Understanding Anxiety and Psychological Distress in Medical Students Attending School in the Caribbean

A Systematic Review

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Abstract

Background

Anxiety is common among medical students globally due to the rigorous coursework and constant pressure to excel academically. This is especially pronounced in offshore Caribbean medical institutions where external stressors and intense schooling contribute to psychological distress

Methods

Research articles collected for this study were from PubMed and Ovid databases, spanning from January 2010 to November 2023. The articles observed levels of anxiety of students in their first and second years of offshore medical school in the Caribbean

Results

A total of 10 articles met the inclusion criteria of the study. These studies revealed that levels of anxiety fluctuate due to the following factors: age, gender, standard of living, and ethnicity

Conclusion

This research emphasizes the importance of addressing anxiety among incoming medical students and encourages Caribbean medical schools to establish supportive communities and resources to enhance their well-being and academic success during this critical transition period

Introduction

Mental Health and Well-Being of Medical Students

It is crucial to prioritize mental health in medical education in order to produce compassionate and resilient healthcare providers and reduce anxiety and burnout.

Medical students face unique pressures, and addressing their mental health is vital for the benefit of both students and the healthcare system.

The Role of Anxiety in Offshore Caribbean Medical Education

Relocation from home countries in the first year can result in feelings of isolation.

Anxiety affects academic performance, communication with patients, and decision-making abilities, crucial in medical practice.

Importance of Support and Wellness Intervention

While treatments for anxiety exist, looking at external factors can be beneficial. Psychotherapy emphasizes essential elements for effective care.

By focusing on environmental factors, programs can help students achieve a better state of mind in anxiety-inducing situations, promoting healing and well-being.

Background

Globally, anxiety is one of the most prevalent mental health conditions found in medical students due to the demand of medical education and training.

Due to the rigorous coursework and frequent assessments, students consistently experience the pressure to excel academically, resulting in elevated levels of stress and anxiety.

This ideology is particularly pronounced within the context of offshore Caribbean medical institutions whereby the burden of external factors, alongside the intensity of schooling, collectively contribute to the psychological distress among first-year students.

The Role of Anxiety in Offshore Caribbean Medical Education: What is the Significance?

Anxiety

One of the **most** prevalent mental health conditions found in medical students

Medical Education

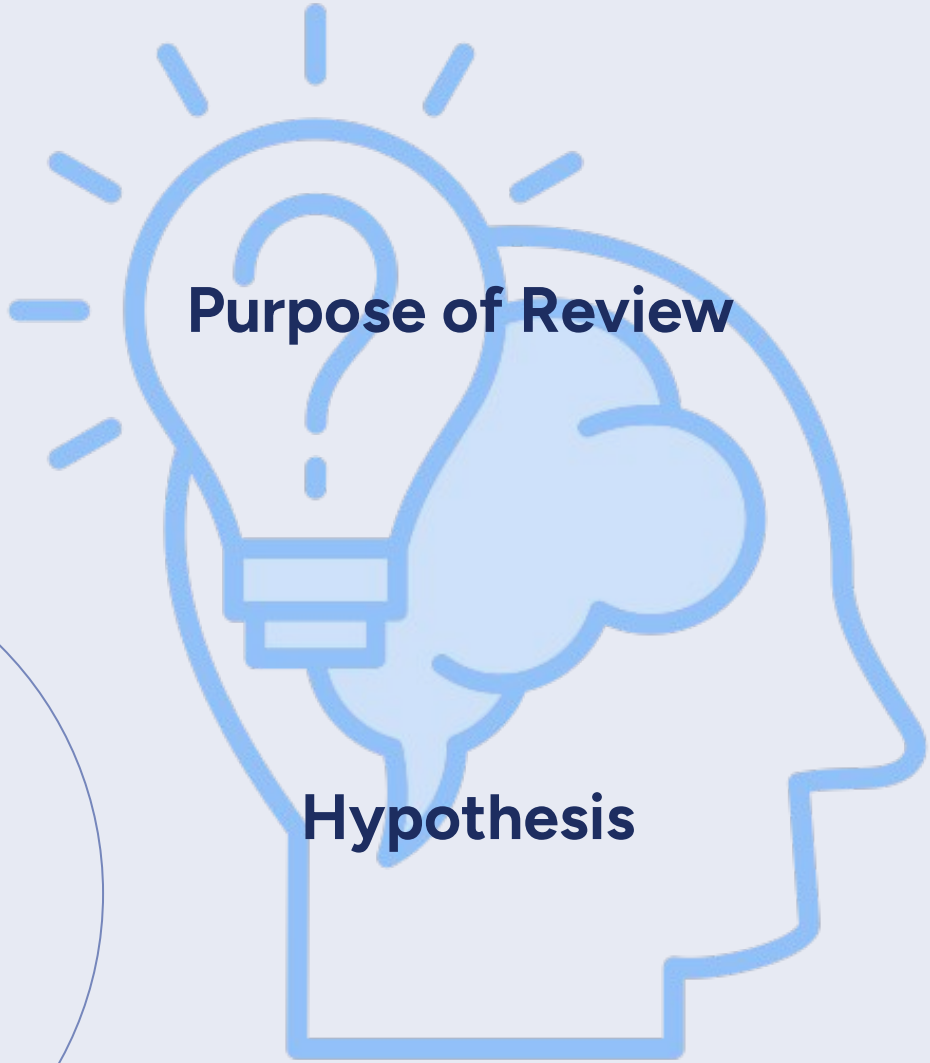
Relocating to an unfamiliar island distant from loved ones and supportive social network amplifies loneliness and isolation

