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The Impact of Training on Nursing Process Implementation Skills of Surgical Ward Nurses

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ABSTRACT

Nursing process is a systematic, patient-oriented and purposive approach which provides a framework for nursing performance. On the other hand, nursing process causes the nursing care to develop from traditional method into a scientific and patient-oriented approach. The present paper aims to study the impact of training on nursing process implementation skill of surgical ward nurses in Shahid Beheshti Hospital of Yasuj in 2012. The present paper is a quasi-experimental study with one-sample t-test method conducted as a pre-test and post-test design. The studied unit included 48 nurses who had been active in surgical awards during research and were selected using purposive sampling method. The data collection instruments included checklist and nursing process questionnaire. The data was analyzed by paired-sample t-test in SPSS.16. The results indicate that, with regard to questionnaire, there is significant difference between using the nursing process before and after intervention ($P=0.031$). According to checklist, the paired-sample t-test showed no significant difference in implementation of nursing process ($P=0.064$). The results showed that nursing process has been more desirable from the point of view of nurses. The higher points given by nurses showed that using the checklist to evaluate the nursing process in this study may be more authentic compared to questionnaire.

Keywords: Nursing Process, Nursing Care, Surgical Wards

INTRODUCTION

The role of training in improving the quality of taking care of patients is inevitable. The effect of clinical training which constitutes a vital part of vocational training of competent nurses is also undeniable in personal and professional development, as well as the acquisition of clinical skills by nurses. The educated employees are the keys for success in health and treatment centers as well as hospitals. The staff training leads to greater productivity, fewer accidents or errors, higher job satisfaction and improved nursing care [1].

The nursing process is a problem solving method which is applied to meet the public health and care needs [2]. Application of nursing process enables the nurses to use critical thinking for clinical judgment and care activities [3]. On the other hand, nursing process causes the nursing care to develop from traditional method into a scientific and patient-oriented approach. A review of the relevant literature shows that implementation of nursing process has faced many challenges not only in Iran but also in many countries around the world [5]. Despite the agreement made by many countries in application of nursing process, there are abundant problems with its implementation. One of the most important problems is the absence of appropriate trainings in clinical nursing process and its performance [6].

The study by Akbari and Shamsi (2009) indicated that majority of nurses regarded the absence of sufficient information about nursing process and inadequate learnings as most important barriers of implementing the nursing process [7]. In fact, there is a strong gap between theory and practice in nursing field and the nurses pay more attention to scientific and skill aspects than science and art of nursing [8]. During the last two decades, almost all countries have been confronted with increasing demands for health services. Iran, like many countries, has problems with the quality of health services, including care provided by nurses. Similarly the nurses are expected to solve their clients' health problems and make them capable to be confronted with health problems. Therefore it is essential to make them capable in advance [9]. If we accept the fact that presence of more capable nurses is equal to better care and better understanding of care, we could claim that we guarantee reduced mortality and improved quality of care [10]. Since nursing process in surgical wards has been less considered in our country, the present paper aims to study the impact of training on nursing process implementation skill of surgical ward nurses in Shahid Beheshti Hospital of Yasuj.

MATERIALS AND METHODS

This paper is a single-blind quasi-experimental study with a single-group design conducted as pre-test and post-test method. After the approval of ethics committee of Shahid Beheshti University of Medical Sciences and written letter of consent given by nurses of surgical wards, the study was implemented in order to examine the impact of training on nursing process implementation skills of surgical ward nurses in Shahid Beheshti Hospital. The entire units under study had the qualifications specified in this study and took care of the patients under surgery. The research environment includes general surgery, orthopedics, urology and neurosurgery of Shahid Beheshti Hospital of Yasuj. The inclusion criteria for this study are: holding B.S or higher educational degrees in nursing and experience of clinical working in one of the surgical wards of Shahid Beheshti Hospital of Yasuj.

In this research, 48 nurses possessing the respective conditions and criteria were purposively selected. Data collection was conducted by scale of the nursing process for this study. This instrument was designed by Honsen in 1989 and its validity and reliability was also evaluated [12]. This scale was applied in studies conducted by Valizadeh, Zare & Hooshmand (2009) as well as Akbari kaji and Farmahini Farahani (2009) and its validity and reliability was reported [12, 13]. The first part of this instrument was related to demographic features of nurses which contains 12 questions about age, sex, marital status, educational degrees, record of clinical working and record of educational working experience which was completed by units under study.

The second part includes 26 questions to determine the implementation or non-implementation of nursing process which collects data of the implementation or non-implementation of each stages of nursing process. This instrument was scored on the basis of 3 -point ordinal scale including No, To some extent, and, Yes which respectively had 0, 1 and 2 points. To come to a better understanding of scores, the questions were changed into percent and the final percent was categorized in to 0-25% for weak nursing performance, 26-50% for average nursing performance, 51-75% for well nursing performance and 76-100% for excellent nursing performance. The nursing process questionnaire was completed by nurses and checklist of nursing process by two research colleagues in two stages of pre and post intervention. The content and face validity was applied to determine the validity of instrument.

The reliability of nursing process checklist was determined by calculating the Kappa coefficient of concordance between observers. The intra-class correlation coefficient for checklist of nursing process was 0.88.

In this study the nursing process scale was completed by both nurses and researcher colleagues (unaware of the type of study) for each of the nurses in morning and evening shifts. Then 4 training sessions, each for 2 hours, were held on nursing process including theoretical and practical contents. In the first session, after the description of study

purpose, the training pamphlet about the implementation of nursing process in patients under surgery was at the disposal of nurses. One month after intervention in surgical wards, the nursing process scale was completed by nurses and research colleagues. Then the changes were analyzed by SPSS.16 Software.

