



Evaluation of Surgical Nurses' Perceptions Regarding The Nursing Process

Cerrahi Hemşirelerinin Hemşirelik Sürecine İlişkin Algılarının Değerlendirilmesi

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Abstract

Aim: In this study, it is aimed to evaluate the perceptions of surgical nurses towards the nursing process.

Material and Method: In this study, power analysis was used in the G*Power computer program with medium effect size ($d=0.25$), 80% power and 5% type I error level. As a result, it was calculated that a sample group consisting of a minimum of 200 people was needed for the analysis to be carried out. The sample of the study consisted of a total of 200 surgical nurses reached by simple random. The data of the study were obtained with the "Nurse Data Form" and "Nursing Diagnosis Perception Scale" prepared by the researcher according to the literature containing the socio-demographic characteristics of the nurses.

Results: the distribution of surgical nurses' knowledge of the nursing process is evaluated. The level of knowledge of surgical nurses about the stages of the nursing process is as follows; evaluation (87.5%), implementation (85.3%), planning (82.8%), data collection (75.8%) and diagnosis (72.4%). On the other hand, it was determined that there was no significant difference between surgical nurses according to gender, marital status, hospital, working time in nursing and working time in the surgical unit.

Conclusion: The duty of surgical nurses in the in-service training programs, including the subject of the nursing process, is recommended. Increasing the time allocated to nursing process education in education curricula during the education and training process; organizing trainings, congresses and seminars on the missing subjects every time the process is done; it is recommended that surgical nurses be supported to participate in these scientific meetings during the education process.

Keywords: Surgical nurse, process, nurse perception

Öz

Amaç: Bu çalışmada cerrahi hemşirelerinin hemşirelik sürecine yönelik algılarının değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntem: Bu çalışmada orta etki büyüklüğünde ($d=0,25$), %80 güçte ve %5 tip I hata düzeyinde G*Power bilgisayar programında güç analizi kullanılmıştır. Sonuç olarak analizin gerçekleştirilebilmesi için minimum 200 kişiden oluşan bir örneklem grubuna ihtiyaç duyulduğu hesaplanmıştır. Araştırmanın örneklemini basit tesadüfi yöntemle ulaşılan toplam 200 cerrahi hemşiresi oluşturmuştur. Araştırmanın verileri, hemşirelerin sosyo-demografik özelliklerini içeren literatüre göre araştırmacı tarafından hazırlanan "Hemşire Veri Formu" ve "Hemşirelik Tanı Algısı Ölçeği" ile elde edilmiştir.

Bulgular: Yapılan araştırmada; cerrahi hemşireleri arasında cinsiyet, hemşirelikte çalışma süresi, cerrahi ünite çalışması süresi ve hemşirelik süreci ile ilgili eğitim alma durumu açısından anlamlı farklılık olmadığı belirlendi. Öte yandan cerrahi hemşirelerinin cinsiyet, medeni durum, hastane, hemşirelikte çalışma süresi ve cerrahi ünite çalışması süresine göre anlamlı farklılık olmadığı belirlendi.

Sonuç: Hemşirelik süreci konusunu içeren hizmet içi eğitim programlarında cerrahi hemşirelerinin görev almaları önerilmektedir. Eğitim öğretim sürecindeyken eğitim müfredatlarında hemşirelik süreci eğitimine ayrılan sürenin artırılması; süreç her yapıldığında eksik olan konularda eğitimler, kongreler, seminerler düzenlenmesi; cerrahi hemşirelerinin eğitim sürecinde bu bilimsel toplantılara katılmalarının desteklenmesi önerilmektedir.

Anahtar Kelimeler: Cerrahi hemşire, süreç, hemşire algısı



INTRODUCTION

Nursing process is a process that should be given importance and emphasized in the nursing profession, and nursing diagnoses are the most important part of the nursing process.

^[1] The nursing process provides the nurse with a systematic perspective in the professional maintenance of care and the elimination of the problem, which is formed by determining the care needs of the healthy/diseased individual, family or society in need of care, and planning and applying.^[2] Effective implementations of the nursing process leads to improved quality of care and encourages the construction of theoretical and scientific knowledge based on best clinical practice. The nursing process consists of five stages: Data collecting, diagnostic, planning, practice, evaluation.^[3]

