

Original Article

Correlation between Educational Stress and Professional Self-Esteem of Nursing Students

Alp Yilmaz Figen, PhD, RN

Assistant Prof, Bozok University, Faculty of Health Sciences, Department of Nursing, Yozgat, Turkey

Avci D, PhD, RN

Assistant Prof, Bandirma University, Faculty of Health Sciences, Department of Nursing, Balikesir, Turkey

Correspondence: Dr. Figen Alp Yilmaz, Bozok University, Faculty of Health Sciences, Erdogan Akdag Stret. Yozgat, Turkey. e-mail:efigenden@gmail.com

Abstract

Background: Nursing education is a highly stressful program affecting the professional perception and professional self-esteem of students. However, it is observed that the correlation between nursing education stress and professional self-esteem has not been sufficiently addressed in the literature of our country and around the world.

Objective: The objective of this study was to determine the correlation between stress experienced by nursing students during education and professional self-esteem and the factors affecting such stress.

Methodology: This cross-sectional study was conducted with 360 nursing students between October 2019 and November 2019. The data were collected with a Personal Information Form, Nursing Education Stress Scale, and Professional Self-Esteem Scale. To analyse the data, descriptive statistics, Kolmogorov-Smirnov test, independent-samples t test, One-Way ANOVA, Pearson correlation analysis were used.

Results: Students who had university graduate parents, chose the profession willingly, wanted to work as a nurse after graduation and stated that they could recommend the profession to others had significantly lower education stress mean scores. In addition, students who were in senior year, female, had university graduate parents, had a good financial status, chose the profession willingly, wanted to work as a nurse, stated that they could recommend the profession to others and had an overall academic success between 3–4 had significantly higher professional self-esteem mean score.

Conclusions: Stress levels of nursing students were above average and no correlation was found between education stress and professional self-esteem. It can be recommended to assess the stress, self-esteem levels and related factors starting from the first year of nursing education and to organize the curriculum in a manner that decreases the education stress and increases the professional self-esteem of nursing students.

Keywords: nursing education, nursing student, education stress, professional self-esteem

Introduction

Nursing education is a planned program comprised of theoretical and practical education which aims to ensure that students acquire the knowledge, attitudes and skills regarding the nursing profession (Karaca et al., 2015; Bektas et al., 2018). Nursing students are faced with many personal, academic and clinical stressors from the first days of their education (Bublitz et al., 2016; Labraque, 2014; Pulido-Martos et al., 2012). It is reported in the literature that such stress negatively affects the physical and mental health of nursing students, decreases their life

quality and increases their tendency to exhibit risky behaviors. High level of stress has a negative effect on critical thinking, problem-solving and decision-making abilities of students and reduces academic success (Jimenez et al., 2010; McCarty et al. 2018; Rudman & Gustavsson, 2012). Furthermore, this stress negatively impacts the professional personality/identity formation processes of nursing students and decreases their self-esteem (Karabulutlu et al., 2019; Kilic, 2018; Nikitha et al., 2014; Sun et al., 2016). Professional personality/identity refers to the self-perception

of an individual as a member of a profession (Arıocak, 1999) and is a key factor in nurses' ability to provide high-quality care to improve patient outcomes (Sun et al., 2016). Professional self-esteem, on the other hand, is defined as the judgment of worthiness regarding the profession preferred by the individual (Karabulutlu et al., 2019; Sener et al., 2011). Individuals with a profession compatible with their self-identity are expected to be more successful and efficient while individuals with a profession incompatible with their self-identity are more likely to experience conflicts and dissatisfaction (Uslusoy et al., 2016). In this respect, it is highly important that members of the profession have a well-developed identity and a high professional self-esteem so that nursing can be a professional job (Karabulutlu et al., 2019; Uslusoy et al., 2016). However, literature studies indicate that education stress negatively affects the self-confidence and self-esteem of nursing students (Acharya et al., 2015; Melincavage, 2011; Nikitha et al., 2014). A high level of professional self-esteem is an effective factor in coping with the stress experienced by students during their education. Also, the objective of nursing education programs is to train nurse candidates who will provide high quality patient care and have high level of professional self-esteem (Kilic, 2018). Instructors must assume important responsibilities to enhance the professional self-esteem of nursing students who will be a part of healthcare teams of the future. However, it is observed that there are very few studies investigating the correlation between the stress levels and professional self-esteem of nursing studies in our country (Kilic, 2018). Therefore, we aimed to determine the correlation between stress experienced by nursing students during their education and their professional self-esteem and the affecting factors in the present study. It is considered that the results of this study will decrease the education stress, improve the coping ability and increase the professional self-esteem of nursing students who are in professional personality/identity development stage and thus guide the instructors to make plans regarding the training of competent members of the profession.

