

Original Article

Improving the Scenario Writing Skills of Nursing Instructors

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Abstract

Background: Nursing education has grown and demanded new technologies and resources. Faculty examined the effect of scenario-based education with the goal of looking for ways to improve practice and evolve nursing education to meet hospital demand in the nursing curriculum.

Aim: This research was carried out to increase the awareness of academicians about scenario and teaching, to determine the skills of writing a script, and to develop skills in writing scripts.

Method: The data of the study, which was conducted as a descriptive and infrastructure project, was collected between October 2015 and October 2018. 84 academic staff accepted to participate in the study were included in the study. "Introductory Information Form" and "Scenario Writing Skills Development Course Evaluation Form" was used to collect the research data. After the training given in the course, the instructors were asked to complete the form including their satisfaction with the training and their opinions about the training and feedback was received.

Results: The mean age of nurse educators who participated in the study was 37.17 ± 10.09 . 89.3% of the trainers did not receive training on script writing, 10.7% of them received training and 66.7% of the trainees did not use the scenarios while training. 81% of nursing educators participating in the training would like to repeat the training. Satisfied with the training of trainers status has been determined to 7.27 ± 1.91 over 10.

Conclusions: With the project, it was determined that the scenario writing skills of nurse educators developed and they were more confident in writing a script. Continuous repetition of courses to improve script writing skills and nurse educators should be encouraged to support them to write a scenario appropriate to the learning objectives in the training program.

Key Words: Nurse, Educator, Simulation, Scenario teaching, Script writing skills.

Introduction

Nursing, as a science and profession, has a fundamental feature that its education was characterized through the close relationship between theory and practice; in other words, nursing education is comprised of theoretical and practical components and it cannot be learned solely through theoretical or practical knowledge (Cremonini et al., 2015; Uysal, 2016). The complexity of the expertise required for efficient and effective patient care, the ever-expanding scientific knowledge in the field, and the increased interest in patient-centered and -participated care cause nursing and nursing education to become more challenging (Cremonini et al., 2015). Applications for teaching clinical skills are required, hence nursing students become proficient in their professions. Experiences gained in environments, which lets the students develop skills, socialize and develop a professional identity, provide situational learning while enhancing the essential time management skills (Cremonini et al., 2015; Uysal, 2016; Mikkelsen, Reime, & Harris, 2008; Nagle et al., 2009).

Simulation laboratories are one of such environments, where prospective nurses learn clinical and practical skills (Cremonini et al., 2015). Significant developments in information and communication technologies resulted with a major impact on the education processes and teaching strategies. Several novel teaching strategies were proposed in the last decade, with the aim to face such rapid technological developments (Ahmed, 2019). Furthermore, the use of simulation in nursing education is significant for meeting the objectives such as the desire to provide special clinical experiences for students and employees, reducing medical error significantly and ensuring patient safety, despite the problems of limited clinical education period, increased number of students, limited number of instructors and increased competition among clinical practices in Turkey (Nagle et al., 2009; Edeer and Sarikaya, 2015). Simulation, an instruction and learning methodology, is becoming widespread in academic and practical environments in nursing, in order to provide innovative educational experiences, evaluate and improve clinical proficiency, encourage teamwork and improve care procedures (Nagle et al., 2009;). Simulation is designed to replicate actual clinical applications in a secure environment without the pressure of skills

practice. It creates a link between the university education and the clinical environment, where students integrate theory and practice and develop a reflective approach. Simulation enables the educator to create realistic scenarios and becomes the means to model actual clinical procedures, which support students and their evaluation. It was proven that students' performances in simulated environments were highly similar with those in actual clinical procedures. Such approach corresponds to Bloom's learning taxonomy step that sets knowledge into practice, transforms it to an applied nature and uses knowledge to develop and enhance it in novel ways (Cremonini et al., 2015; Mikkelsen, Reime, & Harris, 2008; Nagle et al., 2009).

