

Determining the Nursing Interventions First-Year Nursing Students Want to Perform in Clinical Practices: A Cross-Sectional Study

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Abstract

It is important in clinical education that nursing students make nursing interventions. The study was planned to determine the nursing interventions that first-year students carry out to do in clinical practice. The study is a descriptive and cross-sectional study. The population of the study consisted of first-year nursing students. The study data were collected using the Student Introduction Form and Nursing Interventions Form. When the nursing interventions related to the patient's vital signs were examined, it was determined that the majority of the students wanted to perform these interventions before and after the clinical practice. It was determined that the majority of the students wanted to perform some or a few of the nursing interventions before and after clinical practice, which were related to the patient's individual hygiene, urinary excretion, and bowel emptying needs. It was determined that the nursing interventions that the first-year students wanted to perform in line with the theoretical knowledge they gained in the nursing principles course were mostly the assessment of vital signs, drug administration, intravenous administration, and nursing interventions aimed at meeting the nutritional, respiratory and movement needs of the patient. It was determined that nursing interventions aimed at meeting the urinary and bowel emptying needs were desired a little or very little by the majority of the students.

Keywords

Clinical Practice, Education, Nursing, Nursing students.

INTRODUCTION

Nursing is a health discipline incorporating science and art into clinical practices aiming at protecting and improving the health of individuals, families, and society in cases of illness, helping them cope with their inadequacies. The practice area of nursing is human as a profession based on human care [1]. The main purpose of education provided in nursing schools is to develop critical thinking skills and psychomotor abilities with universal ethical values so that students can provide the nursing care needed for healthy/sick individuals and their families [2]. Care is defined as a part of the basic functions of the nurse to increase the health and well-being of patients, improving health. The concept of care is at the focal point of such basic professional subject areas as nursing education, health law, and ethical codes for nurses [1].

Nursing education consists of theoretical, laboratory, and clinical practice parts complementing each other, and clinical practices constitute an important part of nursing education [3]. Within the scope of nursing undergraduate programs in Turkey, there are such areas as nursing principles, internal medicine nursing, surgical nursing, gynecology and obstetrics nursing, pediatric nursing, mental health nursing, community health nursing, nursing management, and nursing education courses as well as laboratory and clinical courses related with the field [2]. The course titled "nursing principles", which is among the major courses for first-year students includes nursing-related topics such as the concept

of nursing, the historical development of nursing, ethical principles, and basic nursing practices. The student nurse starts clinical practice after taking theoretical and laboratory courses in the first year. The purpose of clinical practices in nursing education, which is a practice-based discipline, is to transform theoretical knowledge into practice by using the nursing knowledge gained in education and to gain psychomotor skills and provide quality care to the patient[4]. Before going into clinical practice, students follow the nursing practices carried out by the instructor nurses by using advanced care models in the laboratory environment, and following this, they perform the practices themselves. The students, who start hands-on clinical practice with live patients, enter a new social environment that he/she is not accustomed to and experiences communication stages with the patient, physician, nurse, and other health personnel for the first time. In addition, they may experience the fear of making mistakes, harming the patient, and encountering negative reactions while performing nursing interventions in clinical practice [5] [6]. The student observes the nursing interventions performed by the instructor nurse to the patient during the first clinical practice days and applies the nursing interventions to the patient under the guidance of a nurse and/or instructor in the following days. Therefore, in the first clinical applications, students may experience anxiety, worry, and fear of making mistakes and have less self-confidence [6]. It is thought that these feelings of students may affect the nursing interventions they want to apply in their settings. The study was planned to determine

the nursing interventions that first-year students carry out to do in clinical practice.

MATERIALS AND METHODS

Study Design

The study is a descriptive and cross-sectional study.

Population and sample

The study was carried out in the nursing department of a university in the Aegean Region in Turkey. The population of the study consisted of first-year nursing students (n=65 students) registered in the 2021-2022 academic year. Sample selection was not made and 42 students who agreed to participate in the study were included in the study.

