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"COMPARISION BETWEEN CONVENTIONAL AND PROBLEM SOLVING CURRICULUM OF PHYSIOTHERAPY IN INDIAN SCNEARIO"

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Abstract:-

BACKGROUND: Physiotherapy is a science based health care medical profession which views movement and control to health and well being. Both conventional and problem based learning methods are being used in the curriculum. The effectiveness of PBL is compared with the traditional conventional methods. Learning in problem based (PBL) format leads to long term retention of knowledge.

AIMS AND OBJECTIVES: The aim is to modify the curriculum for post graduate students in Indian scenario which should include problem based learning more rather than conventional method of learning.

METHOD AND PROCEDURE: This was a qualitative review study. In this study comparison of different review papers for both conventional and problem based learning method was done.

RESULTS AND CONCLUSION: After comparing all the studies, it is concluded that the students involved in PBL perceived to be more effective and helpful in becoming lifelong learners and interpersonal skills.

Keywords: Conventional , Physiotherapy , medical profession , hydrotherapy.

INTRODUCTION:

BACKGROUND –

Physiotherapy is as old as medicine itself, dating back to Ancient Greece in the era of Hippocrates. Since then, physiotherapy has evolved from simple massage to a complex portfolio of therapies with many specialized applications.
In Ancient Greece circa 460 BC, Hector practiced a physiotherapy technique called "hydrotherapy" - which is Greek for water treatment. Physiotherapists today still employ hydrotherapy, now evolved and adapted specifically to various patient conditions.

In 1921, Mary McMillan formed the Physical Therapy Association in the USA. Subsequently renamed the APTA, this organization profoundly influenced development of physiotherapy in America.

The polio epidemic of the 1920's was a landmark turning point for the physiotherapy profession. Sister Kinney, of the Mayo Clinic achieved national reknown for work with polio victims. The Georgia Warm Springs Foundation was established in 1924 in response to the polio epidemic and provided physiotherapy for these polio patients.

After the polio epidemic subsided, physiotherapy treatments comprised mainly exercise, massage and traction. From 1950, chiropractic manipulations were also introduced, most commonly in Great Britain initially. The Orthopedics specialty within physiotherapy also emerged at about the same time.

From that date, physiotherapy expanded from hospitals out to other areas of medical care. Physiotherapists now work also in clinics, nursing homes, private practice and schools.

Research has long been a feature of modern physiotherapy, dating from the first USA research study publication in 1921. Research continues actively today in a wide range of specialties.

A significant force in the recent evolution of physiotherapy has been the International Federation of Orthopaedic Manipulative Therapy. During the 1980's, technology became the focus of change in physiotherapy. Novel procedures

featured computers, electrical stimulation, ultrasound and other new equipment. However, led by Freddy Kaltenborn, interest reverted to manual therapy in the following decade. Throughout development of the Physiotherapy profession, training and technique have continued to change and improve. Gifted pioneers have contributed richly to the profession's literature and field organizations. In consequence, Physiotherapy now commands wide recognition and well-earned respect, with many young people expressing interest in making their career in the profession.

Physiotherapy education varies greatly from country to country and ranges from basic work site education in hospitals and clinics to professional doctoral degree programs. In India, universities offer a 4 year under graduation program with 6 months of mandatory clinical internship and masters of physiotherapy with 2/3 years duration.

In Indian scenario, Physiotherapy education is based on conventional curriculum at under graduate and post graduate level. At post graduate level only one subject – research work (innovative) is included. In developed countries, they have conventional as well as problem based curriculum. There has been an increasingly popular use of problem-based learning (PBL)as the teaching methodology in medical education. Many programs in the United States, Canada and Australia have adopted PBL as the curricular approach.

AIM AND OBJECTIVE –

The aim is to know the present study curriculum in Indian scenario and to make awareness about the modification in the postgraduate and undergraduate curriculum. The present study includes the advantages and limitations of problem based learning over the conventional teaching methods

METHODOLOGY –

The present study is a qualitative comparative study between the conventional method of learning and problem based learning in curriculum of physiotherapy in Indian scenario.

RESEARCH SETTING AND PROCEDURE –

The research was done in Department of Physiotherapy, Punjabi University Patiala. Researcher had taken into account of Indian syllabi of various university and international syllabi of various university. Both are analyzed in view of needs.

CONVENTIONAL LEARNING –

It refers to long-established customs that society has traditionally deemed appropriate. Some forms of education reform promote the adoption of progressive education practices, a more holistic approach which focuses on individual students' needs and self-expression. In the eyes of reformers, teacher-centered methods focused on rote learning and memorization must be abandoned in favor of student-centered and task-based approaches to learning.

