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Barriers to the Implementation of Nursing Process From the Viewpoint of Faculty Members, Nursing Managers, Nurses, and Nursing Students

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ABSTRACT

Introduction: The nursing process is defined as a standard of care; however, its implementation in actual clinical settings is very limited, which reduces the quality of care.

Objective: To determine the barriers to the implementation of the nursing process from the viewpoint of the faculty members, nursing managers, nurses, and nursing students of the Mashhad University of Medical Sciences.

Materials and Methods: This analytical cross-sectional study was carried out in 2014 on 90 nursing lecturers and students of the Mashhad Nursing and Midwifery Faculty, and 134 nurses and nursing managers of the educational hospitals of the Mashhad University of Medical Sciences. The participants were selected by the convenient sampling method using a research-oriented questionnaire (validity and reliability confirmed) to investigate the barriers to the implementation of the nursing process. The data was analyzed by using descriptive statistics (mean±SD, and absolute and relative frequencies), one-way ANOVA, and the Pearson correlation coefficient.

Results: The most significant barrier to implementing the nursing process according to 90% of the lecturers was the lack of a checklist for recording the process in the medical records of the patients; according to 90% of the managers, it was the high number of patients under care of each nurse, and according to 90% of the nurses and 93.5% of the students, it was the lack of a principal training of the nursing process during their studentship. There was a significant difference in the views of the four groups (P=0.03).

Conclusion: The health system authorities of the country should make changes in the clinical and educational areas, such as including a nursing process record sheet in the medical records of the patients, getting advice and assistance from the experts in the field of nursing education and technology, and facilitating the implementation of the nursing process in the clinical field.

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Introduction

The nursing process is a systematic and dynamic method of patient care. Its application helps to improve the quality of healthcare [1] by involving scientific and patient-based approaches to nursing care instead of the traditional methods [2]. In fact, the nursing process is the main core [3], and is considered as the practical standard of nursing work [2]; a clinical nurse is considered efficient and professional when he/she implements these standards of care practically [3].

The nursing process helps the nurses to distinguish their activities from those of other health service providers [4]. The adherence of the activities involved in nursing to the stages comprising the nursing process ensures that patients receive adequate care in the shortest period of time with the maximum degree of adequacy [5]. In addition, this process enables an effective communication between the nurses and patients, increases the participation of patients in self-care activities, and improves the quality of services [6]. Besides being feasible, it is adjustable, saves nurses' time and energy, and prevents the occurrence or repetition of a mistake [3].

The failure to properly implement the nursing process results in several problems, such as reduced job satisfaction, scientific and practical degradation of the nurse, blind obedience from other team members, reduced quality of care, and excessive dependence on the doctors [7]. Despite the fact there is a global understanding of the nursing process regarding its concept of nursing care along with its legal aspects, there are still several problems associated with its implementation [8].

Despite the availability of facilities for nurses regarding the training of the nursing process and its implementation as a standard in the health systems in several countries [9], a systematic approach toward its training and implementation is rarely followed in our hospitals [3]. As noted in many cases, the implementation of this method of healthcare is not very well known among the students and lecturers working at the educational centers [10]. The results of a study conducted in Tehran demonstrated that only 13.3% of the nurses practiced this model in their nursing care albeit incompletely [11].

The literature review indicates that few studies have focused on the factors affecting the implementation of the nursing process, and the results show that this process is either not implemented in practical application or only partially implemented [2, 8, 12]; in addition, there is a negative attitude toward its use some cases [13]. Some studies reveal that the practice of the nursing processes can save the time of the nurses and facilitate better care, whereas other studies indicate conflicting results [2, 8, 12].

The existing literature provides a limited purview regarding the identification of the facilitating and suppressive factors involved in the implementation of the nursing process from the viewpoint of the clinical nurses and nursing lecturers who have an experience of having practiced the nursing process in the care of the patients. In addition, the nursing institutions of our country have not paid much attention to the application and implementation of this method by the nurses in the clinical care system [2] despite its benefits, which include increasing the satisfaction of the patients, the self-care ability of the patients, and improving the collaboration among the team members leading to higher job satisfaction and facilitating comprehensive care for the patients [14].

