

Performance Evaluation of Nursing Students in the Clinical Area

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ABSTRACT

Performance evaluation is vital in the nursing field due to the large numbers of nursing students, and the necessity of skill training as an internship in the field under the supervision of the nurses. Accordingly, this study is aimed at determining the current situation and clinical performance evaluation of nursing students. This is descriptive-analytical research. The study sample contains all nursing students of 7th and 8th semesters with an internship in the field (n=145), who participated in the study by personal consent. Nursing Clinical Performance Evaluation Checklist made by Esmaeili et al. (2013) was used as a research instrument. The questionnaire contains 28 items in 3 domains of the nursing process (12 items), professionalism (9 items), and ethical principles (7 items). The face and content validity of the instrument was confirmed, and the reliability was measured using internal consistency by Cronbach's Alpha (0.92). For the data analysis, SPSS-20 was used. Descriptive statistics were used to describe the data. The results showed that the mean value and standard deviation of performance evaluation of students of 7th and 8th semesters of nursing are obtained at 5 ± 2.03 , which is in average level. The highest mean value of performance evaluation was associated with the ethical principles of students (6 ± 2.3), and the lowest mean value was associated with the range of the nursing process (5 ± 2). The mean value of professionalism was 6 ± 2.1 . The results obtained from the study showed that the 7th and 8th-semester nursing students were at an average level in terms of performance evaluation.

Keywords: evaluation, clinical performance evaluation, nursing students, clinical area

INTRODUCTION

Nursing is a practice-based field. Training nursing is an educational program, which paves the way for the students to develop clinical skills. Hence, the major part of nursing education is formed by clinical training. During this course, the students learn and promote clinical skills in real conditions to be prepared for activity in the clinical environment (Vahidzadeh, 2011). Clinical evaluation helps the students to achieve goals and skills to design a comprehensive evaluation system through clearing the strategic points reflecting the performance of students in the clinical environment (Bahreini, 2017). Clinical education determines the measurable changes in the students to provide clinical care by evaluation and achievement of students for clinical purposes. Nursing students can have high-quality performance in the time of graduating if they can obtain the acceptable standard of clinical skills (Timmins, 2015), which can be analyzed just by evaluation of clinical performance. This can provide information on the performance of the student, which can be used to promote the student, scoring, and even decision-making on the educational schedule (Givi and Esmaeili, 2019).

One of the most underlying functions of a clinical instructor is to determine that whether nursing students have had the required advancement to achieve the goals of the course and educational program or not (Assadi, 2012). To take a clinical evaluation, the instructors should make sure that the students use critical thinking in the clinical environments, have suitable professional behavior, are in good interaction with patients, prioritize the problems, have basic knowledge on clinical methods, and take healthcare methods properly (Hekmatpour, 2013).

Despite the importance of evaluation, especially clinical evaluation, this problem has remained still as a mental, time-consuming, and confusing problem, and the

majority of instructors and students are not satisfied with the clinical evaluation methods (Asadizaker, 2015). The students who participated in a qualitative study by Coleman et al claimed that the measurement instruments pay very little attention to functional skills, and the students remain anxious about their ability to take the key nursing skills (Dos Santos et al. 2013).

The difference in the way of clinical performance evaluation of nursing students in the universities and even in one university, lack of using various and proper methods for evaluation, lack of validity and reliability of evaluation, lack of multisource evaluation, subjective judgments in evaluation, and evaluation in unreal environments are the main problems in this field, which encompass many other problems too (Black et al. 2005; Givi and Esmaeili, 2019).

At the present, performance evaluation of nursing students, who are ready to enter into the profession, is not taken completely. This issue has caused not only dissatisfaction of many students and professors, but also provides no adequate view of the performance of students. Accordingly, this study is aimed at determining the existing status of clinical performance evaluation of nursing students in the clinical area.

Theoretical framework

Educational evaluation: Evaluation is one of the most important aspects of educational activities, and an inseparable element of the learning-training process (Black, 2005). In the field of educational evaluation, the relevant data of measurement of learning-training process feedbacks are analyzed (Billings and Halstead, 2009). Evaluation includes two processes of regular collection and interpretation of the data collected from multiple sources on the qualification of the student, success of student during a training course, and the educational feedback (Oerman et al. 2009).

