

Original Article

The Effect of Nursing Students' Problems in the Clinical Practice Environment on Anxiety Level and Motivation

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Background: Clinical practice is one of the important stages of nursing education. The problems which many students encounter in their first experiences in this area can cause a feeling of anxiety and a loss of motivation which lasts throughout their education.

Objective: The aim of this study was to assess the effect of problems experienced by nursing students in the clinical environment on their anxiety levels and motivation.

Methodology: The research was planned as a descriptive-correlational study. The study was conducted in the spring semester at the Health Sciences Faculty of a university in Turkey. The research was completed with the 316 nursing students without resorting to sample selection. A sociodemographic data form, the State Anxiety Inventory, the Trait Anxiety Inventory, and the Motivation Sources and Problems Scale were used to collect data.

Results: It was found in the study that some problems experienced in the clinic had a negative effect on both anxiety levels and motivation, and that the difference was at a statistically significant level ($p < 0.05$).

Conclusion: In conclusion, solving problems experienced in the clinic has an important place in reducing anxiety levels in nursing students and in increasing their motivation.

Key words: anxiety, clinical practice, motivation, nursing

Background

Nursing education is a process which compulsorily includes both theory and clinical practice. This clinical practice is important in allowing nursing students to put into practice the theoretical knowledge which they have acquired, and in getting them ready for their professional lives (Kol & İnce, 2008). At this important point, clinical nurses and academics who are responsible for the students have an important role in improving the quality of education and in developing nurses' critical thinking and problem solving skills. The clinical area is a foreign environment for the student (Chapple & Aston, 2004; Hughes, 2004). For some students, anxiety is caused by the responsibility of gathering data under time pressure, by inadequacies in care and implementation, by the tiring work tempo, or by

problems of communication with nurses and academics in the clinic (Sharif & Masoumi, 2005). The APA (2013) defined anxiety as "a feeling of uneasiness" perceived and felt by individuals as dangerous, chaotic and uncertain. Motivation is expressed as behaviour directed towards a goal (Murphy & Alexander, 2000). There are few studies in the international field evaluating the relation of problems experienced by nursing students in the clinical environment to anxiety level and motivation. One of these, by Chen (2010), reports that when nursing students feel a high level of anxiety, their motivation, initiative and productivity are affected adversely. The experience of feeling anxiety and motivation play a key role in attaining success in the teaching process (Moridi, Khaledi & Valiee, 2014). In successful clinical training, the feelings of the students, the most important stakeholders,

are important. It has been found that the most important of these feelings are anxiety and motivation. In this study, it is thought that considering anxiety and motivation together with problems encountered in the clinical environment in the same people will contribute to creating awareness in nursing training.

Aim and research questions: The aim of this study was to assess the effect of problems (reason of anxiety) experienced by nursing students in the clinic environment on their anxiety levels and motivation. The research questions were as follows:

1. What are the percentage distributions of problems experienced by nursing students in the clinic?
2. Is there a significant difference between the problems experienced by nursing students in the clinic and their total scores on the Motivation Sources and Problems Scale and its subscales?
3. Is there a significant difference between the problems experienced by nursing students in the clinic and their total scores on the state anxiety scale?
4. Is there a significant difference between the problems experienced by nursing students in the clinic and their total scores on the trait anxiety scale?
5. Is there a correlation between the nursing students' total scores on the state anxiety scale and their total scores on the Motivation Sources and Problems Scale and its subscales?
6. Is there a correlation between the nursing students' total scores on the trait anxiety scale and their total scores on the Motivation Sources and Problems Scale and its subscales?

Methodology

The research was conducted as a descriptive and correlational study. The study was conducted in the spring semester of the academic year 2017-2018 at the Health Sciences Faculty of a university.

Participants: Approximately 400 students were studying in the Nursing Department of the Health Sciences Faculty, and the population of the study comprised all of the students in the Nursing Department. There was no selection of a sample, and all students who fitted the inclusion criteria were accepted into the study (n=316).

Inclusion criteria:

1. Voluntarily participating in the study
2. Being enrolled as a student of the Nursing Department when the research was conducted
3. Having performed clinic practice.

Exclusion criteria:

1. Refusing to participate in the study
2. Filling in the data forms incompletely
3. Not having performed clinic practice.

Assessment tools: A sociodemographic data form, the State Anxiety Inventory, the Trait Anxiety Inventory, and the Motivation Sources and Problems Scale were used to collect data.

