A Pilot Study of Reducing Test Anxiety in a Cohort of Underrepresented in Medicine MCAT Students Using Near-Peer Coaching

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Abstract

Background: The Medical College Admission Test (MCAT) is a standardized exam taken by prospective medical students. The MCAT is critical for success in most of the US and parts of Canada, and such pressures may enhance test anxiety. Students from Underrepresented in Medicine (URM) backgrounds are often compounded by being the first in their families to take the MCAT. **Methods:** We conducted a literature review for interventions on test-related anxiety. Based on our findings, we elected to establish a pilot near-peer coaching (NPC) program for URM students enrolled on the Medical College of Wisconsin MCAT program. We quantified baseline and specific time point test-anxieties using the validated Westside test anxiety scale. We asked about MCAT concerns and program impressions via a free-response section and analyzed the results with inductive analysis. **Results:** Our review could find no other studies examining MCAT-related test anxiety in the prospective medical student population. NPC was chosen because of its accessibility. At baseline, approximately 50% of students had at least moderately high-test anxiety, meeting the threshold for intervention. Most students perceived themselves as unconfident in their ability to do well on the MCAT. We observed a decrease in test anxiety after coaching sessions. Students received the program well; however, they wanted to be able to choose the content and number of meetings. **Conclusion:** This observational pilot study suggests that URM pre-medical students have MCAT-related test anxieties high enough to warrant intervention and that NPC is well-received and correlates to reduce test anxiety levels.

Key Words: Students; Anxiety; Stress; College admission test; Test Anxiety scale (Source: MeSH-NLM).

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Introduction

The Medical College Admission Test (MCAT) is a standardized exam taken by prospective medical students in the United States. It includes 4 sections deemed important skills for future physicians: Chemistry and Physics, Critical Analysis and Reading Section, Biology and Biochemistry, and the Psychology and Sociology sections. The test is roughly 7.5 hours long, with each section containing multiple passages with questions related to the excerpts. Many prospective medical students spend months, even years, preparing for this test. These students understand that the MCAT is a critical component of every medical school application and that not scoring well often means rejection and/or having to re-take the exam multiple times. Naturally, prospective medical students are anxious about this exam. While helpful in certain amounts, test anxiety can be extremely detrimental to one's performance. Studies have shown that heightened test anxiety leads to worse outcomes on the United States Medical Licensing Step 1 exam, undergraduate students' GPA, nursing licensure tests, and even the ability to engage in new instructional content.[1-3]

In the United States, as per the American Association of Medical Colleges, "Underrepresented in Medicine (URM) students are students from racial and ethnic backgrounds relative to their numbers in the general population".[4] This includes students from various backgrounds, including Black, Mexican American, Native American, and mainland Puerto Rican backgrounds. For example, when adjusting for the total population of Hispanic individuals in the United States, Hispanic medical school applicants and matriculants are underrepresented by nearly 70%.[5] Some pre-medical students have the advantage of support from a family member or close friends who have gone through the process and can help mitigate MCAT-related test anxiety. Unfortunately, URM students often are the first in their families to take the MCAT and often have socioeconomic backgrounds that prevent them from accessing expensive MCAT preparatory courses. Factors such as stereotype threat and inadequate access to mentors have also been cited as additional obstacles URM students must overcome.[6,7] While not officially studied, all of this may lead to an increased level of MCAT-related test anxiety. Finally, based on the author's personal experience, most existing MCAT preparatory courses focus on training the students on exam content and strategy needed instead of recognizing the role test anxiety may play.

To address this gap, we conducted a literature review to explore effective test anxiety coaching interventions. We then discuss a program we created for a cohort of URM students enrolled in an existing MCAT training program, which focuses on near-peer

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coaching provided by current medical students at the Medical College of Wisconsin (MCW). Near-peer coaching model was chosen due to the ability of medical students to share stories from their recent "lived experiences" as pre-medical applicants. In addition, we elected to follow the students in a longitudinal, observational study, due to ethical reasons. From this cohort, we report the quantitative test anxiety levels in this cohort at specific intervals: at baseline and after each coaching session. Finally, we report the qualitative responses from students in terms of their MCAT-related concerns and perceptions of the near-peer coaching program.