Educational evaluation refers to regular collection and analysis of the data on the way of the success of a program, workshop, or training course. It should be noted that what has been achieved by learners in the learning-training process in the educational system. Useful and harmful experiences should be identified. The insight gained by the evaluations can help the creation and progress of learning-training approaches. Evaluation is a time-consuming process, which is vital to protect and control the quality of education (Naieeri, 2000). The educational evaluation includes generally data collection for decision-making on the learners, programs, and educational policies. Using the collected data by evaluation, the instructor can determine educational approaches by evaluation to meet the learning needs of the students, and help them to enhance their performance (Brookhart Nitko, 2008). Mohammadi et al. (2015) believed that the main and basic goal of evaluation is a judgment on the value of the evaluated phenomenon. Khorshidi and Malekshahi Rad (2006) have revealed that evaluation refers to the collection of data based on determining criteria for judgment. Therefore, the most important use of evaluation can be a judgment on the running program, a completed action, or determining the desirability of a program.

Khorshidi and Malekshahi Rad (2006) have shown that although there are various types of evaluation, it doesn't mean that the evaluation process is different. The authors believe that the basic process of the evaluation is the same regardless of various issues evaluated, various data collected, various criteria used, and the different decisions made. The steps of evaluation never vary whether is on learning of the student or a training course or a project. The findings of Boswell et al. (2007), and Gaye (1991) present more than 50 models of educational evaluation.

Evaluation in nursing education: In nursing education, evaluation is taken for judgment on achievement of students to educational goals in the classroom, and the quality of their performance in the clinical environments. Educational experiences make changes in the students, and the evaluation can provide methods to analyze these changes. By evaluation, learning feedbacks are measured, and educational needs are identified to provide adequate educational methods to help better the learning of students and enhancing their performance (Oerman and Gaberson, 2009). The evaluation process is vital in all dimensions of nursing education and is aimed at collecting data on student's learning, judgment on performance, and determining the competence of performance of the student, and making a decision in this field. Evaluation is an inseparable element of quality control of educational programs. By the evaluation, the feedbacks gained by the student, and the effectiveness of programs are analyzed, and required decisions are made on making changes for the progress of the program. Evaluation provides a method to make sure of the quality of education. The nursing instructors are responsible for the quality of education, obtained consequences, and general effectiveness of the programs, and preparing the graduate people to meet the healthcare needs of the society. Also, the educational institutes are responsible against the supervisors, and the

society on the present and future activities of the graduates. By evaluation, nursing instructors can provide required information to analyze the quality of education and their programs, and also recording the consequences to be investigated by others. Also, evaluation can provide information to decide on the courses, curriculums, and nursing education programs for the progress of educational policies in the nursing educational programs (Oerman and Gaberson, 2009; Cooper Gargan et al. 2009).

In clinical education, formative evaluation is an inseparable part of the educational process. The instructor controls students constantly during patient care, asks about their information and clinical decision-making, discusses these observations and judgments, and guides them in a way of promoting their performance. By the formative evaluation, the instructor gives feedback to the learners on their progress in achievement to the goals of clinical education, and the way of the progress of their knowledge and skills (Oerman and Gaberson, 2009).

Evaluation of the clinical performance of nursing students: The conducted nursing activities can be used by nursing students to meet the health needs of the clients (Black, 2005). In medical science education, some levels of knowledge, attitude, and skill are combined and have created capabilities in the field of clinical performance for individuals. Some cases of clinical performance include communicating with others, professional behaviors, taking professional care, using ethical principles in healthcare, teamwork, organization and management, getting history, and physical examination (Dent and Harden, 2010).

The achievement of educational consequences of a clinical training course is more challenging than evaluation in the theoretical classroom (Esmaeili and Sardari 2019; Oerman and Gaberson, 2009). In the clinical environments, the students should achieve a special level of competency in all mental, psychological-motor, and emotional dimensions. The subjects relevant to security, judgment, and adaptability should be also considered because they are vital for the students to begin a practical profession (Seldomridge and Walsh, 2006). In the clinical evaluation, the instructor measures the learning of students and the quality of their performance. During the evaluation process, the instructor determines that whether the required competency is created in the students or not, and judges the performance of the students in the clinic. The clinical evaluation includes observation of the performance of students and judgment on the quality of their performance (Sardar and Esmaili, 2019; Oerman and Gaberson, 2009).

