Cukurova Medical Journal
ÇUKUROVA ÜNİVERSİTESİ TIP FAKÜLTESİ

Cukurova Med J 2020;45(2):488-494
DOI: 10.17826/cumj.671496

ARAŞTIRMA / RESEARCH

The effects of simulation on nursing students' protecting patients' rights: A qualitative study

Simülasyonun hemşirelik öğrencilerinde hasta haklarını korumaya yönelik etkileri: Kalitatif bir çalışma

Zehra Göçmen Baykara[1], Evrim Eyikara[1], Nurcan Çalışkan[1]

[1]Gazi University Faculty of Health Science Department of Nursing, Fundamentals of Nursing, Turkey.

Cukurova Medical Journal 2020;45(2):488-494

Abstract

Purpose: This study aimed to investigate the effects of simulation used in nursing education on the protection of patients' rights.
Materials and Methods: This qualitative study involved a total of 29 nursing students. The study data was collected through focus group interviews using Interview Form. Interviews recorded with a voice-recording device. The focus group interview questions were intended to clarify the effects of simulation on the protection of patients' rights. The qualitative data were analysed via a thematic content analysis.
Results: The students suggested that the simulation contributes positively to the protection of patients' rights in terms of ethical principles, respect for the autonomy of patients, nonmaleficence, beneficence and justice.
Conclusion: Simulation is an effective method that allows students to perceive the importance of patients' rights and acquire professional skills without violating these rights.

Keywords: Ethical principles, nursing education, patient rights, simulation

Öz

Amaç: Bu araştırma hemşirelik eğitiminde kullanılan simülasyonun hasta haklarını korumaya yönelik etkilerini belirlemek amacıyla gerçekleştirildi.
Gereç ve Yöntem: Nitel bir çalışma olarak yapılan bu araştırma, 29 hemşirelik öğrencisi ile yapıldı. Araştırma verileri Görüşme Formu aracılığıyla odak grup görüşmeleri yapılarak toplandı. Görüşmeler ses kayıt cihazına kaydedildi. Odak grup görüşmesi soruları ile simülasyonun hasta haklarını korunması üzerindeki etkilerinin belirlenmesi amaçlandı. Nitel veriler tematik içerik analizi ile analiz edildi.
Bulgular: Öğrenciler simülasyonun, hastaların özerkliğine saygı, zarar vermeme, yarar sağlama ve adalet etik ilkeleri açısından hasta haklarının korunmasına olumlu katkılarının olduğunu belirtti.
Sonuç: Simülasyon, öğrencilerin hasta haklarının önemini kavraması ve hasta haklarını ihlal etmeden mesleki becerileri kazanmaları konusunda etkili bir öğretim yöntemidir.

Anahtar kelimeler: Etik ilkeler, hemşirelik eğitimi, hasta hakları, simülasyon

INTRODUCTION

The notion of patients' rights refers to the rights of an individual receiving healthcare from healthcare institutions and/or healthcare professionals. In providing healthcare services, healthcare professionals must observe the related ethical principles and patients' rights[1]. Nurses constitute the largest part of the professional health workforce[2]. Within their primary responsibilities, nurses are expected to inform patients about their rights, to advocate for patients' rights and to prevent violations against the rights of the patients. In this context, their role as advocates is based on both human and patients' rights[3].

In the profession of nursing, the protection of patients' rights with due sensitivity is an essential skill that should accordingly be provided at the undergraduate level and later promoted and reinforced in clinical applications. Even though

Yazışma Adresi/Address for Correspondence: Dr. Evrim Eyikara, Gazi University Faculty of Health Science Department of Nursing, Fundamentals of Nursing, Turkey. E mail: evrimeyikara@gmail.com
Geliş tarihi/Received: 07.01.2020 Kabul tarihi/Accepted: 22.03.2020 Çevrimiçi yayın/Published online: 20.05.2020

patients' rights are an important indicator regarding the quality of nursing care, in some cases, the knowledge is not transferred into efficient behaviours and attitudes. Factors such as practices and decisions taken by nurses can be a cause of the violation of patient rights and ethical problems. Nursing students also experience ethical problems. Students risk violating patient rights and safety because the first encounter with real patients in real clinical situations can create anxiety. Experiencing ethical problems can lead to ethical dilemma in their decisions[4,5].

