

Nursing Students' Learning Experiences About the Nursing Process in Laboratory and Clinical Practice: A Qualitative Study

Hemşirelik Öğrencilerinin Laboratuvar ve Klinik Uygulamada Hemşirelik Süreci Hakkında Öğrenme Deneyimleri: Nitel Bir Çalışma

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ABSTRACT

Objective: The aim of this study was to analyze nursing students' learning experiences the nursing process in laboratory and clinical practice.

Methods: The study design was a descriptive qualitative approach. The population of the study consisted of 450 students studying at the faculty of nursing. Data were collected by using the focus group interview from 30 students. Focus group interviews were conducted between between 01-20 September 2018. The data were analyzed by using thematic analysis. The transcription and analysis of the data were done by the researchers and no analysis program was used.

Results: Three themes were emerged: 1) Nursing process as clinical and professional guide 2) Step by step permanent learning 3) Mentoring need. Although the students understand the importance of the nursing process, they encountered difficulties during the learning related to the educator's attitude, learning opportunity, and lack of professional competency level.

Conclusion: In this study, for the nursing student, the nursing process is a successful method in developing a holistic perspective to students; however, there are important obstacles in its implementation. It is recommended that nursing process teaching should be carried out mainly in clinical practice under the guidance of the educators at the bedside.

Keywords: Nursing process, education, nursing, care planning, nursing student

ÖZ

Amaç: Bu çalışmanın amacı hemşirelik öğrencilerinin laboratuvar ve klinik uygulamada hemşirelik süreci hakkında öğrenme deneyimlerini analiz etmektir.

Yöntemler: Çalışma tasarımı tanımlayıcı nitel bir yaklaşımdır. Çalışmanın evreni hemşirelik fakültesinde öğrenim gören 450 öğrenciden oluşmaktadır. Veriler 30 öğrenciden odak grup görüşmesi kullanılarak toplanmıştır. Odak grup görüşmeleri 01-20 Eylül 2018 tarihleri arasında gerçekleştirilmiştir. Veriler tematik analiz kullanılarak analiz edilmiştir. Verilerin transkripsiyonu ve analizi araştırmacılar tarafından yapılmış olup herhangi bir analiz programı kullanılmamıştır.

Bulgular: Üç tema ortaya çıkmıştır: 1) Klinik ve profesyonel rehber olarak hemşirelik süreci 2) Adım adım kalıcı öğrenme 3) Mentorluk ihtiyacı. Öğrenciler hemşirelik sürecinin önemini anlasalar da eğitimcinin tutumu, öğrenme fırsatı ve mesleki yeterlilik düzeyinin eksikliği ile ilgili olarak öğrenme sırasında zorluklarla karşılaşmışlardır.

Sonuç: Bu çalışmada, hemşirelik öğrencisi için hemşirelik süreci öğrencilere bütünsel bir bakış açısı geliştirmede başarılı bir yöntemdir; ancak uygulanmasında önemli engeller vardır. Hemşirelik süreci öğretiminin esas olarak klinik uygulamada, yatak başında eğitimcilerin rehberliğinde gerçekleştirilmesi önerilir.

Anahtar Kelimeler: Hemşirelik süreci, eğitim, bakım planlaması, hemşirelik öğrencisi

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INTRODUCTION

The nursing process is an individual-oriented, dynamic and universally applicable care model. When applying the nursing process, high-level critical thinking and analysis skills are required at each stage.^{1,2} The nursing process provides to integrate discipline-specific knowledge with clinical practices using multiple types of critical thinking and reasoning skills. The use of nursing process requires the ability to collect data, verify data, analyze data, interpret and evaluation by make judgments during the diagnostic inquiry phase. Similarly, at the stage of care planning, knowledge and skills are needed to set goals, set priorities, choose the right interventions, implement these interventions and evaluate their results. Studies reported that students have some difficulties with every stage. These difficulties include; 1) distinguishing the concepts of the nursing process; 2) collecting, analyzing, and synthesizing the patients' data; 3) communication problems with the patients; 4) integrating theory and practice.³⁻⁵ Nursing students mostly have difficulty formulating appropriate nursing diagnoses, prioritizing diagnoses, developing care objectives for diagnosis.⁶ It is critical for students to transfer the nursing process to clinical practice and to make the correct diagnosis and appropriate interventions.⁷ Considering the complexity of the nursing process, innovative strategies and intensive guidance in practice are needed to provide the student with the ability to independently diagnose and plan care.⁸

AIM

In this context, the research was conducted with the aim of analyzing the nursing students' experiences of learning the nursing process in laboratory and clinical practice.