Methods

Study-Design
The study began with phase 1 of a literature review for other interventions on test-related anxiety. Based on these results, near-peer coaching was chosen as the intervention for Phase 2 of the study. The proposed study designs were approved by the Medical College of Wisconsin's Institutional Review Board (PRO00035403), with clinical trial identifier NCT05224427. Phase 3.1 and phase 3.2 analyzed the quantitative and qualitative results gathered from the coaching.

Part 1: Literature Review
To determine what other interventions for test-related anxiety were reported, two independent, masked reviewers conducted a literature review with no time limit with the last search on May 11th, 2021, on OVID Medline and APA psychINFO. Studies included were primary literature investigating the effect of an intervention on student test anxiety. Due to the limited literature available, students of any level were deemed acceptable for analysis purposes. Exclusion criteria were any studies that did not report the effect of the intervention on student test anxiety or studies that did not examine test anxiety specifically. The medical subject headings (MeSH) included: "Students", "Anxiety", "Stress", "College admission test", and "Test Anxiety scale". Key terms included "Anxiety", "anxiousness", "Exam", and "test anxiety". The Boolean operator AND and OR were used to link the above-mentioned terms. Any duplicate results were removed. Studies included were English language only. Appropriate variations were also used to account for plurals and other alternatives. A manual search of study reference lists was conducted to include any potentially missed publications. Any disagreements were resolved via consensus. A review of the results prompted the authors to propose near-peer coaching as the optimal test anxiety intervention for the context.

Part 2: Near-Peer Coaching
The proposed study occurred in person at the Medical College of Wisconsin or online via video conferencing. A previous Medical College of Wisconsin (MCW) MCAT training program for URM students was started in 2017, and we enrolled all twenty-two students from this program within the first year and all twelve students in the second year. All participants enrolled in the MCAT program were from Wisconsin and they attended undergraduate or finished undergraduate studies within the past 5 years and intended to apply to medical school.

Volunteer near-peer mentors were recruited from existing MD or MD-PhD candidates at MCW. Coaches were oriented at the beginning of each program year and periodically sent reminders and instructions on what to cover. Initial MCAT coaching meetings were instructed to cover study schedules, effective studying, and exam strategy, while later coaching meetings recommended coaches share their stories of how they dealt with test anxiety, strategies to deal with test anxiety (i.e. visit the test center a week before, positive mentality about wrong answers during practice, and increasingly practicing under test-day conditions), and for open discussion with the student about how they were feeling. Coaches were provided cheat sheets leading up to these sessions that recommended how to approach these conversations. In response to student concerns about feeling limited by these topics, we no longer instructed, but recommended these topics to be covered in the program's 2nd year.

Students were consented and oriented in a group, or individual setting, and surveys were distributed via Qualtrics[XM] for baseline, after a mock MCAT exam four months before most exam dates, and after each MCAT Coaching meeting. Surveys were anonymous and tracked using a pin. A sample of the survey is available in the *Supplementary material*. In the program's first year, between 2019-2020, we scheduled three official MCAT coaching sessions: one every three months starting in August. In response to student concerns, the program's second year continued with the three official MCAT coaching sessions, while explicitly stating that students can meet as many times as they wish above this number. Due to COVID-19, an in-person mock MCAT time point was not possible in the second iteration.

Part 3.1: Quantitative Analysis
Surveys measured quantitative test anxiety scores using the validated Westside test anxiety scale.[8] The mean and the standard deviation were calculated in excel. Significance was calculated first using an F-test to determine the variances between the populations, followed by two-tailed student's t-test in Excel®. Statistical significance was $p < 0.05$.

