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Determination of Practice Course Experiences of Nursing First Class Students in the Pandemic Process

Pandemi Sürecinde Hemşirelik Birinci Sınıf Öğrencilerinin Uzaktan Eğitim ile Yürütülen Uygulama Dersi Deneyimlerinin Belirlenmesi

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ABSTRACT

Objective: This study was planned to determine the experiences and problems experienced in terms of skill acquisition within the scope of nursing education of first-year nursing students who conduct distance and asynchronous practice courses in clinical, laboratory and simulation applications, which are an indispensable part of nursing education.

Method: This descriptive study was conducted with first-year students attending a nursing basics course and continuous active education in the spring semester of the 2019-2020 academic year in a Health School. 88 students who voluntarily agreed to participate in the study were included. Data were collected using an online form consisting of introductory information created by the researchers and questions about student experiences. Statistical analysis of the study was performed using frequency, percentage, arithmetic mean and standard deviation tests in the SPSS program.

Results: While 20.5% of the students stated that they had difficulty administering parenteral drugs within the scope of skill practices, 68.2% of them stated that they experienced stress while applying. 75% of the students participating in the research stated that distance education was not sufficient for the vocational practice course and 81.8% stated that they were not ready for the clinical environment after distance education.

Usage in Practice: The pandemic has suddenly placed distance education in our lives. The results of our study will guide the practices in terms of developing new strategies in nursing education suitable for future scenarios.

Keywords: Nursing student, Distance education, Covid-19, Nursing practice, Experience

ÖZET

Amaç: Bu çalışma, hemşirelik eğitiminin vazgeçilmez bir parçası olan klinik, laboratuvar ve simülasyon uygulamalarının uzaktan eğitimle yürütülmesinde hemşirelik birinci sınıf öğrencilerinin uygulama dersinde beceri kazanımı açısından deneyimlerini ve yaşadıkları sorunları belirlemek amacıyla planlanmıştır.

Yöntem: Tanımlayıcı tipteki bu araştırma, bir sağlık yüksekokulunda 2019-2020 eğitim-öğretim yılı bahar döneminde hemşirelik esasları dersi ve eğitime aktif devam eden birinci sınıf öğrencileri ile yapılmıştır. Araştırmaya katılmayı gönüllü olarak kabul eden 88 öğrenci araştırmaya dahil edilmiştir. Veriler, araştırmacılar tarafından oluşturulan tanıtıcı bilgiler ve öğrenci deneyimleri ile ilgili sorulardan oluşan çevrimiçi form kullanılarak toplanmıştır. Çalışmanın istatistiksel analizi SPSS programında frekans, yüzde, aritmetik ortalama ve standart sapma testleri kullanılarak yapılmıştır.

Bulgular: Öğrencilerin %20,5'i parenteral ilaçları uygulamalarında güçlük çektiğini belirtirken, %68,2'si uygulama yaparken stres yaşadığını ifade etmiştir. Araştırmaya katılan öğrencilerin %75'i mesleki uygulama dersi için uzaktan eğitimin yeterli olmadığını ve %81.8'i uzaktan eğitim sonrası klinik ortama hazır olmadığını belirtmiştir.

Uygulamada Kullanım: Pandemi uzaktan eğitimi hayatımıza aniden yerleştirmiştir. Çalışmamızın sonuçları, gelecekte olabilecek senaryolara uygun hemşirelik eğitiminde yeni stratejiler geliştirilmesi açısından uygulamalara yön verecektir.

Anahtar Kelimeler; Hemşirelik öğrencisi, Uzaktan eğitim, Uygulama, Covid-19, Deneyim

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GİRİŞ

The Corona Virus (Covid-19) pandemic, with its rapid spread and life-threatening course, has affected all countries of the world and brought different measures and practices in many areas (Hayter & Jackson, 2020; Yamamoto & Altun, 2020). Covid-19 pandemic also caused interruptions in education and training (Morin, 2020). In Turkey as well as all over the world, educational institutions switched to distance education to prevent these interruptions (Lira et al., 2020). Faculties in universities have tried to adapt to distance education in line with the budget of their departments with this application method, which is new for their departments. While increasing the knowledge of individuals with distance education, it has also forced departments aiming to improve professional competencies to choose alternative applications (Bezerra, 2020; Lira et al., 2020).

