Research Article

The effect of lecture and Problem Based learning methods on Quality of Nursing Documentation

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ABSTRACT
Introduction: Due to the importance of Nursing Documentation, education is necessary to improve the quality of nursing documentation.The aim of this study is determine the effect of lecture and PBL methods on Quality of Nursing Documentation.
Methods and Materials: In this Quasi Experimental study, the study population is nurses working in Imam Sajjad Hospital and Shahid Beheshti Hospital in Yasuj in 1394. Simple Random Allocation method is used to selection both hospitals. Nurses in the medical ward of Shahid Beheshti Hospital are in the lectures group and Nurses in the medical ward of Imam Sajjad Hospital in the PBL group. In each ward, all available samples (n=15) selected by nonrandomized sampling. Demographic questionnaires and check list were used as data collecting tools. In the first stage after expressing the goals and obtaining informed consent from the each sample and other ethical considerations, the quality of the Nursing Documentation in two content and structure aspect was checked for every nurse in morning shift.In the second stage, lecture method was used for the first group and PBL method in the second group. In the third stage, the quality of nursing document was evaluated in both groups. The collected data then was analyzed by SPSS software.
Results: The results of this study showed that there was no significant difference in the content and structure aspect, before intervention. The content aspect mean in the lectured group in pre-test was 26.4 ± 1.99 and the post-test mean was 28.8 ± 2.24. Paired t-test results also illustrated a significant difference in pre and post mean of content variable in the lectured group ($P<0.01$). In PBL group content mean in pretest is 25.07 ± 2.57 and in the post test is 31.67 ± 2.49. Paired T-test also showed that there was a significant difference between pretest and post-test in the content variable in PBL group ($P<0.01$).
 Results of T-test of the individual group in post test showed a significant difference in the content aspect between the two groups ($P<0.01$). No difference was observed in the structure variable between two groups neither in pre-test nor in post-test. In other words, the none of education methods improved the structure aspect. No significant difference in the mean between two groups in the post-test.
Conclusion: The results of this study suggest that PBL method is more (effective) successful to improve the quality of Nursing Documentation. Albeit, this results, requires more investigation.

Key words: Nursing Documentation, Education, Lecture, problem – based Learning

INTRODUCTION:

In order to achieve high quality of nursing care, communication is essential to share and exchange information. Reporting is a major communication method used by health care providers to evaluate the quality, type, and continuity of care (1). Nursing Documentation Is One of the Important Components of Medical Patients' records and Nurses 'Professional

Responsibilities (2). The studies have been shown that about 38% of all nurses' shift time is spent for writing nursing reports (3). Nursing Documentation should be include information on nursing assessment, patient problems, care plan, daily progress, training, and discharge (2,4). Despite the importance of nursing documentation, several studies have shown that this is not recorded according to Standard Criteria. The results of the study by Mohammad Ghasabi and colleagues showed that the quality of the nursing documentation was undesirable and most nurses did not follow the Principles of Nursing Documentation (5). In Sheikh Pourkhani and et al (2010), 46.5% of nurses had moderate knowledge about reporting principles and there was a correlation between knowledge and practice of nurses about reporting principles (6). The results of the study by Jasemi and et al showed that 83.5% of the quality of nursing documentation was moderate and Other was at the desired level. Most nurses had moderate and limited awareness that indicated the educational needs of most nurses in this studied (7). In order to improve the quality of nursing documentation, the need for education is felt completely. Findings of Abbaszadeh's research showed that continuous education program has a positive effect on knowledge, attitude and practice of nurses in the field of Nursing Documentation (8). The use of various educational methods in today's complicated world is obvious and selecting education method in each stage of learning is very important. So far many studies have been conducted on various educational methods, but in these studies, various results have been obtained based on the educational content and the audience (9,10). In the traditional method of lecture, instructors are usually content-oriented and prefer the learning environment to the formal atmosphere and at least the participation of learners. The reliance of instructors on traditional teaching methods such as lectures, induces a kind of syllabus based on the necessity of being submissive and admirable to students and lessens their self-esteem (11). In learning based on problem-based learning (PBL) , learning is accomplished through dealing with the problem and Students will have the opportunity to assessment , identify, and think about the issue .In this methode, critical thinking and decision-making skills , group work and problem solving are increase (12). In addition, learning based on the PBL enhances the student's passion for learning (13). Many studies have shown that students preferred the PBL method and this method has made them interested in research, teamwork and communication with other students (14 , 15).