Part 3.2: Qualitative analysis
Qualitative data regarding student concerns regarding the MCAT as well as comments on the program were elicited via a free response in the same survey. Inductive analysis was performed on the free-response answers. They were categorized with various themes using line-by-line coding. Sentences within the answers could overlap into different themes or not be related to any theme.

Results

Literature Review
A total of 275 articles were retrieved. Hand scanning reference lists provided 16 other potentially includable articles. After carefully reading titles, abstracts, and full text, we excluded 251 articles based on our criteria. 40 articles met inclusion criteria *Figure 1*. The results and characteristics of the studies included in the literature review are shown in *Table 1.* Zero studies examined test anxiety in the setting of the MCAT, and two studies examined peer coaching as a potential intervention.[9,10]

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Table 1. Literature Review Results Showing Population and Anxiety Intervention Tests Investigated.

Author	Population	Intervention
Kwon et al., 2020.[11]	Elementary and high-school students	Virtual reality desensitization
Harris et al., 2019.[6]	Undergraduate STEM students	Expressive writing, reappraisal
Fergus et al., 2019.[12]	Adolescent students	Group format attention training
Prinz et al., 2019.[13]	University students	Imagery
Shen et al., 2018.[14]	Senior high-school students	Expressive writing
Reiss et al., 2017.[15]	University students	Cognitive behavioral therapy and imagery rescripting
Cho et al., 2016.[16]	University students	Mindful breathing
Hahm et al., 2016.[17]	Veterinary students	Seminars
Bellinger et al., 2015.[18]	Calculus students	Mindfulness techniques
Brown et al., 2011.[19]	University students	Cognitive behavioral therapy and acceptance-based therapy
Bradley et al., 2010.[20]	High school students	Emotional self-regulation
Handelzalts et al., 2010.[21]	University students	Advanced muscle relaxation and change in internal dialogue
Benor et al., 2009.[22]	University students	Emotional freedom techniques and cognitive behavioral therapy
Baker et al., 2003.[23]	University students	Argentum nitricum administration
McGlynn et al., 1978.[24]	University students	Cue controlled relaxation therapy
Smith et al., 1973.[25]	University students	Systemic desensitization and implosive therapy
McManus et al., 1971.[26]	University students	Group desensitization
Allen et al., 1971.[27]	University students	Study counseling and desensitization
Contreras et al., 2021.[28]	10th grade students	Deep breathing exercises
Kumar et al., 2019.[29]	Pre-engineering and pre-medical students in India	Cognitive drill therapy
Donato, 2010.[30]	4th grade students	Emotional refocusing and restructuring, breathing, music, water, test-wiseness strategies and educational kinesiology exercises.
Kacprowicz, 2009.[31]	8th grade students	relaxation training
Johnson, 2008.[32]	Students with learning difficulties	progressive muscle relaxation and systematic desensitization
Egbochuku et al., 2005.[33]	High school students	systematic desensitization therapy
Earnest et al., 1991.[34]	Adult students	Test-taking skills training and cognitive restructuring
Mann et al., 1970.[35]	7th grade students	Serial retesting
Snider et al., 1966.[36]	University students	Autogenic training
Anton, W. D., 1976.[37]	University students	Systematic desensitization
Beggs et al., 2011.[38]	Nursing students	Guided reflection
Decker et al., 1981.[39]	University students	Cue controlled relaxation therapy and cognitive restructuring
Dunne et al., 2018.[40]	Veterinary students	Coaching workshop
Griffin et al., 1998.[41]	University students	Reciprocal peer tutoring
Himle et al., 1984.[42]	University students	Relaxation skill training, cognitive restructuring
Holahan et al., 1979.[43]	University students	Anxiety management training and cognitive modification
Hudesman et al., 1978.[44]	University students	Desensitization
Hudesman et al., 1984.[45]	University students	Desensitization
Ihli et al., 1969.[46]	University students	Group and individual desensitization
Neuderth et al., 2009.[10]	University students	Lectures and peer coaching
Powell et al., 2004.[47]	Medical students	Behavioral rehearsal
Suinn, 1968.[48]	University students	Deep muscle relaxation and desensitization