METHODS

Study Design

This study was conducted with descriptive qualitative research design. The goal of qualitative descriptive studies is to provide a comprehensive summary regarding everyday events/conditions/situations.⁹

Study Setting

The study was conducted between between 01-20 September 2018 in Akdeniz University Faculty of Nursing. The total number of students in the first, second, third and fourth years of the Faculty of Nursing is 998. Theoretical and practical courses in the faculty are conducted as 4 hours of theory, 2-4 hours of laboratory and 8-10 hours of clinical practice per week. The Gordon Functional Health Models model and the North American Nursing Diagnostic Association-International (NANDA-I) classification system are used in the teaching of the Nursing Process in the

faculty. The teaching of the nursing process is carried out in the Fundamentals of Nursing Course in the first year; four hours of theoretical information in the classroom and 4 hours of practice in the laboratory. In the laboratory practice, a case study method is used with 10-12 students through a guidebook. 1. In the clinical practice of the course, the teaching of the assessment, nursing diagnosis, planning, implementation and evaluation stages of the nursing process is carried out by reinforcing it with the clinical condition of the patient at the bedside. This method in clinical practice is used in all other theoretical and practical courses in order to put the nursing process into practice.

Universe and Sample

The universe of the research consisted of 998 first, second, third and fourth year students at the faculty where the research was conducted. The participants were selected from the second, third and fourth year students of the faculty. First year students were excluded from the study because they had not yet taken the course. Participants were selected using purposeful sampling method.¹⁰ The inclusion criteria were (1) being voluntary, (2) having taken the nursing process and case discussion course and (3) having participated in laboratory and clinical practice. Selection of participants and data analysis continued until a saturation point was reached at which no new concept emerged from the data analysis.^{10,11} In this context, the research was carried out with the participation of 30 students in five focus groups by forming focus groups of six students. A focus group interview lasted approximately 60-90 minutes. Standards for Reporting Qualitative Research (SRQR) guideline was followed to guide the study and present the results.¹²

Data Collection

Data were collected between 01-20 September 2018. Focus group interview technique was selected for data collection due to the advantages they reveal how individuals feel about specific issues and phenomena. Focus groups enable the sharing of elaboration on and clarification of ideas.^{13,14} New ideas are produced by individuals with similar characteristics. The interactions and positive group dynamics enable rich data collection.¹⁵ Five focus group interviews were conducted to collect data. A focus group for second-year students (as data saturation was achieved with one group) and two focus groups each for third and fourth-year students were formed.¹³ For focus groups it is recommended that the size of the group include between six and 12 participants, so that the group is small enough for all members to talk and share their thoughts, and yet large enough to create a diverse group.¹¹ Focus group interviews were conducted by one moderator

and two assistant moderators. The moderator was a faculty member who was not involved in the second, third, and fourth year courses. Assistant moderators were researchers. The moderator informed the participants about the study and focus group interview method and obtained written consent from the participants. Interviews were conducted with semi-structured interview questions. "Focus group discussions were conducted in line with nine sub-questions under the following three main questions (Table 1): What would you say about the nursing process?; What would you say about teaching the nursing process?; What would you say about the implementation of the nursing process?"

Table 1. Questions for the focus group interview

What would you say about the nursing process?
<ul style="list-style-type: none"> • What are the basic qualities of the nursing process? • What would you say about the concepts of the nursing process?
What would you say about teaching the nursing process?
<ul style="list-style-type: none"> • What would you say about theoretical education? • What would you say about clinical education? • What would you say about teaching methods?
What would you say about the implementation of the nursing process?
<ul style="list-style-type: none"> • What do you think about the effects of the nursing process on patient care? • What do you think about the effects of the nursing process on your development process? • What do you think about the factors that affect the implementation of the nursing process? • What would you say about care plans?

