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Research Article

Investigate Stress Levels of Nursing Students in First Oncology Clinical Experience

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Abstract

Purpose: To evaluate the stress level of second-year's nursing students during their first oncology clinical experience.

Methods: The descriptive study in order to determine the stress levels of second-year's nursing students. This study was conducted with the students of Uludag University. The study population was consisting of 156 nursing students attending second year class in nursing school. Pagana Clinical Stress Questionnaire (PCSQ) was used. Data in analysis of survey's results was evaluated mean, Pearson's correlation method, t-test was used in statistical analysis percentage.

Results: When a comparison is made between the mean score of clinical stress and socio-economic data of the students involved in the study; any meaningful difference has not been observed between the mean scores of stress and the sex, approaches to nursing profession, previous hospital experiences, health status whether having a chronic disease or not. Only meaningful difference (p>0.05) has been observed with family member status whether working as a health worker or not (p<0.05). The mean score of stress of students in the first clinical practice was found as 70 ± 4.15. This result exhibited that the students experienced stress is the average.

Conclusions: It was found that the nursing students had a high level of stress during the first clinical practice and experienced the most stress "fighting" dimension from the subscales. So, it was thought that the clinical orientation program must be done before student experience. Because clinical orientation program was effective to reduce the risk.

Keywords: Stress levels; Nursing students; Oncology; Clinical experience

Introduction

Clinical teaching is the most important basic part taking place in nursing education since it should be designed to enable the nursing students in both our country and the world. This method is require to "have knowledge" about the topics required in nursing functions and "have the ability" to perform these functions properly [1,2].

Clinical setting provides the student with opportunities to cope with the general patient and concerning problems, to use theoretical knowledge in practice and make analysis, to become proficient in psychomotor and intellectual skills, to have critical thinking, to solve the problem, to make observation, to take decision, to participate in teamwork and to get ready for the next roles. However, the learning that occurs in the learning environment for nursing students presents challenges that may cause students to experience stress and anxiety [3-5].

Education works as a social process that aims to develop the personal and social skills of the student. On the other hand it includes a certain supervision structure in scope of planned and scheduled school activities. In nursing education, it is aimed at professionalization of students. This education programs is carried out in the school and hospital environments. Nursing students are faced with various problems as well as bringing by the age groups and student positions and the school and hospital environments. For these reasons, this education has potential stressors increasing the level of anxiety.

High levels of anxiety can affect students' clinical performance, presenting a clear threat to success in a clinical rotation. It is crucial for clinical nursing faculty to foster a supportive learning environment conducive to undergraduate nursing student learning [2].

The first clinical experience in nursing education is a factor of stress for students. The first clinical experiences do not only help the students to establish a link between theoretical knowledge and its applications but also allows the development of psychomotor skills that form the basis in nursing practice and the role of socializing [6].

Stress is defined as an important psycho-social factor affecting the student's academic performance and well-being during training. Therefore, a stressful student loses confidence of the patient since she will not able to observe the needs of the patient properly [3]. Clinical practice or education contributes the environment in which students come across stress, which can be assessed as challenging or difficult to manage, causing anxiety. This study was conducted to evaluate the

stress level of second-year's nursing students during their first oncology clinical experience.

Research Design and Methods

Objectives

The aim of this study is to examine the clinical stress levels of nursing second year students as a result of their experiences in the first oncology clinic.

Population and setting

This study was conducted with the nursing students of a university hospital. The study population was consisting of 156 nursing students attending second year class in nursing school.During the fall semester of the second year of students in the nursing program of this university. After the first year internships, the internship for the second year was an important source of stress for the students due to the increasing number of clinics and the internship for chronic diseases. For this reason, researchers have found that nurse students from oncology clinics are very frightened, especially as a result of written feedback from students.

Because of that reason, we planned to investigate clinical stress levels as a result of first clinical oncology experiences of second year students who took internships all that year. In doing this study, we made nursing second year students practicing all internal internship to fulfill the condition of being in the oncology clinic at the end of the clinical rotations. We started the questionnaire study as written and verbal acknowledgment from the nursing students who agreed to participate in the study based on the voluntary principle.

Data collection tools

Cognitive appraisal of stress was measured using Pagana's Clinical Stress Questionnaire, the PCSQ , which is based on Folkman's an d Lazaru's Clinical Stress Questionnaire [7]. Pagana Clinical Stress Questionnaire (PCSQ), which was developed by Pagana in a questionnaire form consisting of 15 questions reflecting the socio-demographic characteristics of students then validated in terms of reliability and validity after oriented to Turkish by Merdiye Şendir ve Rengin Acaroğlu, was used in evaluation of the data. International consistency of the Turkish total questionnaire was coefficient 0.70. In our study ınternational consistency of the total questionnaire was coefficient 0.80.