Quantitative results

All 22 students within the existing MCAT program participated in the first iteration of the coaching program, and all 12 students participated in the second year of the program *Figure 2*. Demographic characteristics and test anxiety scores are shown in *Table 2* and *Table 3* respectively**.**
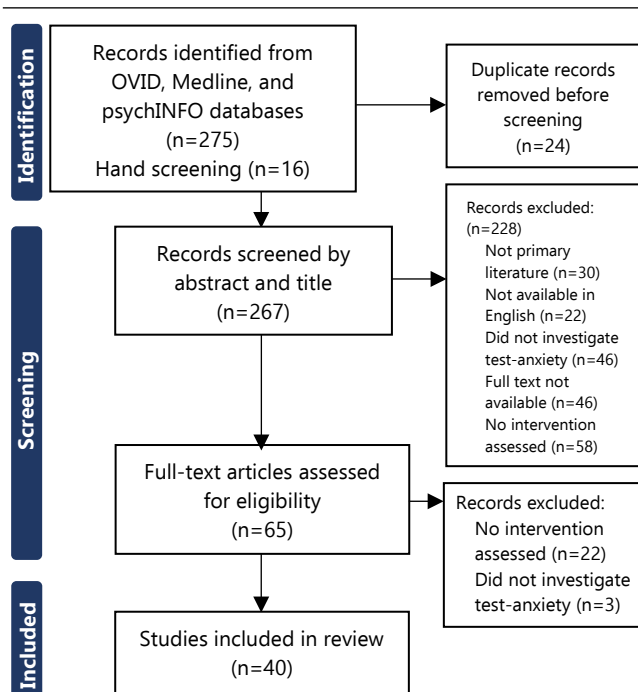
In the first cohort, 19 out of 22 students responded to the baseline, and all 12 responded to the second iteration baseline survey *Figure 2*. Higher test anxiety scores meant higher test anxiety on a scale between 1 to 5. The baseline score for all students in the first iteration was 2.84 (SD 0.66, range 1.6 – 4.1) and 2.71 (SD 0.72, range 1.5 – 4.1) in the second iteration. In the first iteration, 9 of 19 respondents had an average test anxiety score of 3 or higher, indicating moderately high to extremely high anxiety levels. In the second iteration, 6 of 12 were 3 or higher. Student test anxiety means were observed to trend downwards from baseline (2.84 to 2.26 and 2.69 to 2.3) after coaching sessions and increase after a mock MCAT exam (2.76 to 2.88), although none of these changes was statistically significant from each other or baseline *Table 3*.

Qualitative results

MCAT-related concerns had 7 themes, as shown in *Table 4*. At baseline, 95% of first iteration respondents stated that they lacked self-confidence in their abilities to do well on the MCAT.

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Figure 1. PRISMA Study Flowchart.

Table 2. Near-Peer Coaching Students' Demographic Characteristics.

Total responses	Frequency (%)
Year	
Year 1	19 (86%)
Year 2	12 (100%)
Male	
Year 1	10 (45%)
Year 2	8 (67%)
Female	
Year 1	12 (55%)
Year 2	4 (33%)

Figure 2. CONSORT Recruitment Diagram.

We noted that multiple students stated they suffered from imposter syndrome to some degree, while others were concerned about their past test performances. After MCAT coaching sessions, we observed a drop in the percentage of responses concerned about this theme; however, a notable spike occurred after the mock MCAT. The COVID-19 pandemic dramatically reduced the number of respondents, and 60% of respondents, after the 3rd MCAT coaching session, voiced their concerns regarding the pandemic and the MCAT. The number of respondents concerned about study strategy decreased from baseline with coaching sessions in both years, as well as concerns about accountability. Student concerns about the knowledge needed for the MCAT and exam strategies remained stable.