The education system, based on such strategies and the philosophy that prioritizes student learning, is scenario-based learning, which recently attracted both instructors and the students. Scenario-based learning (SBL) is a current and creative teaching approach that has a wide range of applications, especially in nursing and enhances the learning experience of nursing students (Mikkelsen, Reime, & Harris, 2008; Ahmed, 2019; Rahmani, Moradi, & Mohammadi, 2016). While traditional teaching strategies rely on the curriculum or educator-centered approach, scenario-based instruction (SBI) adopts a student-centered approach (Ahmed, 2019). Particularly, scenario-based simulation is used to deliver professional knowledge through communication, collaboration and leadership training (Mikkelsen, Reime, & Harris, 2008). Scenario-based learning, which is based on situational theory and the learning principles of adults defined in education, offers an approach that aims to reflect reality through its applied methodology. The educational content is intended upon actual scenarios, through which the students should use various skills simultaneously. Such education approach prepares the students for situations where they test their hypothesis through research, data collection and evaluation and reach a conclusion. The method leads to the achievement and fulfillment of the objectives (Rahmani, Moradi, & Mohammadi, 2016). Hence, students become capable of developing practical psychomotor and communication skills through related skills, such as problem solving, decision making and critical thinking, which were encouraged for more profound consideration, appropriate questions and immediate feedback provision. Furthermore,

it was observed that self-learning skills were as well supported by the durations to complete a task and the developments in self-efficacy (Ahmed 2019; Battista, 2017; Lasater, 2007).

Frequently employed method in increasing the effectiveness of instruction through simulation is scenario-based education (Cremonini et al., 2015; Abdulmohsen, 2010). Despite the widespread use of skills and scenario-based simulation, there exist diverse features that distinguish the design and implementation of scenario-based simulations (SBS) and thereby affect the learning process. Simulations that are based on skills primarily emphasize focused instruction and practice in a particular skill. The comparison of these methods indicates that the use of SBI is generally recommended once the desired learning outcomes involve working to develop a team approach, to practice communication skills, or to respond a crisis or a critical patient incident. Furthermore, skill-based simulations often aim to minimize complexity, while SBI is used to encompass complexities associated with clinical practices, including social interaction with the patient, social support from others (i.e. educator, typical patient) and/or interacting with other healthcare professionals (Battista, 2017). Several researchers emphasized that SBI was a highly dynamic and interactive instruction and learning strategy. The inclusion of both didactic and clinical training in simulations enrich various learning goals of nursing students, enable them to bridge the gap between theory and practice, help visualize the links between the classroom and the clinical environment, help overcome their perception of detachment between academic principles studied in the classroom and actual practices (Cremonini et al., 2015; Ahmed, 2019).

Nursing instructors experience challenges in developing the thinking skills and knowledge of prospective nurses. They need to provide significant and efficient learning opportunities both for the students and for experienced nurses (Ahmed, 2019; Nagle et al., 2009), therefore, they are expected to use innovative instruction method and to integrate these methods within the instruction. Although several studies emphasized the positive effects of SBI on the learning process, studies on the examination of how nursing instructors learn and on enhancing their competencies and knowledge levels are quite limited. In this respect, the present study focused on the importance of simulation scenarios written by nursing instructors in order to comprehend the

stages of scenario writing, development and guidance. It was aimed to improve the “Scenario Writing Skills of Nursing Instructors” through a scenario writing course, organized for nurse, which was intended to increase the knowledge levels of nursing instructors on SBI model and the effectiveness of the course was evaluated.

Material and Method

The present study is a descriptive research and background research design, aimed to increase the awareness of nursing instructors on the scenario and instruction, to determine their skills and to improve these skills through providing relevant training. The research was carried out between October 22, 2015 and October 22, 2018 at Faculty of Nursing, in Ege University.

Sample: The universe of the study included faculty members at Faculty of Nursing, in Ege University (N: 130). Sample selection was not employed in the present study. Faculty members (n: 84), who were available between October 2015 and October 2018 and accepted to participate in were included in the scope of the present study.

Data Collection Technique and Tools: The main aim of present study, which is a background research design, was to improve the scenario writing skills of nursing instructors. Therefore, faculty members were provided a scenario writing training on February 15-16, 2016. The aim was not to conduct an evaluation in the present background research design study, therefore a form was used as the data collection tool, to receive the feedback on the demographics of the participants, their satisfaction levels on the training and opinions on the instruction method. The two-day course was instructed by two faculty members who were experts in the research domain. The contents of the training included main topics such as “simulation- and scenario-based instruction”, “scenario-based simulation example”, “group work and discussions”, “simulating scenarios created in groups” and the “discussion of scenarios belonging to other groups.”

