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TEACHING PEDIATRICS NURSING CARE TO SECOND YEAR NURSING STUDENTS USING CASE STUDY METHOD

1. **NAFISA IQBAL**
2. **HUMA RUBAB**

1. ***Instructor***
2. ***Faculty of Nursing,***
Shifa College of Nursing,
Pakistan Shifa College of Nursing,
Islamabad- Pakistan

Correspondence Address:
NAFISA BARDAI
9-D1, Near Chandni Chowk,
Settellite Town, Rawalpindi.
Cell: 0092-051-4603619

ABSTRACT

Objective: to compare two teaching strategies among the II year nursing students of Shifa College of nursing, and to determine if there is a difference in students' performance when taught Peads nursing care in a case-based learning format as compared to traditional lecture format.

Methods: A randomize control trial has been done in Year II BSN students. Group A (n=14) was control group and was taught two topics through traditional lecturing. Group B (n=14) was intervention group and was taught the same topics using case study method. Multiple choice questions were used to assess student's academic performance. A Pre and a Post test was given to both the groups and their results were calculated for comparative analysis. Also evaluation of teaching strategies was taken from the students.

Results: Independent sample T test is used to observe the difference among the group. Two tailed P value is 0.15 showing that there is no statistical significance difference was found between groups (case based method and lecture groups).

Conclusion: No significant difference was observed but the student's perception indicates that, whole pediatric curriculum must be taught through lectures.

Key Words: Case based method, didactic lecture, teaching strategies, small group strategy.

INTRODUCTION:

Since few years, didactic teaching and lecturing in the classroom has been criticized by many educationalists for it ineffectiveness, and in place various other teaching strategies have been recommended. At Shifa College of Nursing (SCN), most of the theory /content of a subject is taught using either didactic method with audio–visual help – mainly power point presentation or through case discussions. Since both the methodologies are most frequently used, we intend to determine which method is more effective and so that it can help us in modify the teaching learning strategies at SCN accordingly .Helping students learn is our challenge as teachers. Identifying effective teaching strategies, therefore, is our challenge as we assess the effectiveness of our current teaching style and consider innovative ways to improve our teaching to match our students' learning styles.

The case study method of teaching is quite different from the traditional lecture or class discussion. It requires substantial work before and during class by both the professors and the students. The case method is effective. People learn best the lessons they teach themselves. Thus, learning is best when there is a process of self-discovery, as opposed to passive absorption of what others say. The case method builds the capacity for critical thinking. Sandstrom (2006) indicated that the case study method of teaching enables students to develop clearer understanding of the disease, how it affects patients and their needs and how patients respond to their illness.

Critical thinking has been a crucial outcome of nursing educational programs. Effective nurses should be knowledgeable about complex patient situations and confident in their

skills. One teaching strategy recently adopted by some educators to develop nurses' critical thinking, learning, and confidence is simulation. Simulation incorporates scenarios and case studies developed to replicate real-life clinical situations. Learners are asked to solve clinical problems and make critical decisions based on the information provided. Participants reported that simulation prepared them well to care confidently for critically ill patients. Simulation also helped them learn to make sound clinical decisions to improve patient outcomes. The findings have crucial implications for nursing education, practice, and research. They provide evidence to support the use of simulation as a teaching strategy to promote critical thinking skills, learning, and confidence.

Even with so many teaching strategies, the oldest and most widely used method in classroom teaching today is the lecture. The lecture has many advantages including the ability to provide information to a large number of students, the ability to cover a large amount of material quickly, and provide cost effectiveness and efficient use of class time. The lecture is a way to introduce new material, continue discussion of a topic, and sum up course content, as well as present large blocks of complex and confusing information. On the other hand, lectures provide less opportunity for students to process information and develop problem-solving skills, they lose students' interest quickly and lack an opportunity to provide feedback, do not allow students to skip content they know or work at a self-directed pace and promote a teacher-centered environment instead of a student-centered environment. Unfortunately, lecture allows students to be passive learners, depending solely on the faculty to teach them information instead of actively involving themselves in the learning process.[4]

Case studies provide an interactive teaching-learning strategy that can be applied to novice pediatric nurses in a variety of settings. By using case studies, nurse educators responsible for the professional development of new graduates; help expand learners' critical thinking as they assume increased responsibility for pediatric nursing care.