The first step in the nursing process is data collection. This stage refers to the systematic collection of information about the patient/healthy person and their relatives, which are considered data, for a specific purpose. The second phase of the nursing process, the definition phase, is at the center of nursing practice.^[2] In this step, nurses analyze the data they collect using their critical thinking skills and identify one or more nursing diagnoses while providing individualized care to the patient.^[4] The third stage of the nursing process, the planning stage, includes deciding what to do with the patient and solving problems. This stage begins after the analysis of the data obtained and the determination of the nursing diagnosis. The planning phase includes prioritizing problems based on the nursing diagnosis, identifying goals to be achieved, and selecting nursing interventions to achieve these goals.^[5] After the planning of nursing practices, the fourth stage of the nursing process, which is the stage where nursing care takes place, is passed to the practice stage. Nurses demonstrate the artistic side of their profession with a humane approach when applying the interventions they plan to a sick person.^[6] The fifth and final stage of the nursing process is the evaluation stage. This stage represents both the end of the process and a new beginning.^[7,8] During the evaluation phase, it checks whether the patient's determined results are achieved by implementing the planned interventions for each target related to the patient's problems.^w Based on the literature, it was aimed to evaluate the perceptions of surgical nurses about the nursing process.

MATERIAL AND METHOD

This quantitative study has been carried out in relational research model. All surgical nurses who can be reached from the province of Istanbul through the social communication network and accepted to participate in the research constitute the population of the research; the number of all nurses from the universe who answered at the level of significance in terms of the data of the research also formed the sample of the research. In this context, power analysis was used in the G*Power computer program with medium effect size ($d=0.25$), 80% power and 5% type I error level. As a result, it

was calculated that a sample group consisting of a minimum of 200 people was needed for the analysis to be carried out. The sample of the study consisted of a total of 200 surgical nurses reached by simple random. In order to participate in the study, it is sufficient for the nurses to work in the surgery clinic and to be volunteers to participate in the study. The years of work in the clinic were not taken into account.

Data Collection Method

Prior to the data collection phase, permission was obtained from the Ethics Committee of The University. The research technique has been used to collect data. In this context, Google Forms application, which provides data collection over the internet, has been benefited. The link of the online questionnaire form has been sent to the participants via e-mail, Whatsapp and similar platforms. Before starting the research, voluntary consent of the participants was obtained, it was explained that their personal information is kept and only the data obtained for scientific purposes will be processed.

Data Collection Tools

The data were collected by the researchers using the "Nurse Data Form" and the "Nursing Diagnosis Perception Scale", which were prepared according to the literature on nurses' sociodemographic characteristics.

Nurse Data Form

This form, prepared in the light of literature information, consists of two parts (1, 2, 4, 5, 6, 10, 11, 12). "Identifying Sociodemographic and Occupational Characteristics" section constitutes the first part of the form. In this form age, gender, marital status, willingness to choose the profession, education level, institution, unit, job in the unit, the duration of the nurse's execution, working time in the surgical unit, satisfaction, the reason for choosing the profession are asked in this form.

In the second part of the form, the status of surgical nurses to receive training on the nursing process and to use the nursing process actively while giving care was questioned. In addition, the form includes questions evaluating the status of surgical nurses in recognizing and ordering the data collection, diagnosis, planning, application and evaluation steps of the nursing process, and this section is referred to as the "Identification of Nursing Process" form. In total, the form consists of 41 questions.

Nursing Diagnosis Perception Scale

The original name of "Nursing Diagnostic Questionnaire Perceptions" was developed by Olsen, Frost, and Orth in 1991. The scale was developed to determine nurses' perceptions of nursing diagnoses in health care areas. The scale is in a five-point Likert type, going from "strongly agree" to "strongly disagree". The total score of the scale is calculated by dividing the total score by the number of items. The total score of the scale ranges from 1 to 5. The low total score obtained from

the scale indicates a positive perspective in the perception of nursing diagnoses. A low score on the Nursing Diagnosis Perception Scale indicates a positive perspective in the perception of nursing diagnoses. In other words, as the score obtained from the scale increases, nursing diagnoses are perceived negatively. In the validity and reliability study of the scale, the Cronbach's alpha values ranged from 0.94 and the Cronbach's alpha values of the subscales ranged from 0.79 to 0.92. The reliability and validity of the scale for our country was made by Esra Akin-Korhan, Gülendem Hakverdioğlu-Yönt, Bedriye Ak, Firdevs Erdemir in 2013. Permission for the scale was obtained from Ms. Bedriye AK via e-mail.

The scale includes 4 sub-domains and 26 items that evaluate the perceived ease of use and benefit of nursing diagnoses to the profession and treatment process.

Analysis Method

The study was conducted using SPSS version 21.0 for Windows. Data value was used as descriptive statistical methods such as percentage, arithmetic mean, frequency, standard. The suitability of the data to the normal distribution was tested with the Kolmogorov-Smirnov test on a single

sample. Since the data did not show normal distribution, non-parametric statistical analysis methods (Man Whitney U Test, Kruskal Wallis Test) were used.

RESULTS

In **Table 1**, the distribution of surgical nurses' knowledge of the nursing process is evaluated. The level of knowledge of surgical nurses about the stages of the nursing process is as follows; evaluation (87.5%), implementation (85.3%), planning (82.8%), data collection (75.8%) and diagnosis (72.4%).

