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Abstract

Globally, mental health among undergraduate students is recognized as a crucial public health concern. University students experience substantial academic and familial pressures, leading to significant psychological stress that may develop into serious mental health

Prevalence of Depression Among Medical Students at Al-Mustansiriyah University and Al-Iraqia University

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conditions such as depression and anxiety. The study aims to determine the prevalence of depression among medical students at Al-Mustansiriyah University and Al-Iraqia University, College of Medicine, to identify any association between depression and academic year level. And to examine the correlation between depression and selected socio-demographic factors. A cross-sectional online survey using Google Forms was conducted among medical students from the first to the sixth year at Al-Iraqia University and Al-Mustansiriyah University, College of Medicine. The survey was disseminated via academic online platforms between January 22 and 26, 2024, to assess the prevalence of depression among medical students at these institutions.

A total of 627 medical students from both universities participated in the study, with 404 (64.4%) being female and 223 (35.6%) male. The highest prevalence of depressive symptoms was observed among first-year (26.8%), fourth-year (21.9%), and sixth-year (24.1%) students. Depression was significantly more prevalent among female students (65.8%). Depression is a significant mental health issue among medical students at Al-Mustansiriyah University and Al-Iraqia University, College of Medicine. The study found a strong association between depression and factors such as academic year, gender, age, and residence. It is recommended to implement mental health support programs tailored to medical students, considering these factors.



Keywords

Depression, Iraq, Medical Students, Al-Iraqia University,

Introduction

Mental health among undergraduate students is a growing public health concern worldwide. Medical students, in particular, are subjected to intense academic and personal stressors, which may lead to severe mental health issues such as depression and anxiety. The combination of academic workload, familial expectations, and personal challenges can adversely affect students' well-being, academic performance, and overall health. Studies have shown that mental distress among medical students is linked to reduce patient care quality, compromised patient safety, and diminished professionalism (1).

Medical education is known to be highly demanding, often leading to chronic stress, which can negatively impact students' quality of life and academic achievements. Research has demonstrated a strong correlation between stress levels and the onset of depressive symptoms (2).

Depression, also known as major depressive disorder, is a common mental health condition characterized by persistent low mood, loss of interest in activities, and significant functional impairment. Unlike transient mood fluctuations, depression can profoundly affect various aspects of life, including relationships, academic performance, and career progression (3).

Depression can affect anyone, but individuals who have experienced trauma, severe loss, or chronic stress are at greater

risk. Studies indicate that women are more likely to experience depression than men (4).

Research also suggests that the prevalence of stress among medical students can be as high as 57.4%, with common stressors including:

- Academic pressures
- Dissatisfaction with lecture quality
- Long commutes
- Lack of leisure time
- Academic performance concerns
- Parental expectations
- Insufficient mentorship (5).

High levels of stress have been linked to deteriorating academic performance, depression, and even suicidal ideation (6).

This study aims to:

1. Determine the prevalence of depression among medical students at Al-Mustansiriyah University and Al-Iraqia University, College of Medicine.
2. Identify any correlation between depression and academic year level.
3. selected socio-demographic factors.

Materials & Methods

Study Design

A cross-sectional study was conducted using a self-administered questionnaire to assess the prevalence of depression among medical students at Al-Mustansiriyah University and Al-Iraqia University, College of Medicine.

Data Collection

A web-based, self-reported survey was distributed electronically via Telegram academic groups (closed groups for educational purposes) to a convenience sample of medical students from both universities. The survey was conducted between January 22 and January 26, 2024.

Depression was assessed using a structured questionnaire, where participants who answered



"yes" to at least four out of eight specific questions were considered to exhibit symptoms of depressive disorder. The survey included four demographic variables and eight depression-related questions, requiring binary (yes/no) responses.

Ethical Approval

Ethical approval for the study was obtained from the College of Medicine at Al-Iraqia University. To maintain anonymity, the questionnaire did not collect personal identifiers, and all responses were kept strictly confidential.

Data Analysis

Data entry and analysis were performed using Microsoft Excel. The results were presented in the form of frequencies and percentages, displayed through tables and figures.

Results

Demographic Data

A total of 627 medical students from two universities participated in this study. Among them, 404 (64.4%) were female, while 223 (35.6%) were male. The mean age of the participants was 21.5 years. Additionally, 82.5% of the students lived with their families.

Students from all academic years were included in the study, with the distribution as follows:

- First-year students: 27%
- Second-year students: 6.6%
- Third-year students: 13.3%
- Fourth-year students: 23%
- Fifth-year students: 7.7%
- Sixth-year students: 22.4%

Prevalence of Depression

Table 4.2 presents the total number of students categorized as depressed and non-depressed based on the survey responses. This classification was determined using the predefined depression assessment criteria.

Discussion

In our study, we investigated the prevalence of depression among medical university students and explored multiple factors that may contribute to this mental health issue. Among the 627 participants, the prevalence of depression (ranging from minimal to severe) was 80.96%.

Due to variations in methodologies used in previous studies to diagnose depression, accurately estimating the actual increase in its prevalence remains challenging. However, the high prevalence of depression observed in our study may be attributed to the transition to online and hybrid learning, which has introduced new academic challenges and increased psychological stress among students. This aligns with previous findings indicating that academic stress and workload are significant contributors to depression among medical students (6).