Students generally felt that the MCAT coaching sessions were helpful and felt supported or felt an increase in their self-confidence. Students in the first iteration shared concerns that they felt only 3 MCAT coaching sessions limited them. After modifying the program to allow an unlimited number explicitly, only 1 response brought up this concern in the following year. Students also felt that the program could benefit by personalizing the content more instead of requiring all coaches and students to cover certain topics. The percentage of respondents concerned about this appeared to decrease the following year after modification.
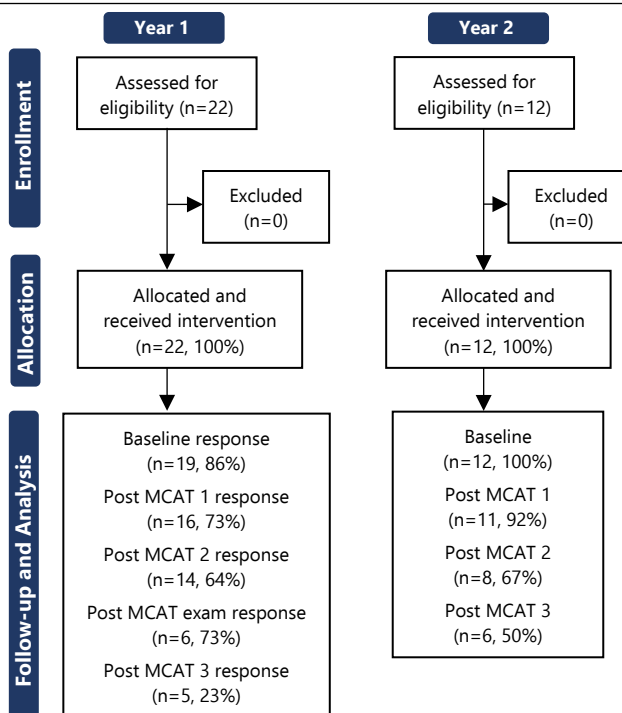
Discussion

Test anxiety is a well-recognized phenomenon that affects students of all ages. Test-anxious thoughts, especially over an 8-hour test, can impair performance by exhausting a student's ability to focus on the tasks at hand.[9] Unfortunately, the pre-medical student population has largely been ignored in terms of

research regarding how this may affect their ability to do well on the MCAT. Our literature review showed no other studies examining test anxiety in this population. As a result, this is the first study - to our knowledge – to investigate the level of test anxiety present in URM prospective medical students taking the MCAT.

Our literature review found many studies that utilize licensed therapists to perform cognitive behavioral therapy or other training-intensive interventions (*Table 1*). These interventions are costly, time-intensive on both student and provider and can be out of reach of free MCAT preparation programs. Near-peer coaching addresses this issue by providing an easily accessible intervention for most medical school-based MCAT preparation programs. In addition, near-peer coaching has the advantage of medical students being able to provide tips and tricks specific to their experience with MCAT testing and future medical school admission process.

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Table 3. Near-Peer Coaching Students' Test Anxiety Scores at Baseline and at Each Time Point.

Assessment	Test anxiety Score	Range	Number of responses (%)
Baseline			
Year 1	2.84 ± 0.66*	1.6 - 4.1	19 (86%)
Year 2	2.69 ± 0.72**	1.5–4.1	12 (100%)
Post-MCAT Coaching 1			
Year 1	2.44 ± 0.63*	1.3 - 3.8	16 (73%)
Year 2	2.46 ± 0.21**	2.0 - 2.8	11 (92%)
Post-MCAT Coaching 2			
Year 1	2.76 ± 0.58*	1.8 - 4.2	14 (64%)
Year 2	2.24 ± 0.2**	2.0 - 2.5	8 (67%)
Post-MCAT Mock Exam			
Year 1	2.88 ± 0.64*	1.7 - 4.1	16 (73%)
Year 2	-	-	-
Post-MCAT Coaching 3			
Year 1	2.26 ± 0.29*	1.7 - 2.6	5 (23%)
Year 2	2.3 ± 0.2**	2.0 - 2.5	6 (50%)

Legend: *These values were not statistically different from each other per student's t-test $p<0.05$. **These values were not statistically different from each other per student's t-test $p<0.05$.