In **Table 2** presents the descriptive statistical analysis results for the Nursing Diagnosis Perception Scale. In this context, it was determined that surgical nurses perceived their nursing diagnoses positively ($\bar{x}=2.60$, $sd=0.71$). It was determined that the knowledge levels of surgical nurses about the nursing process did not show a significant difference according to their education about the nursing process ($p>0.05$). It was determined that surgical nurses' scale of perception of nursing diagnoses scores differed significantly according to their educational status in the nursing process. It was determined that the surgical nurses who were not trained

Table 1. Distribution of Surgical Nurses' Knowledge Regarding the Nursing Process

| Stage | Question | Number of incorrect answers | Number of correct answers | Percentage success of the problem | Stage success percentage |
|-----------------|---|-----------------------------|---------------------------|-----------------------------------|--------------------------|
| Data Collecting | Do you think the statement "data collection in the nursing process is the systematic obtaining of information about the patient/well individual and their relatives, which are qualified as data, for a specific purpose"? | 13 | 187 | 93.5 | 75.8 |
| | Which of the following is not one of the actions taken by the nurse during the data collection step in the nursing process? | 84 | 116 | 58.0 | |
| | Which of the following determines the care that the individual needs but cannot afford from the stages of the nursing process? | 76 | 124 | 62.0 | |
| Diagnostics | "The nursing process is at the stage of diagnosis; It includes the analysis and interpretation of the data collected to determine the problems of the individual to be dealt with in nursing care" do you think is correct? | 10 | 190 | 95.0 | 72.4 |
| | What does the diagnosis phase of a patient coming to your unit include? | 56 | 144 | 72.0 | |
| | What is the purpose of nursing diagnosis? | 41 | 159 | 79.5 | |
| | Which of the following is the nursing process stage that includes "data collection, validation of the collected data, analyzing and interpreting the data, and sharing the data"? | 93 | 107 | 53.5 | |
| Planning | Do you think the statement "The nurse decides on the nursing care that she/he will give in order to solve the problems that she/he identified during the planning phase of the nursing process and to meet the needs" is correct? | 8 | 192 | 96.0 | 82.8 |
| | What does the planning phase of the nursing process include? | 36 | 164 | 82.0 | |
| | Which of the following is the "stage" of the nursing process, which includes deciding what to do and problem solving? | 51 | 149 | 74.5 | |
| | Which is not one of the aims of the planning phase of the nursing process? | 43 | 157 | 78.5 | |
| Application | The implementation phase of the nursing process; do you think the statement "This is the implementation phase of the written objectives and the plan created" correct? | 11 | 189 | 94.5 | 85.3 |
| | Which is not one of the aims of the nursing process in the implementation phase? | 51 | 149 | 74.5 | |
| | Which of the following is the stage of the nursing process where "nursing care is given and performed"? | 26 | 174 | 87.0 | |
| Evaluation | Which of the following describes the characteristics of the evaluation phase of the nursing process incorrectly? | 38 | 162 | 81.0 | 87.5 |
| | Which of the following is the stage of the nursing process, which is "both an end and a beginning in the nursing process"? | 34 | 166 | 83.0 | |
| | "In the evaluation phase of the nursing process; is the statement "It being checked whether the patient results determined as a result of the implementation of the planned interventions are achieved or not" is correct? | 3 | 197 | 98.5 | |
| Total | | 674 | 2726 | 80.2 | |

in the nursing process had significantly higher scale of perception of nursing diagnoses scores than the surgical nurses who received training ($p < 0.05$).

Table 2. Surgical Nurses' Perception of Nursing Diagnoses Scale Score Distribution

| Dimensions | Mean | Standard Deviation | Minimum | Maximum |
|---|------|--------------------|---------|---------|
| Nursing diagnosis perception scale | 2.60 | 0.71 | 1.04 | 5.00 |
| Definition and introduction of the nursing profession | 2.18 | 1.16 | 1.00 | 5.00 |
| Clearly describing the patient's condition | 2.69 | 0.74 | 1.00 | 5.00 |
| Ease of use | 2.99 | 0.61 | 1.00 | 5.00 |
| Conceptual aspect | 2.81 | 0.70 | 1.00 | 5.00 |

In **Table 3**, when the scale of perception of nursing diagnoses was examined in terms of dimensions, it was determined that the scores of surgical nurses from the dimensions of "definition and promotion of the nursing profession" differed significantly according to the educational status of the nursing process. In the dimension of definition and promotion of the nursing profession, the scores of the surgical nurses who did not receive training on the nursing process were found to be significantly higher than the surgical nurses who received training ($p < 0.05$). On the other hand, it is seen that the scores of the surgical nurses in the dimensions of "clearly defining the patient's condition", "ease of use" and "conceptual aspect" do not differ significantly according to the educational status of the nursing process ($p > 0.05$).