The maximum score of the scale is 80, minimum score is 0. The lower score indicates low level of stress and the high score is high level of stress. Clinical stress questionnaire (PCSQ) was used consisting of total of 20 questions including the emotions such as threats, fighting, loss of benefits to determine the initial value of the stress requiring the students- midwives and nurses to cope with during the first clinical experience. Each item is considered to be the fifth-grade; 0 - "no", 1 - "a little", 2 - "medium", 3 - "more", 4 - "too much". Based on the scores for each item, at least "0" up to "80" points can be obtained in survey. The lower score indicates low level of stress and the high score is high level of stress. The PCSQ takes approximately two minutes to complete.

Statistical analysis

Data collection tool was applied at the end of the last day in oncology clinical practice. Data in analysis of survey's results was evaluated in software SPSS 20.0; mean, Pearson's correlation method, t-test were used in statistical analysis percentage.

Ethical Consideration

The written consent was taken from Uludag University, Nursing School of Health Sciences for the data collection (No: 23561). In addition, by explaining the aim of the study, the verbal confirmation of the nursing students was also received and the confidentiality was respected.

Results

When the definitive characteristics of the students participated in our study were analysed, it is determined that the mean age of 156 students attending second-year class age is 20.08 ± 2.14. The other indicators involved in study are 62.3% of the students as female 37.7% as male.

As it is seen in Table 1, 85.2% of the students participated in survey represents the students who choose the job willingly however the percentage of the students who have expressed that they enjoy their jobs is 88.4%. The percentage by 55.1% has stated that there is no other health worker in their families.

On the other hand, 57.1% from the students has reported that they do not have any previous hospital experience, 49.4% are those who do not have any negative hospital experience before and the percentage by 92.5% has stated that they do not have any chronic disease (Table 1).

Demographic Data	Number (N)	Percentage (%)
Sex		
Female	97	62.3
Male	59	37.7
Who chosen the job willingly?	95	60.9
Who did not choose the job willingly?	61	39.1
Who enjoys the job?	110	70.5
Who did not enjoy the job?	46	29.5
Who have another family member as health worker?	70	44.9
Who do not have another family member as health worker?	86	55.1
Who have hospital experience before?	67	42.9
Who do not have hospital experience before?	89	57.1
Who have a negative hospital experience?	79	50.6
Who do not have a negative hospital experience?	77	49.4
Who have a chronic disease?	11	7.5
Who do not have a chronic disease?	145	92.5

Table 1: Socio-Demographic Characteristics of Nursing Students (N: 156).

When a comparison is made between the mean score of clinical stress and socio-economic data of the students involved in the study; any meaningful difference has not been observed between the mean

scores of stress and the sex, approaches to nursing profession, enjoying the job, previous hospital experiences, health status whether having a chronic disease or not. (p>0.05) Only meaningful difference has been observed with family member status whether working as a health worker or not (p<0.05) (Table 2).

Demographic Data	Number (N)	Percentage (%)	(Stress Score) X ± SD	Significance
Sex				
Female	97	62.3	27.09 ± 7.12	t=0.465
Male	59	37.7	28.20 ± 8.12	p>0.05
Who chosen the job willingly?	95	60.9	28.18 ± 6.22	t=0.696
Who did not choose the job willingly?	61	39.1	29.10 ± 7.14	p>0.05
Who enjoys the job?	110	70.5	27.50 ± 7.78	t=2.09
Who did not enjoy the job?	46	29.5	25.85 ± 11.27	p>0.05
Who have another family member as health worker?	70	44.9	28.00 ± 5.55	t=0.185
Who do not have another family? member as health worker	86	55.1	20.52 ± 7.80	p<0.05*
Who have hospital experience before?	67	42.9	28.2 ± 9.45	t=0.742
Who do not have hospital experience before?	89	57.1	28.0 ± 7.44	p>0.05
Who have a negative hospital experience?	79	50.6	28.54 ± 5.56	t=0.117
Who do not have a negative hospital experience?	77	49.4	26.76 ± 8.44	p>0.05
Who have a chronic disease?	11	7.5	29.83 ± 10.40	t=1.672
Who do not have a chronic disease?	145	92.5	28.24 ± 8.03	p>0.05

Table 2: Comparison between socio-demographic data and stress score means of the nursing students (N: 156).

The values determined in scale are the average scale score of threat as 20.4 ± 2.14, The average scale score of fighting as 23.64 ± 5.93, the average scale score of damage as 20.32 ± 2.99 and the average scale score of benefit 16.70 ± 3.44 (Table 3).

	Number (N)	Average	Standard Deviation
Descriptive Statistics			
Clinical Stress Score	156	70	4.15
Scales			
Threat Scale	156	20.41	2.14
Fighting Scale	156	23.64	5.93
Loss Scale	156	20.32	2.99
Benefit Scale	156	16.70	3.44

Table 3: Students clinical stress score averages (N: 156).