Table 4. Themes of MCAT Related Concerns with Examples and Percentage of All Responses Containing the Respective Theme.

Category of response	Examples (General Concern)	Year 1					Year 2			
		Baseline n=19 (%)	Post-MCAT Coaching 1 n=16 (%)	Post-MCAT Coaching 2 n=14 (%)	Post-MCAT Exam n=16 (%)	Post-MCAT Coaching 3 n=5 (%)	Baseline n=12 (%)	Post-MCAT Coaching 1 n=11 (%)	Post-MCAT Coaching 2 n=8 (%)	Post-MCAT Coaching 3 n=6 (%)
Study Strategy	"I am afraid that I am not studying properly on my own and that I do not know how to properly study."	11 (58)	6 (38)	4 (29)	4 (25)	2 (40)	11 (92)	5 (45)	4 (50)	2 (33)
Knowledge	"Retaining all necessary knowledge to do well on the test"	11 (58)	10 (63)	9 (69)	15 (93)	3 (60)	12 (100)	10 (91)	7 (87.5)	3 (50)
Exam Strategy	"I always found it difficult to fully understand what a question is asking, it feels like each one is a trick and designed to confuse you."	8 (42)	12 (75)	6 (43)	15 (93)	2 (40)	6 (50)	6 (55)	4 (50)	4 (66)
Self-Confidence	"I believe that I am not worthy. Imposter syndrome. I constantly am comparing myself to my peers. I think they know a lot more than I do because I struggle to retain information."	18 (95)	8 (50)	7 (50)	11 (69)	1 (20)	8 (75)	4 (36)	1 (13)	1 (17)
Accounta-bility	"Being accountable to study schedules and having passion to study."	8 (42)	7 (37)	4 (29)	5 (31)	0 (0)	8 (57)	3 (27)	3 (38)	1 (17)
Balancing School and Study	"That I might not have enough time to study with being in school."	9 (50)	7 (44)	7 (50)	5 (31)	2 (40)	11 (92)	4 (36)	4 (50)	5 (83)
COVID-19 related	"I feel mad and hopeless… I don't know when my MCAT date is going to be!!!!"	-	-	-	-	3 (60)	2 (17)	1 (9)	1 (13)	0 (0)

Our pilot study suggests that near-peer coaching is not only accessible but also well-received by students. The fact that students felt limited by three coaching sessions simply demonstrates that they wanted more sessions because they felt they were helpful. This is supported by Neuderth et al., 2009, who also showed that peer coaching is well received by students.[10] Our data also shows that our cohort of URM pre-medical students had baseline concerns about their confidence in their ability to do well

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on the MCAT. Sherman (1980) showed that confidence while taking a test is positively correlated with test performance in high school students.[49] This is corroborated by Smith (2002), suggesting that self-perception of one's test-taking skills is predictive of one's confidence during the test.[50] Concerns about one's MCAT self-confidence dropped after MCAT coaching, as did concerns about study strategies and accountability. Since our coaching sessions aimed to address these issues directly, this suggests that near-peer MCAT coaching may have had some role in alleviating these concerns. However, we acknowledge that this may also be due to various other factors, including the increased time students had to study, opportunities to talk with their peers outside of the program, and other resources the students may have utilized. At baseline, slightly less than half of all students in the first iteration and half in the second had test anxiety above 3, suggesting moderately to extremely high anxiety.

