equal number of male and female nursing students, are necessary.

6. Conclusion

The study assess the level of the emotional intelligence among nursing students. This study confirmed that the emotional intelligence score of the nursing students was high. Also, academic year of nursing students was a predictor of emotional intelligence. In addition, a positive relationship was confirmed between the emotional intelligence and age of nursing students. Furthermore, it was confirmed that the emotional intelligence of the nursing students was at a significant level with the academic years. Fourth-year students have the highest emotional intelligence. Coping with emotions is essential in nursing since it includes not just technical care but also relational care and interpersonal relationships. As a result, great emotional intelligence in nursing leads to improved interactions with patients, their families, and the medical team. These characteristics will influence students' success in the nursing profession.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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