Discussion

Because clinical practice is important for future professionals to acquire competence, a group of studies has focused exclusively on the analysis of these activities as sources of stress [8]. The clinical practices as the environments where have a great contribution in development of professional identity unquestionably and offer the students chances to be socialized towards this direction and enable the students to learn the culture of profession [9].

Studies have also reported that students experience anxiety during their practice on the first day of clinical practice [10-12]. In the study of Taşdelen and Zaybak, it was found that gender and intention to come to nursing school did not affect clinical stress level [13]. Similarly, in the study of Mankan, gender of students did not affect the stress levels of the first day of clinical practice, but voluntary selection has affected the clinical stress level [14]. In contrast, Aytekin et al., found that male students had more difficulties. Similar to the literature, it was also found that gender did not affect clinical stress level in our study [15]. Several studies indicate that clinical training is in an environment that may cause students to experience high levels of stress and anxiety, even if several studies indicate conversely [16,17].

In the study of Potur and Bilgin, there was no significant difference in clinic first and last day stress levels according to gender (p>0.05) [18]. When compared clinic first and last day stress levels in male and female students, The female student's harm and benefit mean scores and total PCSQ mean scores on the last day were significantly higher than those on the first day (p<0.05). Similarly, male students' harm and benefit mean scores and total PCSQ mean scores on the last day were significantly higher than those on the first day (p<0.05).

In the study conducted by Karabacak et al., it was found that the mean score of stress of students in the first clinical practice was 31.88 ± 8.60 [19]. In another study, Çakırcalı et al. found the mean score of stress of students in the first clinical practice was found as 26.44 ± 6.1 [20]. Arabacı found the mean pre-clinical, post-test and post-stress scores of the nursing students were 48.05 ± 5.00, 37.11 ± 9.97 and

36.04 ± 12.65, respectively [21]. Taşdelen and Zaybak's study, it was determined that the average score of the students' clinical stress questionnaire was 33.96 ± 10.2. In the studies of Karagözoğlu et al., the nursing students mostly had found low clinical stress levels respectively 27.10 ± 10.41, 27.56 ± 10.76 and 26.13 ± 10.10 as scores of total questionnaire [22,23].

On the other hand, Atay and Yılmaz who used the same scale found the mean score of stress of the students in first practice as 54.2 ± 8.9; this value demonstrated that they experienced the stress above the average [24]. Erbil found the mean anxiety score as 57.62 ± 8.46 in nursing students who performed the first clinical practice. This value was observed in "medium" level thus it was reported that the first clinical experience was a factor increasing the anxiety in students. These studies evaluated the mean score of stress of students as a low level of stress as differently from our study, and students' clinical stress score in the first oncology clinical practice was found to be higher in our results. In our study the mean score of students' clinical stress in the first oncology clinical practice was found as 70 ± 4.15. This result exhibited that the students experienced quite high stress. The reasons for the different outcomes of this study are that the schools, circumstances, and hospitals are different.

In the study of Tasdelen and Zaybak, the subscale scores of the PCSQ were 9.48 ± 4.58 in the "threat" dimension, 14.24 ± 5.08 in the "fighting" dimension, 6.45 ± 3.65 in the "harm" dimension and 3.77 ± 2.07 in the "benefit" dimension. Atay and Yılmaz determined the mean score of the scale sub-groups as follows; 23.2 ± 5.6 as score of fight; 15.2 ± 4.8 as score of threat, 9.7 ± 3.5 as score of damage and 6.08 ± 1.8 as score of benefit. In the study of Karagözoğlu, Özden and Yıldız, the subscale scores of the scale were 7.29 ± 4.66 in the "threat" dimension, 13.92 ± 6.61 in the "fighting" dimension, 2.45 ± 3.16 in the "harm" dimension and 3.44 ± 1.95 in the "benefit" dimension. In our study, these subscale averages are found higher. The average scale score of fighting as 23.64 ± 5.93, the average scale score of threat as 20.4 ± 2.14, the average scale score of damage as 20.32 ± 2.99 and the average scale score of benefit 16.70 ± 3.44. According to these results, unlike the literature, clinical stress was found to be higher in the students who were included in our study. But similar to the literature, it was found that students had the highest level of clinical stress due to fighting sub-scale and the lowest level of clinical stress due to benefit sub-scale.

It is seen that the stress developed in the first period of the clinical practice is higher than the other periods. It is thought that the first time students are in the clinical setting may cause them to feel insufficient in their nursing activities. And also this may be effective in the students' perception of the threat and the feeling of being beneficial.

Conclusion

As a result of the study to determine the stress levels of the students during the first clinical experience, it was found that the nursing students had a high level of stress during the first clinical practice and experienced the most stress "fighting" dimension from the subscales. For the purpose of clinical education, it had been decided to the conclusion that the level of stress associated with clinical practice decreased. It is also suggested that students should be educated on issues that they feel are inadequate for clinical practice in order to increase their self-confidence.

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