

# **A Survey of Influence Rate the Two Educational Methods of PBL&EBL on Health Agents & Students Knowledge About Thalassemia Disease in Medical Sciences University in Mashhad**

**Mohammad Vahedian (MSPH)**

Computer Center, Health and Paramedical Faculty, Medical Science University in Mashhad, Malekabad Square, Mashhad, Iran  
m-vahedian2002@yahoo.com  
www.erh.ir/mvahedian

**Masoumeh Sarbaz**

Medical Records Group, Health and Paramedical Faculty, Medical Science University in Mashhad, Malekabad square, Mashhad, Iran  
m\_sarbaz2006@yahoo.com

## **Abstract**

*Problem-based learning (PBL) and evidence based learning (EBL) are a total approach to education. In PBL and EBL, the traditional teacher and student roles change. The students assume increasing responsibility for their learning, giving them more motivation and more feelings of accomplishment, setting the pattern for them to become successful life-long learners. The aim of this study is to determine of influence of relationship among the education kind of PBL & EBL and health agents and students knowledge about thalassemia disease in medical sciences university in Mashhad, 2007. These training methods were not ever applied on the most so far ; therefore , in order to carry them out in the study , Health agents and students were chosen . Agents are volunteers Selected and trained about Health issues.40 people of Golshahr center and 40 Health senior students, Mashhad active Agents were chosen as understudy samples and every one of them were separated Into two same groups , every group was trained about thalassemia by EBL and PBL*

*training methods .Same number of training sessions were held, also tripping Session was carried out to help them analyzes the accessible data sources. In the beginning of 1 st session , through the No 1 questionnaire , the pre – knowledge level of the agents and students was tested and then EBL and PBL teaching methods were elaborated . Also two training pamphlets were handed out to them. Also a private tipping session was held. Another session was held to answer the questions and their learning status was evaluated .In this session the NO. 2 questionnaire helped us to test the agents and students current Knowledge of thalassemia disease and their views about the teaching method were collected and the results were analyzed*

**Results:** *In this study the knowledge about thalassemia was evaluated before and after the training course and its relation with the demographic variables were evaluated . There is meaningful statistical difference knowledge before the training course in the PBL & EBL methods. There is meaningful statistical difference knowledge after the training course in the PBL & EBL methods.*

*There is a meaningful statistical difference in between the health agents and students knowledge of thalassemia before and after the training sessions.*

*There is a meaningful statistical difference when comparing the two methods of PBL & EBL in the health agents and students knowledge.*

**Conclusion:** *The utilization of cooperative teaching methods for training people especially groups like health agents and students, causes them to tangle more with the problems and provides the ground from self learning in comforting further problems.*

**Keywords:** Problem-based learning - evidence based learning – Health students – Health agents

## 1. Introduction

Problem Based Learning (PBL) & Evidence Based Learning (EBL) is a powerful educational model that has its roots in the old age, well proven apprenticeship method, learning through practice.

Initially developed a quarter of a century ago in Medical Education, it is now increasingly used at all educational levels and professional schools in a wide range.

It involves learners in an active, collaborative, student-Centered learning process that develops problem-solving and self-educational abilities, which are needed to meet the challenges of life and careers in our increasingly complex environment. It also allows the learner to acquire an integrated based knowledge structured around real world problems, the problems the learners will face in future work or profession, community and personal life (1). PBL learning is the learning that results from the process of working toward the understanding or resolution of a problem. The problem is encountered first in the learning process.

PBL is a teaching method that can be used in many formats. Such as small-group tutorials, PBL large-group case method

discussion. And problem –based laboratories (2).

However it is used most commonly in small groups with a facilitator. The essence of the PBL method involves the three steps of confronting the problem, engaging in independent study and returning to the problem (3).