The present study was designed to determine the factors affecting the implementation of the nursing process from the perspective of the nursing educators, nursing managers, nurses, and nursing students while considering the evidence available regarding its benefits, the negative attitude of the nurses toward it [13], and its poor implementation, besides the fact that the factors hindering the implementation of the nursing process are not very well-defined in the social and cultural context of Iran.

Materials and Methods

The present analytical cross-sectional study was conducted in 2014. In this study, 80 undergraduate, postgraduate, and doctoral students, and 10 members of the faculty from the Mashhad Faculty of Nursing and Midwifery, and 10 head nurses and supervisors from the Qaem and Imam Reza hospitals, who were willing to participate, were selected by the convenient sampling method and enlisted into the study. In addition, 124 nurses from the above-mentioned hospitals were selected stratified sampling method. The minimum sample size was calculated from the formula of "comparison of two independent means" using a pilot study conducted on 20 participants (lecturers, managers, nurses, and students). The largest sample size was estimated by the pairwise comparison of the four groups of participants. The confidence level of the study was considered at 95%, and the study power at 80%. The sampling

was done by dividing the various parts of the hospital into four categories: internal ward, surgical ward, emergency department, and critical care unit, and the nurses were divided according to the selected departments. If the individual desired to participate in the study, she/he completed the questionnaire designed for assessing the barriers to implementation of the nursing process. The response rate of the questionnaires was 40% among lecturers, 40% among managers, 75% among nurses, and 60% students. The inclusion criteria for the nursing lecturers included a minimum qualification of a master degree in nursing, and at least one year of educational experience; for nursing managers and nurses it included at least one year of current work experience; and for students, it stated that they should have had no prior independent nursing experience (either student or recruitment works). The written informed consent was signed by all the participants.

The data was collected by using a questionnaire prepared by a researcher for investigating the barriers to the implementation of the nursing process. This instrument was designed according to the extensive literature reviews accompanied by consultation with experts, and consisted of three parts: the individual educational information, questions related to the barriers to the implementation of the nursing process, and one open-ended question. The demographic characteristics that were recorded included the age, sex, marital status, current position, and clinical/educational experience of the participants, and the feasibility/extent of the implementation of nursing process in the ward or internship according to them.

The questions of the second part of the questionnaire were categorized into three dimensions: the barriers related to the nature of the nursing process (nine questions), individual barriers (26 questions), and managerial barriers (13 questions). In this questionnaire, the participants were asked to specify the extent to which they agreed with each item by marking their feedback on a five-point Likert scale ranging from “totally disagree”, scored at -2, to “totally agree”, scored at +2. The total score ranged from -96 to 96, wherein the higher scores indicated the more significant barriers; for the ease of perception, the scores were calculated out of 100. The validity was assessed using scientific sources and by the Content Validity Index (CVI) method by ten experts, and confirmed by CVI=0.8. The reliability of the instrument was determined by using the test-retest method and Cronbach’s alpha coefficient.

The reliability of the whole dimensions of the instrument was determined as 0.85 with both methods. In addition, the measuring of the reliability of the dimensions was done by using the Cronbach’s alpha correlation coefficient. The reliabilities of the respective barriers were calculated: for the barriers related to the nature of nursing process r=0.91, for the individual barriers r=0.82, and for the management barriers r=0.83.

Once the participants had provided their written consent, they were asked to complete the questionnaire within a duration of 20 minutes (in order to prevent sample loss and increase the response rate of the questionnaires); then the questionnaires were collected by the researcher. If the participants could not answer all the questions within the stipulated time, the researcher allowed them some more time, and collected their questionnaires afterwards. During this period, the researcher was present to help the participants with any queries regarding the questionnaire. In order to observe ethical codes, their voluntariness to participate in the study was confirmed, and anonymity was maintained regarding their identities. The project was approved by the Ethics Committee of the Mashhad University of Medical Sciences with the code 930295.

The statistical software SPSS, version 16, was used for performing the data analysis. Descriptive statistics were used to describe the demographics of the study group. The normality of the quantitative variables was assessed using the Kolmogorov Smirnov test. The one-way ANOVA was performed to compare the scores of the barriers among the four groups. The Pearson’s correlation coefficient was used to determine the relationship of the underlying and interventional variables with the main variable, i.e. the barriers to the implementation of the nursing process.