Student nurses learn more effectively when they apply a skill on a real patient instead of a mannequin or themselves[6,7]. However, in considering the ethical and legal rights of patients, it is not advisable to allow novice practitioners to practice on real patients until they have completely learned a procedure, when they apply it for the first time[8]. In such scenarios, the possible risks to the patient from the students may increase. When students first implement numerous occupational skills on the patient, the risk always exists that the patient will suffer harm when that patient's condition, environment and time are inconvenient for the application of that procedure[9]. Such a situation entails the risk of violating that patient's rights.

The problems arising in the integration of theory into practice in education programmes, ethical-legal sanctions and medical errors indicate that new instructional methods are necessary to improve the quality of care provided to the patients[10,11]. Therefore, we need to develop new methods according to the understandings of the patients' characteristics and safety[12]. In this context, the violations against patients' rights prepared the groundwork for the more widespread usage of simulators that provide realistic learning experiences[13,14].

Simulation is an effective teaching method that facilitates the transition from theory to practice, allowing students to better adapt themselves to patient care practices[15-18]. Simulation supports improving the training of health professionals and students in practices while minimising harm to the patients in clinics[18]. Furthermore, simulation makes it possible to create a realistic learning environment where students can repeat any practice as many times as they wish and experience cases that they rarely encounter in clinical settings. Therefore, it supports the safety and quality of patient care[9,19].

Simulation increases the students' critical thinking and problem solving skills. Hence, students can take sound decisions, taking account of patients' rights when faced with a dilemma[20]. In clinical settings, students can rarely use their management, decision-making and leading skills[21]. However, in simulation training, they can use these skills by taking the patients' ethical and legal rights into consideration.

Based on the essential principle of nursing, 'first do no harm', patient safety must always have top priority. In simulation, students, who observe their errors without giving harm, are expected to be able to work more safely in a clinical setting[22,23]. In this manner, it can be ensured that patients are not subjected to repeated clinical trials by students and that medical errors are reduced with particular focus on the protection of patients' rights[14,24,25].

There are various examples in the literature where simulation both increases the safety of patients and has a number of positive effects on them[14,18-20]. However, no qualitative research performed with an aim of investigating the simulation training with students in terms of the protection of patients' rights is available in the literature. In this context, our study is an original study that investigates the effects of simulation with respect to the protection of patients' rights. This study aimed to investigate the effects of simulation used in nursing education on the protection of patients' rights.

MATERIALS AND METHODS

This qualitative study employed the formation of three focus groups. The qualitative data were analysed via a thematic content analysis. An inductive method was used in the analysis of the qualitative data.The study, conducted in June 2016, was performed with students in their second year in the Nursing Department of a university in Ankara, Turkey. Students who had actively participated in simulation scenarios with various simulator types (Sim-Man™, part-task trainers, hip and arm models) were purposively selected for the sample group. These students previously practiced psychomotor skills and were involved in a variety of simulation scenarios including shock, patient safety and undertaking patient assessments. Also these students have applied clinical practice before and after simulation training. Twenty-nine (29) students voluntarily agreed to take part in the study. The students were informed about the objectives and

implementation phase of the study and written consent was obtained from them.

The approval of the University Ethics Committee (Number: 77082166–604.01.02, Date: 01.06.2016) and official written permission (University of the Faculty of Health Sciences/Number: 44821296–605.01, Date: 02.05.2016) were obtained. The students were informed about the objective and method of the study and their written consent was also obtained. Students were informed that their personal information would be used for research purposes only, remain confidential, and not be shared with anyone.

Measures

Data were collected using a data collection form developed by the researchers. The form consisted two sections. The first section included six questions concerning the defining characteristics of the students (gender, age, etc.). The second section contained six questions that were used to direct the focus group interviews; the researchers designed these questions on the basis of both their experiences in simulation training and the literature[12,14,20]. The following questions were used in the focus group meetings:

1. Could you introduce yourself?
2. Do you think serving patients as a student in clinical training would give rise to violations of patient rights?
3. What kind of practices did you see concerning the patient's rights during the simulation trainings?
4. How would learning the skills through simulation before starting to work in clinical settings affect patients' rights? Could you explain your answer?
5. Regarding protecting patients' rights, what should be done to enhance your knowledge and skills and to improve your behaviours during skills training with simulation?
6. Is there anything you would like to mention regarding this matter?