At the opposite point, the results of several studies, shown contradict the impact of modern and traditional methods of learning (16, 17). Considering the importance of nursing Documentation and the positive effect of education on the quality of Documentation, this study aimed to determine the effect of lecture and Problem – Based Learning methods on Quality of Nursing Documentation.

METHODS AND MATERIALS:

This is a quasi-experimental study. Population study is the nurses working in Imam Sajjad Hospital and Shahid Beheshti Hospital of Yasouj in 1394 .

Two hospitals has been selected by Simple Random Allocation. Imam Sajjad Hospital in lecture group and Shahid Beheshti Hospital in Problem – Based Learning group were placed.

On the other hand, in each ward, all available samples were available in a Unpredictable sampling available (n=15).

The data collection tools, have been the demographic questionnaire, and the checklist for the principles of nursing documentation (researcher made questionnaire) included 12 questions in content and 8 questions in the structure dimension. And responses were complete record , incomplete record and absence record incomplete. Validity of the questionnaire was confirmed by similar studies (1, 2, 4, 7, 8, 18) and by comments some faculty members of Yasuj Nursing Colleges. And for reliability, Cronbach's alpha was 86%.

In the first stage after expressing the goals and obtaining informed consent from the each sample and other ethical considerations, the nurses' demographic questionnaire was completed through the interview. The quality of the Nursing Documentation in two content and

structure aspect was checked by checklist for every nurse in morning shift.

In the second stage, lecture method was used for the first group and PBL method in the second group. The teacher of both methods was one person who had knowledge about both methods. Both groups received educational intervention in 3 sessions and each session for 60 to 70 minutes. The content of the lecture includes the 12 principles of nursing documentation on the content and the structure aspect.

In the PBL group, the same content was also performed to form of problem solving. In this study, nine step of Keit Hawton PBL method, was used : Problem presentation, discussion and commentary, brain storming, needs estimation, information classification, resource allocation, presentation of study opportunities, next sessions and presentation of content, discussion of topics by combining new and old content and summarizing (19).

In the PBL method, the researcher was also in the role of leader the group as well as in Consultant the group and at each stage of the 9 steps above, if needed, Interventions were carried out and points that the learners did not refer to Or enough explanations were not given about them Or what the learners needed to study more about it, reminded the group.

In the third stage (one month later), a sample of each nurse's documentation in the morning shift was assessed using a checklist by an evaluator who was unaware of the educational method of both groups and blindness was done in the study. It should be noted that the files belonged to patients who had at least three days of hospitalization and Their physician order included medication orders, diagnostic tests, and para clinical items. The nursing documentation of the patient that expired was not assessed in this study. Data were analyzed by SPSS software and descriptive and inferential statistics (T test).

RESULTS:

In this study, 15 people entered the study in each group. All the research samples (n=30) were female. The mean age of nurses was 27.20 ± 3.6 years. 22 case (73.3%) had bachelor's degree. The samples had a work history of 1 to 10 years with mean 4.52 ± 2.1 years. Frequency distribution of adherence to the principles of nursing documentation in pre - test and post-test in structure aspect and content aspect in the medical ward of Shahid Beheshti Hospital and in the medical ward of Imam Sajjad Hospital Displayed in table 1 and 2. The mean of content aspect in the lecture group in the pretest stage was 26.40% ± 1.99 and in the PBL group was 25.07 ± 2. 57. Independent t-test showed that there is no significant difference between the two lecture groups and PBL in the pre-test in terms of content aspect.

The mean of content aspect in the lecture group in the post-test was 28.80 ± 2.24 and in the PBL group was 31.67 ± 2.49. Independent t-test showed that there is a significant difference between the two lecture and PBL groups in the post-test in terms of content aspect (p <0.01

The mean of content aspect in the lecture group was 26.40 ± 1.99 in the pretest and in the post-test was 28.8 ± 2.24. The paired t-test showed that there is a significant difference between the pre-test and the post-test in the lecture group based on the content aspect (p <0.01).