Significance

Studies show high levels of anxiety correlated to decreased concentration, impaired memory, and poor exam performance

Future Considerations

Implementing support systems, promoting mental health awareness



Purpose of Review

To effectively examine the effects Caribbean medical school training can have on anxiety and psychological distress in first year compared to second year students

Based on impact of 3 key determinants:

- 1. Age and gender
- 2. Living standards
- 3. Ethnicity

Hypothesis

It is hypothesized that elevated levels of anxiety and psychological distress negatively impact the academic performance and overall well-being of medical first year students compared to students in their second year of medical study

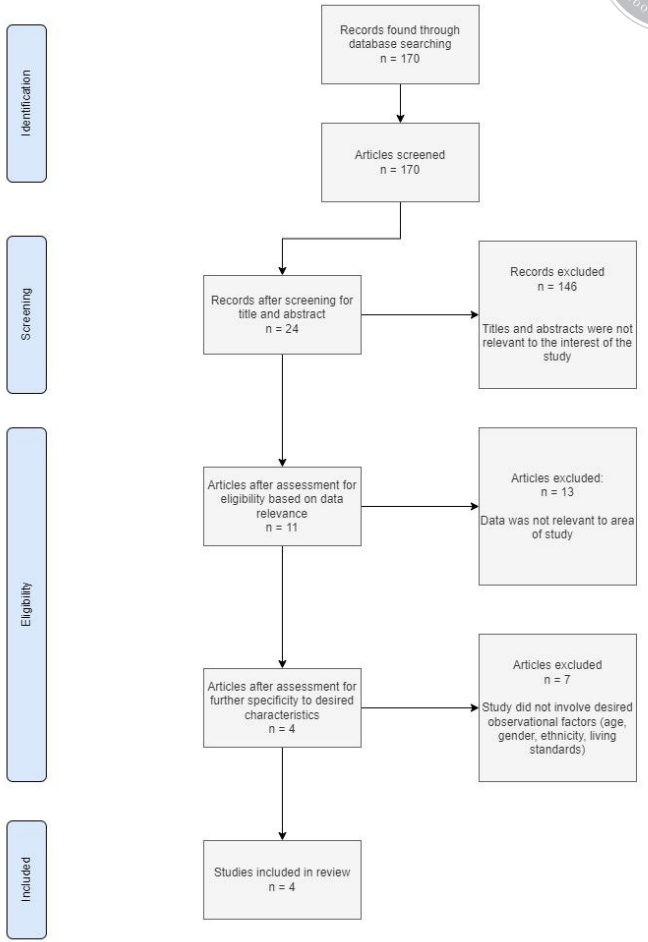
Methods

Inclusion Criteria

1. Students enrolled in their first and second year of a Caribbean medical school
2. Use of APA questionnaires
3. Anxiety levels being one of the main regulated variables in the study of interest
4. Articles published in English