Covid-19 pandemic has created unprecedented challenge for nursing education in the world and Turkey (Beltz et al., 2020; Leigh et al., 2020; Morin, 2020; Stone et al., 2020a; Stone et al., 2020b). Clinical practices of nursing students in Turkey were suspended in order to prevent the spread of Corona virus and to enable clinical staff, hospitals, outpatient clinics and community centers to use the rapidly decreasing Personal Protective Equipment (PPE) effectively and to prevent transmission (Hayter and Jackson, 2020; Lira et al., 2020; Stone et al., 2020b). Face-to-face learning opportunities and clinical practice experiences of nursing students were limited (Beltz et al., 2020). Simulation laboratories and centres used to teach the majority of clinical skills in nursing were also suspended to prevent the spread of Covid-19, and to abide by the necessary social distancing rule, called to action with the motto "Stay Home", "Stay Healthy", "Life Fits into Home" (Lira et al., 2020).

Nursing consists of knowledge, perception, and psychomotor skills training (Dewart et al., 2020; Jackson et al., 2020). Although the subject of knowledge in nursing education will not be affected much by distance education, it may cause disruptions and deficiencies in perception and psychomotor skills development. It should be understood that distance education or the inclusion of technologies in education is not an adequate tool and cannot solve all of the problems in providing the perception and attitude we want students to gain (Bezerra, 2020; Hodges et al., 2020). Covid-19 pandemic created fundamental weaknesses in nursing education with restrictions. These include lack of personal protective equipment needed during the application, students' health insurance, insufficient number of instructors, inability to reach the required clinical practice time for graduation, and prevention of adequate development of nursing skills (Lira et al., 2020). Skill or simulation laboratories and clinical experiences are used to develop the psychomotor skills aspect of nursing education, which offer ‘learning by doing’ opportunities. Students must complete knowledge and clinical practice for a nursing graduation degree (Lira et al., 2020).

Due to the impact of Covid-19 on education, also means a change in nursing education. With distance education, not only the transfer of knowledge, but the necessity of reformulating the skill practices of educators and students, should aim to strengthen this transformation by preserving the doctrine of critical thinking, reflection, dialogue, and bonding with innovative practices and methods that increase interaction (Bezerra, 2020; Stone et al., 2020a; Stone et al., 2020b). These improvement strategies and academic perspectives should create digital platforms, technologies and methods based mainly on an educational scenario with new conditions for self-learning mediated by virtual environments (Lira et al., 2020; Stone et al., 2020b).

Nursing students and lecturers were not ready to manage this pandemic scenario. During the pandemic, instructors were required to create courses to enable distance education to be better and more effective, to enable students to learn the basics, and to create learning platforms to enable students to apply and present these skills

(Jackson et al., 2020; Stone et al., 2020a; Stone et al., 2020b; Zhi et al., 2020). In order to be prepared for such situations in the future and to increase the effectiveness of education, it is important to make plans based on the experiences and problems of the students in this process.

Purpose of the research

This study was planned to determine the skill practice, experiences and problems experienced by first-year nursing students in distance education within the scope of the practice course during the pandemic process.

MATERIAL AND METHOD

Research design

The study is a descriptive cross-sectional study.

Population and sampling

The study was conducted with 88 first year nursing students enrolled in Recep Tayyip Erdogan University, School of Health 2019-2020 academic year spring term, and taking the applied nursing course conducted with distance education. The universe of the study consisted of 88 students who continued active education in the Nursing Fundamentals course. Sample selection was not performed and all students who voluntarily accepted to participate in the study were included.

In our country, in March 2020, with the distance education decision taken after the fifth week of the education period, the subjects within the scope of the curriculum for the remaining 9 weeks of the course were determined and alternative application lists were created within these subjects. Each student was asked to choose an application on a weekly basis from the lists including skin and self-care, infection, vital signs, parenteral/oral medication, movement, respiration, nutrition, excretory and hot cold applications. The selected applications were requested by the students to perform at home with the materials they found or created by using their own possibilities, creativity and problem-solving skills. Students were asked to record their practice with video. The lesson was conducted after the recorded videos were uploaded to the "Google Classroom" used in the distance education process by the university on a weekly basis in the homework part of the class studies and the students completed the application lesson. The study data consists of the opinions of the students about these applications.

Data collection

The data form consists of 17 questions about the introductory knowledge and experiences of the students created by the researchers. The online data collection form (Data form-1) link created using Google forms was shared with the first-year students registered in "Google Classroom" at the end of the nine-week applied nursing course, and the students who wanted to participate in the study filled the form.