The mean of content aspect in the PBL group was 25.07 ± 2.57 in the pre-test and 31.67 ± 2.49 in the post-test.

The paired t-test showed that there is a significant difference between the pre-test and the post-test in the PBL group (p <0.01), based on the content aspect.

The mean structural aspect in the pre-test was 13.2 ± .42 in the lecture group and 12.67 ± .9 in the PBL group. Independent t-test showed that there was no statistically significant difference between the two lecture groups and PBL in the pretest in terms of structural aspect.

The mean structural aspect in the post-test was 13.47 ± .83 and in the PBL group was 13 ±. 38 Independent t-test showed that there was no significant difference between two groups of lecture and PBL in post-test regarding structural aspect .

The mean structural aspect in the pre-test was 13.20 ± .42 in the lecture group and 13.47 ± .83 in the post-test. The paired t-test showed that there was no significant difference between the pre-test and the post-test in the lecture group based on the structural aspect.

The mean structural aspect in the PBL pretest group was 12.67 ± 0.9 and in the post-test, it was $13.8 \pm .38$. The paired t-test showed that there was no significant difference between the pre-test and the post-test in the PBL group, based on the structural aspect.

Table 1: Frequency distribution of adherence to the principles of nursing documentation in pre - test and post-test in content aspect

	Content Principle of Nursing Documentation	Pre test Number (Percentage)			Post test Number(Percentage)		
		Complete record	incomplete record	absence of record	Complete record	incomplete record	absence of record
		Number (Percent)	Number (Percent)	Number (Percent)	Number (Percent)	Number (Percent)	Number (Percent)
1	Level of Conscious	0(0)	12(40)	18(60)	2(6.7)	21(70)	7(23.3)
2	Hemodynamic(cardiovascular)	0(0)	8(26.7)	22(73.3)	1(3.4)	15(50)	14(46.7)
3	Intake & Out put	0(0)	20(66.7)	10(33.3)	5(16.7)	25(83.3)	0(0)
4	Activity	0(0)	18(16)	12(40)	2(6.7)	28(93.3)	0(0)
5	Skin	0(0)	4(13.3)	26(86.7)	0(0)	11(36.7)	19(63.3)
6	Follow-up items	3(10)	11(36.7)	16(53.3)	6(20)	20(66.7)	4(13.3)
7	Para clinical	3(10)	8(26.7)	22(73.3)	0(0)	17(56.7)	13(43.3)
8	Acute Change	2(6.7)	12(40)	16(53.3)	2(6.7)	22(73.3)	6(20)
9	Nursing care	2(6.7)	17(56.7)	11(36.7)	3(10)	20(66.7)	7(23.3)
10	Admission, Transfer, Discharge	1(3.4)	19(63.3)	10(33.3)	2(6.7)	23(76.7)	5(16.7)
11	Medication	5(16.7)	18(60)	7(23.3)	12(40)	15(50)	3(10)
12	Behavior	0(0)	0(0)	30(100)	3(10)	15(50)	12(40)

Table 2: Frequency distribution of adherence to the principles of nursing documentation in pre - test and post-test in structure aspect

	Structure Principle of Nursing Documentation	Pre test (Percentage) Number	Post test (Percentage) Number
1	Author's profile(Last Name, First Name, Signature, Hour, Date, Shift Type, and Nursing System Stamp)	25(83.3)	29(96.7)
2	Draw at the end of the report	20(66.7)	26(86.7)
3	The lack of line between record lines	30(100)	30(100)
4	The lack of several types of handwriting in Nursing Documentation or deleting it	30(100)	30(100)
5	The readability of report sentences	19(63.3)	26(86.7)
6	The lack of write the forgotten point inside parenthesis	25(83.3)	30(100)
7	Applying Acceptable International Legislation	21(70)	22(73.3)
8	The lack of Rewrite and modify the report	29(96.7)	30(100)

DISCUSSION

The purpose of this study was to compare The effect of lecture and Problem – Based Learning methods on Quality of Nursing Documentation The results of this study showed that the quality of Nursing Documentation in the pre-educational stage was in an unfavorable situation and after education, increasing the quality of Nursing Documentation has been observed, which indicates the effect of education on increasing the quality of Nursing Documentation. In the present study, the findings indicated that in most cases, the level of consciousness record was incomplete or absence of record.