Evaluation provides feedback for the students, which is vital in the clinical education for the progress of performance and skills of students, and learning in complicated clinical situations. The feedback can also provide information for the instructors on appropriate methods of clinical education, and progress of clinical performance (Oerman and Gaberson, 2009). While using the information, using the theories, making clinical decisions, and doing the skills, the students should get feedback constantly and effectively. At the end of the internship day, the students should get more feedback about their advancement, and they should be asked to analyze their performance (Oerman and Gaberson, 2009).

There are many solutions and instruments to analyze learning in a clinical environment. In this field, the instructors should be aware of the probability of subjectivity and inadaptability for the evaluation, because subjectivity can be effective even in presence of objective instruments designed based on observable and measurable behaviors. Logical evaluation in clinical education needs suitable evaluation instruments, which can be desirable for the instructors. Such instruments should have criteria in line with course goals, educational goals, and the philosophy of the educational institute. For decision-making on the instrument, teamwork of the instructors is needed, and they should decide on choosing the right instrument based on the course goal (Billings and Halstead, 2009). The major solutions for the evaluation of clinical performance include observation, verbal communication, simulation, and self-assessment (Estebansari et al. 2020; Billings and Halstead, 2009).

METHODOLOGY

This is an applied study in terms of purpose and is a descriptive work in terms of the data collection method. To answer the research questions, required data are collected using library and field methods. To analyze the status of clinical performance of the 7th and 8th-semester nursing students, a descriptive cross-sectional study was conducted. Samples in this study were selected from the study population consisting of all nursing students. Sampling was done using consensus and consists of all students of the 7th and 8th semesters of nursing, who were participated in the study with their consent. Therefore, all students of the School of Nursing educating in 7th and 8th semesters were selected (n=145). After explaining the purpose, scoring method, and after gaining the consent of nursing instructors in clinical environments, checklists were presented to the clinical professors. Sampling from 145 students was done during the first semester of 2019 for 4 months.

The Nursing Clinical Performance Evaluation Checklist made by Esmaeili et al. (2013) was used as an instrument. The questionnaire contains 28 items in 3 domains including nursing (12 items), professionalism (9 items), and ethical principles (7 items). The concept of the nursing process in this instrument refers to data collection, problem determination, care program recommendation, taking proper measures, and evaluation of caregiving feedbacks by the student. Effective nursing care is dependent on proper communication with others. Therefore, the concept of professionalism in this instrument refers to the proper communicative skills of the student with patients, normal people, and healthcare personnel. To score in the instrument, each item got points 1-10, so that the minimum and maximum score for each student was in the range 28-280. Then, by dividing the two values, and multiplying the result in 10 as a constant, the point 10 was obtained. Hence, point 85-100 is excellent, point 75-84 is acceptable, point 60-69 is average, point 50-59 is at the level of passing, and a point below 42 means failing. In this study, clinical education instructors gave points 1-10 to the students based on the level of skills in the three mentioned domains.

The SPSS20 was used for the data analysis. Descriptive statistics were used to describe the data.

RESULTS

According to the research objective, a quantitative study was done. The investigations were done to analyze the existing situation of clinical performance evaluation of nursing students in the clinical area. In this study, the responding level was 100% (n=145). The mean age range of the participants in this study was 21.73±3.06 years old. The minimum and maximum age range of the participants was equal to 20 and 26 years old respectively.

Table 1. Frequency distribution and descriptive statistics of demographic information of 7th and 8th-semester students of School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran in 2019

Variable	Min age	Max age	Mean	SD
Age (year)	20	26	21.73	3.06
	Min average	Max average	Mean	SD
Average of the last 6 semesters (score)	13.25	18.73	16.04	2.06
	Number	Percent		
Gender	Female	87	60	
	Male	58	40	
Residence in Tehran	Native	91	63	
	Non-native	54	37	
Student's job	Yes	26	17	
	No	115	73	
Marital status	Single	91	63	
	Married	54	37	

The majority of samples (60%) were female. The average of the last 6 semesters was equal to 16.04 with a standard deviation of 2.06. The majority of samples (63%) were native in Tehran. Also, the majority of students (63%) were single.