Questionnaire and data analysis

The study data were collected using the Student Introduction Form and Nursing Interventions Form created by the researchers. The nursing intervention form was prepared by the researchers in line with the literature and within the scope of the Nursing Principles course content [7] [8] [9]. The form was created in a triple likert structure consisting of nursing interventions (54 nursing interventions) that nursing students can perform with options "I would like to perform nursing interventions a lot", "I would like to perform nursing interventions a little, and "I would like to perform nursing interventions very little ". Necessary arrangements were made by taking the opinions of three faculty members who had previous expertise in the field of nursing principles related to the form.

The purpose of the study was explained to the students and the students who accepted to participate in the research were informed about how to fill out the form. The data were collected twice, on the day when the theoretical and laboratory practices of the Nursing Principles course were finished (before the clinical practice) and the day when the clinical practice ended.

The data were evaluated with SPSS 25.00 statistical software. The number and percentage distributions of the data were calculated.

RESULTS

We received 42 completed surveys. 45.2% of the students enrolled in the study were 19 years old, while 23.8% were 20

years old and 73.8% were female. A great majority of the students (81.0%) stated that they preferred the nursing profession willingly, and most of the students (78.6%) who willingly preferred the profession stated that they would continue the nursing profession after graduation. 73.8% of the students stated that their perceptions about the nursing profession were both positive and negative before they started to the university, and only 14.3% stated that they had positive feelings.

When the nursing interventions related to the patient's vital signs were examined, it was determined that the majority of the students wanted to perform these interventions before and after the clinical practice (Table 1). The nursing interventions that students expressed to perform most about vital signs before clinical practice were assessment of body temperature (64.3%), pulse (59.5%), and oxygen saturation (59.5%). On the other hand, after clinical practice, they stated that they wanted to assess oxygen saturation (85.7%), body temperature (78.6%), and blood pressure and pulse at the same rate.

It was determined that the majority of the students wanted to perform some or a few of the nursing interventions before and after clinical practice, which were related to the patient's individual hygiene, urinary excretion, and bowel emptying needs. Regarding meeting the hygiene needs before clinical practice, the most desired intervention by the students was eye care (26.2%), while the nursing intervention they want to do very little was oral care (4.8%), and the nursing intervention they expressed to perform the least after clinical practice was bed bath and perineal care (% 7.1) (Table 1). Only 11.9% of the students stated that they wanted to perform urinary catheter insertion/removal, bladder irrigation and urostomy care to male/female patients before clinical practice, and these rates did not change much after clinical practice.

In our study, 90.5% of the students stated that they wanted to withdraw medication from the vial, 88.1% from the ampoule, only 14.3% wanted to administer rectal medication, and 16.3% vaginal medication. After the clinical practice, it was determined that all of the students desired to withdraw medication from the vial and ampoule, and also to administer subcutaneous and oral drugs (Table 1).

Table 1. The Distribution of Students' Willingness to Make Nursing Interventions

Nursing Interventions	Before Clinical Practice Number (%)			After Clinical Practice Number (%)		
	I want to do	I want to do some	I want to do very little	I want to do	I want to do some	I want to do very little
Assessment of Vital Signs						
Blood pressure	23 (54.8)	15 (35.7)	4 (9.5)	33 (78.6)	8 (19.0)	1 (2.4)
Pulse	25 (59.5)	13 (31.0)	4 (9.5)	33 (78.6)	9 (21.4)	-
Apical pulse	22 (52.4)	15 (35.7)	5 (11.9)	30 (71.4)	10 (23.8)	2 (4.8)
Body temperature	27 (64.3)	13 (31.0)	2 (4.8)	33 (78.6)	7 (16.7)	2 (4.8)