Sociodemographic data form and clinical practice problems form: This form was prepared by the researchers after a review of the literature. It contained questions on basic information such as the participants' age, gender and year of study, as well as on problems which they had encountered during clinic practice. The clinical practice problems form was created by the researchers in line with the literature for problems which students might meet in clinical practice.

The Motivation Sources and Problems Scale: This scale consists of 24 questions. It was developed and tested for validity and reliability by Acat & Köşgeroğlu in 2006. It consists of three subscales: Intrinsic Motivation, Extrinsic Motivation and Negative Motivation. Views on the statements on the scale are scored with five-way Likert type scoring. Eleven of the 24 items on the scale (Nos 1, 2, 3, 4, 6, 7, 8, 9, 10, 23 and 24) concern intrinsic motivation, five (Nos 13, 14, 15, 17 and 20) concern extrinsic motivation, and eight (Nos 5, 11, 12, 16, 18, 19, 21 and 22) concern negative motivation. The items on the intrinsic and extrinsic motivation subscales are scored 1: I strongly disagree, 2: I disagree, 3: I am undecided, 4: I agree, and 5: I strongly agree, while the items on the negative motivation subscale are reversed. The score on each subscale is determined by taking the arithmetic mean of the score of the items on the relevant subscale, and the total constitutes the score of the professional learning motivation level of the person. A high score indicates a high level of motivation, which is why the scores of the items making up the negative subscale are inverted when calculating the total scale score. The internal consistency coefficient of the scale (the Cronbach alpha coefficient) was reported as 0.82.

The State-Trait Anxiety Inventory (STAI FORM TX-1, TX-2): This was developed in 1970 by Spielberger Gorsuch and Lushene then tested for validity and reliability in Turkey by Oner and Le Compte in 1985. It is a self-evaluating scale composed of short statements. It is composed of two parts: the State Anxiety Scale and the Trait Anxiety Scale.

State Anxiety Inventory: It describes how individuals feel at a particular time and under particular conditions, and is answered by taking into account feelings with regard to the condition in which they find themselves. It measures an individual's state, that is their current level of anxiety. The intensity of the reaction of tension, worry or excitement brought about by conditions increases or decreases over time. Individuals respond to the items on the scale according to the intensity of their feelings at that moment.

Trait Anxiety: The Trait Anxiety Scale describes how an individual generally feels. Individuals respond to the items on the scale according to the frequency with which they generally experience these emotions. According to the severity of feelings or behaviors associated with the statements in the items of the scale, the individual chooses 1) not at all, 2) a little, 3) a lot, or 4) completely. The feelings or behaviors stated in the items of the Trait Anxiety Scale are marked 1) almost never, 2) sometimes, 3) often or 4) almost all the time according to their frequency. As the State and Trait Anxiety Scales are answered by self-evaluation and by pen and paper, they can be applied individually or to groups. There is no time limit when answering the scales, but both can be completed in twenty minutes, or as little as 10-15 minutes with university students. For state anxiety scores, participants mark each item on the scale with the choice, which is most appropriate for themselves, from the choices of 'not at all', 'a little', 'a lot', or 'completely'. Some of the statements on the scale are marked positively, with a higher total indicating greater anxiety, and others are marked negatively, with a higher score indicating less anxiety. In evaluating, a score of between 1 (or -1) and 4 (or -4) is given to each item according to whether it is positive or negative, and a constant of 50 is added to the total. The highest possible score is 80, and the lowest is 20. A high total anxiety score indicates a high level of anxiety for that person. For the trait anxiety score, a result is obtained by adding a constant. In interpreting the scores, the value of the total score obtained on

each scale varies from 20 to 80. A high score indicates a high level of anxiety, and a low score indicates a low anxiety level. Both scales include 20 items of two different types. Direct statements express negative feelings, and reversed statements express positive feelings. In the State Anxiety Scale, the reversed items are numbers 1, 2, 5, 8, 10, 11, 15, 16, 19 and 20, while on the Trait Anxiety Scale they are numbers 21, 26, 27, 30, 33, 36 and 39.

Data collection method: After providing the students with information on the study and obtaining their informed consent, the survey application method was used to collect data. After students were given information about the research in the classroom, the researchers collected data by applying the questionnaire. The researchers followed the weekly lesson programs in order to reach all of the students.

Statistical analysis: The program SPSS 21.0 was used to analyze data. Conformity to normal distribution was examined with the Shapiro-Wilk test. Because the study data did not show normal distribution, correlation between two independent variables was assessed with the Mann Whitney test. Spearman correlation analysis was used in determining the correlation between state-trait anxiety and motivation.