PROBLEM BASED LEARNING –

With PBL, your teacher presents you with a problem, not lectures or assignments or exercises. Since you are not handed "content", your learning becomes active in the sense that you discover and work with content that you determine to be necessary to solve the problem. In PBL, your teacher acts as facilitator and mentor, rather than a source of "solutions."

Constructivist theory holds that learners cannot passively absorb new information, but must incorporate it with pre-existing knowledge to build new ideas and concepts—a process profoundly affected by the context in which new information is encountered. These ideas are consistent with a philosophy of learning espoused by individuals such as John Dewey, Ernst von Glasersfeld, Jerome Brunner, and Howard Gardner. Advantages include the enhancement of problem solving and clinical reasoning skills; students become more self directed and enthusiastic learners; application of knowledge in clinical setting in a better way. Disadvantages – increased financial expenditure; increased faculty time; lower levels of content specific knowledge. Problem-based learning's most universal feature is the use of authentic, ill-structured, real-world problems to stimulate and organize all learning. It may be more appropriate to think of PBL as a philosophy than a specific teaching method. As a philosophy, PBL transforms the entire curriculum into a student-centered approach, emphasizing knowledge construction rather than knowledge transmission. Traditional teaching strategies emphasize the broad coverage of content areas through lecture, whereas the PBL method relies on the problem as a vehicle to guide learners to relevant content information. As Boud succinctly stated, "The principal idea behind problem-based learning is that the starting point for learning should be a problem, query, or puzzle that the learner wishes to solve." This philosophy of learning fundamentally challenges the traditional assumption that information should be acquired before problem-solving can begin, and that learning should be sequential, progressing from basic scientific concepts to clinical application. Traditional lecture based courses tend to emphasize teaching rather than learning, passive rather than active learning, and having rather than creating knowledge. Barrows has been credited with developing the classic model of PBL in medical education.

Fraser and Greenhalgh suggested that the evaluation of learning outcomes of PBL should focus more on capability (evaluating one's ability to work effectively in an unfamiliar context) than on competency (evaluating one's skills and knowledge). Evaluating capability, defined in this way, is difficult to accomplish with standardized tests of knowledge.

In a study it is compared that the utilization of library resources between the medical students in PBL and conventional curricula suggested that PBL students were the more frequent users which supported the independent learning process (Rankin1992, Marshall et al,1993). There also seems to be evidence to suggest that learning in a PBL format leads to long term retention of knowledge, enhances the integration of basic science concepts into clinical problems and the increase in intrinsic interest in the subject (Norman and Schmidt, 1992). In a study that compared the change in students' attitudes towards learning pre and post PBL showed a shift towards independent learning (Stokes et al,1997). Another important finding has been that the PBL students were thought to attain superior interpersonal skills, better practices of continued learning, and higher levels of professional satisfaction (Friedman et al, 1990).

The scientific method places randomized controlled trials at the top of the evidence hierarchy in judging the quality of research, but many education researchers believe that randomized controlled trials are inappropriate for assessing a curriculum-level intervention's effects, because one cannot be certain that students actually receive the "treatment." The researchers advocate a more qualitative approach that focuses on individual detailed descriptions of cases and their outcomes; the goal of such an approach is to develop theory rather than generalizable results. In any event, the general findings of many studies confirm that PBL graduates perform as well as their traditionally educated counterparts on standardized knowledge tests, that they are generally more satisfied with their education experiences, and that they engage in more self-directed learning in the course of their studies.

DISCUSSION –

In present Indian scenario, post graduate curriculum includes 1/3 or 2/3 of the repeated undergraduate syllabus. New system of learning is missed. It appears that the learning of new concepts through a problem-solving process in PBL fosters the development of reasoning strategies. The shift from traditional didactic lectures to small group tutorial sessions encourages students to examine meaningful problems in detail, followed by exploration of their own learning issues and discovery of how to work towards the goal. The learning of basic and clinical sciences is all done using the problem and the faculty becomes the facilitator during the teaching/learning process.

Barrows (1986) identified the primary educational objectives possible with PBL as (1) development of an effective clinical reasoning process; (2) organization of knowledge base for use in clinical contexts; (3) development of effective self-directed learning skills; and (4)increased motivation for learning.

CONCLUSION –

It is seen that problem based learning is more effective than conventional studies. It has also been documented that students in PBL adopted a deep rather than surface learning approach. The goal of PBL is to accumulate concepts in the context of a clinical problem rather than solving the problem and not necessarily teaching the problem solving process.

"PBL plays an important role in upbringing an individual"

SUGGESTION –

There is need of syllabi which should be more PBL and less conventional based at post graduation levels. We can suggest that the curriculum should have 3 points of PBL with 1 point of conventional and 1 point of research aspect.

"Problem Based Learning should be focused more."

It is recommended for schools that considering adopting PBL as a curriculum that they carry out research of perceptions and attitude and outcomes.

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