Results

The demographic results of this study indicated that 61.3% of the participants was female. The other characteristics of the studied groups are presented in Table 1. The most significant barriers according to the four groups of respondents were expressed as follows: 90% of the lecturers reported that it was the lack of a process record sheet in the medical records of the patients; 90% of the managers reported that it was the high number of patients under the care of each nurse; and 90% of the nurses reported that it was the lack of control and continuous monitoring of the implementation of the process, and its proper training during their studentship. According to 93.5%

Table 1. Distribution of demographics, the extent and feasibility of implementing nursing process based on participants

Variable	Mean±SD			
	Lecturer	Managers	Nurses	Students
Age (year)	39.31±1.46	42.22±4.13	29.22±7.62	24.31±6.31
Clinical experience (year)	3.73±2.42	10.63±0.1	5.19±4.05	-
Educational experience (year)	18.61±7.65	-	-	3.02±2.05
Extent of implementation of nursing process in the ward or internship (Out of 100)	25.3±17.49	36.34±5.16	25.21±16.80	25.72±17.42
Feasibility of implementation of nursing process in the ward or internship (out of 100)	69.22±25.23	52.31±27.09	42.01±27.09	58.12±26.85

of the students, the most significant barrier was related to the lack of a principal training of the nursing process in studentship and allocation of only a short time to its training (Table 2). The scores of this table were calculated based on the options of "totally agree" and "agree" in the questionnaire.

In addition, the mean score for the barriers to the implementation of the nursing process was 36.8±18.33 (out of 100). The results of the one-way ANOVA indicated a significant difference among the four groups (P=0.03). The result of Tukey's post-hoc test indicated that this difference was statistically significant between the mean scores of managers and

Table 2. Frequency of barriers to implementation of nursing process among the groups

Variable	N (%)			
	Lecturer	Managers	Nurses	Students
The nursing process is feasible.	8(88.9)	7(70)	81(69.8)	64(80)
The nursing process is not systematic.	1(10)	1(10)	19(14.4)	30(38.2)
It saves nurses' time.	7(70)	6(60)	40(34)	38(48.8)
It helps critical thinking.	8(88.9)	7(70)	52(41.6)	54(67.5)
It increases nurses' decision-making.	10(100)	6(60)	67(58.8)	75(93.8)
The nursing process is confusing.	0(0)	2(20)	19(14.4)	29(36.3)
Care based on the process is difficult.	0(0)	5(50)	39(31.6)	28(36.2)
The process needs re-training.	8(88.9)	9(90)	73(61.7)	64(80)
There is no positive attitudes towards nursing process.	0(0)	1(10)	14(10)	32(40)
It reduces the quality of care.	0(0)	1(10)	18(14)	6(7)
It needs continuous training.	9(90)	8(80)	72(60.3)	66(87.3)
The process is not continuously performed in internship.	8(88.9)	6(60)	70(58.3)	52(65)
Lecturers are not familiar with the concept of nursing process.	4(42.4)	6(60)	37(48)	37(48)
The number of patients under care for each nurse is large.	8(88.9)	9(90)	94(81.5)	72(91)
There are no equipment to facilitate nursing procedures.	6(60)	8(80)	79(71.6)	59(76.6)
The ward equipment are not appropriate for assessing patients.	3(33.3)	6(60)	73(61.7)	48(60)
There are no rewards for people working with this process.	7(77.8)	6(60)	82(78.7)	55(68.7)
It requires cooperation of treatment team(physician, nurse, physiotherapist).	7(77.8)	8(80)	91(89.5)	66(82.5)
There is no process checklist in patients' medical records.	9(90)	9(90)	66(57.2)	66(82.5)

nurses (P=0.01) as well as for lecturers and nurses (P=0.02). The results of the Pearson's correlation coefficient indicated a significant linear relationship between clinical experience and the barriers to nursing process (P=0.04, r=-0.27), and the feasibility of nursing process implementation and the scores of the barriers to nursing process (P=0.01, r=0.28).

Discussion

The participants, in this study, expressed that the most significant barriers to the implementation of the nursing process were related to managerial aspects, such as the high number of patients under the care of each nurse, lack of continuous monitoring and control of the implementation of the process, lack of correct and principal training of the process during studentship, allocation of insufficient and short time to its training, lack of retraining, absence of an instrument to facilitate the implementation of the process, and the absence of a process record sheet in the medical records of the patients.