This is typically the threshold the Westside test anxiety scale suggests to warrant anxiety intervention.[51] This is similar to the cross-sectional studies showing 52.3% of Ethiopian medical students and 40% of Pakistani medical students who experience a Westside test anxiety level of 3 or more without intervention.[52,53] As a result, this suggests that pre-medical URM students have similar baseline test anxiety levels to medical students. Medical students may have experienced this test anxiety before starting medical school.

Based on the author's personal experience, medical students in the United States and Canada, compared to pre-medical medical students, often benefit from strong school support, such as academic enhancement programs, wellness groups and easy access to peers who have been through the process. Pre-medical students, especially if URM, lack access to these resources, for which the alternative is often extremely expensive MCAT preparation programs. Besides the author's personal experience, several studies examine the detrimental effects of test anxiety in the medical student population, and how it may affect their United States Medical Licensing Exam (USMLE) scores and discuss interventions, while there have been no such reports (per literature review) in pre-medical students taking the MCAT.[1,54] Finally, while there was no statistical significance between the time points, there was a trend downwards with each coaching session, suggesting that there may be an effect of near-peer coaching on this population if the sample size increases in future studies.

Lately, there has been a bigger push for physicians to be more representative of the populations they are serving. The results discussed here suggest that test anxiety is an under recognized, underreported barrier that can be addressed through an easy-to-access, relatively simple-to-implement program for most medical schools via near-peer coaching.

Table 5. Themes of Student Thought's on the Near-Peer Coaching Program with Examples and Percentage of All Responses Containing the Respective Theme.

Category of response	Examples (General Concern)	Year 1			Year 2		
		Post-MCAT Coaching 1 n=16 (%)	Post-MCAT Coaching 2 n=14 (%)	Post MCAT Coaching 3 n=5 (%)	Post- MCAT Coaching 1 n=11 (%)	Post-MCAT Coaching 2 n=8 (%)	Post MCAT Coaching 3 n=6 (%)
Helpful	"What I got most out of this is the wisdom and experience of a medical student. I know what to do and what to avoid because they have been through it and understand how the MCAT should be approached."	15 (93%)	14 (100%)	4 (80%)	11 (100%)	7 (88%)	5 (83%)
Needs more meeting opportunities	"I think one or two more meetings as a kind of check-in would help. After the meeting I feel like I know what to do, but I haven't had a chance to apply it yet, so the kinks haven't shown themselves yet. It'd be nice to be able to meet maybe a month or so after these sessions to talk about what I'm doing."	12 (75%)	9 (64%)	1 (20%)	1 (9%)	0 (0%)	0 (0%)
Needs different content	"could you go beyond strategies and focus on taking up practice questions?"	4 (25%)	6 (43%)	2 (40%)	4 (36%)	2 (25%)	0 (0%)
Felt supported/increased self-confidence	"My first meeting with my mentor went super well!!! It was extremely helpful and I feel much better about myself."	10 (63%)	8 (57%)	3 (60%)	8 (73%)	3 (38%)	3 (50%)
Too many topics covered	"yes, just learning study techniques would be better"	4 (25%)	3 (21%)	0 (0%)	1 (9%)	0 (0%)	0 (0%)
Other	"better method of communication please!"	2 (13%)	1 (7%)	1 (20%)	4 (36%)	4 (50%)	1 (17%)

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There are several limitations that our study faced. The biggest is the observational nature of our study. We decided to pursue this instead of a trial with a control group because of the small sample size and the ethical implications of denying half of the pre-medical students - all of who wanted access to a medical student coach - when the overwhelming amount of literature suggesting that coaching is effective for many other purposes and likely would be in the context of the MCAT. This results in an inability to determine the controlled effects of the near-peer coaching intervention and also likely resulted in the Westside test anxiety scores not being statistically different between each time point. Future studies could examine this by comparing to well-recognized interventions such as cognitive-behavioral therapy. However nevertheless, we feel that it is important to report these quantitative findings to serve as a platform for further studies in the area. Furthermore, this issue is somewhat mitigated due to the qualitative aspect of our study. It is important to recognize the students' subjective reports of coaching being effective at increasing one's self-confidence and the students feeling it was helpful enough to warrant more meetings.