Research Questions:

In this study, answers are sought to the following fundamental questions:

1. What is the stress level of nursing students during their education?

2. What are the factors affecting the education stress levels of nursing students?

3. What is the professional self-esteem level of nursing students?

4. What are the factors affecting the professional self-esteem of nursing students?

5. Is there a correlation between education stress and professional self-esteem?

Methodology

This is a cross-sectional study and the target population consisted of 392 students studying in Nursing Department of Faculty of Health Sciences, Bozok University in fall semester of 2019–2020 Academic Years. The minimum sample size was calculated as 156 by using the following formula used to calculate the sample size with a finite population: $n = N \cdot t^2 \cdot \sigma^2 / d^2 (N-1) + t^2 \cdot \sigma^2$. The study group was comprised of 360 students who were present during data collection days, agreed to participate in the study and had no missing information.

Data Collection Tools: In the present study, data was collected using Personal Information Form, Nursing Education Stress Scale, and Professional Self-Esteem Scale.

Personal Information Form: This form prepared by the researchers using the literature consists of 14 questions inquiring about the students' academic year, gender, marital status, alma mater, education level of parents, financial status and academic success, whether or not they chose the nursing profession willingly, want to work as nurses after graduation and recommend the profession to others.

Nursing Education Stress Scale (NESS): It was developed by Rhead (1995) to determine the stress experienced by nursing students during education. Turkish validity and reliability study of the scale was performed by Karaca et al. in 2014. The scale has two subscales which are academic stress and practical stress. The 3-point Likert-type scale consists of 32 items. In the scale, "3" refers to a highly stressful situation and "0" refers to a no-stress situation. The probable range of scores is between 0-96 and higher scores indicate higher levels of stress (Karaca et al., 2014). In the present study, Cronbach's alpha value was calculated as 0.92.

Professional Self-Esteem Scale (PSES): It was developed by Arıocak in 1999 to determine the professional self-esteem of individuals aged 17

and above, having chosen a profession, receiving professional education in a certain field or performing a profession. The scale was comprised of a total of 30 items – 14 positive and 16 negative items. The responses were rated between 1 (strongly disagree) and 5 (strongly agree). 30 is the lowest score and 150 is the highest score that can be obtained from the scale. Increasing scores indicate increasing self-esteem (Arıcak, 1999). In this study, Cronbach's alpha reliability coefficient of the scale was calculated as 0.90.

Data Assessment: For data analysis, the SPSS 20.0 software (SPSS, Inc., Chicago, IL, USA) was used. For the analysis, Kolmogorov–Smirnov test, descriptive statistics, independent-samples t test, One-Way ANOVA were used. For post-hoc comparisons, because the intergroup variances were uniformly distributed, Tukey's-b test was used. Pearson correlation analysis was used to determine the relationship between nursing education stress and professional self-esteem. The results were assessed at the significance level of $p < 0.05$.

Ethical Considerations: The study protocol was designed in compliance with the principles of the Declaration of Helsinki. Institutional permission was obtained from the Nursing Department of Bozok University and ethics committee approval was received from the Ethics Committee of Bozok University (Decision date and no. 18.10.2019–25583). The study was conducted on a voluntary basis and verbal and written consent of students participating in the study was obtained.