Evidence-based medicine is the process of life-long, self-directed learning in which caring for patients leads to the search for, critical appraisal, and incorporation into practice of valid and clinically important information about diagnosis, prognosis, therapy, and other clinical and health-care issues.(4)

Since evidence-based medicine involves skills of problem definition, searching, evaluating, and applying original medical literature, it is incumbent on residency programs to teach these skills. Understanding the barriers to educating physicians-in-training in evidence-based medicine can lead to more effective teaching strategies.(5)

## 2. Objective of Research

### 2.1. General objective:

Determination of influence rate the two educational methods of PBL &EBL on health agents & students knowledge about thalassemia disease in medical sciences university

### 2.2. Specific objectives:

- Determination of the health agents and students knowledge of Thalassemia before and after the training sessions in the PBL & EBL methods.
- Determination of the health agents and students knowledge of Thalassemia before the training sessions in the PBL & EBL methods.

- Determination of the health agents and students knowledge of thalassemia after the training sessions in the PBL & EBL methods.
- Comparing between the effect of the two methods of PBL & EBL in the health agents and students knowledge.

### **3. Results:**

In this study knowledge about thalassemia was evaluated before and after the training course and its relation with the demographic variables were evaluated . There is a meaningful statistical difference in health agents and student's knowledge before the training course in the PBL & EBL methods. There is a meaningful statistical difference in health agents and students knowledge after the training course in the PBL & EBL methods. .(Figure 1)

There is a meaningful statistical difference in between the health agents and students knowledge of thalassemia before and after the training sessions. .( Figure 2)

There is a meaningful statistical difference when comparing the two methods of PBL & EBL in the health agents and students knowledge. The people knowledge was increased comparatively much after training in the every two groups. (figure3)

### **4. Conclusion:**

The utilization of cooperative teaching methods for training people especially groups like health agents and students , causes them to tangle more with the

problems and provides the ground from self learning in comforting further problems.

Problem-based learning represents a strong and proven pedagogical methodology that will prove to be a strong part of the University's strategy.

Evidence-based learning will require new skills for the teacher. While strategies for inculcating the principles of evidence-based medicine remain to be refined, initial experience has revealed a number of effective approaches. Incorporating these practices into postgraduate Health education, and continuing to work on their further development, will result in more rapid dissemination and integration of the new paradigm into Health practice.

### **5-acknowledgments**

The authors thank Professor Fazly Bazzaz, M.Sc., Ph.D, Vice President for Research for her assistance in Mashhad University of Medical Sciences (MUMS) .

### **References**

- 1-www.siumed.edu/pdlc/pblapp.html
- 2- Kaufman D.M.&holmes D.B. (1996) tutoring in problem –based learning : perception of teacher and students . Medical Education 30,371-377.
- 3-Wilkerson L.&feletti G. (1989) problem – based learning : one approach to increasing student participation . the D department Chairperson sr. Oleo In Enhancing college teaching . New Direction for Teaching and Learning (ed.A.F).37,51-60.sanfrancisco:jossey –B ass.Inc.
- 4- <http://www.cebmh.com>
- 5- <http://www.cche.net/che/home.asp>

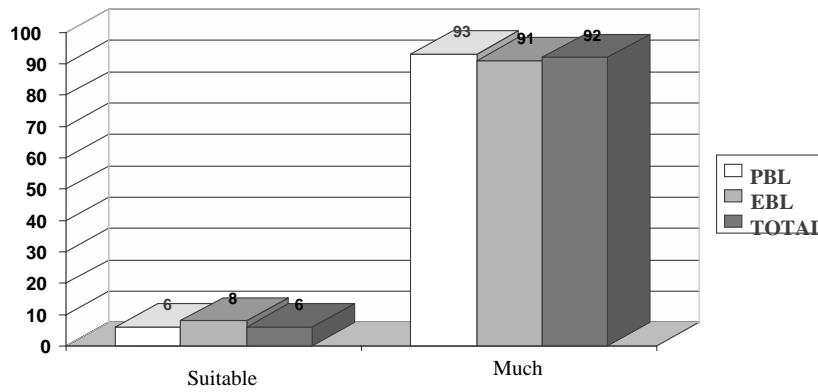


Figure 1-The people knowledge of thalassemia disease after the training sessions in the two groups of PBL & EBL

