Jordan Medical Journal, Volume 58, No.1 2024
DOI: https://doi.org/10.35516/jmj.v58i1.2401

Depression Among Medical Students at West Bank Universities

Mayar Idkedek[1] Beesan Moreb,[1] Niveen Sharif,[1] Aseel Rishiq[1] Alaaeddin Hliqawi, [1] Sara Idkaidak,[1] Mohammad O. Khalil,,[1] Lana Hamad[1] and Hussein Hallak✉[2]

Abstract

This study investigated the propensity for medical students to experience symptoms of depression, relative to other students, at West Bank Palestinian universities. In addition, the study evaluated the socio-demographic or academic factors that might influence this propensity. A quantitative, cross-sectional study was conducted on 714 medical and non-medical students from Al-Quds and Al-Najah Universities. Data were generated through a questionnaire that included sociodemographic parameters and academic status, and measured depression using the Beck Depression Inventory. The data were analyzed using SPSS (v. 20). About a third of the sample's medical students suffered from some form of depression. Moderate depression appeared to be relatively high among medical (18.7%) and non-medical students (25.5%). At all depression levels, there was a significantly lower prevalence of depression among medical students compared to non-medical students, with the exception that the medical students suffered a higher rate of mild mood disturbances (25.1%) than the non-medical students (14.6%). Furthermore, there were significant correlations ($\alpha \leq 0.05$) between a higher prevalence of depression and being female, lower grade point average (GPA), lower economic status, and a lack of psychological support. Other variables, such as accommodation and year of study, showed insignificant relationships with depression. Depression was highly prevalent among the students, regardless of their university or field of study, which probably reflects the high depression rates in the wider Palestinian society. Nevertheless, the lower prevalence of depression among the medical students may be attributed to the fact that higher-quality students are accepted by medical schools, and their level of adaptation to stress and hard work. Finally, our results challenge the perception of a higher depression rate among medical students.

Keywords: Beck Depression Inventory, depression, medical students, Palestine, prevalence

(J Med J 2024; Vol. 58(1): 56–68)

Received *February 11, 2022* *Accepted* *October 16, 2022*

INTRODUCTION

Depression among medical students is widely reported and has been extensively explored in the literature (33). It is estimated that 15–25% of medical students show some kind of psychiatric distress in the course of their education, especially during medical training (34). Studies have also reported a wide range of variability (1.4–73.5%) in the prevalence of depression among medical students (35). However, a systematic review reported the overall pooled crude prevalence of depression or depressive symptoms at 27.2% (37).

The rise in the depression scores of medical students appears to be persistent and, in turn, this suggests that emotional distress during medical education is chronic rather than episodic (38). Several studies have suggested that the prevalence of depression in medical students is higher than in age-matched individuals from the general population (39).

Some reported risk predictors for depression among medical students include socio-demographic as well as academic stressors and risk factors. Stressors specific to medical school include information and input overload, financial indebtedness, lack of leisure time, and the pressure of work and career choices (44); associated non-academic risk factors include gender (17), having a family history of depression and anxiety (46), loss of a close relative in the past year, and substance abuse (47).

The propensity of depression among medical students and its consequences has been evaluated in

[1] Medical Students at Faculty of Medicine, Al-Quds University.
[2] Faculty of Medicine, Al-Quds University.
✉Corresponding author: husseinhallak@hotmail.com

several Arab countries, with recent studies from Egypt, Saudi Arabia, and the United Arab Emirates reporting high rates of anxiety and depression (49, 50, 51).

Several studies have evaluated the general mental health status and propensity of depression in Palestine and found that the general population has a relatively higher propensity for depression than that reported in other countries. One study in Gaza City conducted at the Islamic University of Gaza (IUG) and Al-Quds University (Azhar Branch (Q-AZ) Medical Schools), reported that the general population had 29.3% moderate depression, 15.2% severe depression, and 28.4% extreme depressive symptoms according to the DASS 21 questionnaire (57). A second study reported 37.2% of university students in the Gaza Strip suffered from moderate depression and 3.1% suffered from severe depression, measured using a socioeconomic questionnaire prepared by the researcher, the Siege Checklist by the Gaza Community Mental Health Program, the Taylor Manifestation Anxiety Scale (TMAS), and the Beck Depression Inventory (BDI-2) (56). A third study conducted on students of the four main universities in the Gaza Strip using the General Health Questionnaire-28 (GHQ-28) indicated that 14.2% of students suffered from moderate to severe depression (60).

The prevalence of mental health disorders among Palestinian university students was likewise evaluated at two universities in the Gaza Strip (Al-Azhar and Al Islamic Universities) and Al-Quds University (Abu Dis, West Bank), and the main conclusion was that 69.4% of the students were considered to be 'psychiatric morbidity' cases that needed further follow-up (60).

As most studies to date were conducted in the Gaza Strip, either on the wider society or university students, our study aims to assess and compare the prevalence of depression specifically between medical and non-medical students in West Bank Palestinian universities, and to assess the socio-demographic and academic factors that may influence the propensity for depression.

METHODS

Study design and setting

A quantitative cross-sectional research method was adopted for this study. Such an observational study design is suitable as it allows for the determination of the prevalence of a specific phenomenon in a defined population at a certain point in time. This study was conducted at Al-Quds and Al-Najah universities in the Palestinian West Bank; both have medical schools. Recruitment took place between April–September 2019, and participants consisted of students from both medical and non-medical fields.

