

The impact of problem base learning (PBL) on anesthesiology students' learning in emergency medicine course

Hossein Karimi Moonaghi^{1,2,3}, Naser Lotfi Fatemi^{3*}

1- Evidence-Based Caring Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

2- Department of Medical Education, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

3- Department of Medical-Surgical Nursing, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran

***Corresponding Address:** PhD Department, Mashhad University of Medical Sciences, Mashhad, Iran

Email address: lotfifn1@mums.ac.ir

Abstract

Background & Aim: problem based learning is utilized extensively within contemporary medical education. The aim of this study was to determine the effect of problem based learning (PBL) on undergraduate anesthesiology students' knowledge in emergency medicine course and to compare it with lecturing method and slide presentation.

Methods: This is a quasi-experimental two group pretest-posttest design conducted on 68 undergraduate anesthesiology students of Mashhad Islamic Azad University. Students were allocated randomly in two groups (34 and 32 in the case and control group, respectively). Similar content were taught for both groups in emergency medicine course. The case group was taught using problem based learning, while the control group was taught by lecturing with slide presentation. Data analysis was done using t-test and descriptive statistics by SPSS software.

Results: this study included 68 students comprising 54 (79.4%) and 14 (20.6%) males and females, respectively. There were no significant differences in demographic parameters between the two groups. The mean of pre-test scores of the two settings did not indicate any meaningful distinction ($p=0.62$), while the averages of post-test scores were significantly higher in the treatment group ($P<0.001$).

Conclusion: Teaching emergency medicine using problem based learning was more successful than lecturing with slide presentation method for enhancing students' knowledge, therefore this method is recommended for anesthesiology students.

Keywords: Problem-based Learning, Emergency Medicine, Anesthesiology Students