Ethical considerations: Before commencing the study, participants were given information, their written approval was obtained, and they were assured of the voluntary nature and confidentiality of their participation. In addition, the necessary permission was obtained from the ethics committee of the university (Decision No. 4/25 dated 28.3 2018) and from the dean of the faculty where the study was conducted.

Results

Table 1 shows data relating to the sociodemographic characteristics of the participants. It was found that 72.80% of the students were female, 41.50% were in their third year of study, 79.10% had an income which matched their expenditure, 74.40% had a nuclear family, 97.80% did not have a diagnosis of anxiety disorder and 98.70% were not using any medication for anxiety disorder.

Table 2 shows the problems which caused anxiety during clinical practice. The anxiety most frequently reported by the students was that 54.10% feared causing harm to the patients; 47.20% experienced anxiety about the physical

conditions of the clinic, 39.60% about fear of negative assessment by teaching staff, 38.30% about not being able to put theoretical knowledge into practice sufficiently, and 37.00% about an absence of lecturers (Research question 1). The problems experienced by nursing students in the clinical setting also cause anxiety and affect their motivation levels. In tables 3 and 4, the effects of these problems on anxiety and motivation levels are examined.

In Table 3, the effects on motivation of problems which caused anxiety during clinical practice are examined. A significant difference was found between fear of harming the patient and the subscales of intrinsic motivation ($p=.000$), extrinsic motivation ($p=.000$), negative motivation ($p=.031$) and the total motivation score ($p=.000$), and a significant difference was found between inadequacy of physical conditions in the clinic and scores on the subscale of extrinsic motivation ($p=.000$), negative motivation ($p=.012$) and total motivation

($p=.000$), but no correlation was found with the subscale of intrinsic motivation. A significant difference was seen between a fear of negative assessment by teaching staff and the subscale of negative motivation only ($p=.019$). There was a significant difference between the item of not being able to put theoretical knowledge into practice sufficiently and the scores on the subscales of intrinsic motivation ($p=.000$) and extrinsic motivation ($p=.000$) and total motivation ($p=.000$), while the item of absence of lecturer was seen to be the cause of a significant difference with the subscale of extrinsic motivation only ($p=.020$). There was significant difference in the scores of the subscale of negative motivation ($p=.029$) and total motivation ($p=.012$) of the students who reported that they experienced anxiety because of a conflict between theory and practice. In students who reported fear because of inexperience a significant difference was seen in the subscales of intrinsic motivation ($p=.003$) and negative motivation ($p=.000$).

Table 1: Sociodemographic characteristics of students (n = 316)

		n	%
Gender	Female	230	72.80
	Male	86	27.20
Grade	1	71	22.50
	2	55	17.40
	3	131	41.50
	4	59	18.70
Income Status	Less than income expense	41	13.00
	Equivalent to the expense income	250	79.10
	More than income expense	25	7.90
Family Structure	Nuclear family	235	74.40
	Fragmented family	37	11.70
	Extended family	34	10.80
	Others	10	3.20
Anxiety disorders	Yes	7	2.20
	No	309	97.80
Drug use associated with anxiety disorders	Yes	4	1.30
	No	312	98.70

Table 2: Problems that cause anxiety in clinical practice for students (n=316)

Problems That Cause Anxiety In Clinical Practice for Students *	n	%
Reason of Anxiety 1= Feared causing harm to the patients	171	54.10
Reason of Anxiety 2= Physical conditions of the clinic	149	47.20
Reason of Anxiety 3= Fear of negative assessment by teaching staff	125	39.60
Reason of Anxiety 4= Not being able to put theoretical knowledge into practice sufficiently	121	38.30
Reason of Anxiety 5= Absence of lecturers	117	37.00
Reason of Anxiety 6= Theoretical / practice conflict	113	35.80
Reason of Anxiety 7= Fear of inexperience	96	30.40
Reason of Anxiety 8= Difficulty contacting clinical nurses	83	26.30
Reason of Anxiety 9= Failure to transfer theoretical information into practice	83	26.30
Reason of Anxiety 10= Do not know what to do in the clinic	70	22.20
Reason of Anxiety 11= Fear of self-harm	75	23.70
Reason of Anxiety 12= Difficulty contacting patients	68	21.50
Reason of Anxiety 13= Time management problems	59	18.70
Reason of Anxiety 14=Do not like nursing	44	13.90

* Multiple options are marked. * Multiple options are marked.

