Impact of Learning Theory and Learning Style Awareness for Students in a Medical School Curriculum

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Background

It may be of value for students in a medical school-based curriculum program to be aware of various learning theories and identify effective learning strategies before their coursework begins. This early acknowledgement of a personalized learning style could allow students to cater their studies to increase long-term information retention for success in their courses.

Objective

This study aims to educate students about learning theory and learning styles and how awareness can create individualized approaches to the medical school curriculum.

Methods

Subjects consisted of first year medical students (class of 2022), second year medical student (class of 2021), and master’s of science students (class of 2019) from Touro College of Osteopathic Medicine in Harlem. A paper survey was used to gather information on demographics, previous knowledge of the different types of learning styles, and awareness of personal learning styles, prior to the workshop. Participants were then given a brief powerpoint presentation, presented by Touro faculty, outlining the basic characteristics of different learning styles and corresponding study/learning habits that are most effective. Participants were then provided and asked to complete the modality (learning channel preference) questionnaire by O’Brien (1985) which helped participants determine their personal learning style. Finally, participants completed a post-survey that assessed changes in awareness and knowledge of different learning styles. All surveys and questionnaires were provided on paper.

Data Analysis/Results

272 people were surveyed. Statistical significance was measured by comparing percentages of grouped study participants with one sample t-testing and the resulting p-values. Results with a p-value under 0.05 were reported as statistically significant. The average age of participants fell into the 20-29 years old range. Participants were surveyed on which of three learning styles (visual, auditory, and kinesthetic) applied the most to them. Results were grouped to track trends among students. Overall, 94.12% (n=256) were interested in learning study skills for medical school. 72.06% (n=196) were aware of their learning style whereas 27.57% (n=75) were unaware of their learning style. 82.62% (n=222) indicated that it would be beneficial to future studying to determine learning styles. 83.82% (n=228) indicated they would attempt to tailor studying towards their learning style. Ultimately, an overwhelming majority at 92.65% (n=252) were interested in a personalized study approach catered to their learning style.

Conclusion

Students who are aware of the theories of cognition can create a better approach to their learning starting in their first semester of medical education to build a stronger foundation, develop a more rehearsed working memory, and eventually incorporate more information and knowledge into their long-term memory. Future studies can analyze success in the DO program when students utilize the correct learning style from the start.

References