Data analysis

Five focus group interviews were analyzed by qualitative content analysis, which is an interpretive, systematic process that focuses on the subject and context.¹⁵ The data in the voice recorder and the notes taken by the reporters were transcribed into the computer. The transcript has been read by all authors many times until it forms a sense of integrity. The pre-existing code system was not used, and inductive content analysis was preferred in this study.^{15,16} The transcripts were analyzed in five steps: (1) Familiarizing with the data: The researchers read the transcript independently in detail at the first meeting and compared meaningful sections from words, sentences, or paragraphs that relate to the context, (2) Generating initial codes: The researchers read and coded the transcripts independently, (3) Discussing the codes: The researchers re-read the paragraphs, sentences, and codes, (4) Reviewing the codes: There searchers reviewed the codes according to their similarities and differences, (5) Defining the names and themes: Codes were clustered and categorized by three researchers.¹⁵⁻¹⁷

Rigor and trustworthiness

The study's Rigor and trustworthiness was based on four criteria: credibility, dependability, confirmability, transferability.^{10,18,19} Rigor and trustworthiness were achieved through focus group interviews using a semi structured interview form to ensure that the participants were asked a similar question. The moderator and two assistant moderators had training in the qualitative research. To increase the transferability, purposeful sampling method was used to explore different experiences of students at their progression in the education program. Within the scope of credibility, the researcher was diversified to reveal different perspectives, different meanings, different indicators, and sources of study data. Focus group interviews were transcribed without comments. Each researcher read the transcribed text independently and performed independent coding. The researchers repeatedly read the data during the coding and criticized the suitability. Created themes were evaluated and compared with the raw data by a qualitative research expert.¹⁵

Ethical Dimension

The study was approved by the Ethics Committee of Akdeniz University (Decision Date: 07/09/2016, Decision No: 491). Written informed consent was obtained from participants before data collection. Sections of the study (data collection, storage and destruction of data...etc.) were conducted in accordance with the Principles of the Declaration of Helsinki.

RESULTS

The average age of the students participating in the research is 20.46 ± 1.22 years, half of them are women. 70% of the students are satisfied with their nursing education. The students' academic grade point average is 2.86 ± 0.39 .

Based on data analysis obtained with students' experiences, three themes emerged: 1) Nursing process as clinical and professional guide 2) Step by step permanent learning 3) Need mentoring. Although the students understood the importance of the nursing process, they stated that they encountered difficulties during learning related to the educator's attitude, learning opportunity and inadequacy of professional competence (Table 2).

Theme 1: Nursing process as clinical and professional guide

The students' views within the scope of this theme included that they could see the whole about the patient as a whole and had the opportunity to address the patient in all aspects.

Table 2. Themes and Sub-themes

Themes	Sub-themes
Nursing process as clinical and professional guide	Seeing the whole picture Like a real nurse
Step by step permanent learning	A case, lots of thought Bedside teaching
Need mentoring	Difficulty communicating with the patient Lack of guidance

Subtheme-1. Seeing the whole Picture: Most of the participants thought that the nursing process provided holistic perspective and systematic approach.

“The nursing process gives me a different perspective. When we care for the patients and witness how much pain they have, we realize in time that the care plan is not dependent on our preference. The more nursing diagnoses we determine, the more holistic and broad-focused we can assess the patient.” (P25)

“When we practiced the nursing process, we realized how important even the shape of the bed and nightstand is. Because we learned to evaluate the patient as a whole with his/her environment. A small problem with its environment can sometimes be the main cause of the problem.” (P4)

Subtheme-2. Like a real nurse: The participants stated that patients, patient relatives, and other health professionals respected the nursing students, as they provided holistic patient care. These students verbalized that individuals’ attitudes made them feel like a real nurse.

“When we provide holistic patient care, we realize that nurses and physicians care about us more. They want to obtain information about the patient’s clinical status because they know that we have deep knowledge of the patient’s progress. I have seen that patients respect us more. Patients ask us questions that they could not ask physicians or nurses. This makes us feel like a real nurse.” (P4)

“As you care for the patient, you see what is important to the patient. For example, sleep deprivation may be an unimportant diagnosis for someone else. However, the nurse recognizes the importance of the problem. We learn to think like a nurse by conscience and human love.” (P3)

Theme 2: Step by step permanent learning

Students often expressed their satisfaction with the case discussions held for the purpose of teaching the nursing process in laboratory and clinical environment.

Subtheme-1. A case, lots of thought: The participants stated that case discussions provided the students to recognize

different thoughts and to realize the deficiencies and mistakes. Small group case discussions were defined as a method that effective and useful.

“We analyzed the same case in the laboratory one by one. I understand that a situation can have many different aspects. The solution is to change the window you are looking at... I think the discussion would be more beneficial and permanent if we increase such practices a little more.” (P2)

One of the participants remarked that she felt free to make mistakes in case discussions. Therefore, she requested that case discussions should be increased as much as possible.