Table 3: The effect of problems that cause anxiety in clinical practice for students on motivation (n=316)

		n	Intrinsic Motivation		Extrinsic Motivation		Negative Motivation		Total Motivation	
			$\bar{x} \pm SD$	p	$\bar{x} \pm SD$		$\bar{x} \pm SD$	p	$\bar{x} \pm SD$	p
Feared causing harm to the patients	Yes	171	40.28±6.36	0.000*	20.19±3.64	0.000*	26.56±4.97	0.031*	87.03±10.79	0.000*
	No	145	36.04±7.03		18.42±4.63		27.84±5.09		82.30±12.80	
Physical conditions of the clinic	Yes	149	39.13±6.53	0.063	20.36± 3.52	0.000*	27.87±5.16	0.013*	87.38±10.97	0.000*
	No	167	37.62±7.33		18.49±4.57		26.49±4.89		82.61±12.40	
Fear of negative assessment	Yes	125	38.39±6.52	0.887	19.36±4.01	0.796	26.36±5.20	0.019*	84.12±11.50	0.365
	No	190	38.32±7.32		19.44±4.29		27.65±4.92		85.42±12.26	
Inability to put theory into practice	Yes	121	41.27±5.88	0.000*	21.23±2.93	0.000*	27.20±4.82	0.676	89.71±9.57	0.000*
	No	192	36.53±7.05		18.23±4.48		27.08±5.24		81.85±12.37	
Absence of lecturers	Yes	117	38.93±6.34	0.219	19.95±3.72	0.020*	27.52±5.25	0.142	86.41±11.04	0.052
	No	199	37.98±7.34		19.04±4.44		26.92±4.94		83.94±12.42	
Theoretical / practice conflict	Yes	113	39.02±6.51	0.253	20.03±4.52	0.056	27.99±5.15	0.029*	87.05±11.57	0.012*
	No	203	37.95±7.24		19.01±3.99		26.67±4.96		83.64±12.04	
Fear of inexperience	Yes	96	39.95±7.38	0.003*	20.04±3.49	0.078	25.28±3.73	0.000**	85.28±10.77	0.638
	No	220	37.62±6.71		19.09±4.46		27.96±5.35		84.68±12.48	
Difficulty										

contacting clinical nurses	Yes	83	39.37±7.08	0.152	19.78±4.99	0.496	26.30±5.04	0.039*	85.45±12.86	0.637
	No	233	37.96±6.94		19.23±3.89		27.45±5.04		84.65±11.66	
Failure to transfer theoretical information into practice	Yes	83	38.26±7.16	0.902	19.24±4.90	0.391	25.92±4.38	0.017*	83.43±11.50	0.246
	No	233	38.36±6.95		19.42±3.94		27.58±5.22		12.12±85.37	
Do not know what to do in the clinic	Yes	70	37.50±6.07	0.196	19.3±24.87	0.513	26.34±5.13	0.128	83.17±10.51	0.066
	No	246	38.57±7.23		19.39±4.01		27.37±5.02		85.34±12.33	
Fear of self-harm	Yes	75	38.54±8.07	0.608	19.01±4.33	0.546	25.64±4.56	0.004*	83.20±12.81	0.138
	No	241	38.26±6.64		19.49±4.17		27.61±5.12		85.38±11.68	
Difficulty contacting patients	Yes	68	36.77±6.70	0.008*	18.11±3.91	0.005*	25.50±4.86	0.001**	80.39±11.27	0.000*
	No	248	38.76±7.03		19.72±4.23		27.60±5.03		86.08±11.89	
Time management problems	Yes	59	36.747±.01	0.026*	18.05±4.34	0.016*	25.96±3.77	0.079	80.76±10.71	0.003*
	No	257	38.70±6.95		19.68±4.13		27.42±5.28		85.80±12.06	
Do not like nursing	Yes	44	31.95±6.60	0.000*	16.84±4.52	0.000**	25.52±4.50	0.035*	74.31±11.09	0.000*
	No	272	39.36±6.50		19.79±4.02		27.41±5.10		86.56±11.23	
Mann Whitney U test			*p<0.05							

Table 4: The effect of problems that cause anxiety in clinical practice for students on anxiety (n=316)

