

“Evaluate the effectiveness of Clinical Problem Based Learning regarding the care of the patient with Diabetic foot among I year B.Sc. Nursing students of selected Colleges of Nursing in Kasaragod, Kerala.”

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Abstract

BACKGROUND: A Quasi-experimental study was undertaken to evaluate the effectiveness of Clinical Problem Based Learning (CPBL) in the care of the patient with Diabetic foot among I year BSc. Nursing students in selected colleges of Nursing in Kasaragod, Kerala.

AIM: The objectives of this study were to assess the knowledge of I year B.Sc. Nursing students regarding the care of patients with Diabetic feet in experimental and control groups, evaluate the effectiveness of CPBL in the care of the patient with Diabetic feet in the experimental group, compare the post-test knowledge scores in the experimental group and control group and find out the association between the pretest level of knowledge of I year B.Sc. Nursing students regarding the care of patients with Diabetic foot with their selected variables.

METHODS: The study was conducted at selected Colleges of Nursing in Kasaragod.

The research approach for the study was an evaluative, pretest-posttest control group design. The sampling technique used for the study was purposive, and the research tool was the Structured Knowledge Questionnaire.

RESULTS: The result of the study showed that the mean post-test knowledge score (22 ± 1.71) was higher than the pre-test knowledge score (12 ± 2.50). The calculated 't' value of 13.38 was greater than the table value ($t_{39} = 2.09$) at a 0.05 level of significance.

It was also found that there was no association between the pretest level of knowledge and selected variables.

CONCLUSION: Thus, it was proved that Clinical Problem Based Learning was an effective teaching method for creating awareness regarding the care of the patient with a Diabetic foot.

Keywords: Effectiveness; Problem Based Learning (PBL); Clinical Problem Based Learning (CPBL); Diabetic foot; Diabetes Mellitus..

INTRODUCTION

According to Gagne, there are certain methods in learning such as signal learning, rule learning, problem solving and problem-based learning. Among these methods, Problem Based Learning has an origin in medicine and is an excellent method for teaching nursing students. Problem Based Learning is a way of designing and presenting courses that use problems in professional practice or real life as the stimulus for student learning. Problem Based Learning has been used as an educational method to facilitate students' motivation and interest in clinically based situations by increasing problem-solving skills. It has several advantages over the traditional method of education. Careful selection of problems that the core knowledge is addressed and will be retained in a manner, which applies to practice rather than intellectual basis. PBL reinforces the problem-solving ability of students in both classroom and clinical environments.

The Problem Based Learning methods are extensively used in the nursing curricula. In PBL, the students learn through addressing problems, reflecting on their experiences, and working in small groups being guided by a facilitator. Therefore, the

teacher, through facilitation, seeks to foster a safe, trusting climate in which the learner is motivated to hope for success. Thus, the role of the facilitator is key to the success of PBL as a learning methodology.

Need and significance of the study: Education in its general sense is a form of learning in which the knowledge, skills and habits of a group of people are transferred from one generation to the next through teaching, training or research. Education frequently takes place under the guidance of others, but may also be autodidactic. Any experience has a formative effect on how one thinks, feels or acts. Nursing education consists of strong theoretical and practical training which prepares nursing students to grow as efficient nursing care professionals. Experienced nurses and other medical professionals who have qualifications or experience for educational tasks have a great role in moulding the proficiency of nursing students. Nursing education prepares nurses to practice in a variety of settings. The impact of modernization, globalization and liberalization in society has brought tremendous changes in general and nursing education. The significant trends in modern education are creativity, changes in the teaching-learning process and advanced educational technology.

Issues and trends in nursing education possess challenges for students and nurse educators. Improved teaching strategies such as Programmed Instruction, Problem Based Learning, Computer Assisted Learning, and Online Learning are a few examples of newer learning strategies available in nursing education. This will promote the student nurses to handle new challenges in their teaching-learning process. Among these new strategies, PBL was found as one of the most significant innovations in education as it helps to manage many unanswered questions in professional life. The PBL strategies enable the nurses to develop skills required for professional practice including enquiry, reasoning, interpersonal and lifelong learning skills.

PBL improves base and clinical performance. The PBL approach is based on active learning in small groups, with clinical problems used as stimuli for learning. Problem Based Learning incorporates fundamental education principles such as those derived from adult learning theory.

A journal was published by Elsevier Science Ltd. about students' evaluation of Problem Based Learning. A total of 130 second-year B.Sc. Nursing students participated and experienced Problem Based Learning and 100 responses were assessed through an evaluative questionnaire. The analysis showed that the responses found in the problem-based learning approach promoted critical thinking and problem-solving. Active participation in the learning process includes self-direction, identification of own learning needs, teamwork, creative discussion and learning for peers. The study concluded that Problem Based Learning creates learning more realistic, fun and interesting for the students.

Clinical Problem-Based Learning is based on the problems in clinical areas. It has been advocated as a promising strategy to promote the critical thinking of students, which is the key component in clinical judgment. Clinical Problem-Based Learning enhances clinical learning and competency in clinical procedures. The ability to formulate clinical judgment is vital for nurses as well as students for ensuring the safety of clients and minimizing clinical errors. Today most medical and nursing educators plan to inculcate a Problem Based Learning curriculum at the undergraduate level as it harmoniously integrates theory and practice. Practical sessions are part and parcel of nursing education. Researchers' own experience as clinical instructors revealed that there is a wide gap between theory and practice learning among nursing students. Even though many students have theoretical knowledge; they are poor in application level and skill development in nursing procedures. This motivated the researcher to conduct a research study on the effectiveness of a newer teaching strategy that is Clinical Problem Based Learning in nursing education.

METHODS:

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RESULTS:

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CONCLUSION:

The study aimed to evaluate the effectiveness of Clinical Problem Based Learning in the care of patients with Diabetic foot among I year B.Sc. Nursing students. Clinical Problem Based Learning Plan was administered among students and after the Clinical Problem Based Learning session, a post-test was conducted. The study findings concluded that the majority of the samples had a low level of knowledge during the pretest and a high one during the post-test. The Clinical Problem Based Learning Plan proved that it was an effective teaching method for the care of patients with Diabetic feet.

REFERENCES

1. Sankaranarayan B, Sindu B. Learning and teaching nursing. 2003. 1st edition. Brain full publication. Mangalore.
2. Problem-Based Learning. Speaking of Teaching; Stanford University Newsletter On Teaching [Internet] 2001[cited June 01]; 11(1). Available from: [http://www.stanford.edu/dept/CTL/Cgi bin/docs/newsletter/problem based learning.pdf](http://www.stanford.edu/dept/CTL/Cgi-bin/docs/newsletter/problem%20based%20learning.pdf)
3. Alexander JG, McDaniel GS, Baldwin MS, Money BJ. Promoting, applying, and evaluating problem-based learning in the undergraduate nursing curriculum. Nurs Educ Perspect. [Internet] 2002 [cited 2013 May 31]; 23(5):[about 5p]. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12483816>.
4. Zieber Em M.P. History, Philosophy and Criticisms of Problem Based Learning In Adult Education. [Internet] 2006[cited 2013 Jan 28]. Available from: http://people.uleth.ca/~em.pijlzieber/Em_Pijl-Zieber_UofL.pdf. 5. Steve Wood. Views of the effectiveness of problem-based learning. [Internet] 2006[cited 2013 Jan 26]; 102(21):[about 1p.]. Available from: <http://www.nursingtimes.net/home/clinical-zones/mental-health/views-of-the-effectiveness-of-problem-based-learning/203209.article>.