DISCUSSION

When the knowledge levels of surgical nurses about the nursing process are examined, it is seen that the findings are compatible with the literature. In similar studies in the literature, it is seen that the stages that surgical nurses have the most difficulty with are data collection and diagnosis.^[9-14]

When Surgical Nurses' Nursing Diagnosis Perception Scale scores were examined, it was determined that surgical nurses perceived their nursing diagnoses as positive at an average level. When the Nursing Diagnostics Perception Scale was examined in terms of dimensions, it was determined that

surgical nurses got the lowest score from the "definition and promotion of the nursing profession" dimension and the highest score from the "ease of use" dimension. A low score on the Nursing Diagnosis Perception Scale indicates a positive perspective in the perception of nursing diagnoses. In other words, as the score obtained from the scale increases, nursing diagnoses are perceived negatively. In this context, it can be stated that surgical nurses mostly perceive the dimension of "definition and promotion of the nursing profession" positively, while they perceive the dimension of "ease of use" negatively at least. In similar studies in the literature, it is seen that the dimension of "definition and promotion of the nursing profession" has the lowest score, but the dimension with the highest score differs between studies.^[10,15,16]

It was determined that the scores of the surgical nurses from the "definition and promotion of the nursing profession" sub-dimension of the "Perception of Nursing Diagnoses" scale differed significantly in favor of the trained surgical nurses. In the literature, it is seen that there are studies that have concluded that there is no significant difference according to the educational status of the nursing process.^[9,10,17]

CONCLUSION

In the research conducted; it has been determined that the level of knowledge about the nursing process is significantly higher in surgical nurses who are over 35 years old, married, undergraduate or graduate, working in a state hospital and who think that the nursing process should be used actively; it was determined that there was no significant difference between surgical nurses in terms of gender, working time in nursing, working time in the surgical unit and receiving education about the nursing process.

On the other hand, the perception of nursing diagnoses is significantly more positive among older (between 31-35 and over 35 years old) surgical nurses who received training on the nursing process and thought that the nursing process should be used actively while giving care; it was determined that there was no significant difference between surgical nurses according to gender, marital status, hospital, working time in nursing and working time in the surgical unit. It is seen that these findings are mostly compatible with the literature, but

Table 3: Distribution of Nursing Diagnoses of Surgical Nurses by the Status of Receiving Education for the Nursing Process

| Variables | Education | Number | Mean | Standard Deviation | z | p |
|---|--------------|--------|-------|--------------------|--------|------|
| Nursing diagnosis perception scale | Educated | 195 | 80.51 | 17.68 | -1.559 | .119 |
| | Not Educated | 5 | 67.06 | 22.24 | | |
| Definition and introduction of the nursing profession | Educated | 195 | 2.15 | 1.14 | 2.223 | .026 |
| | Not Educated | 5 | 3.56 | 1.23 | | |
| Clearly describing the patient's condition | Educated | 195 | 2.68 | .74 | .929 | .353 |
| | Not Educated | 5 | 2.94 | .41 | | |
| Ease of use | Educated | 195 | 2.98 | .62 | 1.113 | .266 |
| | Not Educated | 5 | 3.23 | .25 | | |
| Conceptual aspect | Educated | 195 | 2.82 | .71 | -.686 | .492 |
| | Not Educated | 5 | 2.65 | .34 | | |

there are some differences between the results of the study. It is considered to be caused by contextual differences caused by factors such as studies, city, hospital, period, measurement tools and so on.

The data collection step, which is the first step in the nursing process, is very important because it forms the basis for other steps in the nursing process. A problem that arises at this stage can cause all stages to be misinterpreted. The surgical nurse, who cannot obtain correct and sufficient data, may make wrong nursing diagnoses based on these data, and this may lead to the wrong nursing intervention that she sees as correct. As a result of these errors, the needs of the patient may not be met, and the problem may not be solved due to incorrect evaluation. This structure should be suitable to give information about the whole process as it is the end of everything. In this scope, the duty of surgical nurses in the in-service training programs, including the subject of the nursing process, is recommended. Increasing the time allocated to nursing process education in education curricula during the education and training process; organizing trainings, congresses and seminars on the missing subjects every time the process is done; It is recommended that surgical nurses be supported to participate in these scientific meetings during the education process.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was carried out with the permission of Ethics Committee of Istanbul Okan University (Date: 24.08.2022, Decision No:157/23)

Informed Consent: Before starting the research, voluntary consent of the participants was obtained, it was explained that their personal information is kept and only the data obtained for scientific purposes will be processed.

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