Results

Characteristics of Students: Average age of participant students was 20.98 ± 2.67 , 77.5% of them were female and 7.5% of them had graduated from vocational schools of health. Mothers of 51.9% of the study group were primary school graduates, fathers of 29.7% of them were middle school graduates and 79.7% of them had a moderate perceived financial status.

17.5% of students stated that there were healthcare staff in their families, 54.7% of them chose the nursing profession willingly, 73.1% of them wanted to work as nurses after graduation, 56.7% of them could recommend the nursing profession to other people and 51.9% of them had an overall academic success between 2–2.99.

Nursing education stress and professional self-esteem of nursing students: Nursing Education Stress total mean scores of students was 60.91 ± 1.63 . Nursing Education Stress subscales practical stress and academic stress mean scores are 31.28 ± 8.42 and 29.63 ± 8.64 , respectively. Also, Professional Self-Esteem total mean scores of students range between 46 and 136 and the total mean score is 92.41 ± 1.92 (Table 1).

Nursing education stress and professional self-esteem by students' characteristics: The distribution of nursing education stress and professional self-esteem mean scores of students according to some variables is given in Table 2. According to this, students who had university graduate parents, chose the profession willingly, wanted to work as a nurse and stated that they could recommend the profession to others had a statistically significantly lower Nursing Education Stress mean scores than other groups ($p < 0.05$). In addition, students who were in senior year, female, had university graduate parents, had a good financial status, had medical personnel in family, chose the profession willingly, wanted to work as a nurse, stated that they could recommend the profession to others and had an overall academic success between 3–4 had a statistically significantly higher Professional Self-Esteem mean score than other groups ($p < 0.05$).

Correlation between nursing education stress and professional self-esteem

Pearson's correlation analysis revealed a low negative correlation between nursing education stress and professional self-esteem ($r^2: -0.35$, $p < 0.01$) (Table 3).

Table 1. Nursing education stress and professional self-esteem mean scores of students

Subscales	X ± SD	Min–Max	Score Interval
Practical Stress Subscale	31.28 ± 8.42	9–48	0–48
Academic Stress Subscale	29.63 ± 8.64	7–48	0–48
Nursing Education Stress Total	60.91 ± 1.63	16–95	0–96
Professional Self-Esteem	92.41 ± 1.92	46–136	30–150

Table 2. Nursing education stress and professional self-esteem mean scores of students according to some characteristics

Variables	n	Education Stress		Professional Self-Esteem	
		X ± SS	p	X ± SS	P
Year					
1st year	91	57.91±14.55	0.188	88.97±20.61	0.030
2nd year	89	61.73±16.05		90.96±18.70	
3rd year	92	62.96±16.56		92.63±18.93	
4th year	88	61.05±17.70		97.22±18.10	
Gender					
Female	279	62.18±17.23	0.427	95.08±18.87	<0.001
Male	81	60.54±16.01		83.23±17.90	
Mother's education level					
Primary school	187	65.53±14.25	<0.001	89.97±18.68	<0.001
Middle school	73	61.82±16.14		90.10±17.92	
High school	85	58.23±16.71		96.95±19.20	
University	15	42.33±9.16		108.40±17.01	
Father's education level					
Primary school	101	64.67±15.74	0.001	88.25±19.26	0.001
Middle school	107	62.28±15.64		90.37±19.04	
High school	106	58.35±16.78		95.20±18.05	
University	46	54.69±15.58		101.72±19.58	
Financial status					
High	60	59.15±14.81	0.303	93.42±18.20	0.003
Moderate	287	61.02±16.44		91.36±20.61	
Low	13	66.76±18.87		75.20±27.90	
Did they choose nursing willingly?					
Yes	197	56.83±14.68	<0.001	100.74±15.71	<0.001
No	163	65.84±16.79		82.36±18.42	
Do they want to be nurses?					
Yes	263	58.35±16.01	<0.001	98.11±16.22	<0.001
No	97	67.85±15.01		76.97±18.49	
Do they recommend nursing to others?					
Yes	204	55.82±15.43	<0.001	99.87±16.92	<0.001
No	156	67.57±14.96		82.67±17.81	
Overall academic success					
Between 1–1.99	44	62.05±16.43	0.301	88.63±18.46	0.010
Between 2–2.99	187	61.20±18.23		90.51±20.44	
Between 3–4	129	59.17±15.32		96.46±17.15	