Respiration	24 (57.1)	16 (38.1)	2 (4.8)	32 (76.2)	8 (19.0)	2 (4.8)
Oxygen saturation	25 (59.5)	14 (33.3)	3 (7.1)	36 (85.7)	5 (11.9)	1 (2.4)
Medication Preparation and Administration						
Withdrawing medication from ampule	37 (88.1)	3 (7.1)	2 (4.8)	40 (95.2)	2 (4.8)	-
Withdrawing medication from vial	38 (90.5)	2 (4.8)	2 (4.8)	41 (97.6)	1 (2.4)	-
Subcutaneous medication administration	32 (76.2)	7 (16.7)	3 (7.1)	39 (92.9)	3 (7.1)	-
Intradermally medication administration	32 (76.2)	6 (14.3)	4 (9.5)	37 (88.1)	4 (9.5)	1 (2.4)
Intravenous medication administration	33 (78.6)	5 (11.9)	4 (9.5)	38 (90.5)	3 (7.1)	1 (2.4)
Intramuscular medication administration	29 (69.0)	9 (21.4)	4 (9.5)	38 (90.5)	3 (7.1)	1 (2.4)
Oral medication administration	31 (73.8)	8 (19.0)	3 (7.1)	41 (97.6)	1 (2.4)	-
Applying medication to the eyes	22 (52.4)	17 (40.5)	3 (7.1)	31 (73.8)	8 (19.0)	3 (7.1)
Applying medication to the ears	20 (47.6)	19 (45.2)	3 (7.1)	25 (59.5)	10 (23.8)	7 (16.7)
Applying medication to the nose	21 (50.0)	18 (42.9)	3 (7.1)	25 (59.5)	9 (21.4)	8 (19.0)
Applying medication to the skin	24 (57.1)	14 (33.3)	4 (9.5)	32 (76.2)	5 (11.9)	5 (11.9)
Vaginal medication administration	7 (16.3)	13 (31.0)	22 (52.4)	11 (26.2)	9 (21.4)	22 (52.4)
Rectal medication administration	6 (14.3)	11 (26.2)	25 (59.5)	9 (21.4)	6 (14.3)	27 (64.3)
Administering medications by inhalation	28 (66.7)	6 (14.3)	8 (19.0)	27 (64.3)	9 (21.4)	6 (14.3)
Medication administration from the nasogastric catheter	22 (52.4)	16 (38.1)	4 (9.5)	24 (57.1)	15 (35.7)	3 (7.1)
Medication administration from branule	30 (71.4)	8 (19.0)	4 (9.5)	38 (90.5)	3 (7.1)	1 (2.4)
Initiating IV fluid infusion	25 (59.5)	12 (28.6)	5 (11.9)	33 (78.6)	7 (16.7)	2 (4.8)
Hot and Cold Applications						
Thermofo application	28 (66.7)	13 (31.0)	1 (2.4)	30 (71.4)	12 (28.6)	-
Cold application	28 (66.7)	13 (31.0)	1 (2.4)	31 (73.8)	11 (26.2)	-
Local application of hot/cold compresses	27 (64.3)	12 (28.6)	3 (7.1)	32 (76.2)	10 (23.8)	-
Hygiene Requirements (Care Needs)						
Oral	2 (4.8)	19 (45.2)	21 (50.0)	5 (11.9)	17 (40.5)	20 (47.6)
Ear	4 (9.5)	17 (40.5)	21 (50.0)	5 (11.9)	19 (45.2)	18 (42.9)
Eye	11 (26.2)	20 (47.6)	11 (26.2)	11 (26.2)	23 (54.8)	8 (19.0)
Nose	3 (7.1)	17 (40.5)	22 (52.4)	6 (14.3)	14 (33.3)	22 (52.4)
Bed bathroom	4 (9.5)	8 (19.0)	30 (71.4)	3 (7.1)	13 (31.0)	26 (61.9)
Perineal care	4 (9.5)	6 (14.3)	32 (76.2)	3 (7.1)	7 (16.7)	32 (76.2)
Head bath	7 (16.7)	20 (47.6)	15 (35.7)	9 (21.4)	19 (45.2)	14 (33.3)
Nail care	5 (11.9)	15 (35.7)	22 (52.4)	4 (9.5)	18 (42.9)	20 (47.6)
Massage	6 (14.3)	26 (61.9)	10 (23.8)	9 (21.4)	19 (45.2)	14 (33.3)
Respiratory Requirements						
Oxygen application	30 (71.4)	10 (23.8)	2 (4.8)	37 (88.1)	5 (11.9)	-
Aspiration	16 (38.1)	23 (54.8)	3 (7.1)	25 (59.5)	10 (23.8)	7 (16.7)
Tracheostomy care	13 (31.0)	17 (40.5)	12 (28.6)	16 (38.1)	10 (23.8)	16 (38.1)
Deep breathing and coughing exercises	21 (50.0)	20 (47.6)	1 (2.4)	26 (61.9)	12 (28.6)	4 (9.5)
Taking a throat-sputum culture	9 (21.4)	19 (45.2)	14 (33.3)	9 (21.4)	15 (35.7)	18 (42.9)
Nutritional Requirements						
Nasogastric catheter insertion	17 (40.5)	19 (45.2)	6 (14.3)	16 (38.1)	13 (31.0)	13 (31.0)
Nasogastric/ orogastric tube feeding	20 (47.6)	18 (42.9)	4 (9.5)	19 (45.2)	13 (31.0)	10 (23.8)
Feeding through gastrostomy	21 (50.0)	14 (33.3)	7 (16.7)	19 (45.2)	15 (35.7)	8 (19.0)
Urinary Drain Requirements						
Urinary catheter insertion and removal (female patient)	5 (11.9)	20 (47.6)	17 (40.5)	11 (26.2)	11 (26.2)	20 (47.6)
Urinary catheter insertion and removal (male patient)	5 (11.9)	14 (33.3)	23 (54.8)	9 (21.4)	12 (28.6)	21 (50.0)
Emptying the urine bag	3 (7.1)	11 (26.2)	28 (66.7)	6 (14.3)	11 (26.2)	25 (59.5)