Our results also indicate that the severity of depressive symptoms was higher among female students, a trend that has been well-documented in previous studies. Research suggests that women are nearly twice as likely as men to experience depression, which is consistent with our findings (5). The gender disparity in depression has been linked to several factors, including hormonal fluctuations, social expectations, and psychological stressors (7-8). Furthermore, previous studies have emphasized that the female gender is a significant risk factor for developing depression, which may explain why depression values were higher among females compared to males (2).



Table 4.1 Demographic data of the participants

Demographic factor	frequency	%
Gender		
male	223	35.6%
female	404	64.4%
Age		
18	229	36.5%
19	72	11.5%
20	74	11.8%
21	85	13.6%
22	70	11.2%
23	56	8.9%
24	27	4.32%
25	14	2.16%
year of study		
1st	169	27%
2ed	42	6.6%
3ed	83	13.3%
4th	144	23%
5th	48	7.7%
6th	140	22.4%
Residence		
with parents	517	82.5%
deromitory	110	17.5%

Table 4.2

Depression	count	%
Depressed	506	80.96%
non-Depressed	119	19.04%

Table 4.3: this table show the number of depressed students based on gender.

gender	depressed	%
female	333	65.8%
male	173	34.18%

Of those with depression, a majority were female as shown in Table 4.3

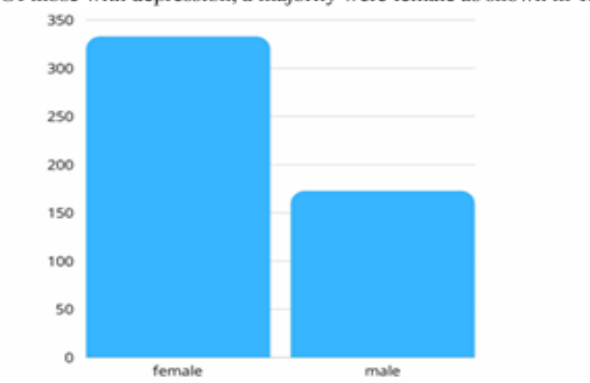


fig 4.1: this figure show the prevalence of depression among students based on gender.



Table 4.4: this table show the number of depressed students based on

age.

Age	depressed	%
≤ 19	256	67.19%
20 – 22	51	13.3%
> 22	74	19.4%

Students aged 18 - 19 years have a higher prevalence of depression as shown in Table 4.4

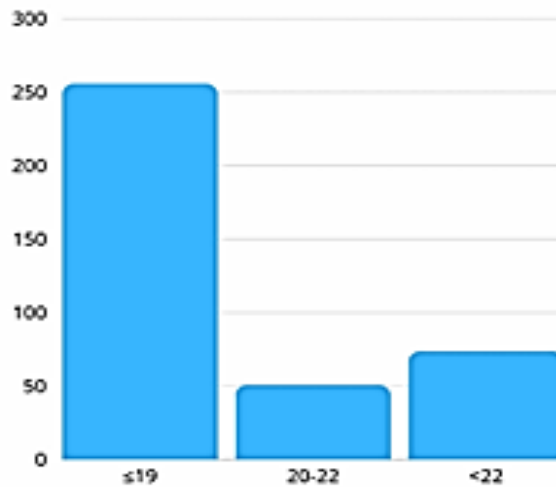


fig 4.2: this figure show the prevlance of depression among students based on age.

Table 4.5:this table show the number of depressed students based on year of study .

stage	depressed	%
1st stage	136	26.8%
2ed stage	35	6.9%
3ed stage	67	13.2%
4th stage	111	21.9%
5th stage	35	6.9%
6th stage	122	24.1%

Students in the first and sixth stages have higher rates of depression as shown in the Table 4.5.



Additionally, our study found a significant association between age and depression scores, with higher depression rates observed among first-year and fourth-year students. This pattern is consistent with a Turkish study, which reported a higher prevalence of depression among students in their first and fourth years of medical school (9). These findings highlight the critical need for counseling services, particularly for students in these academic stages, as they may be more vulnerable to mental health challenges (10).

The high prevalence of depression among first-year students may be attributed to the new challenges they face, including separation from family, adapting to a new learning environment, academic pressure, and social integration. Similarly, fourth-year students may experience increased academic workload, clinical training demands, and heightened stress levels, contributing to their susceptibility to depression. Studies have shown that stress levels increase significantly in medical school, often correlating with poor academic performance and reduced well-being (11).

Study Limitations

This study has several limitations. Firstly, it was conducted using an observational cross-sectional design with an online self-reported questionnaire, which may have introduced selection bias by restricting participation to students who actively use social media. This limitation is commonly reported in similar online-based studies, where the representativeness of the sample might be affected (3). Additionally, the cross-sectional nature of the study prevents the establishment of causal relationships between depression and the associated variables. Future research should

consider longitudinal studies and more comprehensive diagnostic tools to better understand the trends and risk factors influencing depression among medical students.

Overall, the findings of this study emphasize the high prevalence of depression among medical students and the need for mental health support programs, particularly targeting students in high-risk academic years and female students. Implementing counseling services, peer support programs, and stress management workshops may help mitigate the adverse effects of depression in this population.

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