

Implementation of Problem Base Learning as a new Concept in Medical SchoolsIbrahim A Ali^{1*}, Mazin. S. Abdalla²¹Department of Physiology, Faculty of Medicine, The National Ribat University, Khartoum, Sudan²Department of Physiology, Faculty of Medicine, Napata College, Khartoum, Sudan**Short Communication*****Corresponding author**

Dr. Ibrahim Abdelrhim Ali

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Abstract: PBL is an instructional method that makes the students to learn to work cooperatively in one group to reach a solution for a real-world problem. PBL regards the student as its nucleus. A different aspect of the PBL is the side of motivating students and gives them the needed push to search for knowledge. The objective of this review article is to study the PBL as a new method of learning in medical schools. Literature search strategy included electronic database searches, internet searches, hand searching, and ancestry searching and networking. PBL is student-focused, which allows for better understanding, retention of knowledge, active learning, improve content knowledge while simultaneously fostering the development of communication, critical thinking, collaboration, and self-directed learning skills. PBL obstacles involve the tutor facilitation, utilization of resources and, require more staff and more physical space.

Keywords: PBL, student center learning, real problem, active learning

INTRODUCTION

Problem base learning (PBL) is a new method of teaching which focuses on change the base of teaching from the old traditional teaching way (teacher center learning) to the self-learning (student center learning) method [1].

PBL is student-centered. It makes a fundamental shift - from a focus on teaching to a focus on learning, and the students assume greater responsibility for their own learning. Ergo, the presence of teacher is much less frequent in problem-based learning [2]. The PBL is designated to form a connection and behaves like a bridge of solid integration between basic and clinical sciences.

PBL as a new method of gaining knowledge motivates the students to learn and let them not be disappointed by a very huge basic sciences curricula and references, especially, at their first three years of medical student's life. The main idea of problem base learning lies in concept of student's motivation by encouraging them to approach and highlight the use of a conundrum adapted from real life as a stimulus for learning, students work on scenario-based problems in a small group comprised of 5-12 individuals[3].

Problem-based learning was originally developed in mid-1960s as an alternative method to the conventional approach and was first applied to the McMaster Medical Faculty in Canada [4]. The pioneers, who introduced the world to the PBL, were Canada (McMaster)[5], Australia (Newcastle)[6], Nigeria (Ilorin)[7] and Sudan (Gezira). In Sudan, the fundamental shift of the classical way of teaching to a new one (PBL), and module curricula needs bold steps and courage to overcome a lot of obstacles, the first of which is how to persuade the teachers, professors and

essentially all the parties involved in the teaching arena to embrace

What is problem based learning?

In (PBL), the learners utilize clues in the problem case or scenario to extract the learning objectives; in consequence, they lead study with independence and self-direction prior to going back the group assembly in order to sharpen the acquired knowledge. It is safe to say that PBL system is not about problem solving; instead it employs appropriate problems to expand the knowledge and understanding.

What is going on in a PBL tutorial?

Tutorials in the PBL fashion are conducted in a variety of ways. When describing a tutorial, we often describe a gathering of up to 10 students and their tutor. The job of the latter is to facilitate a smooth session. The amount of spent time per session depends on the teaching facility. The goal is creating a microenvironment for the group dynamics, but, it can be changed according to new circumstances, such as dysfunctional behaviors.

The essential role of the tutor is to ease the process of information solidification, control the dynamics of the given task and to make sure that the group reaches the agreed upon learning objectives in accordance with the curriculum.

PBL tutorial process

Step1: identify and clarify unfamiliar terms
Step 2: define the problem or problems to be discuss
Step3: brainstorming session
Step4: review step2,3 and arrange explanation.
Step5: formulate learning objectives
Step6: all students' gathers information related to each learning objective,
Step7: group share results and tutor check learning and may be asses the group.

In practice, PBL is usually part of integrated curriculum using a system based approach, with non-clinical material delivered in the context of clinical practice. The group as whole should be encouraged to reflect on it PBL performance including its adherence to the contributions. Peer pressure in group reduces the likelihood of students failing to keep up with workload, and the award of a group mark add to everyone's assessment schedule encourages student to achieve the generic goals associated withPBL

Why PBL?

In problem based learning (PBL) the learning issues is going to be elaborated by the students and they use "triggers" from the problem case or scenario to define their own learning objectives. For this reason, the students embark on the journey of self-study, going through the agonizing yet sweet trip of gaining information in an independent fashion. When this comes to end, they go back to their assigned groups and discuss.

The PBL sessions make the student enjoy by the process of learning and give them a good feeling of confidence as a problem solver. The PBL sessions improve the communication skills, teamwork, problem solving, and independent responsibility for learning, sharing information, respect for others, how to work alone and when to work in group. It's also improved their problem-solving skills and increases their experiences to obtain knowledge [8].

PBL mainly aims to help students learn better, acquire and experience higher order of thinking skills which they are going to use throughout their medical lives [9]. PBL approach emphasize that individuals' ideas and behaviors that acquired later in the life are based on their previous ideas, and that learning is a process involving correlation between their existing knowledge and new ideas and experiences[10].

PBL sessions allow the students to improve their problem-solving, creative thinking and critical thinking skills [11]. Therefore, it is very important to establish learning environments based on active participation of the students in learning process [12].

In the traditional curricula lectures is not emphasize complete transmission of information to the students and the real problem facing them is irrelevance of some knowledge and data which they must acquire in the traditional curricula. In a nutshell, students assume increasing responsibility and awareness for their own learning. They identify and comprehend the objectives in the 'problem scenario'and, since the purpose of PBL is to develop understanding, rather than just memories students.

The major advantages of PBL are the fact that it is student-focused, which allows for better understanding, retention of knowledge and active learning. It also helps to develop useful skills that are suitable and applicable to many domains [13, 14]. It can be used to improve content knowledge while simultaneously fostering the development of communication, critical thinking, collaboration, and self-directed learning skills.

The major disadvantage to this process involves the tutor facilitation, utilization of resources and, requires more staff and more physical space. For this reasons some educators find PBL facilitation difficult and frustrating.^[15]Students also report uncertainty with information overload and are unable to determine how much study is required and the relevance of information available. Students may not have access to teachers who serve as the inspirational role models those traditional curriculum offers [15].

When the PBL is introduced into a curriculum, several other academic and non-academic (financial) issues for curriculum design and implementation need to be tackled. PBL is practiced in the frame of specific core curriculum with integrating basic and clinical sciences. PBL has requirements for recruiting staff and allocating learning resources. Moreover, it proposes an alternative approach to setting timetables, workload, exams and other methods of assessment.

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