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Views of nursing students about use of simulated pregnant in the practice of labor course

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Abstract

In this study, it was aimed to investigate the views of nursing students about use of simulated pregnant in practice of labor course. This cross-sectional study was carried out on n=270 students at Trakya University, Faculty of Health Sciences, Department of Nursing between January-March 2016. Students' socio-demographic data and opinions on the use of simulated pregnant in labor practice were collected with a questionnaire form. It was determined that 64.1% of the students thought that the use of simulated pregnant contributed to the practical learning of labor stages, 53% of them thought that it contributed to the development of clinical skills and abilities and 53.7% of them thought that it strengthened their clinical practice knowledge. It was determined that students thought that there were differences between the simulation practice and clinical applications ($p<0.001$), between the laboratory environmental conditions used and the real clinical conditions ($p= 0.012$). The majority of the students think that the use of simulated pregnant increases their learning skills and strengthens theoretical knowledge about labor. It is suggested that the environmental conditions should be prepared in a realistic way during training with simulated pregnant in the labor training skills laboratories.

Keywords: Labor practice; nursing student; simulated pregnant.

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1. Introduction

Simulation in the health field is a method that enables real clinical applications to be more understandable and manageable by reflecting the clinical environment as close to reality (Hovancsek, 2007; Nehring & Lashley, 2009; Sendir, 2013). The use of new learning tools such as simulation has increased in nursing education along with today's developing technology (Goris, Bilgi & Korkut, 2014). Applications performed with simulation provide a learning environment in which patients are provided with safer care in health care services and the environmental risks are minimized (Sanford, 2010; Sendir & Dogan, 2015). In Turkey, the use of scenario training with computerized simulation for nursing students to prepare for the clinical environment is a new method, and there are few studies in which the experience and outcomes related to this subject are shared (Tosun et al., 2008; Terzioglu et al., 2012). According to the results of the meta-analysis study carried out by Shin et al. in which the effect of simulation patient in nursing training was examined, it was determined that the training performed with simulation patient was more effective than traditional training methods (Shin, Park & Kim, 2015). Simulators that give birth are used in the teaching of the stages of real labor to nursing and midwifery students (Bethany, 2006; Gardner & Raemer, 2008; Sendir, 2013).

In the national and international studies, there is no study in which nursing students' opinions on the use of simulation in the teaching of labor are examined. In this regard, in this study, it was aimed to investigate the views of nursing students about use of simulated pregnant in practice of labor course.

2. Methodology

This is a cross-sectional study. This study was carried out at the faculty of health sciences, nursing department of a university between January and March 2016. n=281 students who were 3rd and 4th-grade students at the nursing department and received the women's health and diseases nursing course constituted the population of the study, and the study was performed on n=270 students who volunteered to participate in the study without applying a sample selection. A 19-question information form which was prepared by investigating the literature by the researchers and in which various socio-demographic descriptive characteristics of the students and their opinions on the use of simulation in nursing education and the teaching of labor with simulated pregnant were questioned was used in collecting the data (Terzioglu et al., 2012; Terzioglu et al., 2016; Gurol, Akpinar & Apay, 2016; Mert, 2015). For the study, approval with protocol No. 2016/14 was received from Trakya University, Faculty of Medicine Scientific Research Ethics Committee. The research results were presented as mean±standard deviation, and categorical results were presented as number and (%). The descriptive statistics and chi-square test were used in the analysis of the data. The fact that 28.5% of the sample group were unable to participate in labor practice performed with a simulated pregnant for various reasons (such as not being able to participate in the training, not using simulated pregnancy due to technical problems, etc.) in this study is the limitation of the study.

3. Results

Upon examining the socio-demographic descriptive characteristics of nursing students, the average age of the students (n=270) was 21.4±1.2 years, and 92.6% of them were female. 50% of the students were 3rd-grade students and 50% of them were 4th-grade students, and 92.1% of them graduated from regular high school or Anatolian high school. When the educational levels of mothers and fathers were examined, 77.4% of mothers and 56.3% of fathers had educational levels of primary education and below. The incomes of the great majority of the students (79.3%) were income equal to expense (Table 1).

Tablo 1. Nursing students of socio-demographic characteristics

		Average	Standard deviation ±
Age		21.4	1.2
		n	%
Gender	Female	250	92.6
	Male	20	7.4
Class level	3.	135	50
	4.	135	50
	Regular high school	126	46.7
Graduated School	Anatolian high school	123	45.6
	Vocational high School	15	5.6
	Other	6	2.2
Mother's education	Primary education (≤8 year)	209	77.4
	Seconder education (>8 year)	61	22.6
Father's education	Primary education (≤8 year)	152	56.3
	Seconder education (>8 year)	118	43.7
Income	Income less than expense	26	9.6
	Income equal to expense	214	79.3
	Income higher than expense	30	11.1

When students' opinions on the use of simulated pregnant in the application of the labor course were examined, it was determined that 71.5% of the students used simulated pregnant in the application of labor course, 64.1% of them thought that "it contributed to the practical learning of labor stages", 53% of them thought that "it contributed to the development of clinical skills and abilities during the labor practice", 42.6% of them thought that "it allowed to experience the real moment of labor", 40% of them thought that "it increased their self-confidence in terms of labor after training", 39.6% of them thought that "their fear of making a mistake during labor decreased after training", and 53.7% of them thought that "they went to clinical practices as prepared and it strengthened their theoretical knowledge after training" (Table 2).