Data collection

Three separate focus group meetings were planned, taking the dates and hours preferred by the students into consideration. The moderators contacted and informed the students about the meetings both one week before and on the day of the meeting. The focus group meetings were held in a faculty meeting room. A moderator and an assistant moderator attended each of the focus group. A voice-recording device was available in the room to record the sessions. The students were informed that the voice records would be handled in accordance with the principles of confidentiality. Then the moderator asked open-ended questions to the students and the assistant moderator wrote down the conversations. Each focus group meeting lasted approximately one hour.

Statistical analysis

Descriptive characteristics of students were analyzed using SPSS (Statistical Package for Social Science®) version 15. Frequencies and percentages were used to analyse the defining characteristics of the students. An inductive method was used in the analysis of the qualitative data. The data obtained in the focus group meetings were analysed using a thematic analysis method. Two different researchers verified the data by parallel reading from voice records. The researchers perused the data in detail and then organised all the data in a systematic way. Most of the data were associated with basic ethical principles. Four themes were created by unanimity in the thematic analysis.

RESULTS

Of the students, 86.2 % were female; 72.4 % said that the nursing department was their own preference and 86.2 % stated that they were satisfied to study in this department. The possibility of finding job opportunities in an easier way was the main motive of 58.6 % of the students in choosing this department; 51.7 % stated that they preferred it to be able to work in the healthcare field. The average age of the students was mean = 20.24 ± 0.91 and the academic score average was mean = 2.96 ± 0.47 over 4 point (Table 1).

The students stated that they might violate patients' rights in clinical practices or that the risk of their violating those rights was high. In the present study, the researchers grouped the opinions of the students on the effects of simulation on the protection of patients' rights within the frame of basic ethical principles. The students expressed their opinions on the contribution of simulation in terms of these principles: "respect for the autonomy", "non-maleficence", "beneficence" and "justice".

Table 1. Descriptive characteristics of students (N = 29)

Descriptive characteristics	N	%
Gender		
Female	25	86.2
Male	4	13.8
Preference for the nursing department		
It was my own preference	21	72.4
Someone else motivated me to select this	8	27.6
Degree of satisfaction from the department		
I am satisfied	25	86.2
I am not satisfied	4	13.8
*Reasons for choosing the profession of nursing		
To easily find an employment	17	58.6
Desire to work in healthcare field	15	51.7
Preference of the family	8	27.6
Suitability as a profession	7	24.1
Being ideal or preferable profession	6	20.6
Examination score	5	17.2
Fear of not being able to win a university	4	13.8
Age (years)	mean±SD=20.24±0.91	(min.=19, max.=23)
Academic average	mean±SD =2.96±0.47	(min.=2.09, max.=3.82)

*Students gave more than one responses to the question "Reasons for choosing the profession of nursing"

Regarding the principle of autonomy, the opinions of the students on the effects of simulation on the protection of patients' rights were grouped as follows: respect for the individual, learning how to inform a patient and her/his relatives, reinforcing the effect on respect for the privacy of patients, respect for the faith and values of a patient. The statements of the students on this matter are shown below:

"Special emphasis was given to privacy in the simulation training. When we did any application on an area of a patient's body, we covered other areas. We covered other areas of a patient's body when we treated his/her intimate areas, for instance" (Student-5)

"In simulation training, we clearly observed that patients have the right of being informed. For this reason, we are now informing the patients in every step we take" (Student-6)

"We must respect the patients' rights in respect of choice or approval or disapproval of a practice. In simulation training, we display an overall approach to a patient as an individual with all her/his values" (Student-4)

The opinions of the students on the effects of simulation on the protection of patients' rights were grouped as follows with respect to the principle of nonmaleficence: learning how to prevent patients from being harmed (risk of falling down, risk of infection, etc.), reducing the risk of errors in a clinical setting, the possibility to learn normal/abnormal findings prior to working in a clinical setting, providing a familiarisation period for real patient care settings, reduction in anxiety and fear. The students are of the opinion that simulation training prior to working with real patients would reduce the risk of inflicting harm on patients. The statements of the students regarding this matter are shown below:

"After the simulation training, I am now giving more emphasis to establishing the correct identification. I perform all of the controls on a patient before drug applications. As a matter of fact, I had previously paid little attention to it" (Student-23)

