

Evaluating the Impact of Peer-Assisted Learning (PAL) on Anatomy Education for First-Year Bachelor of Pharmacy Students at the University of Cyberjaya

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Abstract. Teaching and learning of anatomy courses pose significant challenges, with high failure rates seen among healthcare students. Peer-assisted learning (PAL) offers a promising alternative by enabling better peer communication during anatomy practical sessions. Studies have shown PAL's effectiveness and potential as a teaching method. This study evaluated the effectiveness of PAL versus conventional teaching in Human Anatomy and Physiology 2 practical sessions among first-year Bachelor of Pharmacy students at the University of Cyberjaya. Faculty staff trained PAL tutors (n=10) prior to the practical sessions and six of the qualified tutors facilitated the Practical 1 and 2 sessions alongside the faculty staff. During the practical session, the class was divided into two groups for Practical 1 and 2, with students taught by either faculty staff or PAL tutors (Practical 1: faculty-led, n=20, PAL-led, n=21; Practical 2: faculty-led, n=21, PAL-led, n=20). At the end of the sessions, an academic quiz, a self-perception skills assessment, and a PAL perception questionnaire were given to the students. Results showed PAL tutors and PAL-led students scored significantly higher on the academic quiz as compared to faculty-led students. Self-perception skills scores for practical learning outcomes were also higher for PAL tutors. Overall, PAL tutors reported a better understanding of course content and achieved better academic results. In conclusion, incorporating multiple approaches, including PAL, is crucial for enhancing Bachelor of Pharmacy students' understanding of anatomy. This study demonstrated that PAL not only improves students' academic results and understanding of the course but also improves comprehension, motivation, and interest in the course.

Keywords: Anatomy, Peer-assisted learning (PAL), Pharmacy students, Pharmacy education, Teaching-learning