The data were collected through the “Introductory Information Form” to determine the socio-demographic characteristics of the faculty members who participated the study and the “Visual Analogue Scale (VAS)” and “Opinion on the Instruction Form”. “Introductory Information Form” consisted of 11 items that focus on the introductory information for the

faculty members. These items were used to retrieve information on the age, marital status, title, duration of work in the institution, total duration of work in the profession, department, whether they previously received scenario writing training, where they received such training, and whether they actively used scenario approach in their instruction.

“Visual Analog Scale (VAS)” is used to assign values to characteristics or attitudes that cannot be measured numerically. Two ends are defined on a 100 mm line for the parameter to be evaluated (very satisfactory on one end and unsatisfactory on the other end). The line can either be a straight line or have identifying statements placed in an evenly divided order on the line. The participants are asked to indicate their appropriate response on the line either by drawing a line, marking or placing a point. Vertical line is commonly found to be more simple to understand (Akbat, 2010; Karatas, 2010).

“Opinion on the Instruction Form” was prepared by the researchers, through the expert opinion of ten faculty staff of nursing. In this form, there are 20 items, such as “I can write an applicable scenario that contributes to the curriculum,” “I believe the development of scenario writing skills contributes to my academic development”, which focus on the opinions of the faculty members on the scenario writing skills course.

Analysis and Evaluation of the Data: The obtained data was analyzed using SPSS 18.0 software and frequency, percentage, mean, standard deviation values were calculated to determine descriptive information and satisfaction levels.

Ethics Approach: The present study was conducted due to the permission obtained from the Scientific Ethics Committee of Ege University Nursing Faculty (2015/115) and was accepted and funded as a research project (2015-HYO-006) by the Scientific Research Projects Committee and Research Funding Committee of Ege University respectively.

Results

The mean age of nursing instructors, who participated in the research, was 37.17 ± 10.09 . Nursing instructors between the age of 25 and 29 were 31%, 96.4% of the nursing instructors were women, 64.3% were married, 65% had a PhD, 42.9% were research assistants, and 41.7% worked at the institution between 1 and 5 years (Table 1.)

No scenario writing training was received by the 89.3% of the instructors before the present study, and the 66.7% of the 10.7%, who received the training, did not use scenario-based instruction in teaching. 81% of the instructors, who attended the training, wanted the repetition of the training. The satisfaction level of the instructors with the training was calculated as 7.27 ± 1.91 over 10 points (Table 2).

A 45.2% of the nursing instructors responded the item, “I can write an applicable scenario that contributes to the curriculum” by “agree”, while 46.4 % responded “I can plan a scenario content appropriate to curriculum objectives” with “agree.”

The item, “I do not believe that scenario-based instruction contributes to nursing education,” was responded via “strongly disagree” by 41.7% of the nurse instructors.

A 51.2% of the nursing instructors responded the item, “I can clearly/explicitly identify the related skills through the scenario I prepare,” with “agree,” 60.7% agreed with the item, “I can prepare questions that guide the students in the scenario,” while 53.6% and 51.2% agreed with the items, “I can ensure a secure learning environment for scenario-based instruction” and “I can select material that is appropriate to the features of the scenario,” respectively, and 57.1% of the nursing instructors responded the item, “I might decide to use scenario-based instruction method for teaching the related skills,” with “agree.”

A 50% of the nursing instructors responded the item, “I can write scenarios that are appropriate to the level of students,” with “agree,” 45.2% agreed with the item, “I can create a scenario construct that meets the program objectives” and 48.8% agreed with the item, “I can plan a scenario that satisfies students.”

A 48.8% of the nursing instructors responded the item, “I can prepare scenarios that develop the psychomotor skills of the students,” with “agree,” 42.9% agreed with the item “I can prepare scenarios that develop the communication skills of the students” and 54.8% agreed with the item “I can prepare scenarios that develop the clinical decision-making/critical thinking skills of the students.”

53.6% of the nursing instructors strongly agreed with the item “I believe scenario-based instruction is essential for nursing training.”