"In my opinion, only theoretical knowledge can always give rise to the repetition of medical error. But a medical error experienced on a simulator would not be repeated during practical work in the clinic" (Student-24)

"After the simulation training, we discuss the errors and incorrect practices. When we get in contact with real patients, we will take care about not repeating the errors experienced on the simulation. This is important for patient safety" (Student-28)

The opinions of the students on the effects of simulation on the protection of patients' rights were grouped as follows with respect to the principle of beneficence: an increase in the quality of care, provision of cognitive, affective, psychomotor

development, provision of permanent knowledge acquisition, increase in the self-confidence of the students. The statements of the students regarding this matter are shown below:

"In our first year, we had the opportunity to learn to measure blood pressure and we heard the heart beats of patients on the simulator before we worked in the clinic. Our instructor gave us feedback and we gained more self-confidence. When I started in the clinical training, I was confident that I could do it" (Student-5)

"Simulation is a very instructive training. It promotes better learning, and has a constructive effect on the interventions in the hospital" (Student-15)

"Instead of gaining experience on patients through probable errors, we develop our knowledge on the simulator, and then we are poised to serve the patients when we come in contact with them" (Student-22)

The opinions of the students on the effects of simulation on the protection of patients' rights were grouped as follows with respect to the principle of justice: effective usage of limited resources (time, materials etc.), effective usage of time with respect to better care planning, correct usage of medical materials by learning from errors. The statements of the students on this matter are shown below:

"We can act quicker, better decide what to do and provide better care. Thus, the nursing care plan would already be in our mind when we start treating a patient" (Student-5)

"After simulation trainings, we now know what to do and how. In this way, we are successful in achieving better planning during nursing care" (Student-7)

Ultimately, the students suggested that a common suggestion could be created in matters concerning patients' rights covering all healthcare personnel by designing scenarios specific to patients' rights and organising common simulation training with students from other disciplines. The students further stated that the trainees should avoid the risk of focusing on the 'illness' and focus their attention on the 'patient' instead.

DISCUSSION

This study aimed to investigate the effects of simulation training on the protection of patients' rights in nursing education based on the basic ethical principles. Our study has shown that student nurses handle the violations they can commit against patients' rights on the basis of respect for the autonomy and/or privacy of patients and the principle of nonmaleficence.

In examining their statements on the basis of "Respect for autonomy", we observe that the students stated that some violations have been committed/can be committed. In our study, the students stated that simulation training was important in respect to reinforcing the principles of respect for the individual, giving information, protection of privacy and respect for faith and values in the context of respect for autonomy. In the study performed by Kaddoura[22] (n = 10) the participants in a simulation training stated that simulation was a highly effective method to get an overall picture of a patient's condition. In our study, students' perception about the importance of autonomy was high, and this is a parallel result to that reported in the study conducted by Yu and Kim[12] (n = 47), reporting the level of simulation group's privacy protection as higher than the control group. The current study and other similar studies have provided evidence that simulation has a complementary role in allowing students to understand before coming in contact with real patients, that a patient is an integral individual with unique bio-psycho-social characteristics, whose autonomy must be respected.

The students observed that, in clinical training programmes, there is always the potential of harming patients. In a study Aydoğan[4] demonstrated that patients have an increased risk of suffering harm in applications done by students. In considering their statements under the principle of "Non-maleficence", the students stated that simulation enables the errors likely to occur in practical work to be predicted and the risk of harm to be reduced. This is a valuable finding for the basic ethical principles. The similar finding was reported in a study conducted by McCaughey and Traynor[23] (n = 93), 97.8 % of students said that learning was more effective after doing errors on the simulation. The participants in the study carried out by Kaddoura[22] stated that they committed numerous errors in simulation, an experience which, in turn, helped them to reduce the risk of harming real patients in clinical work. The students who participated in our study said that simulation was an effective method of preventing probable complications due to the insights gained in the interventions performed to correct the errors. Previous studies available in the literature have also demonstrated that simulation reduces the risk of harming patients, enabling students to adapt more

easily to the clinical environment and their role as a nurse and providing stress management in practical work[14,24,26].