In the hemodynamic index (cardiopulmonary), absence of record has the highest frequency, and there was no complete record of this index at all. Jasemi study showed that 100% of nursing documentation and vital signs record were in moderate quality (7). In this study, this issue was probably due to the existence of a vital signs special chart in the patients' files that were included in their files according to the policies of Imam Sajjad (AS) and Shahid Beheshti Yasuj hospitals.

In the Intake & Output index (Gasterointestinal system and urinary system); there was no complete record at all, and incomplete record has the highest frequency. Complete record in the activity index (musculoskeletal system); there was not and was often incompletely recorded and the nurses only pointed to the patient's activity (complete bed rest, Relative bed rest, out of bed) and the patient's sleep was not mentioned. Regarding the disruption of the activity, sleep and rest pattern in hospitals, recording a patient's activity index is necessary. In the skin index, there was no complete record at all, and the absence of record was the most frequent.There were incomplete record in the follow-up index and the nurses only made a check mark in front of the physician order. however, record these index for follow up in the next shift is necessary. In the para clinical index, there was no complete record, and the absence of record was most frequent. In acute changes index Record, Frequency of non-record was very significant. In the nursing care index; incomplete record was the most frequent and only in 2 cases was complete record. In the record of admission, transfer and discharge index, The most frequent were incomplete record and the education and level of conscious was not recorded at the time of discharge.

The highest frequency of complete record is related to the status of drugs (drug type, Dosage, the type of prescribing and the type of orders (telephone, written, oral)) . In the structural aspect, record status has been very favorable. The highest frequency of complete record was related to the record of the author's profile and the use of internationally accepted abbreviations. In the study of Saif Rabieh, the poor record of nursing documentation has been confirmed (20). In the ghasabi study, the quality of the nursing documentation was low in the Content aspect and in the structure aspect was desirable (5). In another study, only 28% of the quality of nursing documentation were satisfactory (21).

In this study, the two groups did not have a significant difference in content aspect in pre-test .

Comparing pre-test and post-test in each group separately, shows that education for each group

has caused a significant increase in the quality of the content aspect. In the post-test, the mean of content aspect in the PBL group was significantly higher than the mean of the lecture group. The study of Shariat Panahi showed that the PBL method for presenting Nutrition lessons could increase the level of learning and satisfaction of midwifery students(22). This result is aligned with the result of current study. During a systematic review study, the results showed that in most studies, academic achievement Was higher in a group with PBL educational (23). Various studies have confirmed that the PBL method enhances student achievement in cognitive, skill, attitudinal, or a combination of these (24-25). This can be due to Student participation, Express students' opinions about the subject, the presentation of new subject learned by the student in the class, and the search or questioning of the subject is incomprehensible (24-25). At the opposite point, the results of the Fesharaki study showed that both lecture and PBL methods are effective in improving the self-efficacy of nursing students in Najafabad University, But there was no statistically significant difference (16). The results of the Nam Nabati study showed that both lecture and PBL methods were effective in academic achievement and nursing students' memory, but the lecture method could better cover Long-term academic achievement (17).

According to the results, the two groups did not have a significant difference in the structural aspect in pre-test and the quality of record in the structure aspect in both groups was high in the pre-intervention stage. In some structural indexes, in 100% of cases, the principles of record has been respected. Comparing pre-test and post-test in each group separately shows that education for each group does not significantly change in the structural aspect. There was no significant difference between the two groups in the post-test.Therefore, lecture and PBL methods had no effect on the structure aspect. This results may be due to the this fact that in most time, only the appearance of nursing documentation is considered by nursing and hospital managers. Therefore, it seems that the nurses, in order to follow the routine principle

ward, have been writing nursing records and not paying attention to the correct principles of its content record.

CONCLUSION:

The results of this study showed that the quality of nursing documentation in content aspect is low and in the structure aspect has a relatively high quality. After education, quality improvement was observed and PBL method was more effective than lecture method.

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