

INTRODUCTION

Wayne State University School of Medicine (WSUSOM) recently overhauled its pre-clinical medical education, with the Class of 2022 being the first cohort of students to experience the redesign. Pre-clinical education was condensed to 18 months, and the organization of content is now systems-based, with specialized NBME exams as the primary means of assessment. The transition into medical school combined with learning high volumes of information for exams is stressful enough as it is for medical students (Ludwig et al. 2015), but adding on a novel curriculum design can pose more challenges for students (Yengo-Kahn, Baker, and Lomis, 2017). Many medical schools have implemented curriculum change to better educate their students, but there is limited literature on the impact of those changes on student wellness and perceptions of support, and even less information from a school with a large student body, like WSUSOM.

Objective: Explore student perceptions regarding the subjects of social/peer support, academic support, administrative support, and curriculum design within the new 18-month accelerated pre-clinical curriculum at WSUSOM.

METHODS

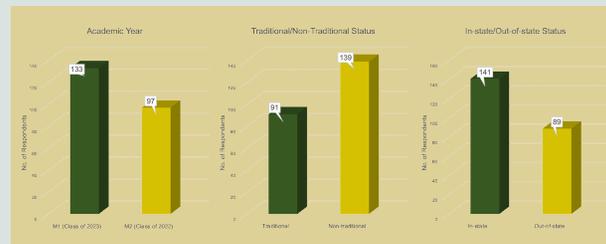
As students in the Classes of 2022 and 2023 were among the first two cohorts to experience the accelerated curriculum, they were the earliest available groups with the ability to give feedback on the recent curricular changes. To gauge this feedback, a 23-question survey on Qualtrics was administered to the Classes of 2022 and 2023 (N=580), of which 252 students responded and 230 students completed the survey in its entirety. Fully completed surveys were used for data analysis.

Survey questions were inspired by the Medical Student Learning Environment Survey (MSLES) with integration of concepts of curricular changes and medical student mental health. The notion of support was emphasized as perceived levels of support may be inversely correlated to odds of having moderate to severe depression (Thompson et al. 2016). Coping was included in the survey as some medical students believe that coping plays a role in the development of depression, either as the primary cause, or in combination with other causes (Thompson et al. 2016).

The first six questions pertained to student demographics, which were used for the purpose of differentiating various perceptions among different student identities. Fourteen of the survey items were rated on a 5 point scale, with answer choices based on frequency (1 = "Never," 2 = "Rarely," 3 = "Sometimes," 4 = "Often," and 5 = "Very Often") or based on level of agreement (1 = "Strongly Disagree," 2 = "Disagree," 3 = "Neither Agree nor Disagree," 4 = "Agree," and 5 = "Strongly Agree"). Three questions were open-ended to allow students an opportunity to share details of issues they encountered or improvements they wanted to see in the curriculum.

With the most positive responses being rated as "5" and the least positive responses being rated as "1", the mean values for each question can show whether student perception about a specific item is generally positive or negative, where mean response scores greater than 3 yield a more positive perception.

STUDENT RESPONSES



Survey Subject/Item	No. of Responses Analyzed	Mean Response Score	Standard Deviation
Social/Peer Support			
I feel that I am able to find time for family and friends	230	3.34	0.93
I feel that students are encouraged to help others and openly discuss problems they are facing.	230	3.42	1.06
Students spend time assisting each other.	230	3.49	0.92
I feel that my learning community has been effective at helping me build connections with my peers.	230	3.04	1.22
Academic Support			
I feel that I have learned effective coping strategies from events hosted by the administration that can be used to minimize stress levels.	230	2.44	1.06
I am confident that I know where to go to seek academic support from faculty and staff.	230	3.56	0.99
I would feel comfortable asking faculty for help if I was falling behind academically.	230	3.36	1.07
Faculty are generally available and approachable for me to reach out and ask questions.	230	3.78	0.8
Administrative Support			
The administration responds to student complaints in a timely manner and with meaningful action. For this survey, the term "administration" will refer to all deans, their associated staff, and the administrative offices as specified on the WSUSOM website.	230	3.17	1.01
I am satisfied with the level of transparency from the administration regarding the reasoning for curricular policies and changes.	230	2.7	1.05
Curriculum Structure			
I feel that the structure of the curriculum reduces the stress that I perceive to be normal for medical school.	230	2.89	1.13
I feel that the structure of the curriculum increases the stress that I experience.	230	2.88	1.11
Based on my experience to date with the current curriculum, I feel that an 18-month curriculum is adequate to prepare me for my clinical rotations.	230	3.51	0.99
I feel that the accelerated curriculum is adequately preparing me for board examinations.	230	3.38	1.02