47.6% of the nursing instructors responded the item “I can apply a scenario that I wrote” by “agree.” 57.1% and 52.4% responded the items “I find myself adequate on scenario-based instruction method after the scenario writing skills development course” and “I want to use scenario-based instruction method in all my courses,” respectively, with “partly agree.”

A 53.6% of the nursing instructors agreed with the item “I believe the development of scenario writing skills contributes to my personal development” and 39.3% strongly agreed with the item “I believe the development of scenario writing skills contributes to my academic development” (Table 3).

Table 1. Socio-Demographic Information for Nursing Instructors

Demographic Characteristics	Number	Percentage
<u>Age Group</u>		
25 to 29	26	31.0
30 to 35	18	21.4
36 to 40	11	13.1
41 to 50	20	23.8
51 to 60	5	6.0
61 to 65	4	4.8
<u>Gender</u>		
Female	81	96.4
Male	3	3.6
<u>Education Level</u>		
Undergraduate	7	8.3
Graduate (Masters)	22	26.2
Graduate (PhD)	55	65.5
<u>Title</u>		
Professor	7	8.3
Associate Professor	18	21.4
Assitant Professor	20	11.9
Instructor, PhD	2	2.4
Instructor	1	1.2
Research Assistant, PhD	10	11.9
Research Assistant	36	42.9
<u>Department</u>		
Principles in Nursing	16	19
Internal Medicine Nursing	10	11.9
Surgical Medicine Nursing	8	9.5
Child Health and Diseases Nursing	10	11.9
Gynecology and Obstetrics Nursing	11	13.1
Mental Health Nursing	10	11.9
Public Health Nursing	14	16.7
Instruction in Nursing	3	3.6
Management in Nursing	2	2.4
<u>Duration of Work in the Institute</u>		
1 to 5 years	35	41.7
6 to 10 years	14	16.7
11 to 15 years	10	11.9
16 to 20 years	13	15.5
21 to 29 years	6	7.1
30 to 40 years	6	7.1
Total	84	100

Table 2. Data on Nursing Instructors who Received Previous Training on Scenario Writing and Used the Received Training

Training Status	Number	Percentage
<u>Previous Training</u>		
Yes	9	10.7
No	75	89.3
<u>Institution that Provided the Previous Training</u>		
Associations (Psychodrama association, Hemarge)	3	33.3
Universities (Acibadem University, EUTF)	2	22.2
Hacettepe University Simulation Course	4	44.4
<u>Using the Received Training in Nursing Instruction</u>		
Yes	3	33.3
No	6	66.7
Total	84	100

Table 3. Nursing Instructor Opinions on the Scenario Writing Skills Development Course

Opinions on the Scenario Writing Skills Development Course	Strongly Agree	Agree	Partly Agree	Disagree	Strongly Disagree
1. I can write an applicable scenario that contributes to the curriculum.	8.3	45.2	38.1	6.0	2.4
2. I can plan a scenario content appropriate to curriculum objectives.	10.7	46.4	39.3	3.6	-
3. I do not believe that scenario-based instruction contributes to nursing education.	13.1	11.9	13.1	20.2	41.7
4. I can clearly/explicitly identify the related skills through the scenario I prepare.	10.7	51.2	31.1	6.0	-
5. I can prepare questions that guide the students in the scenario.	10.7	60.7	22.6	6.0	-
6. I can ensure a secure learning environment for scenario-based instruction.	8.3	53.6	31.0	7.1	-
7. I can select material that is appropriate to the features of the scenario.	14.3	51.2	32.1	2.4	-
8. I might decide to use scenario-based instruction method for teaching the related skills.	13.1	57.1	28.6	1.2	-
9. I can write scenarios that are appropriate to the level of students.	16.7	50.0	31.0	1.2	1.2
10. I can create a scenario construct that meets the program objectives.	17.9	45.2	34.5	2.4	-
11. I can plan a scenario that satisfies students.	9.5	48.8	39.3	2.4	-
12. I can prepare scenarios that develop the psychomotor skills of the students.	10.7	48.8	36.9	3.6	-
13. I can prepare scenarios that develop the communication skills of the students.	17.9	42.9	35.7	3.6	-
14. I can prepare scenarios that develop the clinical decision-making/critical thinking skills of the students.	8.3	54.8	32.1	4.8	-
15. I believe scenario-based instruction is essential for nursing training.	53.6	29.8	14.3	2.4	-