Bladder irrigation	5 (11.9)	10 (23.8)	27 (64.3)	6 (14.3)	10 (23.8)	26 (61.9)
Urine Sample Collection	6 (14.3)	14 (33.3)	22 (52.4)	5 (11.9)	14 (33.3)	23 (54.8)
Urostomy Care	5 (11.9)	13 (31.0)	24 (57.1)	5 (11.9)	13 (31.0)	24 (57.1)
Bowel Drain Requirements						
Rectal tube application	5 (11.9)	9 (21.4)	28 (66.7)	3 (7.1)	15 (35.7)	24 (57.1)
Enema application	4 (9.5)	10 (23.8)	28 (66.7)	4 (9.5)	9 (21.4)	29 (69.0)
Colostomy care	5 (11.9)	12 (28.6)	25 (59.5)	5 (11.9)	10 (23.8)	27 (64.3)
Movement Requirement						
Protective positions	19 (45.2)	20 (47.6)	3 (7.1)	23 (54.8)	17 (40.5)	2 (4.8)
Therapeutic position	19 (45.2)	21 (50.0)	2 (4.8)	24 (57.1)	17 (40.5)	1 (2.4)

DISCUSSION

While the nursing interventions that the students wanted to perform the most about vital signs before clinical practice were body temperature, pulse, and oxygen saturation, respectively, it was seen that oxygen saturation, body temperature, blood pressure, and pulse were among the most desired nursing interventions after clinical practice. Accurately measuring, assessing, and recording the vital signs of the patient is of utmost importance among nursing interventions, which are also comprehensively explained in the nursing education curricula, and each student is ensured to have enough experience in performing these in laboratory practices. Vital signs assessment interventions, comprising blood pressure, pulse, respiration, body temperature, and oxygen saturation assessments, is one of the basic nursing skills that we expect from first-year students experiencing the clinical practice for the first time. Assessment of vital signs is an intervention not requiring an invasive procedure or harming the patient. For this reason, it is thought that the majority of students want to perform these interventions, which may also be related to the image of the nursing profession in our society. Not all of the contemporary roles of the nursing profession are recognized by society, and also nurses are perceived primarily as those only responsible for providing patient care, taking blood, or measuring blood pressure [10]. Studies on the image of the nursing profession have reported that the nursing profession has a negative social image [11] [12] [13].