			State Anxiety		Trait Anxiety	
			$\bar{x} \pm SD$	p	$\bar{x} \pm SD$	p
Feared causing harm to the patients	Yes	171	40.85±5.36	0.000*	46.54±5.09	0.866
	No	145	43.84±6.14		46.30±4.86	
Physical conditions of the clinic	Yes	149	41.11±5.75	0.001*	46.76±5.54	0.232
	No	167	43.22±5.90		46.14±4.42	
Fear of negative assessment	Yes	125	41.98±5.63	0.190	47.01±4.89	0.061
	No	190	42.40±6.12		46.03±5.02	
Inability to put theory into practice	Yes	121	40.07±5.43	0.000*	46.08±5.23	0.451
	No	192	43.60±5.84		46.67±4.85	
Absence of lecturers	Yes	117	42.00±5.41	0.715	46.63±4.56	0.976
	No	199	42.36±6.20		46.32±5.22	
Theoretical / practice conflict	Yes	113	41.37±5.88	0.023*	46.03±4.96	0.151
	No	203	42.70±5.89		46.66±4.99	
Fear of inexperience	Yes	96	40.95±6.37	0.008*	45.70±4.24	0.234
	No	220	42.78±5.63		46.75±5.25	
Difficulty contacting clinical nurses	Yes	83	42.53±5.57	0.458	47.14±5.10	0.181
	No	233	42.12±6.04		46.18±4.93	
Failure to transfer theoretical information into practice	Yes	83	42.22±6.33	0.681	46.44±4.38	0.976
	No	233	42.22±5.77		46.43±5.19	
Do not know what to do in the clinic	Yes	70	42.47±5.35	0.338	47.31±3.86	0.066
	No	246	42.15±6.07		46.18±5.24	
Fear of self-harm	Yes	75	42.92±6.94	0.312	46.52±4.99	0.680
	No	241	42.01±5.55		46.41±4.99	
Difficulty contacting patients	Yes	68	43.44±5.78	0.064	46.38±4.22	0.944
	No	248	41.89±5.92		46.45±5.18	
Time management	Yes	59	44.18±7.31	0.076	48.4±54.65	0.001*
	No	257	41.77±5.46		45.97±4.95	

problems						
Do not like nursing	Yes	44	44.95±5.67	0.001*	47.13±4.25	0.320
	No	272	41.78±5.84		46.32±5.09	
Mann Whitney U test		*p<0.05				

Table 5: Relationship between students' anxiety scores and motivation scores (n=316)

		State Anxiety	Trait Anxiety
Intrinsic Motivation	r	-0.219	0.013*
	P	0.000*	0.816
Extrinsic Motivation	r	-0.270	-0.041*
	p	0.000*	0.465
Negative Motivation	r	-0.058	-0.191
	p	0.301	0.001*
Total Motivation	r	-0.265	-0.103
	p	0.000*	0.068

*p<0.05

A significant difference was seen only in the subscale of negative motivation in students who reported that they had difficulty in communicating with clinic nurses, (p=.039) and that they could not transfer theoretical knowledge into practice (p=.017). It was seen that students who reported experiencing a fear of harming themselves were differentiated in the subscale of negative motivation (p=.004). It was found that difficulty in communicating with patients created a significant difference at a high level with the total motivation score (p=.000) and all subscales (p<0.05). In students who reported experiencing difficulty with time management, difference was seen in the subscales of intrinsic motivation (p=.026) and extrinsic motivation (p=.016), and total motivation (p=.003). In students who reported not liking the profession, it was seen that the scores of the subscales of intrinsic motivation (p=.000), extrinsic motivation (p=.000), negative motivation (p=.035) and total motivation (p=.000) were differentiated (Research question 2).

It is seen from Table 4 that the state anxiety scores of students who experienced anxiety because of fear of harming a patient (p=.000), inadequacy of physical conditions in the clinic (p=.001), inability to adequately put theoretical knowledge into practice (p=.000), experiencing fear because of inexperience (p=.008) and not liking the profession (p=.001) showed a difference. In students experiencing anxiety because of a conflict between theory and practice, state anxiety scores were found to be higher than in students not experiencing anxiety (p=.023). In students who reported experiencing time management problems, it was found that

their trait anxiety scores were high, and that the difference was significant (p=.001). (Research question 3 and 4).

It can be seen in Table 5 that a negative correlation at a high level was found between students' state anxiety and their scores on the subscales of intrinsic motivation and extrinsic motivation and total motivation (p=.000). As students' state anxiety scores increased, their intrinsic motivation, extrinsic motivation and total motivation scores decreased. A negative correlation was found between the students' mean trait anxiety scores and their mean scores on the subscale of negative motivation (p=.001). As students' trait anxiety scores increased, their negative motivation scores decreased. (Research question 5 and 6).