16. I can apply a scenario that I wrote.	19.0	47.6	32.1	1.2	-
17. I find myself adequate on scenario-based instruction method after the scenario writing skills development course.	8.3	23.8	57.1	8.3	2.4
18. I want to use scenario-based instruction method in all my courses.	9.5	29.8	52.4	6.0	2.4
19. I believe the development of scenario writing skills contributes to my personal development	31.0	42.9	22.6	1.2	2.4
20. I believe the development of scenario writing skills contributes to my academic development	39.3	35.7	21.4	2.4	1.2

Discussion

It is acknowledged that self-written simulation scenarios by nursing instructors are of utmost importance for the acknowledgment of the stages, scenario writing, development and guidance (Waxman, 2010). Simulation should shape the scenario flow, due to the determination of expected outcomes, objectives and content based on the instruction of students through scenario writing (Banbini, 2016). The implementation of the scenario should be followed by the analysis session, during which the case should be holistically reviewed and analyzed with respect to the feedbacks from the learner, from other students and the instructor. The process, outcomes and the means to apply the scenario to the clinic should be discussed by the group and appropriate training points should be reviewed (Tüzer, Dinc, Elcin, 2017). Nursing instructors should be able to write an objective-based scenario and develop their scenario writing skills in a training module or simulation experience, in order to continue training via simulation, to improve student learning outcomes and to transfer these benefits to instruction. Pre-practice and evaluation applications during the analysis phase constitute the basic stages of this instruction method, besides the writing of the scenario. In this context, the training course was aimed and designed to identify how nursing instructors should realize all stages of a scenario-based instruction. Nursing instructors should develop simulation-based instruction curricula and scenarios, with respect to the study year of the students, to enable their prospective work in dynamic and complex hospital settings (Kim and Min, 2013). Nursing as a science and profession requires a close relationship between theory and practice. According to Flood and Robinia (2014), bridging the gap between the class and the clinic could positively affect future nursing practices

and ultimately the patient care. In such instruction model and in environments where good interpersonal relations and communications exist, learning can become effective once the students are given the opportunity to practice what they learned in the classroom and skills lab, once they are supervised, supported and provided feedback; hereby, the most significant role is assigned to the competence and activities of nursing instructors (Cremonini et al., 2015). Effectively designed scenarios were designated as the foundation to integrate the learning objectives with the learning experiences of nursing students (Ahmed, 2019). It is anticipated that nursing instructors could increase their scenario writing skills through simulation- and scenario-based studies and scenario writing practices. In order to achieve all abovementioned objectives, nursing instructors need to improve their skills in the field to provide a simulation-based instruction based on scenarios. Given the scope above, almost half of the nursing instructors (50%) agreed with the item, "I can write scenarios that are appropriate to the level of students," 48.8% agreed with the item, "I can prepare scenarios that develop the psychomotor skills of the students," 42.9% agreed with the item "I can prepare scenarios that develop the communication skills of the students" and 54.8% agreed with the item "I can prepare scenarios that develop the clinical decision-making/critical thinking skills of the students." Such findings indicated that approximately 50%, and in some items, more than 50% of the nursing instructors agreed to the statements based on the ability to write an appropriate scenario to the curriculum, to plan the contents of a scenario, to prepare guiding questions, to ensure a secure learning environment, to select material appropriate to the scenario, to decide using the scenario-based instruction method and to prepare scenarios that develop the psychomotor, communication and

the clinical decision-making/critical thinking skills of students. Therefore, the post-training responses were found to be significant, since they indicated that that nursing instructors could implement scenario-based training and did not consider themselves inadequate for applying the method. It was evident that the initial training conducted in the institution had positive outcomes; however, the percentage distribution indicated that nursing instructors needed further and extensive training in the field, for instruction and practice.