The results in Table 2 show that the evaluation of students has been reported at an average-weak level by the instructors and clinical professors in most cases for the dimensions of the nursing process, professionalism, and ethical principles.

Table 2. Frequency distribution of performance evaluation among 7th and 8th-semester students in the School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran in 2019

Skill	Row	Criteria	Always 4 Frequency (%)	Mostly 3 Frequency (%)	Sometimes 2 Frequency (%)	Rarely 1 Frequency (%)	Never 0 Frequency (%)
Nursing process	1	The students collect the data from relevant references (interviews, physical examinations, etc.)	25 (17)	73 (51)	41 (28)	6 (4)	-
	2	Determining existing and probable problems of the patients	11 (8)	31 (21)	53 (36)	40 (28)	10 (7)
	3	Prioritizing the nursing diagnosis of the patients	25 (17)	13 (9)	11 (8)	86 (59)	10 (7)
	4	Determining adequate criteria and indicators for the evaluation of expected consequences	26 (18)	14 (10)	27 (19)	74 (51)	4 (3)
	5	Implementing suitable nursing interventions for the patients	15 (10)	43 (30)	47 (32)	32 (22)	8 (6)
	6	Determining achievement to desired results, and applying required changes in case of ineffectiveness	18 (12)	24 (17)	72 (50)	26 (17)	5 (4)
	7	Using suitable technical skills in nursing interventions (observance of aseptic points, providing a safe environment for caregiving, prescribing medicine, etc.)	17 (12)	63 (44)	39 (26)	23 (16)	3 (2)
	8	Determining the educational needs of the individuals and their family	23 (16)	18 (13)	44 (30)	41 (28)	19 (13)
	9	Presenting appropriate education for the individuals and their families	23 (16)	32 (22)	22 (15)	64 (44)	4 (3)
	10	Analysis of the educational feedbacks	11 (8)	19 (13)	21 (14)	72 (50)	22 (15)
	11	Determining educational needs of self by the students	23 (16)	34 (34)	23 (16)	37 (26)	28 (19)
	12	Preparing the clearance schedule	19 (12)	24 (17)	25 (18)	46 (32)	31 (21)
Professionalism	13	Using communicative techniques to communicate the patients, families, friends, and other health personnel	31 (21)	63 (43)	25 (18)	16 (11)	10 (7)
	14	Informing the supervisor about the prepared programs	9 (6)	18 (13)	32 (22)	69 (48)	17 (12)
	15	The student is criticized	21 (15)	35 (24)	18 (13)	34 (24)	37 (25)
	16	Students can control their stress, and use the suitable skills to control stress	21 (4)	17 (2)	56 (8)	34 (4)	17 (2)
	17	Recording the clinical observations and changes accurately and using academic methods	17 (2)	20 (4)	21 (5)	63 (4)	24 (7)
	18	Using available opportunities to learn and improve skills	15 (10)	22 (15)	41 (28)	54 (37)	23 (16)
	19	The students have accepted the responsibility of their measures, and complete their responsibilities in the limit of their authority	34 (23)	31 (21)	37 (25)	31 (21)	12 (8)
	20	Students are aware of their weaknesses and abilities	22 (15)	31 (21)	17 (12)	41 (28)	34 (24)
Ethical principles	21	Students cooperate with other members of the health team and inform them about their measures	24 (17)	16 (11)	32 (22)	54 (37)	19 (13)
	22	Students inform the supervisor about the status of patients before leaving the clinical environment	24 (17)	19 (13)	52 (36)	32 (22)	18 (13)
	23	Students leave the clinical environment after informing the supervisor	32 (22)	17 (12)	28 (19)	39 (27)	29 (20)
	24	Students observe the ethical regulations relevant to caregiving to patients and families	21 (15)	42 (29)	52 (36)	27 (18)	3 (2)
	25	Students pay attention to economic position, attitude, and the special behavioral aspects of patients and their families	31 (21)	43 (29)	54 (37)	13 (9)	3 (2)
	26	Students respect the privacy of patients during the nursing care process	28 (19)	37 (52)	41 (28)	22 (15)	17 (11)
	27	Students respect the rights of patients and their families	32 (22)	41 (28)	39 (27)	21 (15)	12 (8)
	28	Students observe Islamic considerations and religious issues in their behavior and appearance	46 (31)	40 (27)	31 (21)	18 (13)	10 (7)