RESULTS

Social and peer support items all received mean scores greater than 3, with students assisting each other and students being encouraged to help others being scored the highest. Learning community effectiveness received the lowest score in the category with a mean of 3.04 (+/-1.22).

Coping strategies received the lowest score of 2.44 (+/-1.06) in the academic support category, with all other scores indicating relatively positive perceptions of academic support, especially in faculty availability.

Student perception of administrative support, including responsiveness and transparency, is the lowest aggregate category, with perception of transparency receiving a mean score of 2.70 (+/-1.05).

Responses related to curriculum structure suggest students feel the curriculum adequately prepares them for rotations and board examinations, but the structure of the curriculum may play a role in student stress levels.

DISCUSSION

Overall responses seem to suggest that students hold positive views towards levels of peer support, faculty and resource availability, and preparedness for clinical rotations and board examinations. Meanwhile, responses also suggest that students hold more negative views regarding coping mechanisms taught by the administration, level of administration transparency, and curricular structure. Responses indicate that curricular structure does not reduce the perceived student stress level, but rather increases it.

Data can additionally be viewed and analyzed by academic year, traditional/non-traditional status, in-state/out-of-state status, gender, and racial/ethnic identity. For example, respondents that identified as Black, Afro/African-Caribbean, or African-American (n=16) selected lower numbers (more negative responses) in all question items when compared to the overall response results – with the exception of knowing where to seek academic support from faculty and staff. Future inquiries on student perception of support in the 18-month accelerated curricular format may investigate the differences in perceived support among varying racial/ethnic identities, gender identity, or other personal attributes. Such further questionnaires may be able to expand on the difference in perception based on demographic factors, and may explore solutions to reduce or eliminate any sources in inequity.

Students provided responses to three open-ended questions regarding the following: actions the administration could take to improve the perception of support, actions the administration can perform to reduce curriculum structure related stress, and the students' overall opinion of the implementation of the 18-month curriculum. These responses will be shared with administration anonymously.

REFERENCES

- Skochelek, S. E., Stanfield, R. B., Dunham, L., Dekhtyar, M., Gruppen, L. D., Christianson, C., ... Quirk, M. (2016). Medical Student Perceptions of the Learning Environment at the End of the First Year Academic Medicine, 9(19), 1257-1262. <https://doi.org/10.1097/acm.0000000000001137>
- Smith, S. D., Dunham, L., Dekhtyar, M., Diah, A., Lanke, P. N., Moynahan, K. F., ... Skochelek, S. E. (2016). Medical Student Perceptions of the Learning Environment: Learning Communities Are Associated With a More Positive Learning Environment in a Multi-Institutional Medical School Study. *Academic Medicine*, 91(9), 1263-1269. <https://doi.org/10.1097/acm.0000000000001214>
- Thompson, G., McBride, R. B., Hofstad, C. C., & Halasa, G. (2016). Resilience Among Medical Students: The Role of Coping Style and Social Support. *Teaching and Learning in Medicine*, 28(2), 174-182. <https://doi.org/10.1080/10401334.2016.1146611>
- Yengo-Kahn, A. M., Baker, C. E., & Lomis, A. K. D. (2017). Medical Students' Perspectives on Implementing Curriculum Change at One Institution. *Academic Medicine*, 92(4), 455-461. <https://doi.org/10.1097/acm.0000000000001569>
- Lyndon, M. P., Henning, M. A., Alyami, H., Krishna, S., Yu, T.-C., & Hill, A. G. (2017). The Impact of a Revised Curriculum on Academic Motivation, Burnout, and Quality of Life Among Medical Students. *Journal of Medical Education and Curricular Development*, 4, 238212051772190. <https://doi.org/10.1177/2382120517721901>