EFFECTIVENESS OF PROBLEM BASED LEARNING VERSUS LECTURE METHOD AMONG NURSING STUDENTS

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ABSTRACT:

OBJECTIVES:

The objective of the study was to determine the effectiveness of problem-based learning (PBL) versus lecture-based learning (LBL) among nursing students of Public Sector Nursing Colleges.

METHODOLOGY:

A quasi-experimental study was carried out in Public Sector Nursing Colleges. Overall, 69 students of 2nd semester were included in the study. Initially, data were collected using a predesigned questionnaire. Students were randomly divided into two groups; one group were subjected to the Lecture based learning while other group were subjected to Problem based Learning. Learning objective was the same for both groups. The topics was given 5 days before the test to the students. Test was taken from both the groups. Their scores on each topic was recorded in SPSS 23.0.

RESULTS:

There was no significant difference among the participants demographic variables. The test results showed students' performance was high in problem-based learning in comparison to lecture based learning methods (P<0.001).

CONCLUSION:

Students performance in PBL were higher which indicates that PBL is effective as compared to LBL.

KEYWORDS: *Problem Based Learning, Education, Lecture, Teaching, Learning*

How to cite this article:
Naz S, Shah BA, Zeb A. Effectiveness of Problem Based Learning versus Lecture Method among Nursing Students. J Farkhanda Inst Nurs Pub Health. 2021; 1(1): 8-11

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INTRODUCTION:

Education is the vital source for a successful life; it is comprised of two unified processes of teaching and learning[1]. Teaching and learning go side by side in educational organizations since the origin of education[2]. Changes in the process of education occur over time. Problem-based learning (PBL) started in 1962 and became popular in all fields of education, especially in the field of Medical education[3]. Problem-based learning has achieved a high level of learning strategy across the globe and is used in several countries with high successes in the field of medicine, nursing and social science[4]. It is a process of solving the problem in a given scenario, which gives stimulus to the learner about the problem and presents new strategies to solve it[5]. Finding

from study conducted in the University of California shows that PBL gives more opportunities for clinical skill applications[6]. One study highlighted students preferred problem-based learning over lecture-based learning because it enhances motivation, gives a higher quality of education, with other advantages like better knowledge maintenance, class attractiveness, and practical use[7]. Moreover, students in PBL develop higher-order thinking and positive effect on their decision-making ability and establish greater satisfaction than students' in LBL. A Chinese study reveals that PBL is increasingly popular among preventive medicine[8]. Overall, PBL was associated with a significant increase in students' theoretical examination scores along with problem-solving skills, self-directed learning skills, and collaborative skills than LBL[8]. Results Chicago indicated that the level of knowledge in the PBL group was significantly higher than Lecture group[9]. Students' motivation was drastically higher in the PBL group and had higher motivation toward learning as compared to the lecture group[10]. In students' view, PBL was effective in increasing students' ability to integrate theory and practice in clinical practice[11]. In Pakistan majority of the educational institutes follow the traditional methods such as lecture and other strategies for teaching which leads to rot learning[12]. The present study aimed to determine the effectiveness of the PBL versus LBL method in nursing education of two public institutes. The result will help to improve the teaching and learning methodologies.

METHODOLOGY:

A quasi-experimental study was used to determine the effectiveness of problem-based learning (PBL) vs. Lecture-based learning (LBL) in nursing education. It was conducted in two public institutes of nursing in Peshawar, i.e. Institute of Nursing Sciences and the Postgraduate College of Nursing Hayatabad.
A total 69 nursing students of 2nd semester were included in the study. One group was subjected to the lecture-based learning and the other group was subjected to problem-based learning method. Results are displayed in graphs, tables, with a brief description. Learning objective was the same for both groups. The topics was given 5 days before the test to the students. Test was taken from both the groups. Their scores on each topic was recorded in SPSS 23.0. Frequencies of variables in both groups were measured. A Chi-square test was applied to assess statistical significance.

RESULTS:

A total of 69 participants were recruited from two public sector nursing colleges of Peshawar. Both males and females were included in the study. 84% were females and 16% were males.

Table 1 : Comparison of Problem-based learning vs Lecture Based Learning

Topics for the students	Performance of students	Lecture Method	PBL Method	Total	Chi-Square	Level of Sig
sketch the pathway of gate control theory	Poor	13	09	22	27.22	<0.05
	Fair	09	26	34		
	Good	-	11	11		
	Excellent	-	01	01		
Differentiate Between Acute and Chronic Pain	Poor	17	19	36	5.67	<0.05
	Fair	04	14	18		
	Good	01	10	11		
	Excellent	0	04	04		
Identify Factors that Aggravate Pain	Poor	12	04	16	3.37	<0.05
	Fair	10	32	42		
	Good	-	11	11		

DISCUSSION:

Possessing knowledge is not sufficient unless one knows how to apply it in real-life situations[13]. Most of the participant were female, which is like a study conducted in the

USA[14]. Concerning the effectiveness of the PBL experience, it was found that PBL allowed the students to learn on their own. Results of this study indicated that students learn more effectively through PBL as compared to the lecture method. A similar study carried out in Iran showed that PBL is highly preferred over LBL[9]. In Egypt[15] the results showed significant difference in PBL and LBL methods. A study conducted in Pakistan[16] to compare the medical student's performance in problem-based learning and lecture-based learning methods. The results showed that in comparison to lecture-based learning, the problem-based learning was more effective. A study reported that educational intervention improves the nursing critical thinking skills which help them to take health care management decisions effectively[10,17]. In our study, most of the students PBL scores were fair and good as compared to scores in LBL which were below the fair. The findings were consistent with other studies[14,18].

CONCLUSION:

Students in PBL gained more knowledge shown by their higher scores, which indicates that PBL was effective as compared to LBL.

CONFLICT OF INTEREST: None

FUNDING SOURCES: None

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CONTRIBUTORS

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