Matching teaching strategies to learning style preferences in an undergraduate physiology module

H. Nagaraja, G. Harrison, B.K. Anupama and M.A. Bunmi, College of Public Health, Medical and Veterinary Sciences, College of Medicine and Dentistry, James Cook University, Townsville, QLD 4814, Australia. (Introduced by Séverine Lamon)

The diversity of students is increasing in the regional medical schools with an increasing number of metropolitan and international students. It is essential to assess the learning preferences of these diverse student population to cater to their different learning needs. A considerable amount of research suggests that matching teaching approaches to learning styles will help to increase student achievements in the early years of the medical program. Peer review of teaching is considered by many to be a powerful tool for providing feedback to teachers and is widely promoted as a mechanism for developing teaching practice in tertiary education.

This study aimed to investigate first-year medical students learning preferences and to assess the effect of teaching strategies used to match student learning styles in a physiology module. A questionnaire was administered to the first-year medical students for determining the preferred learning styles. A hybrid curriculum with online plus face-to-face delivery mode was introduced in a physiology module for these students in their challenging first year. A variety of teaching-learning methods was presented in the module to allow students to engage. A peer review of teaching evaluation was conducted by internal and external experts to gather perceptions regarding the module contents and presentations. The dominant learning style preference of first-year medical students was multimodal. Read-write preference was predominant for the unimodal students. Majority of students were assimilators and accommodators. Feedback showed a positive impact of changing the teaching strategy for student learning. The peer review and students' academic performance showed that the innovative teaching strategies were effective in student learning in this module.

These results emphasize that the teachers in the early years of the medical program may have to use a variety of teaching approaches to reach more students in a cohort. It is concluded that matching teaching styles of instructors with learning style preferences of students has a significant effect on the success of the students in the first-year undergraduate program.