## APPLYING AN INNOVATIVE EDUCATIONAL PROCEDURE IN MEDICAL BIOCHEMISTRY: CAN FIRST YEAR PHARMACY STUDENTS GAIN THE BENEFITS?

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## **ABSTRACT**

Peer tutoring programs have been installed in Medical Biochemistry course and aligned with traditional teaching methods in order to maintain the quality of teaching. Reciprocal peer tutoring, cross-age peer tutoring methods were aimed to increase student engagement in the learning process and greater understanding. This cross-sectional study consisted of questionnaires and assessment was conducted. Total of 28 topics that covered major part of Biochemistry was distributed to all students. They were divided into 15 groups. They had four weeks to discuss the assigned topics. At the end of the discussion, questionnaires that consisted of knowledge and benefit, peer tutors' preparation and participation, perception of interaction were distributed. The quiz consisted of MCQs, and short questions were asked to assess their performance additionally. More than 75 (70.1%) agreed that they gained the benefits such as more mutual respect among peers, more confidence in learning and knowledgeable. Almost 100 (93-95%) responded that peers prepared their assigned tasks well and actively participated in the discussion. Hundred students (94-95%) showed their positive thoughts towards peer interaction and dynamics. More than ninety (85%) were satisfied with peers' evaluation, learning environment and leading skills. The mean score of quiz  $(8.63 \pm 0.74)$  out of 10) was higher than that of scoring before peer tutoring  $(5.62 \pm 1.47)$ . Though good students maintained their good scores and weak students performed much better after peer tutoring, the correlation was weak. Peer tutoring guided both peers and tutors to engage in their active learning, developing their communication and interpersonal skills.

**Key Words:** Reciprocal-peer tutoring, Cross-age peer tutoring, Medical Biochemistry, Academic Performance

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