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INTRODUCTION

There are many factors that medical students must consider when applying to medical school. Once a student is accepted, the rigor of medical school can negatively impact their academic performance and progress. Because of this, some may choose to forgo their future career in medicine, which can increase the attrition rate of said medical school. The average yearly attrition rate for medical school ranges from 0.8 to 4.8%, with osteopathic medical schools having an average of 3.03% (AAMC, 2018, AACOM attrition, 2019). This implies that for those who enter medical school, there is a 95%-99% chance of them becoming a physician (AAMC, 2018). This number has improved by almost 20% since the 1980's (AAMC, 2014). Despite the overall improvement in attrition rates, the overall graduation rate for those who seek a degree as a Doctor of Osteopathic Medicine (DO) or Doctor of Medicine (MD) without a dual degree such as Doctor of Philosophy (PhD), Master of Business Administration (MBA), and/or Master of Science (MS) has declined (AAMC, 2018). Our research sought to identify factors that could improve the attrition rate in medical schools for students who may need a leave of absence or are not meeting academic standards to progress appropriately in the medical school curriculum. Specific factors relating to admissions variables were assessed.

Bandura (1977) states self-efficacy (SE), is the ability for an individual to believe in their own capabilities and it has been connected to an individual's ability to succeed, deal with resistance and failures, and cope with challenges. All these skills are essential in physicians and healthcare providers. SE has been found to have a positive impact on college student academic performance but has not been looked at in medical students.

OBJECTIVES

We sought to investigate the factors that may lead a student to achieve higher levels of academic success during the first semester of osteopathic medical school.

METHODS

An observational study was completed in which a 15-minute online survey asked basic demographic information and questions relating to self-efficacy using the Sherer et al. (1982) General Self-Efficacy Scale (SGSES). We chose the General Self-Efficacy Scale (SGSES) because of its generalizability, due to differing levels of self-efficacy that students may have. Questions included in the survey also related to undergraduate work, size of town, number of applications, UG athletic division (Division I or Non-Division I, used to gauge size of the institution), science-based UG degree, certificate or participation in the Bridge program, public or private undergraduate institution, choice of accepted medical schools, and highest level of education attained by the students' parents. In addition, student GPA, undergraduate science GPA, highest MCAT score, 2015 MCAT score, and class ranking were retrieved from Academic Affairs databases for further data analysis. Once the semester was complete, the students' GPA and class rank were also retrieved after a de-identification processes was carried out.

Self-efficacy sub-scales were summed and scored for each participant. Descriptive statistics were calculated for all variables with the means as follows: GPA 3.60 (on a 4.0 scale), Science GPA 3.51 (on a 4.0 scale), MCAT highest 23, age 25.15, GSE 188.50, SSE 52.98. A Pearson correlation analysis was used to analyze each of the variables. All variables, as previously discussed, and our outcome variables used to measure academic success (first semester GPA and class rank) were selected and then analyzed.

STATISTICALLY SIGNIFICANT RESULTS

Variable One	Variable Two	Pearson Correlation Value
First Semester GPA	Undergraduate Athletic Affiliation	0.311
First Semester GPA	Number of Medical School Applications Submitted	0.467
Class Rank	Undergraduate Athletic Affiliation	0.336
Class Rank	Number of Medical School Applications Submitted	0.355
Class Rank	Undergraduate GPA	-0.483
Class Rank	Undergraduate Science GPA	-0.495
General Self-Efficacy	Size of Hometown	0.256

CONCLUSION

This study determined that medical students' academic success was better predicted by academic preparation rather than a student's self-efficacy. This is opposite of current literature that demonstrates a significant impact on GPA and retention. While this study did not find SE to be a predictor of first year medical student success, the ability to control thoughts, feelings, and actions in stressful situations is critical to success as a physician. Academic programs should seek out options to improve these skills prior entering the clinical setting.

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Bandura (1977) Theory of Self-Efficacy