Exclusion Criteria

1. Case studies, and study proposals
2. Any articles that did not focus on anxiety as the main variable
3. Any articles that did not study the relationship between anxiety and age+gender, living standards, or ethnicity
4. Any articles that are not published in English

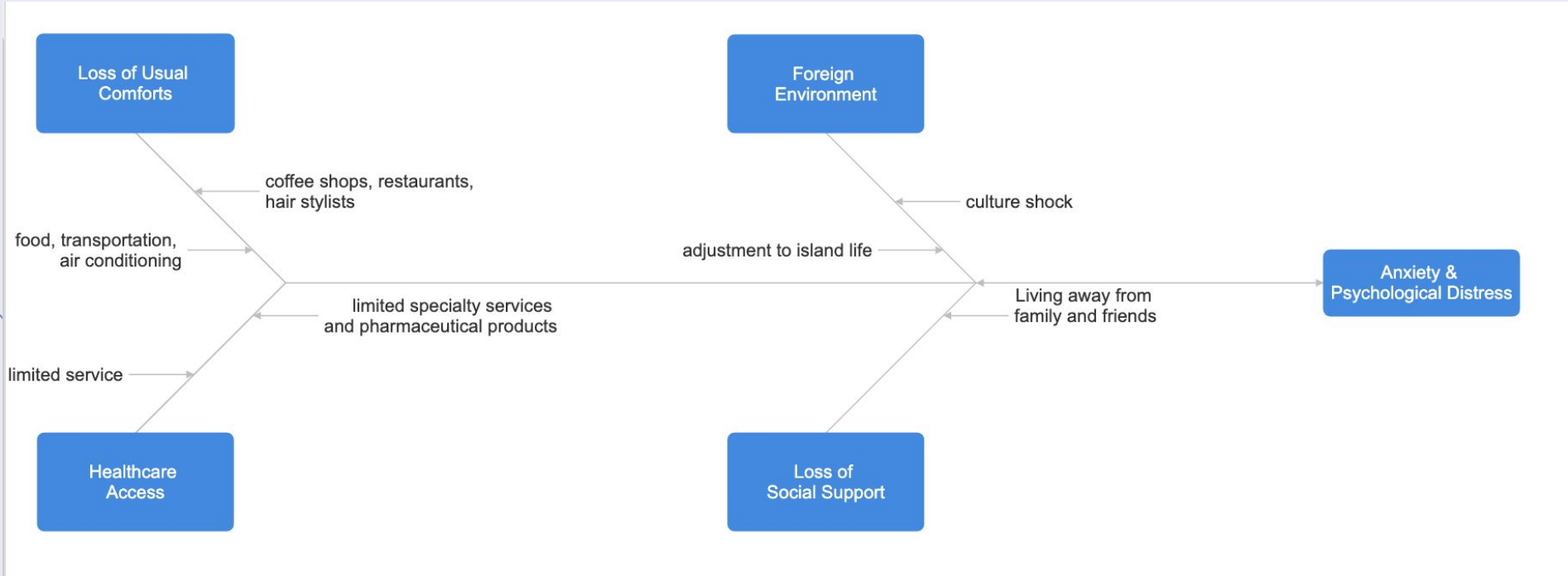


Results - Gender & Age

The results indicated a gender-based difference in anxiety, with female students reporting higher anxiety scores compared to males

The analysis revealed a significant association between age and anxiety, with participants aged 22-24 exhibiting higher anxiety levels compared to their younger and older counterparts

Results - Living Standards



Results - Ethnicity

Those of West Indian descent had higher mean anxiety scores compared to European or American students, reflecting prior research indicating a potential vulnerability to anxiety in the West Indian population

However, this ethnic disparity in anxiety was not consistent across all ethnic groups in the study sample, emphasizing the need for further research to fully understand the relationship between ethnicity and anxiety in this context

Discussion - Summary of Evidence

Two articles compared anxiety and depression levels in first and second-year Caribbean medical students using the DASS-21 scale. The findings revealed that anxiety and stress symptoms were more prevalent in first-year students, while depression was more common among second-year students.