Data analysis

The characteristics of the students in the distance education process were applied to determine the situations they experience with the skills training. IBM SPSS Statistics (Version 22.0. Armonk, NY: IBM Corp.) package program was used for the statistical analysis of the study. Data were analyzed with frequency, percentage, arithmetic mean, and standard deviations tests.

Ethical consideration

In order to conduct the research, permission was obtained from the non-interventional clinical research ethics committee of a medical school with the decision number (2020/162) and then from the institution where the research would be conducted. In the data form created in the electronic environment, information about the study was made and voluntary consent of the participants was obtained.

RESULTS

Socio-demographic characteristics of the students participating in the study are given in Table 1. The mean age of the students participating in the study was 20.0 ± 1.7, 75% of the students were women, 62.5% of them were graduates of Anatolian High Schools, 42% of them resided in the city center and 35.2% participated in the study from the Black Sea Region.

It was determined that 56.8% of the students had their own room during the pandemic and 95.5% used smart phones during distance

education (Table 1).

Table 1. Socio-demographic characteristics

Characteristics	Mean±SD (Min-Max)	n	%
Age	20.0±1.7 (18-29)		
Gender			
Female		66	75.0
Male		22	25.0
Education			
Anatolian high school		55	62.5
Health Highschool		20	22.7
Technical Highschool		7	8.0
State Highschool		4	4.5
Science Highschool		2	2.3
Region of Residence			
Black Sea		31	35.2
Southeastern Anatolia		24	27.3
Eastern Anatolia		14	15.9
Mediterranean		6	6.8
Central Anatolia		6	6.8
Marmara		4	4.5
Aegean		3	3.4
Location of participation with distance education			
City		37	42.0
District		29	33.0
Village		22	25.0
Presence of room specific to the student			
Yes		50	56.8
No		38	43.2
Device Used During Distance Education and Video Shooting			
Smart phone		84	95.5
Other (Tablet/computer)		4	4.5
Total		**88**	**100**

In the research, it was found that 81.8% of the students received help for video shooting and 45.5% of the students were supported by their siblings. In the skill practice, it was found that 56.8% of the students did not receive any help, and 20.5% of them were helped by their siblings. 84.1% of the students stated that they had difficulty in obtaining materials and models, 94.3% of them could not obtain the model during the application, 20.5% of them had difficulty in parenteral drug applications, and 38.6% of them stated that they had difficulties due to lack of materials (Table 2).

For the reason of choosing among the practices given by the instructor, it was found that 68.2% of the students selected a topic based on availability of material. In the study, 68.2% of the students stated that they experienced stress while practising (Table 2).

75% of the students participating in the research stated that distance education was not enough for the applied nursing course and 77.3% did want to continue with distance education after the pandemic.

Again, 81.8% of the students stated that they were not ready to enter a clinical environment after distance education and 84.1% stated that skills training was more effective with face-to-face training with the instructor (Table 3).

Table 2. Characteristics of distance education

Characteristics	n (88)	%
Getting Help During Video Shooting		
Yes	72	81.8
No	16	18.2
Person Helping the Student During Video Shooting*		
Sibling	40	45.5
Cousin/nephew	17	19.3
Family	15	17.0
Mother	13	14.8
Friend	6	6.8
Father	4	4.5
Getting Help in Skill Practices		
No	50	56.8
Yes	38	43.2
Person Helping the Student During Skill Practices*		
Sibling	18	20.5
Family	9	10.2
Cousin/nephew	7	8.0
Friend	5	5.7
Mother	5	5.7
Father	1	1.1
Model Use During Skill Practices		
No	83	94.3
Yes	5	5.7
Difficulty in Procurement of Materials/Models in Skill Practice		
Yes	74	84.1
No	14	15.9
Skill Practice Topics Student Having Most Difficulty At*		
Urinary System Practices	22	25.0
Nutrition/Excretion Practices	21	23.9
Drug (Parenteral) Practices	18	20.5
Drug (Enteral) Practices	11	12.5
All Practices	11	12.5
Respiratory System Practices	9	10.2
Skin and Self Care Practices	5	5.7
Movement Activities/Hot Cold Applications	3	3.4
Infection control Practices	-	-
Vital Sign Practices	-	-
Reason of for Difficulty During Skill Practice*		
Lack of Materials	34	38.6
Lack of Models	27	30.7
Lack of Practice/Application	20	22.7
Lack of Knowledge	10	11.4
Reason for Choosing the Practice Topic*		
Availability of Materials	60	68.2
Being an Easy Topic	30	34.1
Best Known Practice	24	27.3
Emotion Felt While Performing Skill Practice*		
Stress	60	68.2
Excitement	58	65.9
Anxiety	35	39.8
Fear	18	20.5