“Being with friends in a different environment than the hospital is comfortable. There are no real patients, and you are free to make a mistake. Just brainstorming... Learning methods, which are like the real clinical environment, but we are not afraid of making mistakes, should be increased. I can say that I learned how to assess the patient as a whole through case discussions.” (P3)

Subtheme-2. Bedside learning: All participants expressed that they needed bedside teaching and the educator’s expertise. The participants remarked that they discovered humanistic care through bedside teaching as an effective and permanent learning method.

“The educator should first assess and know the patient. Afterward, she should decide whether diagnoses are appropriate for the patient. We both must know and discuss the patients’ clinical status. When this happens, it becomes instructive.” (P17)

“It is difficult to do something said, it is easier to do something shown. I observe the behavior, communication skill and facial expressions of the educator. I try to define humanistic care. The educator should love the human and her profession and have expert knowledge. Otherwise, theory and practice do not integrate.” (P7)

Theme 3: Need mentoring

Within the scope of this theme, the participants stated that they often had difficulties in patient communication and wanted their mentors to be with them.

Subtheme-1. Difficulty communicating with the patient: Most of the participants had difficulties in some processes that include patient assessment, data collection, and communication due to inexperience and lack of knowledge.

“I cannot collect any data about some patterns. I am afraid to ask questions to patients. I fill out some fields

only according to my observations. Like the reproductive system and sexuality... I refrain from talking about sexuality. I have never talked to anyone about sexuality. How can I ask a person about this pattern?" (P13)

"I have difficulty to collect data from the patient. I cannot initiate communication due to the patient's attitude. I am not able to care for the patient as I planned. I hesitate to touch the patient. The patients kept saying: Who are you? Where is the educator? Are you doing it right? I want a more experienced person to care for me." (P14)

Subtheme-2. Lack of guidance: All participants reported that they needed mentors guidance and feedback at every stage of the nursing process for personal development, but they do not receive enough.

"Educators don't question practices' accuracy because of did not observe the student while providing the care. They just interpret written notes and expressions on the care plans and do not tell the missing points. How can I improve myself if they don't tell the inadequacies?" (P19)

Participants felt confused and desperatedue to the diversity of educators' expectations about the care plan.

"In the first year, I thought that I learned the concepts of the nursing process correctly. I was able to accurately identify the etiological factors and descriptive criteria of the diagnosis. In the second year, I realized that the educators' expectations were different. There were several diagnoses to be determined for each patient. There was an obligation to determine at least 2 collaborative diagnoses for one patient. I was confused. We say that caring is individual, but can we talk about individualized nursing care in this case? (P27)

"Educators described the outcome criteria and aim statement differently in care planning. There was no common expectation. I was able to cope with desperation by writing different statements according to each educators' expectations." (P22)

DISCUSSION

Nursing process as clinical and professional guide

In the study, the students stated that the nursing process enabled them to get to know the individual as a whole and that they learned to give care in a systematic way with a formal model. Likewise, students in the other studies stated that the nursing process is very important in evaluating the patient in a holistic manner, systematic and organized presentation of care.²⁰⁻²² In a study conducted by Korkut et al.,⁷ students stated that the nursing process

provides multidisciplinary care, and when each step of it is performed correctly, it makes blind spots visible. On the other hand, in another study, the students perceived that the nursing process is a good guiding tool for nursing care which improves the quality of care. The students revealed that the use of the nursing process enables nurses to prioritise patients' needs and guide them when providing care to patients.²³ The nursing process allows nurses to consider the individual as a whole and to adopt an individual-centered systematic approach while giving care. Therefore, as a result of teaching the nursing process, it is very important for the student to benefit and adopt. In this context, it should be taken into account that understanding the steps of the nursing process and care plan depends on problem solving and critical thinking competence, and the methods of practice, discussion, feedback and clinical adaptation should be integrated into the training process.

In the study, it was determined that students received positive feedback from other disciplines and patients regarding their professional identity while working with the nursing process, and they felt like a nurse. Korkut et al.⁷ also stated in their study that students understand the roles of nursing while working with the nursing process, they are happy because they make a difference in the lives of patients, and they gain professional gains. However, in some study results, it is emphasized that students routinely perform the nursing process without internalizing it. In a qualitative study was conducted by Heidari and Hamooleh,²⁴ it was determined that employing the nursing process has increased students' dissatisfaction. In this study, authors were stated that most students stated that using the nursing process decreases the sense of dependence due to monotony, and this in turn causes routineness and finally results in a decrease of motivation and performance in nursing students.²⁴ In the other study, students stated that some patients prefer to be evaluated and taken care of by nurses rather than students, and this reduces both motivation and practice for students to learn about the nursing process.²³

In the light of all these results, in this study, positive attitudes and experiences of students regarding the nursing process are an important finding. It is important for students to adopt the nursing process as it contributes to their professional identity, starting from their student days. Because it enables them to internalize and use the nursing process in their professional life after graduation.