There was no statistically significant difference in the overall prevalence of these mental health conditions. Further analysis indicated that second-year students experienced more significant stress in academic and social-related areas, with a significant difference in social-related stress between the two groups, despite no difference in academic-related stress

Discussion - Limitations

Reliance on Self-Report

May introduce response biases and affect the validity of the results

Acclimatization

As students adapt to new academic environments and life in a foreign country, anxiety may be more pronounced. However, by the second year, students might have become more acclimated, potentially leading to a decline in anxiety levels

Generalizability

While the study provides valuable insights into anxiety levels among Caribbean medical students, its generalizability to other populations is uncertain

Future Research

01	**Types of Study Analysis**	Studies that shift from cross-sectional analysis to thorough longitudinal investigations can enhance the current knowledge of risk factors and strengthen the correlation between anxiety development and medical education in Caribbean institutions
02	**Increase in Evidence**	Insufficient literature was found investigating the comparison between age and gender, living standards, and ethnicity to determine the factorial influence on anxiety development
03	**Search Outside of Caribbean**	Relocating to a new country outside of the Caribbean for medical education can be just as challenging; therefore, studies that analyze this impact can better generalize the significance of anxiety development in a larger cohort of first-year students
04	**Expand Population Domain**	Future studies that include a larger domain, or attend to students outside of the limit placed in this paper can cater to the population to which this review does not apply
05	**Enhanced Data Collection**	Diverting from the use of questionnaires to a multi-platform model inclusive of structured interviews and crossover analysis with psychology, neuroscience, and/or sociology will be beneficial for a solidified and more efficacious strategy to data collection

Conclusion

It is essential to emphasize that this study can play a pivotal role as a foundational piece of research in the field of anxiety among medical students in the Caribbean. These findings can serve as a valuable starting point for future investigations, offering a baseline against which to compare and build upon.

Researchers can use this study as a reference for addressing the identified limitations, refining their research designs, and ultimately contributing to a more comprehensive understanding of anxiety and mental health within this specific demographic.

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Introduction

The Importance of Prioritizing Mental Health in Medical Education

The global medical profession is characterized by high rates of burnout and suicide, making it critical to focus on the mental health and well-being of medical students. These students, despite the challenges, are drawn to healthcare professions with a desire to provide compassionate care to patients. Prioritizing mental health in medical education is essential to nurture empathetic healthcare providers who can excel in their careers. By addressing the alarming rates of anxiety, depression, and suicide within the medical student community, institutions can reduce stigma, foster resilience, and contribute to a healthier and more resilient medical workforce. Medical students experience intense pressures due to academic demands, clinical training, and patient care, leading to stress, anxiety, and burnout, which can have a lasting impact on their lives.

The Role of Anxiety in Offshore Caribbean Medical Education

Caribbean medical schools, while having higher acceptance rates, subject students to a demanding curriculum and workload that can result in elevated stress and anxiety levels. This pressure is compounded for students who relocate from their home countries and face isolation and financial burdens. High anxiety negatively affects students' cognitive abilities, communication skills, and their capacity to handle high-pressure medical situations. To address these issues, it is essential to establish support systems, promote mental health awareness, and provide resources to help students cope with anxiety and stress, ultimately creating a more nurturing and conducive learning environment. Such support is critical to maintaining the well-being of medical students, who are the future of healthcare.

Methods

A systematic review was conducted, using diverse databases such as PubMed, PubMed Central, Ovid database, Google Scholar, Cochrane Library, DOJA, Research4life, and Embase, to gather data on anxiety levels and psychological distress in first and second-year medical students in Caribbean schools. A total of 170 articles were initially collected, which were subsequently screened based on titles and abstracts. The inclusion criteria led to the review of 24 articles, and ultimately, six studies were selected based on their relevance and study design. These articles were categorized into three primary factors: the effect of age and gender, living standards, and ethnicity on anxiety and psychological distress among Caribbean medical students. The selected studies provided valuable insights into the mental health challenges faced by medical students in the Caribbean, with a focus on demographic and psychological factors, involving a total of 865 participants.