The effect of problem-based learning (PBL) on nursing students' approaches to learning has received scanty attention in nursing education. A study done in the university of Hong Kong and the the four themes inductively derived from students' descriptions of their clinical education experience (motivated to learn; self-direction in learning; active, interactive and student-centered learning; and enjoyment in learning) also suggested that the students adopted a deep approach to learning during a period of clinical education in which PBL was implemented. The effect of problem-based learning on students' approaches to learning in the context of clinical nursing education.There were significant differences in the development of students' critical thinking dispositions between those who undertook the PBL and lecture courses, respectively.

METHODOLOGY:

A randomized control trial has been carried out. The nursing students Year II undergraduate BScN program at Shifa College of nursing (SCN) Islamabad was the targeted population for the study. There are a total of 28 students in year II .1 month was required to perform a study. Simple random sampling through lottery method by using their college ID numbers was done.Year II BScN students were divided in two groups. Group A (n=14) was control group and was taught two topics: "Hyperbilirubinemia" and "Seizure" through traditional lecturing; group B (n=14) was intervention group and was taught the same topics using case study method. Multiple choice questions were used to assess students academic performance. A Pre and a Post test was given to both the groups and their results were calculated for comparative analysis. Also evaluation of teaching strategies was taken from the students.

CONTROL GROUP

Total duration of the both lecture was 1.5 hours. At the beginning all students was given Pre–test. In between the lecturing, instructor asked questions to check the understanding of students. At the end of the discussion, students was given a Post test.

INTERVENTION GROUP

Total duration of both session was1.5 hours. At the beginning all students were given Pre–test. All 14 students in the intervention group were given a patient related case one week prior to the scheduled class; simultaneously students were instructed to search background material/ literature related to the case. At the end of the discussion, students were given a Post test.

Content of Pre and Post test

Session 1 Pre test was comprised of 15 Multiple Choice Questions (MCQs).

Session 1 Post test: same as the pretest question.

Session 2 Pre test was comprised of 15 Multiple Choice Questions (MCQs).

Session 2 Post test: - same as the pretest question.

RESULT:

Descriptive statistic is used to analyze the feedback of the students to see the effectiveness of two different strategies. 71% of the participant of case based group verses 78% of the participants of lecture group suggested that objectives were achieved. 28% of tutorial group and 35% of the lecture group suggested that content was understandable. Independent sample T test was used to observe the differences among the group. Two tailed P value is 0.15 showing that there is no statistical significance difference between groups (case based method and lecture groups).

DISCUSSION:

The use of case based small-group discussion activities appeared to meet the educational objectives in creating an active, non-threatening learning environment, where students can freely question, share knowledge and learn from one another. Group participation appears to be valued as an enjoyable process as well as increasing motivation and responsibility. Learners need to engage in active learning experiences in order to understand the concept. But on the other hand the drawback of this strategy is that every student should come prepare with their literature and if they do not, they will not get the proper knowledge and correct information. Hence, their learning will be compromised. An Australian radiation therapy program conducted a study with problem-based learning. At the completion of the year, students were given a questionnaire about problem-based learning, the teaching process, assessment, and the availability of resources. Even though results showed students felt they had become more independent learners, and the program met the aims of problem-based learning, 69.2% of the students did not feel this was an interesting learning experience. This result was surprising but may be explained by the fact that 84.6% of students agreed with the statement, "problem-

TABLE 1:
SAMPLE OF STUDENTS' OPEN ENDED COMMENTS ABOUT THEIR PERCEPTION OF THE OF CASE BASED GROUP

Positive Perception	Negative Perception	Suggestions
* Use of small groups engages students to be active participants. * They learnt useful information from their peers. * While discussing in the case based group topic was easily understood. * It is a self learning strategy.	* Most of the student did not come prepare for the case based study group session. * Case based study is not the better strategy because student share the information incorrectly.	* After the, case based study faculty should discuss the topic briefly.