In the present study, the students stated that simulation helped them to observe the principle of "Beneficence". Simulation contributes positively to the quality of student nurses' education and consequently to the safety of the patients and the protection of patients' rights. This study demonstrated that simulation contributes positively to students' both professional and individual developments. Our results are consistent with the relevant literature. In the study conducted by McCaughey and Traynor[23] 96.8 % of the student nurses who participated in the study ($n = 93$) said that simulation increased the patients' safety and 83.9 % stated that it enhanced their communication skills. In a study performed by Smith et al.[20] scenarios were created on the simulator where students had to face an ethical dilemma. Concerning the contributions of the application, scoring of the students who were trained on the simulator was found to be statistically significant ($p < 0.05$). Pınar and Peksoy[27] report that simulation is an effective learning method with respect to ensuring patients' safety and the protection of patients' rights. It also promotes the cognitive, affective and psychomotor skills of student nurses since it ensures that patients are provided a more quality care by more experienced students and that they do not have to be subjected to repeated tests. Therefore, it is expected that the patient care provided by student nurses will be improved and the violations against patients' rights will be reduced.

Another positive effect of simulation expressed by the students participating in our study is its contribution to the observance of the ethical principle of "Justice". These students stated that simulation contributed particularly to the protection of patients' rights because it taught them to effectively use limited resources, such as time. The findings of our study are similar to those obtained in previous studies. Waldner and Olson[28] reported that simulation helps to gain spontaneous experiences in a planned manner. In another study by Kaddoura[22] it is reported that simulation is an effective method to integrate what has been learned into patient care practices in a clinical setting. Effective usage of time and limited resources is of tremendous importance in patient care in respect to providing the right patient with the care to the needed extent. Students who experience numerous skills in simulation and learn to react quickly can use the time and other limited resources effectively in clinical practices. Therefore, the principle of justice is observed in providing patients with services.

Interactive teaching methods, such as simulation, are prerequisites in order for the knowledge to be turned into attitudes and behaviours. In our study, the students observed that simulation could be significantly effective as far as the teaching of patients' rights.

As a conclusion nursing education has an important role in improving patient rights. Problems such as ever-increasing number of patients, time becoming progressively more limited, and ethical problems increasingly remind us of the importance of patients' safety. Students as future nurses should be instructed about the importance of their role as advocates in respect to the protection of patients' rights. By providing realistic learning environment, simulation allows students to become aware of ethical dilemma, perceive the importance of patients' rights, make fewer medical errors, thus promoting protection of patient rights. For this reason, simulation is an important teaching method in the protection of patient rights and prevent violations.

Yazar Katkıları: Çalışma konsepti/Tasarımı: ZGB, EE; Veri toplama: ZGB, EE; Veri analizi ve yorumlama: ZGB, EE, NÇ; Yazı taslağı: ZGB, EE, NÇ; İçeriğin eleştirel incelenmesi: ZGB, EE, NÇ; Son onay ve sorumluluk: ZGB, EE, NÇ; Teknik ve malzeme desteği: -; Süpervizyon: ZGB, EE, NÇ; Fon sağlama (mevcut ise): yok.
Etik onay: Etik onayı Gazi Üniversitesi Etik Kurulu tarafından verilmiştir (Sayı: 77082166–604.01.02, Tarih: 01.06.2016).
Hakem Değerlendirmesi: Dış bağımsız.
Çıkar Çatışması: Yazarlar çıkar çatışması beyan etmemişlerdir.
Finansal Destek: Yazarlar finansal destek beyan etmemişlerdir.

Author Contributions: Concept/Design : ZGB, EE; Data acquisition: ZGB, EE; Data analysis and interpretation: ZGB, EE, NÇ; Drafting manuscript: ZGB, EE, NÇ; Critical revision of manuscript: ZGB, EE, NÇ; Final approval and accountability: ZGB, EE, NÇ; Technical or material support: -; Supervision: ZGB, EE, NÇ; Securing funding (if available): n/a.
Ethical approval: The ethics approval was given by Gazi University Ethics Committee (Number: 77082166–604.01.02, Date: 01.06.2016).
Peer-review: Externally peer-reviewed.
Conflict of Interest: Authors declared no conflict of interest.
Financial Disclosure: Authors declared no financial support

REFERENCES

1. Masic I, Izetbegovic S. The role of medical staff in providing patients rights. Med Arch. 2014;68:61-4.
2. World Health Organization. Report of the Policy Dialogue Meeting on the Nursing Workforce. Geneva, WHO, 2017.
3. Davoodvand S, Abbaszadeh A, Ahmadi F. Patient advocacy from the clinical nurses' viewpoint: A qualitative study. J Med Ethics Hist Med. 2016;9:1-8.