Results and Analysis

The gender-based analysis indicated that female medical students consistently reported higher anxiety scores compared to their male counterparts, with an approximate 20-point difference in mean anxiety scores, corroborating findings from previous research. This gender-based discrepancy was consistent across different age groups within the study population, emphasizing the role of gender as a contributing factor to anxiety susceptibility. Additionally, the analysis unveiled a significant association between age and anxiety levels, particularly highlighting that participants between the ages of 22 and 24 experienced higher anxiety, scoring 8-10% higher on the anxiety scale compared to those in younger and older age groups. These findings underscore the importance of considering both age and gender when addressing and understanding anxiety levels among medical students.

The aspects of living standards, such as transportation, cost of living, healthcare, accommodation, and their effects on stress and anxiety were highlighted by the concept of "culture shock" and found that first-semester students experienced a more pronounced impact due to the adjustment to a new environment, changes in daily life, and a loss of social support and individual comforts. Youssef's research in Trinidad and Tobago found that aspects of living standards, including support, exercise, and relaxation, were associated with higher levels of depression and burnout among medical students. Access to healthcare and mental health support during the preclinical years significantly impacted the stress levels and mental health of Caribbean medical students. Collectively, these findings demonstrate a clear relationship between living standards and the increased levels of stress and anxiety experienced by Caribbean medical students.

The effect of ethnicity on anxiety and psychological distress among Caribbean medical students was explored using two pertinent articles, which revealed a statistically significant association between ethnicity and anxiety. Notably, students from diverse ethnic backgrounds displayed varying anxiety levels, with West Indian individuals exhibiting higher mean anxiety scores than European or American counterparts, consistent with previous findings, suggesting a potential vulnerability to anxiety among West Indian populations. However, it's essential to acknowledge that this ethnic difference in anxiety was not uniform across all ethnic groups within the sample, underscoring the need for further research to comprehensively investigate the intricate relationship between ethnicity and anxiety among Caribbean medical students.

Figure 1: PRISMA Flow Chart

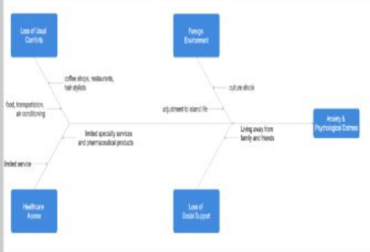

Figure 2: The Effect of Living Standards on Anxiety and Psychological Distress

Discussion and Conclusion

Discussion

This comprehensive summary encapsulates the research findings and limitations regarding anxiety among Caribbean medical students. The evidence reveals that anxiety and stress symptoms are more prevalent among first-year students, while depression is more common among second-year students. Notably, specific stressors such as academic-related and social-related stress disproportionately affect second-year students. The summary also discusses the limitations of relying on self-report questionnaires and the need for more extended longitudinal research to capture the dynamic nature of anxiety development throughout medical school. The importance of creating supportive communities and resources for incoming students is highlighted, acknowledging the challenges they face when relocating for medical education. This research can serve as a foundational piece of work, providing a reference for future studies in the field and contributing to a more holistic comprehension of anxiety and mental health within the specific demographic of Caribbean medical students.

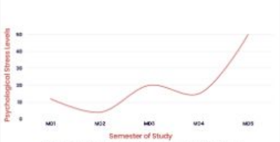

Figure 3: Comparing Psychological Distress in Medical Students from MD1 to MD5

Conclusion

In summary, this review brings to light the nuanced relationship between anxiety, academic progression, and various stressors among Caribbean medical students. It recognizes the limitations in the existing research and encourages further studies to address these gaps, ultimately aiming to improve the well-being and academic success of these students as they navigate the unique challenges of medical education in the Caribbean.

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