Table 3. Mean value and standard deviation of performance evaluation of 7th and 8th-semester students of School of Nursing and Midwifery of Shahid Beheshti University of Medical Sciences in Tehran 2019

Skill	Row	Criterion	Mean±SD of evaluation scores
Nursing process	1	The students collect the data from relevant sources systematically (interviews, physical examinations, etc.)	5±2.8
	2	Determining existing and probable problems of patients	3±1.95
	3	Prioritizing the nursing diagnosis of the patients	4±1.95
	4	Determining adequate criteria and indicators for the evaluation of expected consequences	5±1.8
	5	Implementing suitable nursing interventions for the patients	7±2.1
	6	Determining achievement to desired results, and applying required changes in case of ineffectiveness	3±2.1
	7	Using suitable technical skills in nursing interventions (observance of aseptic points, providing a safe environment for caregiving, prescribing medicine, etc.)	8±2.4
	8	Determining the educational needs of the individuals and their family	6±1.8
	9	Presenting appropriate education for the individuals and their families	4±2.0
	10	Analysis of the educational feedbacks	3±1.5
	11	Determining educational needs of self by the students	5±1.9
	12	Preparing the clearance schedule	6±1.7
Professionalism	13	Using communicative techniques to communicate the patients, families, friends, and other health personnel	8±2.6
	14	Informing the supervisor about the prepared programs	7±1.5
	15	The student is criticized	4±1.8
	16	Students can control their stress, and use the suitable skills to control stress	2±1.9
	17	Recording the clinical observations and changes accurately and using academic methods	7±1.6
	18	Using available opportunities to learn and improve skills	3±1.8
	19	The students have accepted the responsibility of their measures, and complete their responsibilities in the limit of their power	5±2.3
	20	Students are aware of their weaknesses and abilities	6±1.7
	21	Students cooperate with other members of the health team and inform them about their measures	3±1.8
	22	Students inform the supervisor about the status of patients before leaving the clinical environment	3±2
Ethical principles	23	Students leave the clinical environment after informing the supervisor	4±1.9
	24	Students observe the ethical regulations relevant to caregiving to patients and families	7±2.3
	25	Students pay attention to economic position, attitude, and the special behavioral aspects of patients and their families	6±2.5
	26	Students respect the privacy of patients during the nursing care process	4±2.2
	27	Students respect the rights of patients and their families	9±2.4
	28	Students observe Islamic considerations and religious issues in their behavior and appearance	7±2.6
		Mean and SD of the total value	5±2.03

Table 2 shows that the mean value and standard deviation of the total value of evaluation of the students are equal to 5±2.03, which is at an average level. The highest mean value of performance evaluation was relevant to the dimension of ethical principles of students with a mean value of 6±2.3, and the lowest value was relevant to the domain of the nursing process (5±2). The mean value of professionalism was obtained at 6±2.1.

CONCLUSION

The main purpose of this study was to investigate the existing situation of clinical performance evaluation of nursing students in the clinical area. The obtained results showed that nursing students of 7th and 8th semesters act at an average level in terms of performance evaluation (Tahernejad, 2008). Hajalimohammadi and Esmaeili (2020) claim that nursing students in the clinical area should be

under the control of a supervisor in the field of healthcare principles, which showed insufficient performance of the students. This has made graduate nurses have inadequate performance, and face problems in the field of nursing process and caregiving. Such inadequate performance can lead to dissatisfaction of the patients, colleagues, and doctors. In a study conducted by Delaram et al. (2006) (Kiarisipour et al. 2017), the inability to have an appropriate performance by the new graduates could result in anxiety and psychological disorders on the inefficiency of person and job dissatisfaction. In this field, the majority of graduates left the job and refused to come back to work. The inability of new graduates can leave irreparable complications in the healthcare system, and the highest risk belonged to the patient and the society. Analysis of the existing problems can be the first step to estimate the difficulties and to provide solutions in this field. Hence,

further studies are recommended on the designation of an efficient model for performance evaluation of the students with the capability of valuation and correction of educational issues at the same time. According to obtained results, studies are recommended in the field of providing solutions to meet the existing challenges for clinical evaluation of nursing students. Also, some reviews are needed on the nursing schedule and evaluation using competent methods.

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