An additional issue was that our survey response rate dramatically decreased after the COVID-19 pandemic began. We acknowledge that this contradicts previous data of students wanting more sessions; however, given the relatively consistent number of answers before the pandemic and sharp drop after, we believe these were factors unrelated to the program itself. COVID-19 obviously hampered many of our efforts to meet in person for reminders to fill out the survey and for in-person mentoring sessions, resulting in our students meeting online with their mentors and sending survey reminders by email. This limitation likely biased the answers to extremes with answers from students that either found the coaching session to be the most helpful or students that felt like their coaching experiences were not helping their test anxieties. Nevertheless, key answer trends mostly remained consistent despite the drop-offs. Finally, future studies should ideally gather baseline anxiety that is not just limited to test anxiety. While this may not eliminate the possible participant bias of students with different test anxiety levels enrolling in this program, it would be good to be able to control for baseline anxieties to assess the impact of near-peer coaching on different baseline anxiety levels.

In conclusion, our study is the first of its kind to suggest that URM pre-medical students have MCAT-related test anxieties high enough to warrant intervention and that near-peer coaching is a well-received, easily accessible program that may improve test anxiety.

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Supplementary Material

Q2 What is your gender?
 O Male (1) O Female (2)

Q3 What time point are you completing this survey at?
 O BEFORE your DIAGNOSTIC MCAT (August) (1)
 O AFTER your first MCAT Coaching session (September-November 1st) (2)
 O AFTER your second MCAT Coaching session (Dec 20th - February 21st (5)
 O In Class BEFORE your PRACTICE MCAT (Feburary 22nd) (3)
 O In Class Survey after your PRACTICE MCAT (February 22nd) (4)
 O AFTER your third MCAT Coaching session (February 23rd - b4 your exam date) (6)

Q4 Rate how true each of the following is of you, from extremely or always true, to not at all or never true. Answers are anonymous

	Not at all/Never true (1)	Slightly or seldom true (2)	Moderately or sometimes true (3)	highly or usually true (4)	extremely or always true (5)
The closer I am to an exam, the harder it is for me to concentrate on the material. (1)	O	O	O	O	O
When I study, I worry that I will not remember the material on the exam. (2)	O	O	O	O	O
During important exams, I think that I am doing awful or that I may fail. (3)	O	O	O	O	O
I lose focus on important exams, and I cannot remember material that I knew before the exam. (4)	O	O	O	O	O
I finally remember the answer to exam questions after the exam is already over. (5)	O	O	O	O	O
I worry so much before a major exam that I am too worn out to do my best on the exam. (6)	O	O	O	O	O
I feel out of sorts or not really myself when I take important exams. (7)	O	O	O	O	O
I find that my mind sometimes wanders when I am taking important exams. (8)	O	O	O	O	O
After an exam, I worry about whether I did well enough. (9)	O	O	O	O	O
I struggle with writing assignments, or avoid them as long as I can. I feel that whatever I do will not be good enough. (10)	O	O	O	O	O

We would also like to hear your open-ended responses. Please fill them in after each question. There is no word limit. Answers are anonymous
Q5 What, if any, are your biggest concerns regarding the MCAT.
_____

Q6 Describe how you feel when you take the MCAT practice exams. If not applicable, write "N/A"
_____

Q7 How, if it all, has working with a mentor helped you with studying for the MCAT? If not applicable, write "N/A"
_____

Q8 Is there anything you would like to improve with the MCAT coaching program? If not applicable, write "N/A"
_____

Q9 Is there anything else you feel we should know?
_____