

Pre-Clinical Medical Students' Use of Motivational and Cognitive Study Strategies During Anatomy Learning: A Three-Year Cross-Sectional Survey

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Abstract

Medical students' motivation and study strategies are crucial in determining academic performance. This study aimed to assess the motivation and learning strategies of medical students as well as their association with performance in anatomy examinations. The Motivated Strategies for Learning Questionnaire, two focus group discussions, and students' current anatomy cumulative grade point average (cGPA) were used. Generally, the medical students strongly felt that anatomy is fundamental to the practice of medicine and surgery. This result was consistent with high task value scores of 5.99 ± 1.25 . They were also driven by extrinsic goal orientation (5.59 ± 1.42) and intrinsic goal orientation (5.08 ± 1.26). Most medical students typically relied on elaboration (5.35 ± 1.25) ahead of other cognitive strategies namely rehearsal (5.30 ± 1.11), organization (5.15 ± 1.34), and lowest-rated critical thinking (4.77 ± 1.19). The students also relied on resource management strategies, effort regulation (5.15 ± 1.20) and time and study environment regulation (5.03 ± 1.03) more than the moderately scored peer learning (4.95 ± 1.50) and help-seeking (4.95 ± 1.09). In the focus group discussions, students reported that they often narrate or explain to each other what they would have read and understood from anatomy lectures, tutorials, and textbooks. They also bemoaned the lack of institutional support for stress burdens. The motivation and learning strategies subscales were not correlated with anatomy cGPA. Males were driven by extrinsic goals and experienced significantly higher levels of test anxiety than females ($P < 0.05$). Knowing the motivation and learning strategies students employ early in the medical curriculum can be leveraged to promote self-directed learning and academic achievement.