



Changes in Dental Students' Empathy Levels

Tippets, J, Wilhelm, K, McMunn, W, Renaud, D, Houliston, C, Korbel, M, & Murphy, J.

University of Colorado School of Dental Medicine



School of Dental Medicine
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

Abstract

Affective, or emotional, empathy is the ability to share the same emotions with other individuals. Within dentistry, emotional empathy can help to build personal connections between patients and providers, but can also lead providers to experience distress, as they are more affected by patients' negative experiences.

Purpose: This study seeks to evaluate changes in empathy levels among dental students as they transition from the classroom to the clinical setting, assessing whether this shift influences their capacity for emotional empathy.

Methods: The Toronto Empathy Questionnaire (TEQ) was administered to dental students to provide numerical data on empathy levels. In the pilot study, "empathy moments" were integrated into the classroom. In the modified study, the "empathy moments" were omitted. Instead, the TEQ was administered to pre-clinical (Class of 2027) and clinical (Class of 2026) dental students to allow for cross-sectional and longitudinal analysis of empathy scores.

Results: In the pilot study, there was no significant difference between average empathy scores before and after the integration of "empathy moments" ($p=0.28$). In the modified study, there was no significant difference between the average empathy scores of pre-clinical students and clinical students ($p=0.61$). The Class of 2026 had significantly higher average empathy scores in November and March than in January, however, response rate decreased by 50% at each data collection ($p=0.007$).

Conclusion: Results show that the difference between empathy levels among pre-clinical students and clinical students is not significantly different, however, empathy levels for each cohort may change over time. Further research will continue to gather data to evaluate dental students' empathy development.

Objectives

The pilot model aimed to identify if there was a difference in dental students' empathy levels before and after the integration of "empathy moments" in a classroom setting. In addition, the pilot study aimed to provide a starting point for further empathy research.

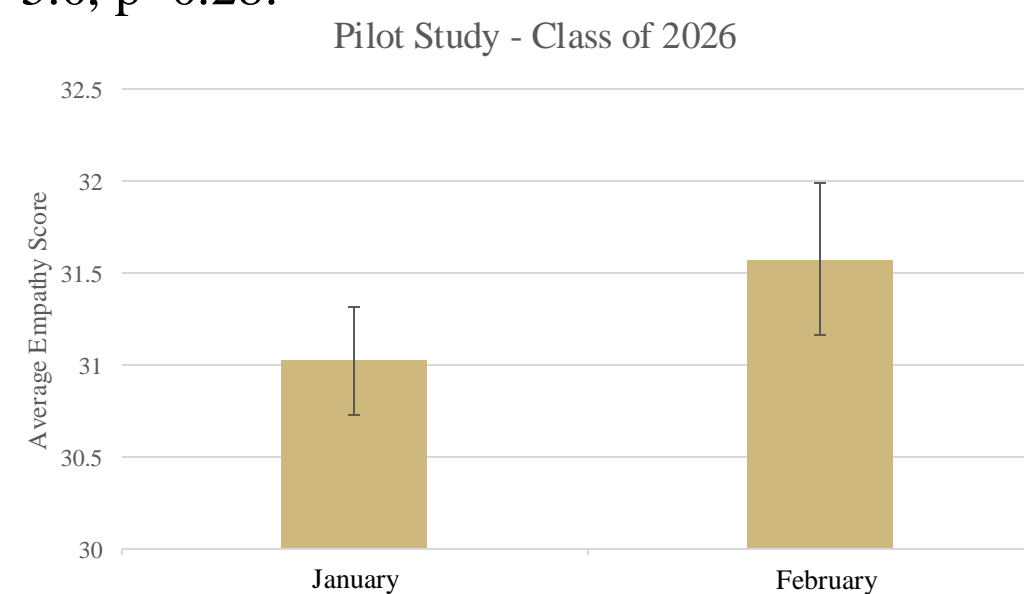
The updated model aims to identify if differences exist between empathy levels in pre-clinical and clinical dental students. Additionally, the study will identify longitudinal changes among dental students' empathy levels as a repeatable study is conducted.

Methods

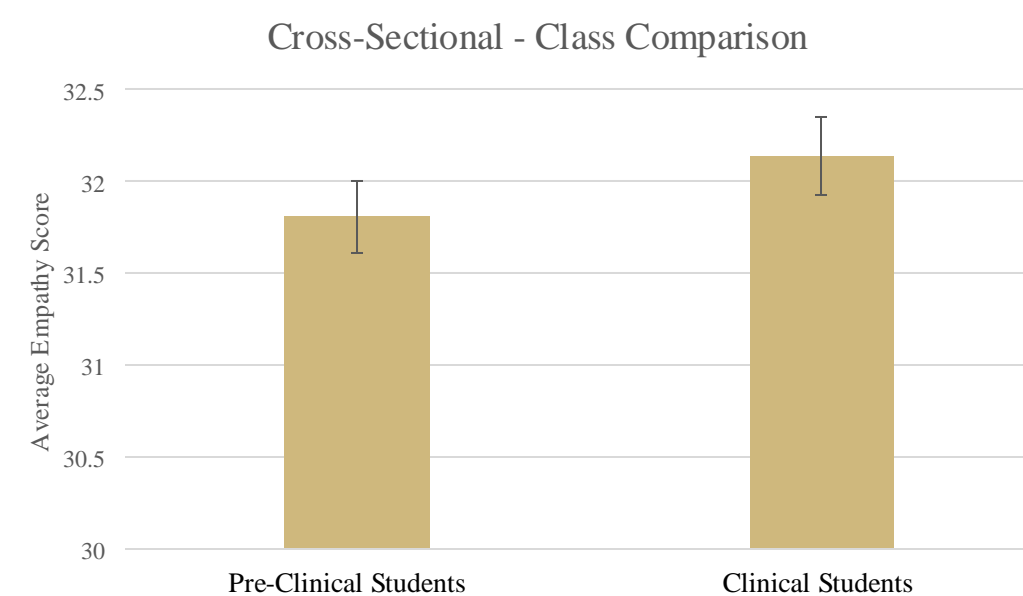
The Toronto Empathy Questionnaire (TEQ) was administered to pre-clinical second-year (Class of 2027) and clinical third-year (Class of 2026) dental students in a classroom setting. The TEQ was chosen for use due to its evidence-based validity and reliability, and its ability to provide numerical data on dental students' empathy levels at a given point in time. The pilot study included the integration of "empathy moments" in between administration of the TEQ, however these interventions were excluded from the modified study. The average scores of the pre-clinical second-year students and the clinical third-year students were then compared using a t-test. Additionally, the current third-year students' average scores from the last three data collections were compared using ANOVA and t-tests to evaluate longitudinal data.