Discussion

Nursing education is a two-stage process involving the transfer of theoretical information and clinic practice. For nursing students, the stage at which they experience greater difficulties is clinic practice, in which they see themselves as being in a strange environment. Our assessment of the problems which the participants in our study experienced in the clinic environment showed similarities to other studies. In a study by Karadag et al. (2013) on the difficulties encountered by nursing students in the clinic and their views on this, it was found that the greatest difficulty was that the teacher did not act as a model in practice areas. Other problems experienced in the clinic in the same study were listed as not being able to go to a clinic which was related to the practical lessons that they had taken, and inability to use theoretical knowledge

in the practice. Similarly, in a study by Bagcivan et al. (2015) on nursing students' expectations and perceptions of stress in the education process, it was found that the biggest clinic problem for the students was that doctors, nurses and patients had a negative attitude towards them, followed by fears of making a mistake and worry that they might see a patient die. Similar results were seen in an examination of the international literature. Also, in a study by Graham et al. (2016) assessing stress factors in second-year nursing students, it was emphasized that fear of causing harm to the patients and worries when caring for terminally ill patients were at the forefront. In a study by Khadem-Rezaiyan, Avval and Youssefi (2015) assessing the views of nursing students on their education, attention was drawn to the fact that they had problems in transferring theoretical knowledge into practice and that theoretical knowledge did not match practice, and furthermore that they needed to spend more time on clinic practice. In both the national and international literature, there are studies on the problems of nursing students which they have experienced in the clinic with regard to their practice. Looking at the problems overall, it is seen that they are fear of harming a patient, worries about care, inadequacies of the clinic environment, conflict between theory and practice, teacher-related factors and communication problems. The findings of the present study are in this respect similar to those of other studies (Karadag et al., 2013; Bagcivan et al., 2015; Graham et al., 2016; Khadem-Rezaiyan et al., 2015). The similarity of problems experienced in the clinic in different parts of the world suggests as a solution that a contribution could be made to the profession by collaborate approach internationally of nursing education on an international basis.

The problems experienced by nursing students in the clinic environment sometimes lead to feelings of anxiety. Inability to control the level of anxiety leads to problems with preparedness to learn and motivation problems and has negative effects on their communication. In this study, statistically significant results were obtained between some problems experienced by students in the clinical setting (feared causing harm to the patients, physical conditions of the clinic etc.) and state-trait anxiety level. Similar to these findings, it was reported in a study in a study by Aciksoz, Uzun and Arslan (2016) evaluating anxiety and

stress levels in nursing students, it was found that what inspired the most fear in the clinic was harming the patient and doing something wrong, that the state-trait anxiety score means of students who did not feel ready to go into the clinic were higher, and that the difference was statistically significant. In a study by Gorostidi et al. (2007) assessing the sources of stress in nursing practices, it was emphasized that the main source of stress in the clinic came from being emotionally affected by patient care, encountering individuals who were feeling pain, and lack of control in communicating with patients. In another study which evaluated stress levels in first-year nursing students, it was stated that state anxiety levels had their highest scores in the time section before going into the clinic, but as time went on and they got used to the clinic, there was no significant difference in their trait anxiety scores before and after the clinic (Hacihasanoglu et al., 2008). Studies have provided more data in assessment at the time of first clinic practice and after the clinic. Other studies mostly evaluate the interaction of anxiety level and some other factor. An example of this is a study by Edwards et al. (2010) on stress and self-esteem in nursing students. It was stated in that study that the greatest source of anxiety was the fear of making a mistake when providing care for a patient, followed by seeing a person in pain. In the national and international literature, many studies had findings of parallel changes in problems arising in the clinic environment in nursing students and their anxiety levels. It is thought that the similarity of problems experienced in the clinic even though the participants are different and the effect being similarly negative is an expected result.