Regarding the results of the present study, the results of Sousa's study indicated that the most significant barriers to the implementation of the nursing process in Spain included the lack of computer (IT resources) for planning care, poor education, and lack of time, high workload, and lack of motivation [15]. The results of the study performed by Ghafourifard indicated that the most significant barriers according to the members of the Zanjan faculty were the lack of knowledge about the concept of nursing process, and the absence of follow-up or supervision regarding the implementation of the nursing process by the authorities, and according to the students, they included inadequate training of the nursing process, and the lack of follow-up and monitoring of the implementation of the nursing process by the authorities [3].

The results of the present study are consistent with the findings of this study. The study performed by Hagous also demonstrated that the awareness of majority of the nurses regarding the nursing process was very low in Ethiopian hospitals [16]. Abebe and Pokorski also considered the lack of awareness of the nursing process and nursing diagnoses as the key barriers to its implementation [17, 18]. The study by Nouhi found that the key barriers from the viewpoint of nursing managers and nursing interns were related to executive barriers, such as the disparity between the number of nurses and patients, the time-consuming nature of its implementation, and the lack of evaluation of the activities involved in patient-care based on the nursing process [19]. The results of this study are consistent with the present study, which can be due to the problems related to current infrastructure in the health system (less use of electronic systems) for practicing the nursing process, and the development of medical centers without considering the necessary human resources.

In addition, the results of Mohammadi's study indicated that nurses mostly mentioned management related barriers to the implementation of the nursing process, such as high workload, insufficient number of nursing staff, and the time-consuming nature of its implementation, which is consistent with the results of the present study [20]. One of the possible reasons of this consistency could be the similarity in the nursing management policies and educational methods across different cities of the country. Therefore, it seems necessary to introduce changes in the nursing managerial and educational systems in the country based on the nursing process.

The barriers to the implementation of the nursing process can depend profoundly on the environment of its implementation and the existing conditions, which need to be assessed individually for each environment. Nursing process can be performed with any available facilities, and it increases the quality of care, satisfaction of the nurses, and reduces the duration of hospitalization [14]. The nursing managers and nursing education authorities should try to overcome the existing barriers and provide the appropriate facilities for promoting the implementation of the nursing process. Standardization of the care program by using standard nursing diagnoses in electronic instruments, and by conducting workshops as the facilitators for implementing the nursing process [15]. In addition, the results of the study performed by Mazloom and Rajabpoor indicated that the use of the nursing process software can be considered as a facilitator for incorporating this process in clinics [21].

The results of the present study demonstrated that managerial concerns are the main barriers to the implementation of the nursing process among the other factors. It is evident that authorities must introduce changes to the clinical and educational areas by including a nursing process record sheet as a part of the medical records of the patients, getting advice and assistance from experts in the field of nursing education and technology, and facilitating the implementation of the nursing process in the clinical field.

One of the limitations of this study was the limited number of nursing lecturers and managers surveyed, and considering their effective role in nursing education

and management, it is suggested that future studies assess the different dimensions regarding the implementation of the nursing process while considering these limitations (as well as prioritize the learning of the nursing process in the nursing curriculum, and formulate policies in the Ministry of Health and in hospitals).

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Conflict of Interest

No conflict of interest has been declared by the authors. All authors have agreed on the final version and meet at least one of the ICMJE authorship criteria, including substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data, drafting the article or revising it critically for important intellectual content.

References

[1] Memarian R. [Application of nursing concepts and theories (Persian)]. Tehran: Tarbiat Modares University Press; 2011.

[2] Atashzade Shorideh F, Ashktorab T. Factors influencing implementation of nursing process by nurses: a qualitative study (Persian)]. Knowledge and Health. 2011; 6(3):16-23.

[3] Ghafouri Fard M, Haririan H, Aghajanloo A, Akbari M, Shirvani Y. [Obstacles of Nursing Process Application from Perspective of the Nursing Instructor and Nursing Students in Zanjan Faculty of Nursing and Midwifery (Persian)]. Journal of Medical Education Development, 2012; 5(8):69-77.