Results

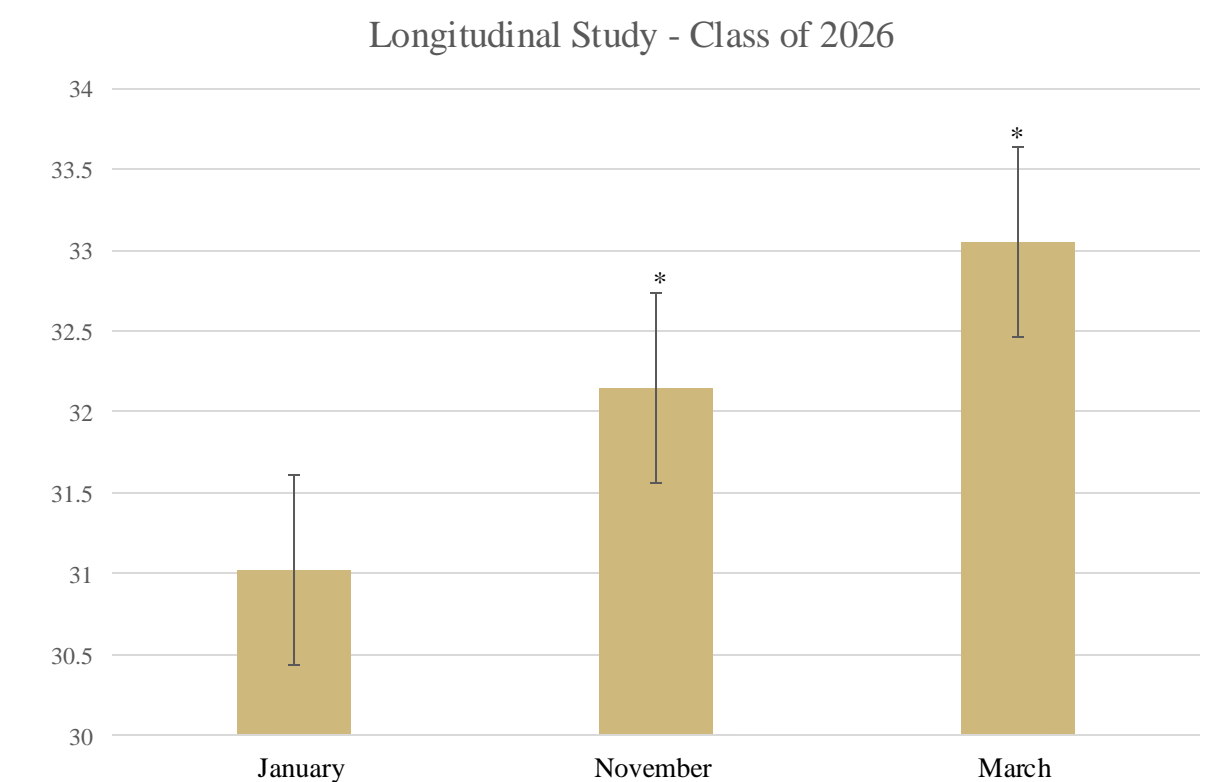
There was no significant difference between average empathy scores in students before ($M=31.0$, $SD=3.0$) and after ($M=31.6$, $SD=3.4$) experiencing the "empathy moments" $t(132)=-5.0$, $p=0.28$.



In the modified study, there was no significant difference between the average empathy scores of pre-clinical students ($M=31.8$, $SD=3.7$, $n=69$) and clinical students ($M=31.1$, $SD=3.0$, $n=42$) during the November data collection $t(100)=-3.6$, $p=0.61$.



The Class of 2026 had significantly higher average empathy scores in November ($M=32.1$, $SD=3.0$, $n=42$) and March ($M=33.1$, $SD=3$, $n=20$) than in January ($M=31.0$, $SD=3.0$, $n=102$), however, response rate decreased by greater than 50% at each data collection $F(2, 161) = 5.1$, $p=0.007$.



Conclusion

Empathy is affected by many various factors that can change over time. The goal of this study is to create a repeatable research method to gather more longitudinal data regarding empathy development in dental students. We are also exploring ways to achieve high response rates while keeping responses voluntary, anonymous, and honest. Additionally, we are considering conducting situational-based evaluations of students' empathy. We hope to use our research to gather comprehensive insights into empathy development among dental students.

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