* Multiple choices could be selected

Table 3. Students' opinions on distance education

The Usefulness of Distance Education	n (88)	%
No	66	75.0
Yes	22	25.0
Being ready for clinical environment after distance education		
No	72	81.8
Yes	16	18.2
Willingness to Continue Distance Education After the Pandemic		
No	68	77.3
Yes	20	22.7
Student Opinions on Skill Practices in Distance Education*		
Good Learning with the Instructor	74	84.1
Good Learning with Available Materials	73	83.0
Trust the Instructor	55	62.5
Lack of Anxiety thanks to the availability of a model	44	50.0
Excitement with the Instructor	32	36.4
Anxiety with Distance Education	31	35.2
Stress with Distance Education	30	34.1
Stress with the Instructor	15	17.0
Excitement with Distance Education	12	13.6
Lack of Anxiety in Distance Education	12	13.6
Anxiety with the Instructor	10	11.4
Trust with Distance Education	5	5.7
Good Learning with Distance Education	3	3.4
No Difficulty in Finding Materials in Distance Education	1	1.1

* Multiple choices could be selected

DISCUSSION

With the Covid-19 pandemic, educational activities in Turkey have been organized as online, synchronous/asynchronous training, instead of formal face-to-face training. In this study, we aimed to determine the opinions and experiences of first-year nursing students about distance education, which was started to be performed asynchronously during this process.

In our study, it was found that students mostly used smartphones with 95.5% during their education. In line with this result, there are different results in the literature. In the study conducted by Karatepe et al. (2020), it was found that students mostly used mobile phones in distance education, while Öztaş and Kılıç (2017) and Afşar and Büyükdoğan (2020) determined that students mostly used laptop computers (Afşar & Büyükdoğan, 2020; Karatepe et al., 2020; Öztaş & Kılıç, 2017). The reason for the different results may be due to technological developments and changes depending on the time differences of the studies.

In this study, we tried to determine the opinions of first year nursing students whether asynchronous education is useful or not and 75% of them stated that it was not useful. Karatepe et al. (2020) conducted a study with prospective teachers and reported that they were satisfied with their presentation skills development (Karatepe et al., 2020). Afşar and Büyükdoğan conducted a study with the Faculty of Economics and Administrative Sciences (FEAS) and the Faculty of Social and Human Sciences (FSHS) in 2020 and reported that half of the students preferred distance education (Afşar & Büyükdoğan, 2020). It should not be forgotten that the reason for this result is that both departments can complete their education with theoretical knowledge only. Keskin and Kaya (2020) conducted a study with approximately 90% of the students enrolled in Health Sciences faculties, and found that the contribution of distance education to the cognitive level was moderate and the

contribution to psychomotor skills was low, and that 84.4% of the students stated that distance education was not beneficial (Keskin & Kaya, 2020). Our results are consistent with the results of Keskin and Kaya (2020). It can be thought that the students in our study did not find distance education useful because they had difficulty in acquiring basic nursing skills.In a study conducted by Jang et al. with nursing students in 2005, that there was no significant difference between distance education and face-to-face education in terms of motivation level or learning satisfaction. Gega et al. (2007) found that distance education or face-to-face education is similar in terms of knowledge, skills and satisfaction (Gega et al., 2007; Jang et al., 2005). It can be thought that nursing students who receive applied training are not satisfied with distance education since it cannot contribute to the development of psychomotor skills, which is an indispensable part of nursing, and the students prefer face-to-face education.

In the present study, it was determined that 77.3% of the students did not want to continue with distance education after the pandemic. Similarly, in the study of Kürtüncü and Kurt (2020), with nursing students; determined that students think that the theoretical and practical courses are insufficient with distance education (Kürtüncü & Kurt, 2020). In a study conducted with nurses working actively in the field, it was found that 65% were willing to receive education through distance education. In the same study, 28% of the nurses stated that they wanted to receive distance education because it would contribute to their development in terms of knowledge (Yüksekdağ, 2020). It can be thought that actively working nurses already have opportunities to develop their skills, and they are willing to receive distance education as it is sufficient for obtaining information.