The clinic is the unique environment in which nursing students have the opportunity to transfer what they have learned in theory into practice, and where they gain the skill of communication in technical applications among much else in the process of their becoming professionals. For the students making those gains, problems which they encounter in the course of their clinical experience can sometimes cause a loss of motivation. In this study, statistically significant results were obtained between some problems experienced in the clinic by nursing students and motivation. No studies were found in the national literature evaluating clinic problems and motivation together. In the international

literature, it was seen that findings were similar to those of the present study in terms of the difference between the characteristics and conditions of the clinic environment and some problems encountered in the clinic and motivation. Some studies in the international literature, in the clinic education of nursing students that communication problems experienced in the clinic environment and negative behavior on the part of nurses or patients directed at the students reduced nursing students' feelings of self-confidence and lowered their motivation (Gunay & Kilinc 2018; Sercekus & Baskale, 2016). In addition, in another study, it was stated that educators played a key role in clinic education in terms of supporting nursing students, and data was obtained that when the clinic process was well managed in students' education, the students felt better, their confidence increased, and they were better motivated (Haggman-Laitila et al. 2007). Similar to our study, the results show a significant correlation between clinic practice conditions and problems experienced and motivation levels. Even though the studies were conducted with different participants and at different centres, the negatively affected nursing students had many points in common. Therefore, it is thought that the negative results of shared influences are also shared.

In both the theoretical and practical parts of nursing education, but especially in clinic practice, many stress factors can cause anxiety in nursing students (Cowen et al., 2016). The feeling of anxiety can sometimes have a negative effect and a reduction in characteristics which are important in education such as willingness, self-confidence and motivation. In a study by Chen (2010), it was stated that anxiety had a negative effect on students' feelings of self-confidence and on their motivation. No studies were found in the national literature assessing the problems experienced by nursing students in clinic practice together with their anxiety levels and motivation. In this way, the present study is the first on this topic. In the international literature, studies were found which compared motivation and anxiety levels with other parameters such as time management and academic success. No study was found which evaluated motivation and anxiety level together with problems encountered by nursing students in clinic practice. The clinic environment is an essential part of the nursing

education process, providing an opportunity for nursing students to transfer theoretical knowledge into practice, and an important step in connecting to real life as they become professionals. If the problems which students face in the clinic cannot be taken under control, the excessive anxiety which they will experience will have negative effects on their learning levels, their feelings of self-confidence, their levels of assertiveness and their motivation (Chen, 2010; Moscaritolo, 2009). In the light of this information, schools, academics working in nursing education and those working in the clinic should come together to find a solution to the problems experienced in the clinic. In this way, the data obtained in this study can serve as a guide and can contribute to finding a solution.

Conclusion: It was found that various problems experienced by nursing students in the clinic affect anxiety levels and motivation, and that the results were statistically significant. In order to increase success in clinic education, which has an important place in nursing education, reducing anxiety levels and increasing motivation are important. In order to reach this target, it is recommended that first of all, problems experienced in the clinic should be taken into consideration, and that all sides– academics, students, and health professionals– should act together to find a solution. In order to prevent nursing students from identifying their profession with high anxiety levels and low motivation in the clinical environment, academics and hospital personnel must all work together. Considering the data gathered in this study, it is thought that in the future a contribution will be made to the planning of different research models to develop new methods in the clinical environment which will increase student motivation and help to lower anxiety levels.

The strengths and weaknesses of the study:

The most important of the strong aspects of this study is raising awareness of the problems experienced by student nurses in the clinic and their effects. Nursing education is a two-stage system, giving theoretical information and performing clinical practice. It is accepted by everyone that aims can only be achieved to a point of professionalism by success in both stages. Problems encountered by students who are strangers to the clinical environment in the first years when they get to know their profession directly affect their love and views of the

profession, their motivation and their anxiety levels. Identification of the problems encountered by nursing students in the clinic and showing their effect on anxiety levels and motivation are of great value in this sense. In the light of this information, it is thought that the data obtained will contribute to the process of planning nursing education programs. Another strong point is that data were collected with the inclusion of all nursing students in one faculty. The lack of a sampling process and the inclusion of the views of all students increase the strength of the study.

A limitation of the study is that it was conducted at a single centre.

