

PROJECT GOALS

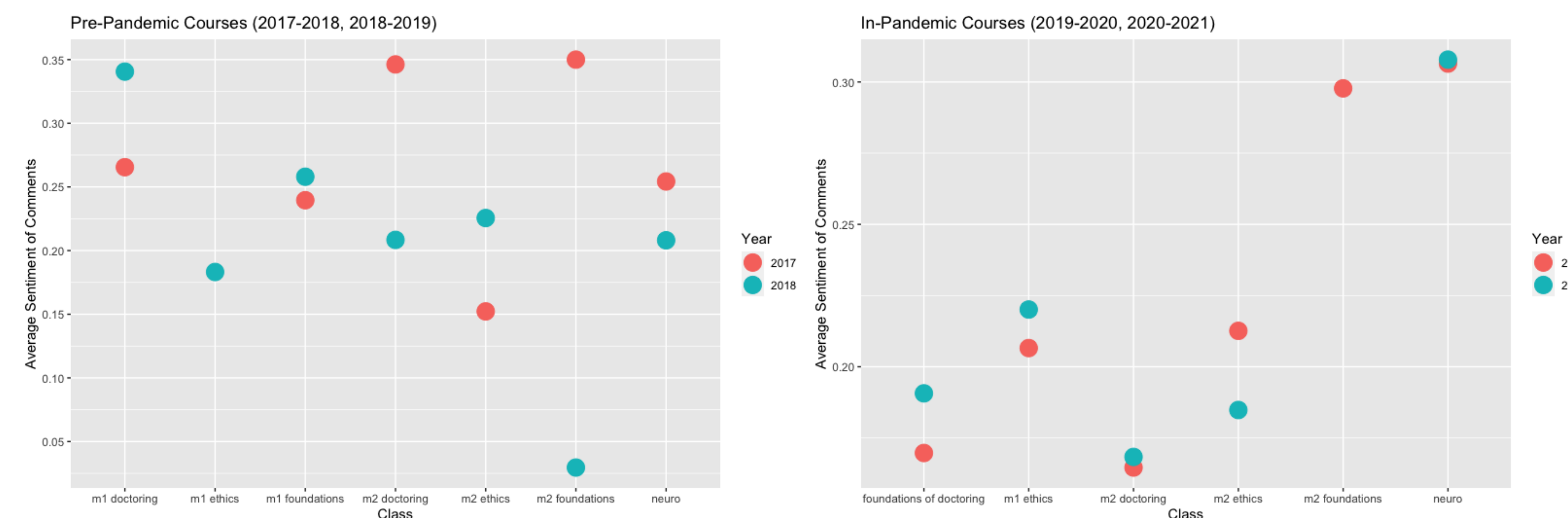
- Qualitative evaluations such as student comments can assess course and instructor efficacy, the value of assessments, and changes to the learning environment (Moore).
- The COVID-19 pandemic caused many medical schools to switch from primarily in-person based learning to online or distance-based learning for medical students (Caton et al).
- This study aims to understand how the COVID-19 Pandemic affected student responses to the end-of-course evaluations to various M1 and M2 courses taught at the Brody School of Medicine.**
- The purpose of this research is to analyze course evaluations pre-pandemic (2017-2019) and in-pandemic (2019-2021) to determine if there is any significant difference between the sentiments of the qualitative comments.**

METHODS

- Courses studied are: M1 Ethics, M2 Ethics, M1 Foundations of Doctoring (previously known as M1 Foundations of Medicine and Doctoring I), M1 Neuroscience, M2 Foundations of Medicine, and Doctoring II.
 - Pre-pandemic courses were academic years 2017-2018 and 2018-2019.
 - In-pandemic courses were academic years 2019-2020 and 2020-2021.
- These courses were chosen due to their value of in-person learning (small groups, problem-based learning, lab sessions, OSCEs) as well as lectures.
- Aggregated comments summarizing student comments were provided by the Office of Medical Education and the Office of Data Analysis and Strategy.
- The comments were then analyzed using a program (Sentimentr) to provide values on average course sentiment.

RESULTS

Average Course Sentiment, by Pre- vs In-Pandemic



Average Course Sentiment, by course

Year	Course	Pre-Pandemic Average Sentiment	Year	Course	In-Pandemic Average Sentiment
2017	Doctoring I	0.266	2019	Foundations of Doctoring	0.170
2018	Doctoring I	0.341	2020	Foundations of Doctoring	0.191
2017	M1 Foundations of Medicine	0.240			
2018	M1 Foundations of Medicine	0.258			
2017	M1 Ethics	No data available	2019	M1 Ethics	0.207
2018	M1 Ethics	0.183	2020	M1 Ethics	0.220
2017	M2 Ethics	0.152	2019	M2 Ethics	0.213
2018	M2 Ethics	0.226	2020	M2 Ethics	0.185
2017	Doctoring II	0.346	2019	Doctoring II	0.165
2018	Doctoring II	0.208	2020	Doctoring II	0.168
2017	M2 Foundations of Medicine	0.350	2019	M2 Foundations of Medicine	0.298
2018	M2 Foundations of Medicine	0.030	2020	M2 Foundations of Medicine	No data available
2017	Neuroscience	0.254	2019	Neuroscience	0.306
2018	Neuroscience	0.183	2020	Neuroscience	0.308

p-value = 0.64, alpha = 0.05

Pre-Pandemic Courses, years 2017-2019
Positive (green) & Negative (red) Words



In-Pandemic Courses, years 2019-2021
Positive (green) & Negative (red) Words



DISCUSSION

- The COVID-19 pandemic did not have a significant effect on student learning environment and experiences noted in the courses' aggregated comments according to their average sentiments.
- Most common positive word was "appreciated", appearing 48 times across all evaluations.
- Most common negative phrases were "too much" within pre-pandemic and "issues" within in-pandemic courses, appearing 4 times each.

Limitations:

- Aggregated comments were provided in order to protect the privacy of the students and faculty.
- There could be a potential difference if we had instead analyzed the raw comments by the students.
- Comparing results across multiple medical classes may also be a confounding factor.

Future studies:

- A future study should be performed within the same medical class (pre- and in-pandemic) to identify if there is any difference in students' original and aggregated comments.

CITATIONS

Caton JB, Chung S, Adeniji N, et al. Student engagement in the online classroom: Comparing preclinical medical student question-asking behaviors in a videoconference versus in-person learning environment. *FASEB BioAdvances*. 2020;3(2):110-117. doi:10.1096/fba.2020-00089

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