[4] Thelan LA, Kevin DJ, Urden LD. Textbook of Critical Care Nursing: Diagnosis and Management. 7th edition. Missouri: Mosby; 2012.

[5] Ralph SS, Taylor CM, Taylor CM. Sparks and Taylor's Nursing Diagnosis Pocket Guide. Philadelphia: Lippincott Williams & Wilkins; 2013.

[6] Bahrami N, Soleimani MA, Erjini Z, Shraifnia H, Masoodi R, Shahrokhi A. [The effect of nursing process-based care on patients' anxiety of candidates for women's elective surgery (Persian)]. Iran Journal of Nursing. 2012; 25(77):30-9.

[7] Sayadi N, Rokhafroz D. [Nursing Students' Perspectives about a Mobile Software on Nursing Process for Bedside Use (Persian)]. Iranian Journal of Medical Education. 2013; 12(12):975-981.

[8] Akbari Kaji M, Farahani B. [The effect of nursing process education on nursing care quality of schizophrenic patients (Persian)]. FEYZ. 2011; 15(1):32-7.

[9] Huckabay LM. Clinical Reasoned Judgment and the Nursing Process. Nursing Forum. 2009; 44(2):72-8. doi: 10.1111/j.1744-6198.2009.00130.x

[10] Wanda S. Nursing process: Concepts and applications. 3th edition. Houston, Texas: Delmar; 2012.

[11] Akbari M. [A survey on nursing process barriers from the nurses' view of Intensive Care Units (Persian)]. Iranian Journal of Critical Care Nursing. 2011; 3(4):181-6.

[12] Akbari M. Shamsi A. [A Survey on Nursing Process Barriers from the nurses' view of Intensive Care Units (Persian)]. Iranian Journal of Critical Care Nursing. 2010; 3(4):181-6.

[13] Patiraki E, Katsaragakis S, Dreliozi A, Prezerakos P. Nursing Care Plans Based on NANDA, Nursing Interventions Classification, and Nursing Outcomes Classification: The Investigation of the Effectiveness of an Educational Intervention in Greece. International Journal of Nursing Knowledge. 2017; 28(2):88-93. doi: 10.1111/2047-3095.12120

[14] Carpenito-Moyet LJ. Nursing Care Plans & Documentation: Nursing Diagnoses and Collaborative Problems. Philadelphia: Lippincott Williams & Wilkins; 2014.

[15] Sousa PAF, Dal Sasso GTM, Barra DCC. Contributions of the electronic health records to the safety of intensive care units: An integrative review. Text Context Nursing. 2012; 21(4):971-9.

[16] Hagous F, Alemseged F, Balcha F, Berhe S, Aregay A. Application of Nursing Process and Its Affecting Factors among Nurses Working in Mekelle Zone Hospitals, Northern Ethiopia. Nursing Research and Practice. 2014; 1-9. doi: 10.1155/2014/675212

[17] Pokorski S. Nursing process: from literature to practice. What are we actually doing? Revista Latino-Americana de Enfermagem. 2009; 17(3):302-7. PMID: 19669038

[18] Abebe N, Abera H, Ayana M. The Implementation of Nursing Process and Associated Factors among Nurses Working in Debremarkos and Finoteselam Hospitals, Northwest Ethiopia, 2013. Journal of Nursing Care. 2014; 3(2):141-50. doi: 10.4172/2167-1168.1000149

[19] Nuohi E, Karimi H, Najmai E. [Application obstacles of nursing process from view of the nursing managers and interns in Kerman University of Medical Sciences (Persian)]. Journal of Qualitative Research in Health Sciences. 2010; 10(1):52-8.

[20] Mohammadi M, Ghafori Fard M, Esmaeilivand M. [Assessing the Barriers Nursing Process by Nurses and Nurse managers in Surgical Wards in Imam Reza Hospital, Kermanshah, 2015 (Persian)]. Iranian Journal of Nursing Research. 2016; 11(3):58-65.

[21] Mazlom SR, Rajabpoor M. [Development and Assessment of Computerized Software for Nursing Process: a Step toward Promotion of Nursing Education and Care (Persian)]. Iranian Journal of Medical Education. 2014; 14(4):312-22.