The absolute and relative frequency distribution tables, mean index and standard deviation were applied for descriptive statistics. The paired-sample t-test at 0.05% significance level was used to analyze the relations between variables.

RESULTS

From total participants in the study, 79.2% of samples were women. The age average of samples in this research was 28.1 years. 58.3% of samples were married and 97.9% held B.S degrees. The record of clinical working experience amongst 58.3% of samples were 1-3 years and 81.2% of samples had no record of teaching. The source of data about nursing process in 91.7% of samples were at the time of students.

Table (1) shows the frequency distribution and comparing the skill of nursing process (based on questionnaire) before and after the intervention in surgical wards nurses. The paired-sample t-test indicates that from the point of view of nurses there is a significance difference between skill of nursing process before and after intervention (P=0.031).

Table (2) demonstrates the frequency distribution and comparing nursing process implementation skill before and after intervention by units under study (according to checklist). This table indicates that the implementation of nursing process was weak before intervention process amongst majority of cases. The implementation of nursing process in majority of samples was average after intervention. The mean scores before intervention was 7.000 which was 7.812 after intervention. However the paired-sample t-test did not exhibit a significant difference for nursing process implementation skills (P=0.064).

Table 1. Frequency distribution and comparing nursing process implementation skill (according to questionnaire) before and after intervention amongst surgical ward nurses

Group Nursing process skill group	After intervention		Before intervention	
	Percent	Number	Percent	Number
NO	35.4	17	47.9	23
To some extent	41.7	20	37.5	18
Yes	22.9	11	14.6	7
Total	100	48	100	48
Mean average	1.88		1.67	
Standard deviation	0.110		0.105	
P-value	0.031			
Df	47			
T	-2.217			

Table 2. Frequency distribution and comparing the status of nursing process implementation skill (based on checklist) before and after intervention amongst the surgical ward nurses

Group Implementation scores of nursing process	After intervention		Before intervention	
	Percent	Number	Percent	Number
Weak performance	35.4	17	54.2	26
Average performance	60.4	29	41.7	20
Well performance	0	0	4.2	2
Excellent performance	4.2	2	0	0
Total	100	48	100	48
Average	7.812		7.000	
Standard deviation	3.424		3.561	
P-value	0.064			
Df	47			
T	-1.894			

DISCUSSION

The results of present paper showed that according to questionnaire and from the point of view of majority of nurses, the nursing process was not applied before intervention, but it was somehow applied after intervention. The results of comparing the scores related to the implementation of nursing process before and after intervention had significant difference from the point of view of nurses. According to checklist, the nursing process was weak before intervention and was average after intervention. The paired-sample t-test showed no significance difference in skill of nursing process.

The finding of this paper was consistent in terms of using questionnaire with the results of study by Akbari kaji & Farmahini Farahani (2009) which studied the impact of training nursing process to nurses about the quality of taking care of schizophrenic patients. In respective study, the majority of samples under study were at average level in pre-training group and at well level in post-training group in terms of applying the nursing process [13].

Valizade Zare & Hoshmand (2005) conducted a quasi-experimental research with pre post training single-group design entitled as "A study on impact of training the nursing process based on stimulation method on the performance of nursing students". The results showed that research units possessed higher averages of scores in two stages immediately and one month after training compared to stage before training which was consistent with the results of questionnaire of present paper [12].

Habibzade et al (2002-2003) conducted a study with the purpose of examining the impact of training nursing process based on the evidences of nursing training skills amongst the nursing students. The results showed that nursing process skill in students of intervention group who were trained based on evidence-based nursing was significantly better than control group ($P < 0.001$). The difference between the mean scores of two groups after clinical performance has significant statistical difference ($P < 0.001$) which was not consistent with the results of checklist used in this paper [14]. It could be the results of different training method.

Learning the nursing process is not necessarily related to the use of the nursing process and they are not two different categories. Some people believe that nurses perform the programming and performance stages very well, while they have problem, with examination and evaluation stages. However, majority of nurses, who individually take care of special patients, easily apply the nursing process. On the other hand when the number of patients increases, the nursing process may not be applied [15, 16].

Atashzade & Ashktorab conducted a study entitled as factors effective on performing the nursing process by nurses in 2001. They came to the conclusion that factors affecting the nursing process are diverse and complicated and are associated with individual and management factors. Therefore nursing managers and authorities of nursing training should make efforts to remove barriers and provide facilities to improve the nursing process and increase the services with the quality based on nursing process (5). The results of study by Rastian et al (2016) showed that the implementation of nursing process is effective to improve the quality of nursing care [17].

Akbari & Shamsi (2009) showed that majority of nurses regarded the absence of sufficient information about nursing process and inadequate learnings as most important barriers of implementing the nursing process [7]. On the other hand, the routine -based nursing practices are regarded as a serious weak point in nursing activities. The replacement of these practices with patient-oriented methods is possible by providing nursing processes [18].

CONCLUSION

The present paper showed that training the nursing process leads to the improvement of its related skills. The noteworthy point of present paper is that the application of nursing process is more desirable from the point of view of nurses. They defined higher scores which indicates that behavior observation method may be more authentic compared to the application of questionnaire to examine the use of nursing process in this research. It is recommended to implement further researches with larger samples or re-evaluation with client-oriented approach in order to define more precise research effectiveness

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