Analyzing the Presence of a Support System and Its Effect on Mood Among Medical Students at UMKC School of Medicine

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Introduction

The UMKC School of Medicine is one of the few 6 year combined B.A/M.D programs in the country.
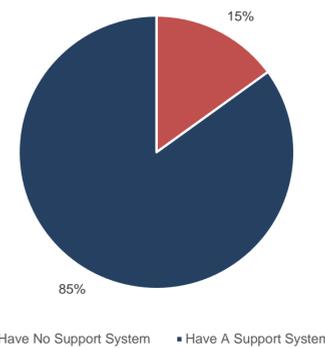
- A student-led study was conducted to assess the state and factors that play a role in mental health.
- Questions regarding social factors, such as social support and sentiments of isolation, were included in the survey knowing that they have a role in mental health, specifically depression and anxiety.
- The goal is to provide a foundation for using data driven studies to implement changes to improve outcomes for students.
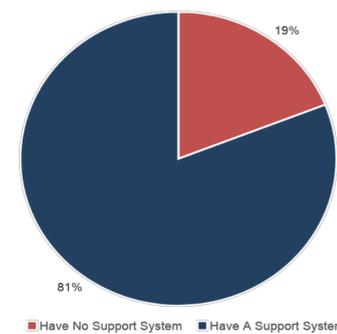
Methodology

- BA/MD and MD only medical students enrolled in the University of Missouri-Kansas City School of Medicine were included
- The cross sectional survey was comprised of 418/690 or 61% of all students from all six years of the program.
- After UMKC IRB approval, students were approached via informational class meetings, email, and social media. The study was anonymous, voluntary, and no personal identifiers besides year in the program were obtained.
- The GAD7 and PHQ9 questionnaires, which are standardized tools to evaluate for anxiety and depression, were included in the survey. The student research group also generated a set of questions regarding other variables that may influence mental status.
- Level of social support and sentiments of isolation were compared among classes.
- This was used to stratify anxiety and depression levels among those students who identified as having social support and those that denied having it.
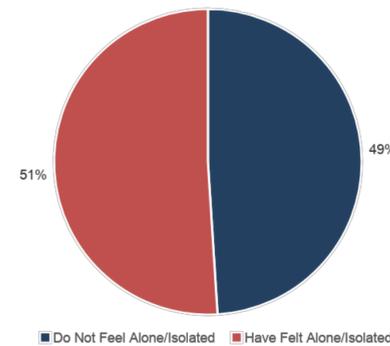
Results

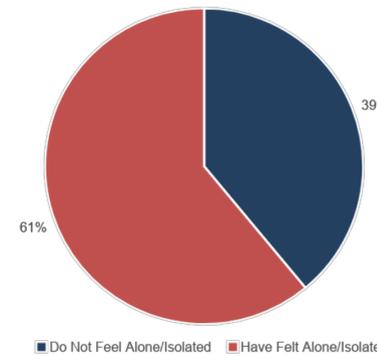
All Students - Years 1-6: Support System
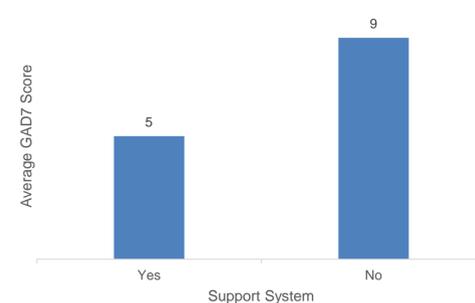15% Have No Support System
85% Have A Support System

Year 4: Support System
19% Have No Support System
81% Have A Support System

All Students - Years 1-6: Feelings of Isolation
49% Do Not Feel Alone/Isolated
51% Have Felt Alone/Isolated

Year 4 Students: Feeling of Isolation
39% Do Not Feel Alone/Isolated
61% Have Felt Alone/Isolated

Support System vs. Average GAD7 Score
Yes: 5   No: 9

Support System vs. Average PHQ9 Score
Yes: 6   No: 9
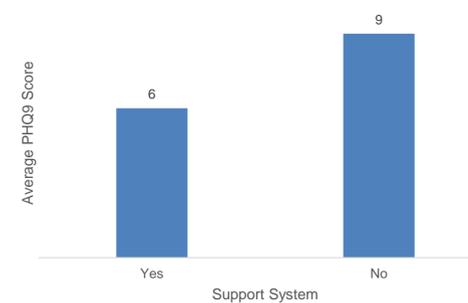
Conclusion

- Lack of support system correlates with an increased incidence of both anxiety and depression.
- PHQ9 score averages between students with and without support are 6 and 9, respectively.
  - Both scores classify as "mild depression," but the score of 9 among those without support nears "moderate depression," which would warrant further assessment and possibly therapy.
- GAD7 score averages between students with and without support are 5 and 9 respectively.
  - Both scores classify as "mild anxiety." Once again the score of 9 without support, nears "moderate anxiety," which would also warrant further assessment and possibly therapy.
- 4th year students were shown to be the class that has the greatest proportion of students who identified as feeling alone/isolated and as having no support system.
  - The survey was administered during spring; a time when the bulk of the class is taking Step 1, which is a known stressor.
  - This is also the first year where students are on independent schedules.

References

- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. Journal of general internal medicine, 16(9), 606-13.
- Paul A. Harris, Robert Taylor, Robert Thielke, Jonathon Payne, Nathaniel Gonzalez, Jose G. Conde, Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support, J Biomed Inform. 2009 Apr;42(2):377-81.
- Spitzer RL, Kroenke K, Williams JBW, Lowe B. A brief measure for assessing generalized anxiety disorder. *Arch Inern Med.* 2006;166:1092-1097.
- SPSS version 25, Chicago, Illinois with special thanks to Stephen Simon