4. Aydoğan S. Ethical problems of nursing students related to acquisition of clinical skills. Turkish Journal of Bioethics. 2016;3:120-3.
5. Bodur S, Filiz E, Çimen A, Kapçı C. Attitude of final year students of midwifery and nursing school on patient safety and medical errors. J Gen Med. 2012;22:37-42.
6. Alinier G. A typology of educationally focused medical simulation tools. Med Teach. 2007;29:243-250.
7. Medley CF, Horne C. Using simulation technology for undergraduate nursing education. J Nurs Educ. 2005;44:31-4.
8. Datta CR, Upadhyay K, Jaideep C. Simulation and its role in medical education. Med J Armed Forces India. 2012;68:167-172.
9. Murray C, Grant MJ, Howarth ML, Leigh J. The use of simulation as a teaching and learning approach to support practice learning. Nurse Educ Pract. 2008;8:5-8.
10. Edeer AD, Dicle A. Use of simulation in nursing education and simulation types. Journal of Education and Research in Nursing. 2015;12:121-5.
11. World Health Organization. Patient Safety Curriculum Guide: Multi-professional Edition. Geneva, WHO, 2011.
12. Yu M, Kim M. Privacy protection and affordable education program for nursing students. Indian J Sci Technol. 2015;8:1-5.
13. Mıdık Ö, Kartal M. Simulation-based medical education. Marmara Medical Journal. 2010;23:389-99.
14. Şendir M. Use of simulation in women's health nursing education. Florence Nightingale Journal of Nursing. 2013;21:205-12.
15. Tawalbeh LI. Effect of simulation on the confidence of university nursing students in applying cardiopulmonary assessment skills: A randomized controlled trial. J Nurs Res. 2017;25:289-95.
16. Kim H, Suh EE. The effects of an interactive nursing skills mobile application on nursing students' knowledge, self-efficacy, and skills performance: A randomized controlled trial. Asian Nurs Res (Korean Soc Nurs Sci). 2018;12:17-25.
17. Lestander Ö, Lehto N, Engström Å. Nursing students' perceptions of learning after high fidelity simulation: Effects of a three-step post-simulation reflection model. Nurse Educ Today. 2016;40:219-24.
18. Niemeyer M. Effective patient safety education for novice RNs: A systematic review. J Nurs Educ Pract. 2018;8:103-15.
19. Baillie L, Curzio J. A survey of first year student nurses' experiences of learning blood pressure measurement. Nurse Educ Pract. 2009;9:61-71.
20. Smith KV, Witt J, Klaassen J, Zimmerman C, Cheng AL. High-fidelity simulation and legal/ethical concepts: A transformational learning experience. Nurs Ethics. 2012;19:390-8.
21. Reed CC, Lancaster RR, Musser DB. Nursing leadership and management simulation creating complexity. Clin Simul Nurs. 2009;5:17-21.
22. Kaddoura MA. New graduate nurses' perceptions of the effects of clinical simulation on their critical thinking, learning, and confidence. J Contin Educ Nurs. 2010;41:506-16.
23. McCaughey CS, Traynor MK. The role of simulation in nurse education. Nurse Educ Today. 2010;30:827-32.
24. Eyikara E, Baykara ZG. Effect of simulation on the ability of first year nursing students to learn vital signs. Nurse Educ Today. 2018;60:101-6.
25. Sears K, Goldsworthy S, Goodman WM. The relationship between simulation in nursing education and medication safety. J Nurs Educ. 2010;49:52-55.
26. Gore T, Hunt CW, Parker F, Raines K. The effects of simulated clinical experiences on anxiety: Nursing students' perspectives. Clin Simul Nurs. 2011;7:175-80.
27. Pinar G, Peksoy S. Simulation-based learning in health care ethics education. Creat Educ. 2016;7:131-8.
28. Waldner MH, Olson JK. Taking the patient to the classroom: Applying theoretical frameworks to simulation in nursing education. Int J Nurs Educ Scholarsh. 2007;4:1-14.