It was stated that the majority of the students wanted to do very few nursing interventions related to individual hygiene and excretion requirement before and after clinical practice. Among other interventions, eye care stood out as the one they wanted to perform the most before clinical practice, while the nursing intervention they wanted to perform very little was oral care interventions. On the other hand, the practice they expressed to perform the least was bed bath and perineal care after clinical practice. The first-year students experience the hospital setting for the first time, which they are not accustomed to, and may have positive or negative experiences with the patient, patient relatives, and healthcare team [14] [15]. Due to their first clinical experience during their professional training, they may have difficulty in transforming their theoretical knowledge into clinical

practice, thus they may tend to remain inactive in performing the nursing interventions, especially due to the fear of harming the patient, making mistakes, and low self-confidence [14] [15] [16]. The duties, authorities, and responsibilities of assistant nurses graduating from the nurse assistant program of vocational high schools of health include performing the daily life activities of the patients and ensuring their personal care and hygiene. In this case, it is thought that students do not want to perform nursing interventions related to individual hygiene, and urinary and bowel excretion, which particularly requires considering patients' privacy.

Drug applications and intravenous applications in nursing education are among the nursing interventions that students want to perform the most. On the other hand, in our study, it was determined that students desired to perform the rectal and vaginal route drug administration interventions very little. After the clinical practice training, all of the students stated that they wanted to withdraw medication from the vial and ampoule and administer subcutaneous and oral medication. The philosophy of the profession includes the concept of "providing care". Although caregiving is defined in different ways, it comprises both the evaluation of the patient as a whole in terms of their physical, psychological, cultural, spiritual as well as social aspects and helping to meet their needs [17]. The concept of care, which is the core of nursing, is extensively included in nursing education curricula. In our study, it was determined that the majority of the students wanted to perform more treatment-oriented interventions rather than care-oriented ones, which is thought to be related to the expectations of the family and society from the student before the nursing education is completed. The questions regarding injections, blood sampling, and blood pressure measurement skills are among the most frequently asked ones and are expected to be acquired immediately by the family and social environment of the students while they are still in the first grade. The administration of drugs to the vagina and rectum, which is among the drug administration interventions, is among those desired very little by most of the students, similar to the interventions requiring privacy considerations such as meeting individual hygiene, and urinary and bowel emptying needs of the patient. The nursing interventions desired by all students after clinical practice training was found to be

oxygen application, thermophore, ice pack, and local hot/cold applications.

CONCLUSION

It was determined that the nursing interventions that the first-year students wanted to perform in line with the theoretical knowledge they gained in the nursing principles course were mostly the assessment of vital signs, drug administration, intravenous administration, and nursing interventions aimed at meeting the nutritional, respiratory and movement needs of the patient. It was determined that nursing interventions aimed at meeting the urinary and bowel emptying needs were desired a little or very little by the majority of the students. It is thought that such factors as internalization of the profession, choosing the profession willingly, the feelings/thoughts towards the profession before starting at the university, communication with the health personnel in the clinical practice setting, the expectations of the society from the nursing profession and the image of the nursing profession in the society may affect the nursing interventions that student nurses want to perform. It is suggested that the importance of evaluating the patient as a whole, the duties, authorities, and responsibilities of the nurse, the image of the nursing profession, and the expectations of society from the profession should be more comprehensively included in the education programs, and training should be planned to raise social awareness. In addition, it is important to make arrangements to increase the self-confidence level of the students in clinical practices and to provide the necessary environment for all nursing interventions to be carried out together with the responsible lecturer or clinical guide nurses.

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