Table 3. Correlation between nursing education stress and professional self-esteem

Variables	1	2	3	4
1. Practical Stress Subscale	1	0.82**	0.95**	-0.31**
2. Academic Stress Subscale	0.82**	1	0.96**	-0.36**
3. Nursing Education Stress Total	0.95**	0.96**	1	-0.35**
4. Professional Self-Esteem	-0.31**	-0.36**	-0.35**	1

**p<0.001

Discussion

Nursing education is a highly stressful program with its theoretical and practical components. Nursing students not only experience conflicts during their education but are also faced with some problems caused by the school and hospital environment (Bublitz et al., 2016; Labrague et al., 2018). In this study, mean scores of students from the Nursing Education Stress Scale was 60.91 ± 1.63 , which suggests that the stress level of nursing students in our country is above average. It was also determined that stress experienced by students was similar at academic and practical levels. In other studies conducted in our country, it is reported that students perceive the nursing education as stressful and have high levels of stress (Agacdiken et al., 2016; Akkaya et al., 2018; Ergin et al., 2018; Yildirim et al., 2016). Similarly, in studies conducted abroad, it was detected that nursing students experienced moderate to high levels of stress (Boulton & O'Connell, 2016; Raji et al., 2016). Unmanaged high level of stress negatively affects the health and decreases the quality of life of students (Karaca et al., 2015; McCarty et al., 2018; Pulido-Martos et al., 2012). In this sense, it is highly important to determine the stress levels of nursing students in order to help them take the stressors that negatively affect their academic and clinical performances under control.

It was detected in the study that female students had higher levels of stress compared to men but the difference was statistically insignificant. It is observed that there is no consensus in the literature on the effects of gender on stress experienced during nursing education. It is reported that female students have higher levels of stress in some studies (Ergin et al., 2018; Karaca et al., 2017; Yildirim et al., 2016; Yilmaz et al., 2017) while it is stated that gender has no impact on stress level in other studies (Karagozoglu et al., 2014; Tasdelen & Zaybak, 2013). Therefore, it can be said that it is required to conduct studies where both qualitative and quantitative designs are used together to determine the effect of gender. On the other hand, it was detected in this study that nursing students whose parents were university graduates had lower levels of education stress. It is expressed in the literature that family support is an effective factor in reducing the clinical stress of students (Agacdiken et al., 2016; Lou et al., 2016). Parents with a high level of education exhibiting a more democratic/supportive attitude

and being positive role models to students may have contributed to the fact that students acquired effective coping skills and had increased psychological resilience.

In the present study, students who stated that they chose the nursing profession willingly, wanted to work as nurses after graduation and could recommend the nursing profession to other people had lower nursing education stress mean scores. Similarly, it is reported in other studies that students who chose their profession willingly and wanted to work as nurses after graduation had lower levels of stress and used more positive coping methods in the case of stress (Karagozoglu et al., 2014; Yilmaz et al., 2017). This can be explained with the fact that students who choose their professions willingly feel like they belong to the profession, perceive the school and clinic environment more positively and use effective coping methods.

When the professional self-esteem of students and the affecting factors which is the other aspect of the study was examined, it was detected that students had a professional self-esteem mean score of 92.41 ± 1.92 . Likewise, in studies conducted with nursing students in Turkey, it was reported that students had moderate to high levels of professional self-esteem (Kilic, 2018; Gurdogan et al., 2016; Oz & Yildiz, 2019). Professional self-esteem levels of students were moderate, which is in line with the literature.