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References

- Acat, M.B., & Kosgeroglu, N. (2006). Motivation's resources and problems scale. *Anatolian Journal of Psychiatry*, 7(4), 204-210.
- Aciksoz, S., Uzun, Ş., & Arslan, F. (2016). Assessment of relationship between nursing students' self-efficacy and levels of their anxiety and stress about clinical practice. *Gülhane Medical Journal*, 58(2), 129-135. .
- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Author, Washington, DC.
- Bagcivan, G., Cinar, F.I., Tosun, N., & Korkmaz, R. (2015.) Determination of nursing students' expectations for faculty members and the perceived stressors during their education *Contemporary Nurse*, 50 (1): 58-71.
- Chapple, M., & Aston, E.S. (2004). Practice learning teams: A partnership approach to supporting student' clinical learning. *Nurse Education in Practice*, 4, 143-149.
- Chen, J.Y. (2010). Morale and role strain of undergraduate nursing students in a pediatric clinical setting. *Journal of Nursing Research*, 18(2), 144-153
- Cowen, K.J., Hubbard, L.J., & Croome Hancock, D. (2016). Concerns of nursing students beginning clinical courses: a descriptive study. *Nurse Educ. Today*, 43, 64-68. <https://doi.org/10.1016/j.nedt.2016.05.001>.
- Edwards, D., Burnard, P., Bennett, K., & Hebden, U. (2010). A longitudinal study of stress and self-esteem in student nurses. *Nurse Education Today*, 30(1), 78-84.
- Gorostidi, X., Egilegor, X., Erice, M., Iturriotz, M., Garate, I., Lasa, M., & Cascante, X. (2007). Stress sources in nursing practice. Evolution during nursing training. *Nurse Education Today*, 27(7), 777-787.
- Graham, M., Lindo, J., Bryan, E., & Steve Weaver S., 2016. Factors associated with stress among second year student nurses during clinical training in Jamaica. *J. Prof. Nurs.*, 32(5), 383-391.
- Gunay, U., & Kilinc G. (2018). The transfer of theoretical knowledge to clinical practice by nursing students and the difficulties they experience: A qualitative study. *Nurse Education Today*, 65, 81-86. <https://doi.org/10.1016/j.nedt.2018.02.031>
- Hachasanoglu, R., Karakurt, P., Yılmaz, S., & Yıldırım, A. (2008). Find out more about clinical applications in clinical practice at the age of high school. *Ataturk University Nursing High School*, 11 (1), 69-75.
- Haggman-Laitila, A., Elina, E., Riitta, M., Kirsi, S., & Leena, R. (2007). Nursing students in clinical practice-Developing a model for clinical supervision. *Nurse Education in Practice*, 7, 381-391.
- Hughes, S.J. (2004). The mentoring role of the personal tutor in the "Fitness for practice" curriculum: An all wales approach. *Nurse Education in Practice*, 4, 271-278.
- Karadag, G., Parlar Kılıç, S., Ovayolu, N., Ovayolu, O., & Kayaaslan, H. (2013). Difficulties encountered by nursing students in practices and their views about nurses. *TAF Preventive Medicine Bulletin*, 12(6), 665-672.
- Khadem-Rezaiyan, M., Avval, F.Z., & Youssefi, M. (2015). Nursing students' viewpoints about basic sciences education. *International Journal of Education and Research*, 3(10), 109-116.
- Kol, E., & Ince, S. (2018). Determining the opinions of the first-year nursing students about clinical practice and clinical educators. *Nurse Education in Practice*, 31, 35-40.
- Moridi, G., Khaledi, S., & Valiee, S. (2014). Clinical training stress-inducing factors from the students' viewpoint: a questionnaire-based study. *Nurse Education in Practice*, 14, 160-163.
- Moscaritolo, L.M. (2009). Interventional strategies to decrease nursing student anxiety in the clinical learning environment. *Journal of Nursing Education*, 48(1), 17-23.
- Murphy, P.K., & Alexander, P.A. (2000) A Motivated exploration of motivation terminology. *Contemporary Educational Psychology*, 25(1), 3-53.
- Oner N., & Le Compte, A. (1985). *State-trait anxiety inventory handbook*. Publication of Istanbul Bogaziçi University. (Internet), Retrieved March 22, 2019, from: <http://www.worldcat.org/title/durumluk-surekli-kayg-envanteri-el-kitab/oclc/81840585>
- Sercekus, P., & Baskale, H. (2016). Nursing students' perceptions about clinical learning environment in Turkey. *Nurse Education in Practice*, 17, 134-138.
- Sharif, F., & Masoumi, S. (2005). A qualitative study of nursing student experiences of clinical practice. *BMC Nursing*, 4(6), 1-7.
- Spielberger, C.D., Gorsuch, R.C., & Luschene, R.E. (1970). *Manual for the state-trait anxiety inventory*. [Online]. California: 1970; Consulting Psychologists Press. Retrieved March 22, 2019, from: <http://www.apa.org/pi/about/publications/caregivers/practicesettings/assessment/tools/trait-state.aspx>.