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Background / Introduction

Team based learning (TBL) is a small group format that highlights knowledge application. TBL follows the principles of constructivist educational theory. Students are required to prepare for the application exercise independently and this initial knowledge is tested at the start of the TBL session. Students are then broken up into assigned small groups and the same knowledge is tested. Students are then brought back together for a review of the assurance test material before they are again sent into their assigned groups to complete the Application Exercise (AE). After the application exercise is complete, the large group is brought back together to review elements of the AE.
TBL is used in the McGovern Medical School curriculum longitudinally throughout the first semester of the first year of school. 18 separate sessions are held over the course of almost five months with the goal of applying medical knowledge clinically.

Team Based Learning (TBL) in the McGovern MS1 Foundations Course has been poorly evaluated by learners in terms of structure, quality, consistency, and format. During the 2020-2021 academic year, all educational material was delivered remotely to comply with COVID-19 pandemic guidelines.

Methods / Project Description

This is a prospective correlational study of the MS1 Foundations TBL curriculum after the course was reviewed and revamped. In order to deliver material remotely, TBL was digitized using InteDashboard™ software and Zoom. Curriculum review and revision was completed by a group of PhD and MD's. An orientation was created, formatting was standardized, readiness questions were rewritten with educational experts, preparatory material was updated, and application exercises (AE's) were revised. Grading for TBL was also altered leading to a

score for the readiness testing, but a participatory grade for the application exercise.

Three times during the semester students were asked number and open-ended questions about their TBL experience. Satisfaction with the TBL sessions was determined using a 5-point Likert scale and averages and standard deviations were reported. Open ended questions about the entire unit block were asked and each time a student entered the term "TBL" or "team-based learning" these comments were collated and analyzed.

Results / Outcomes

All 240 students completed each of the unit surveys. When asked about their satisfaction with the quality of the TBL sessions, students from the 2020-2021 academic year reported a 3.81 (SD 1.03) on a Likert scale of 5. Though not statistically significant, this is an improvement from the prior academic year (average score of 3.50, SD 1.13). Open-ended questions generated 62 positive and 53 negative comments. Students enjoyed the pedagogy, the clinical correlation, and the sense of community while learning in a small group of peers. Students cited the large volume of preparatory material and the coordination of weekly material with the TBL curriculum as negatives.

Discussion

Revamping the TBL course at MMS, particularly in regard to standardization, rewriting questions, and standardized formatting was associated with a high level of student satisfaction. TBL was positively seen to be an effective and enjoyable pedagogy by many students. Negative aspects of TBL per learners included the intermittent high volume of preparatory material and the fact that the weekly TBL did not always correlate with the rest of the weekly course content. There was only one negative comment about the remote nature of TBL this year and many positive comments about the new software used. There were multiple comments on how the students desired more TBL cases, particularly to discuss other curriculum elements (i.e. the social determinants of health, systemic racism, and healthcare disparities).

Conclusion

Revamping the TBL course by standardizing exercises, re-writing test questions with educational experts, and using new technology (Intedashboard™, Zoom) allowed for remote, active education in the MS1 Foundations curriculum at MMS that was correlated with a high level of student satisfaction.