TABLE2:
SAMPLE OF STUDENTS' OPEN ENDED COMMENTS ABOUT THEIR PERCEPTION OF THE OF LECTURE GROUP

Positive Perception	Negative Perception	Suggestions
* Each and every thing well explained in the lecture * Students learn more from the lecture than Tutorial based activity. * Only lecture is the best strategy.	* No negative points about the lecture.	* Lecture should more effective if clinical experiences are shared.

based learning is a difficult way to learn". Availability of resources was also a major concern with 57.7% of students probably leading to frustration. This study highlights the importance of library resources, improving access to the resources, and increasing levels of support for the students involved in active learning. Problem-based learning is very interactive and highly involved. It may need to be reserved for final year students who need to be challenged intellectually.[4]

Another study involving problem-based learning compared test performances of chiropractic students taught by traditional methods with students using problem-based learning. Surprisingly, no significant difference was found between the two groups. Frustrations were noted with problem-based learning such as confusion regarding faculty-student expectations, insufficiency of faculty, student tutorials and self-directed learning strategies, and a lack of curriculum integration, learning context and provision of sufficient time to learn.[4] Our study is consistent with the study .Result of case based group verses lecture group did not show any major difference. Which reveals that both strategies could be equally utilized in order to teach pediatric course in nursing.

College of Veterinary Medicine, Kansas State University Evaluation of examination scores suggests that the two teaching methods were of similar efficacy. Comparison of student performance after lecture-based and case-based/problem-based teaching in a large group.

Both the pretest and posttest scores of the two groups were compared using an independent t test, and no statistically significant difference was found in the scores of the two groups. The results of this study support the null hypothesis: that there is no difference in objective test scores based on teaching method (lecture versus PBL).

All PBL students with higher and lower grades showed a significant increase in the posttest score. But in the lecture group, only students with higher grades showed a notable increase. No statistically significant difference was found between the PBL and lecture groups in the level of attitude toward learning. Learning motivation was significantly higher in the PBL group.Students in the PBL group gained more knowledge and had higher motivation toward learning compared to students in the lecture group. One of the study results indicated the significant usefulness of PBL and PBL improves the educational effect of self study and clinical inference ability, in comparison with LBL. However, since students are passive about taking the same system class repeatedly, a strategy to improve their attitude needs to be considered.

The preference of our student is that they want lecture because their perception is that they get correct information and learning from teachers rather than from colleagues. Although the traditional lecture conveys factual information very well, it is not well suited to the higher levels of learning; critical thinking, analysis, and problem-solving must be learned by doing. Moreover, research has shown rather that students frequently forget, or never learn, much of the material taught through lectures.

Our case based group appreciated that strategy because it give them the opportunity to do the self directed learning .They suggested that if case based strategy is applied to teach pediatric, at the end of the session there should be some discussion regarding the case, so the student can well understand the topic and it will help them to attempt question in the exam also.

CONCLUSION

The case based small-group discussion activities with pediatrics course appear to have allowed the opportunity for active learning. Students work hard to learn by their own or by the group members in the group. Cases encourage learner to reach a deeper understudying of concepts and issues than they would from just reading or listening to a lecture. However this type of strategy is well suited for that student who has well understood the case and well equipped with the knowledge, on the other hand lecture could also be utilize effectively if not taught in traditional way. The continual struggle by nurse educators to improve critical thinking demonstrates the need for innovative teaching interventions that aid in the development of critical thinking as student nurses enter into practice .Using case studies in teaching will assist nurse educators in promoting active learning; furthermore, it will help in developing critical thinking skills, which are extremely important for nurses and other health care professionals.

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