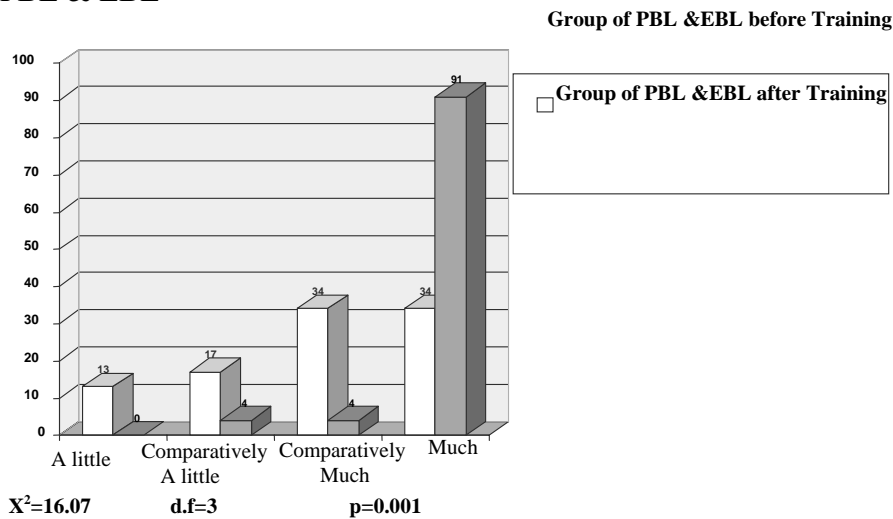


Figure 2- The people knowledge of thalassemia disease before & 10 days after the training sessions in the two groups of PBL & EBL

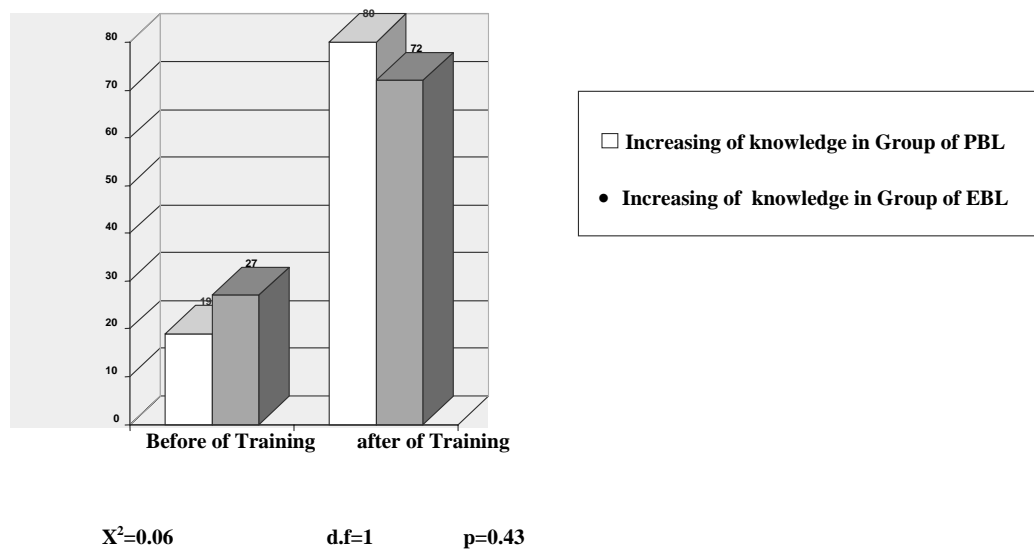


Figure 3-The Increasing of people knowledge before and 10 days after the training sessions in the two groups of PBL & EBL