In our study, 81.8% of the students stated that they were not ready to join a professional clinical environment after distance education. It should be remembered that nursing students experience anxiety even under normal conditions before clinical experience, and it should be kept in mind that it is an important issue that should be considered for students who continue their education with distance education (Lira et al., 2020). It was determined that nursing students experience anxiety about issues such as economic uncertainty, fear of infection, difficulties of distance education, lack of individual protection equipment in clinics (Lira et al., 2020; McKenna et al., 2014). In another study, it was reported that approximately 24.9% of the students experienced anxiety due to the Covid-19 pandemic (Pragholapati, 2020). Nursing students stated that they had difficulties in performing psychomotor skills due to lack of practice during the pandemic. Even under normal circumstances, nursing graduates begin their professional life without the necessary confidence and clinical judgment (McKenna et al., 2014; Stone et al., 2020a, Stone et al., 2020b). The reason for not feeling ready for the clinic after distance education can be explained by the lack of knowledge, skills and an unfamiliar environment. The stress levels of first year students may have increased due to interruption of education and clinical practices at the beginning of their education, low professional knowledge and skills, and anxiety to pass the course (Aslan & Pekince, 2020).

Nursing students experience stress related to interruption of education or continuing with distance education during the pandemic. In the present study, it was found that 68.2% of our students experienced stress while practicing course topics on the videos they shot. In the study conducted by Aslan and Pekince in (2020), it was found that first and fourth grade students experienced stress in clinical practice (Aslan & Pekince, 2020). In many studies conducted before and during the pandemic, it has been determined that nursing students experience more stress in distance education (Durgun & Can, 2021; Karaca, 2017; Kürtüncü & Kurt, 2020; Sheu et al., 2002). Causes of stress include disruption of clinical practices, and problems associated with active learning of knowledge about the patient, diagnosis and treatment. Accordingly, whether this situation will have a negative effect on their professional

identity has been determined as another source of stress (Zhi et al., 2020).

In our study, during the first five weeks of formal education, 36.4% of the students experienced excitement during the applications with their instructor, 62.5% stated that they practiced with trust and 84.1% learned better when they practiced with the instructor. The reason for this may be the opportunity to intervene with application errors or deficiencies in a timely manner, to try again, and learn the correct way of application. Due to the nature of distance education, it can be thought that the fact that the student and the lecturer are distant from each other, with no face-to-face interaction, will cause difficulties in knowing and adapting to the hospital environment in a clinical setting, and initiating and developing communication with the patient (Aslan & Pekince, 2020). This, in turn, may affect students' self-confidence and cause them to encounter obstacles in their professional life after graduation. It has been determined that nursing students and graduate nurses do not have confidence in applying psychomotor skills in clinics. It has been determined that traditional approaches that allow face-to-face learning in small groups are being used in skill laboratories to support the psychomotor skill development of nursing students, and implementing different methods is being recommended to develop these skills with the changing curriculum and increasing number of students (Stone et al., 2020b).

In the study, 56.8% of the students reported that they did not get help while shooting video for the skill application and 84.1% reported that they had difficulty in obtaining materials and models in these applications. 20.5% of the students stated that they had the most difficulties in parenteral drug applications and the reason for this was the lack of material with 38.6%. An important component of nursing education is laboratories where students can reinforce their skills and access materials before starting clinical practice. The acquisition and application of clinical skills is an important part of being a safe and competent nurse, lack of these skills or incomplete/wrong information may endanger patient safety and care (Mwale & Kalawa, 2016; Stone et al., 2020b). While 35.2% of the students stated that they experienced anxiety during video shooting for practice skills in the distance education process, 34.1% expressed that they were stressed. It is thought that anxiety and stress conditions have increased due to lack of knowledge on practice and materials, since nursing education was switched to asynchronous education before first year students who have not received health education before could fully learn care practices and materials.

Study limitations

The fact that research conducted in descriptive study and a single center is one of the limitations of this study.

CONCLUSION

Although there are not many problems in obtaining theoretical knowledge in nursing courses given by distance education during the pandemic period, the same is not the case for practical training. The skills that are desired to be gained in practical training cannot be effective with distance education, and learning by doing opportunities are interrupted, which creates anxiety, stress and a sense of inadequacy in students. Continuation of skills training, which is an indispensable part of nursing education, in clinical, laboratory and simulation centers with a face-to-face consultant is necessary for professional development and continuity of care.

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