Step by step permanent learning

In the study, the students stated that laboratory work in teaching the nursing process is a good exercise before the clinic, and that they learned to see and analyze the whole

with group discussions under the guidance of educators. However, some studies show that the reasons for students' difficulties in applying the nursing process are the lack of appropriate education and practice on the scientific use of the nursing process in patient care.²⁵⁻²⁷ In the literature, it is frequently stated that students encounter the nursing process and writing a care plan for the first time in a clinical setting and have difficulties.²⁵ In a study conducted in Turkey, the authors state that students often have difficulties in terms of lack of knowledge and analytical thinking while writing a care plan in clinical practice, and they suggest adding case analysis and reinforcement to teaching methods.²⁸ In a study conducted by Farzi et al.,²⁹ students stated that they did not acquire the necessary skills to perform the operations in the clinical skills laboratory, and they also did not have the necessary cognitive knowledge to perform the operation. In another study, nurses stated that one of the biggest obstacles in the implementation of the nursing process is the education of the nursing process during student life, and the short and insufficient training period.³⁰

In the study, students often emphasized the benefit of group discussions for case analysis in the laboratory setting. In another study conducted in Turkey, students stated that the practices learned in the laboratory shortly before the clinical practice were more permanent, but the laboratory hours were limited due to the large number of students.⁴ It is thought that the exercises that include case analysis until the clinical practice process in the teaching of the nursing process are important in the preparation of the student for the clinic. In this context, this result obtained from the research is important.

Need Mentoring

In the study, students stated that while they were learning the nursing process in the clinic, they had problems at every step of the nursing process and they needed guidance to apply it to the patient. The expectation of the students in bedside guidance includes the educator assessment (collect, analyse and syntheses) with the student, making a diagnosis, and planning the care. It is reported that educators play a vital role in these problems and they are considered as "bridges" in filling the gap between theory and practice.³¹

Bedside guidance from educator offers students to integrate theory and practices through direct observation, interaction and facilitates effective knowledge translation, skills acquisition, and professional development.³² Gunay and Kiliç (2018) ' study participants (students) stated that instructors are knowledgeable, most often they don't tell at the bedside, but outside the sick room face-to-face, at a

seminar, at a meeting...etc.³³ Esmaili et al.,³⁴ stated that the students learned the right skills by observing the behavior and practices of the trainer and seeing the right model increased their self-confidence. According to Benner et al.,³⁵ learning is the way that nurses use their knowledge as they think and act in ever-changing situations. When knowledge becomes integrated into the situation, that knowledge becomes embodied, easily accessible, and enables the nurse to continue to develop competency.³⁵

The nursing process when considered as a whole; is a basic framework in student education with its ability to take a holistic view of the individual and its contribution to the development of professional identity. According to Carpenito-Moyet,³⁶ the role of the educator is to teach the value, purpose and philosophy of the nursing process. In parallel, the educator should be with the student at each step of the implementation process and should guide him. For this reason, the guidance of the students, which is especially emphasized by the students in the teaching of the nursing process, and the elimination of the obstacles to the application of the knowledge will facilitate the teaching of the process. For this reason, in the teaching of the nursing process, the guidance of the students especially emphasized by the students, and the resolution of the obstacles to the implementation of knowledge will facilitate the teaching of the process.

Limitations of the study

A limitation of the present study is that we cannot rule out the possibility that the participants chose not to share some of their experiences of teaching the nursing process with the researchers at the faculty where they were receiving their education. Another limitation that should be taken into consideration is that the study was conducted in a single region. However, the fact that the results are consistent with those obtained in other countries indicates that the problems and issues identified are not limited to our setting. Therefore, we believe that our findings contribute to the international knowledge on this subject.

As a result of the study, it was determined that the nursing process is a successful method in developing a holistic perspective to students; however, there are some obstacles in its implementation. Faculty members are in a key position in embracing the importance and values of the nursing process, developing constructive, creative, student-centered teaching strategies (case study, simulation based...etc.) and being a positive role model. It is clearly demonstrated that students need to be supported, encouraged, and get feedback in the learning process. According to the results of the research, it is important to develop clinical guidance in teaching the

nursing process. In particular, nursing educators, even mentor nurses in the clinical field, should prioritize one-to-one student guidance in teaching the nursing process, which is used as a scientific framework in patient care.

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