The benefits of using simulation for instruction and instructors indicate that it provides a novel essence to the instruction program, thus increase the basic and advanced skills along with the cognitive knowledge level. Besides the encouragement for the transfer of skills from the classroom to actual situations, proficiency also increases due to accurate practices and retention. Thus, it would be possible to state the increase in the quality of the training program and the program's graduates. Instructors would also have the opportunity to actively participate in the training and evaluation of the students and to learn and apply recent developments in the field through simulated trainings (Midik and Kartal, 2010; Sendir, 2013). Hsu, Huang & Hsieh (2014) emphasized that using scenario-based communication education significantly increased nurses' self-efficacy and self-confidence in communication skills, through introducing real-life scenarios, which increased their motivation and communication capacity. Ahmed (2019) focused on the scenario-based instruction method and concluded that although 70% of students perceived SBI as a highly stressful learning methodology, they also found it (62.7%). Furthermore, for this technique, 75% of the students emphasized that their instructors presented as a good guide and facilitator. The scenario-based instruction specified in literature indicated that it led to a significant increase in students' problem solving, decision making, critical thinking, psychomotor and communication skills, satisfaction, self-confidence, clinical competence and academic achievement and to a decrease in their anxiety (Crenomini et al., 2015; Ahmed, 2019; Hsu, Huang & Hsieh, 2014; Korhan et al., 2019). Hence, recent studies emphasized that SBI was an effective and dynamic learning methodology and had a highly positive effect on student success. Such positive effects of SBI, stated in

literature, were also addressed by the faculty members, who participated in the present study. 41.7% responded to the opinion, "I do not believe that scenario-based instruction contributes to nursing education," with "strongly disagree" and 20% responded with "disagree," therefore, it was possible to argue that nursing instructors either had certain awareness on the significance of SBI method or developed it due to the training course provided in the present study.

It is possible to evaluate the benefits and outcomes of instruction through various implements. However, level of satisfaction is a main criterion used to evaluate the effects of instruction (Hsu, Huang & Hsieh, 2014). The present study evaluated the level of satisfaction for the participants based on their opinions on the training course and established that the nursing instructor opinions were highly positive towards the training course. It was determined that the majority of nursing instructor expressed the opinion on that the training increased their skills in scenario writing.

The satisfaction level of the instructors with the training was calculated as 7.27 ± 1.91 over 10 points. More than half of the nursing instructors responded the item, "I find myself adequate on scenario-based instruction method after the scenario writing skills development course," with "agree." 42.9% of the nursing instructors responded the item "I believe the development of scenario writing skills contributes to my personal development" with "agree" and 39.3% responded the item "I believe the development of scenario writing skills contributes to my academic development" with "strongly agree." Such findings indicated that nursing instructors supported scenario-based instruction method, and they were commonly satisfied with it and the training course employed within the scope of the present study. Consequently, it was established that the opinions of nursing instructors were similar with other studies in literature, demonstrating that simulation placed the needs of the learner in the center and provided the opportunity to create best practice applications for instruction (Hsu, Huang & Hsieh, 2014; Jeffries, & Rizzolo, 2006).

Limitations to the Study

The present study aimed the participation of all nursing instructors to scenario writing training, however, only 65% of the faculty staff agreed to

participate in the study. Furthermore, future studies, based on a more thorough investigation, should focus on reflecting the integration of scenario-based simulation instruction into teaching and curriculum development. Additionally, clinical nurses should be consulted for scenario writing course and scenario-based simulation, since they are capable of providing expertise on the contents, assisting in scenario development, taking part in the scenario and other stakeholders, designated as lecturers, and their opinions should be included in further studies by the research team, focusing on simulation-based teaching.

Conclusion

Strong participation of nursing instructors in the SBI laboratory is considered to successfully bridge the gap between theory, laboratory and practice, which has a positive effect on the training of prospective nurses. Therefore, the present study is significant for combining SBI in nursing education and laboratory skill practices in the curriculum and for increasing the knowledge, awareness and competencies of nursing instructors. The course, examined in the present study, provides trainers with a framework on how learning can be realized and supported through the use of scenarios. Hence, the training course can be included in the curriculum as an effective teaching model once the content is maintained within the framework of in-service training programs for longer periods. The findings also put forward novel questions on how scenario-based instruction support learning and on simulation-based instructional design practices and training. It is evident that future research is essential to elucidate these issues.

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