Table 2. Views of nursing students about use of simulated pregnant in practice of labor course

	Yes	No
	n %	n %
Did you use simulated pregnant during the labor practice?	193 (71,5)	75 (27,8)
Has simulated pregnant contributed to your practical learning the stages of labor?	173 (64,1)	40 (14,8)
Has simulated pregnant contributed to the development of your clinical skills and abilities?	143 (53,0)	67 (24,8)
Has simulated pregnant allowed you to experience the real moment of labor?	115 (42,6)	94 (34,8)
Has your self-confidence in terms of labor increased after the training with simulated pregnant?	108 (40)	103 (38,1)
Do you think that your fear of making a mistake during labor practice has decreased after the training with simulated pregnant?	107 (39,6)	103 (38,1)
Do you think that you go to clinical practices as prepared after the training with simulated pregnant and that it has strengthened your theoretical knowledge?	145 (53.7)	125 (46.3)

Upon examining the comparison results of the reasons of those who thought and did not think that there were weaknesses in the practical teaching of labor practice with simulated pregnant among nursing students, it was determined that the opinions that it had weaknesses with respect to "not

being exactly the same as the clinical practice" ($p<0.001$), and "the laboratory environmental conditions' used in training being not realistic" ($p<0.012$) were significantly different. No significant difference was found in the opinions regarding the facts that "it is a newly-encountered technology", "instructional scenarios are not parallel with the clinical environment" and "it will be insufficient in the evaluation" ($p>0.05$) (Table 3).

Table 3. Comparison of the opinions of those who think and do not think that there are weaknesses in the practical teaching of labor practice with simulated pregnant

	Yes	No	p
	n %	n %	
Those who think and do not think that there are weaknesses in the practical teaching of labor practice with simulated pregnant Opinions	200 (74.1)	52 (19.3)	
Not exactly same as the clinical practice	117 (58.8)	46 (88.5)	<0.001
It is a newly-encountered technology	15 (7.5)	46 (88.5)	0.348
Instructional scenarios are not parallel with the clinical environment	46 (23.1)	46 (88.5)	0.067
The laboratory environmental conditions are not appropriate for the step by step realization of the labor stages	52 (26.0)	47 (90.4)	0.012
The thought that it will be insufficient in the evaluation	26 (13.)	48 (92.3)	0.292

4. Discussion

It was determined in the study that 64.1% of the students thought that simulated pregnant contributed to the practical learning of labor stages (Table 2). Becker et al. found the students' point averages to be higher with a simulated patient (Becker, Rose, Berg, Park & Shatzer, 2006). In their study, Gürol et al. found that some students' ratios of doing the right in the majority of the process steps for clinical practices increased after simulation training (Gurol, Akpinar & Apay, 2016). It is observed that the simulation method has an effect on learning.

It was determined that 53% of the students thought that simulated pregnant contributed to the development of clinical skills and abilities during the labor practice (Table 2). Alinier et al. determined that students who received computer-aided simulation training got higher scores from the clinical evaluation test (Alinier, Hunt, Gordon & Harwood, 2006). Terzioğlu et al. determined that students' psychomotor and communication skills average scores increased as they began to practice with the simulation method (Terzioglu et al., 2016). The use of simulation in education is thought to contribute to the development of the students' clinical skills.

It was found out that 42.6% of the students thought that training with simulated pregnant allowed to experience the real moment of labor (Table 2). In their study, Catling et al. determined that students' ability to help the pregnant during normal labor was 18.2% before the simulation training and increased to 34.4% after the simulation training (Catling, Hogan, Fox, Cummins, Kelly & Sheehan, 2016). The use of simulated pregnant in the teaching of labor can be a pre-experience of the real moment of labor for students.

It was found out that 40% of the students thought that their self-confidence in terms of labor increased after the training with simulated pregnant (Table 2). Saygılı and Özkalp determined that the use of a simulator in training increased the self-confidence of 82.2% of the students (Saygılı & Özkalp, 2015). In their study, Bambini et al. determined that scenario/computer aided simulation application training increased students' self-efficacy levels during the first clinical experience (Bambini, Washburn & Perkins, 2009). The simulation method can increase students' self-confidence before the clinical practice.

It was found out that the fear of making a mistake during labor of 39.6% of the students decreased after the training with simulated pregnant (Table 2). In their study, Saygılı and Özkalp determined that the use of a simulator in training contributed to the reduction of anxiety in the clinic in 66.7% of the students (Saygili & Ozkalp, 2015). Terzioglu et al. determined in their study that the students' anxiety levels gradually decreased after the training (Terzioglu et al., 2016). The pre-clinical use of a simulator can decrease the fear of making a mistake during practice and reduce anxiety.

It was found out that 53.7% of the students thought that they went to clinical practices as prepared and it strengthened their theoretical knowledge after the training with simulated pregnant (Table 2). Mert determined that the nursing students who participated in all of the patient and simulation laboratory environments had the highest cognitive, psychomotor and communication skill score averages compared to those who had never participated (Mert, 2015). Training with a simulator can have a positive effect on students' theoretical knowledge and preparation of clinical practices.

Students think that the labor practice performed with simulated pregnant is not exactly same as the clinical practice and that the laboratory environmental conditions used are different from the real clinical conditions (Table 3). Terzioglu et al. reported in their study that students thought that the knowledge learned at school and the skill practices they performed in the clinical field did not resemble each other (Terzioglu et al., 2012). The laboratory environmental conditions used in the simulation method are different from the real clinical conditions, and improvements are needed on this subject.

5. Conclusion and Suggestions

The majority of students think that the use of simulated pregnant contributes to the practical learning of the stages of labor practice and strengthens the theoretical knowledge. However, they think that the labor practice performed with simulated pregnant is different from the real clinical practice and that the laboratory environmental conditions used are different from the real clinical conditions. In line with these results, it is suggested that the environmental conditions should be prepared in a realistic way during the training with simulated pregnant in the labor training skills laboratories and that nursing students' opinions on the use of simulated pregnant in the practice of the labor course on different student profiles should be examined with the studies to be carried out.

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