It was found in the study that professional self-esteem mean scores of students varied depending on the academic year variable, and students in fourth year had the highest self-esteem. It is reported in the literature that nursing students in fourth year have higher levels of self-esteem compared to students in other grades, which supports the findings of this study (Sener, et al., 2011; Oz & Yildiz, 2019). Higher professional self-esteem of students in final year compared to students in lower grades can be explained with the fact that they are soon to be members of the profession and are more knowledgeable and experienced regarding nursing. On the other hand, it was detected in our study that female students had higher levels of professional self-esteem than male students. In a study conducted by Kilic (2018) with nursing students in our country, it was reported that female students had higher professional self-esteem compared to male students. Higher self-esteem of female students can be explained with the fact that 78%

of the study group was comprised of female students and nursing is still considered as a female profession in our country although men have also started to participate in the nursing profession as per the new nursing law.

It is known that parental education has a positive effect on self-esteem. In this study, students whose parents were university graduates had significantly higher levels of professional self-esteem. This result can be explained with the fact that parents with a high level of education exhibit a democratic attitude, support their children in their choice of profession, guide them to make an informed choice and have better socioeconomic status. In fact, it was detected that students with low socioeconomic status had lower professional self-esteem. Similarly, Acharya et al. (2015) found that the family's socioeconomic status was an effective factor in professional self-esteem. Students with low financial status usually choose the nursing profession due to job guarantee, which may result in negative perceptions regarding the profession and low professional self-esteem.

It is very important that nursing students are encouraged to be self-confident, outgoing and with high self-esteem. In this study, students who stated that they chose the nursing profession willingly, wanted to work as nurses after graduation and could recommend the nursing profession to other people had higher professional self-esteem. Similarly, it is reported in other studies that students who chose their profession willingly and wanted to work as nurses after graduation had higher professional self-esteem (Kilic, 2018; Oz & Yildiz, 2019; Uslusoy et al., 2016). This is an expected result and it is reported that individuals who chose the profession willingly had a more positive point of view of the profession (Uslusoy et al., 2016). When individuals choose their profession for conscious reasons, they can assess and decide whether that profession is suitable for them. In this regard, it can be said that it is normal for individuals who choose their profession willingly to have high professional self-esteem. In addition, it was detected in this study that students with high academic success also had high professional self-esteem. It was determined in this study that most of the students with high academic success were students who chose the profession willingly and intended to perform the profession in the future. Positive professional perception of students who chose the profession

willingly may have contributed to increasing both their professional self-esteem and academic success.

A low negative correlation was found between education stress and professional self-esteem of nursing students. It is observed that there is no consensus on this subject in the literature. In a study conducted by Kilic (2018) in our country, no correlation was detected between nursing education stress and professional self-esteem. On the other hand, Acharya et al. (2015) and Farhan & Khan (2015) reported that professional self-esteem of nursing students increased as their education stress decreased. These results indicate that reducing the stressors induced by nursing education and improving the coping skills of students were effective in increasing their professional self-esteem.

Limitations of the Study: Its most significant limitation is that it cannot be generalized to the whole universe since the study was conducted with a relatively small group of nursing students of the university.

Conclusion and Recommendations: In the present study, the education stress level of nursing students was above average and their professional self-esteem was moderate. There was a significant correlation between education stress and professional self-esteem. Furthermore, it was found that variables such as academic year, gender, parents' education level, financial status, choosing the profession voluntarily, wanting to work as nurses, recommending the profession to others, academic success were among the factors affecting the nursing education stress or professional self-esteem. In line with these results, it can be said that especially instructors should be sensitive to the stress experienced by students in academic and clinic environments and act as role models. It can be recommended that, starting from the first year of education, the type, level, causes of stress experienced by students and their professional self-esteem should be evaluated and plans should be made to improve their coping skills and professional self-esteem. Students who have high level of stress, choose the profession unwillingly, do not want to work as nurses after graduation and have low academic success may be monitored and supported by their counselors. Furthermore, studies where qualitative and quantitative designs are used together can be conducted to better understand the variables

affecting the nursing education stress and professional self-esteem.

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