Sample and sampling method

Using the sample size calculator (58), the minimal sample size was 300 students. Our sample included 714 students in total, selected randomly (412 from Al-Quds University and 302 from Al-Najah University). The overall sample was divided into two groups; the medical student group had 557 students distributed evenly across preclinical (278) and clinical years (279), while the non-medical student group consisted of 157 students from all academic years.

Study tools

The study used a predesigned self-administered questionnaire composed of two parts. The first part contained 19 multiple-choice questions and was designed to assess demographic data, socioeconomic conditions, and lifestyle. The second part was intended to measure depression using the Beck Depression Inventory (BDI-1), which is composed of a 21-item multiple-choice self-reporting questionnaire. To ensure that the questions were fully understood, the Arabic version was used, as Arabic is the mother tongue of Palestinians.

After explaining the purpose of the study and ensuring confidentiality, our participants were asked to take part in the study and to complete the questionnaire anonymously; participation was conducted online or in person. The study was held in the middle of the semester to ensure that the students were not under any stress related to factors such as final exams.

Data analysis

The collected questionnaires were checked for errors, missing data, or outliers, and unqualified ones were excluded from the study. The data were then analyzed using SPSS v. 20 to calculate means, standard deviation, and percentages. Frequency tables and graphs (pie, column, and bar charts) were generated with Microsoft Excel. Comparisons between different associated factors were performed using the independent sample *t*-test to compare the means of two groups, or two-way ANOVA tests to compare the means of more than two groups. A p-value of ≤ 0.05 was considered statistically significant.

Ethical approval

The study received ethical approval from the Research Ethics Committee at Al-Quds University (Ref. no. 75/REC/2019). Anonymity and confidentiality were guaranteed, and participants signed a consent form.

RESULTS

Socio-demographic characteristics of students

As shown in Table 1, the majority of the study

participants were female students (67.9%), lived in the city (55.9%), and were part of a family of >5 members (75%), for whom a middle level income was most common (40.6%). Most students were single (89.9%) and lived with family (57.7%), and only a small percentage were employed (4.8%). The sample was evenly distributed between Al-Quds and Al-Najah universities and was spread across the academic years (first to sixth years). When asked about GPA, 46.5% of students reported theirs as being between 80–90.

Table 1. Distribution of sociodemographic factors

Variable	Group	Frequency	Percent
Gender	Male	229	32.1
	Female	485	67.9
	Sum	714	100.0
Hometown	City	399	55.9
	Town	293	41.0
	Camp	22	3.1
	Sum	714	100.0
Number of Family Members	0–2	6	.8
	3–5	172	24.1
	More than 5	536	75.1
	Sum	714	100.0
University	Al–Quds	412	57.7
	Al–Najah	302	42.3
	Sum	714	100.0
Specialty	Medicine	557	78.0
	Other	157	22.0
	Sum	714	100.0
Year	First	96	13.4
	Second	133	18.6
	Third	165	23.1
	Forth	110	15.4
	Fifth	125	17.5
	Sixth	85	11.9
	Sum	714	100.0
GPA	More than 90	78	10.9
	80–90	332	46.5
	75–79	210	29.4
	65–74	82	11.5
	Less than 65	12	1.7
	Sum	714	100.0
Marital Status	Single	642	89.9
	Married	9	1.3
	Divorced	3	.4
	Widowed	0	0
	In relation	60	8.4
	Sum	714	100.0
Family Income per Month	Very high	54	7.6
	High	145	20.3
	Middle	290	40.6
	Little	166	23.2
	Very little	59	8.3
	Sum	714	100.0
Working or Employed	Yes	34	4.8
	No	673	94.3
	Other	7	1.0
	Sum	714	100.0
Accommodation	With family	412	57.7
	Living at	281	39.4
	Other	21	2.9
	Sum	714	100.0

Prevalence of depression among different study specialties

There was a significant difference in depression level between medical and non-medical students ($\alpha = 0.028$). Students studying specialties other than medicine had a higher propensity for depression compared to medical students (Figure 1). All depression levels (borderline clinical depression, moderate, severe, and extreme) were higher in non-medical students, while mild mood disturbances were especially higher among medical students (25.1% in medical vs. 14.6% in non-medical).

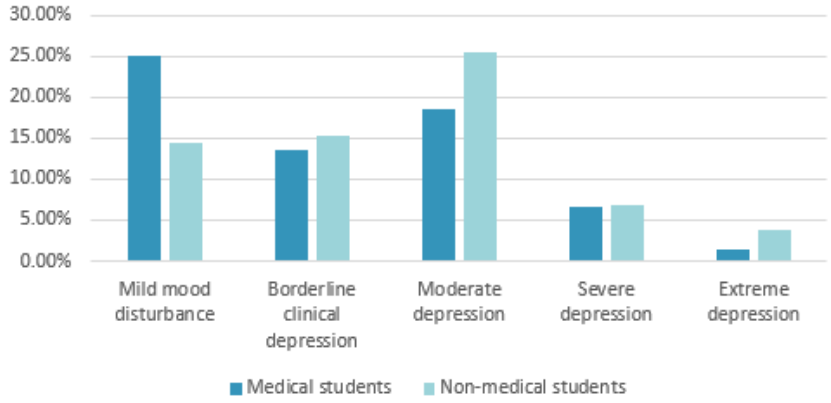

Figure 1. Comparison of depression levels between medical and non-medical students

Medical students had borderline clinical depression (13.6%), as well as moderate (18.7%), severe (6.8%), and extreme (1.6%) depression (Figure 2).

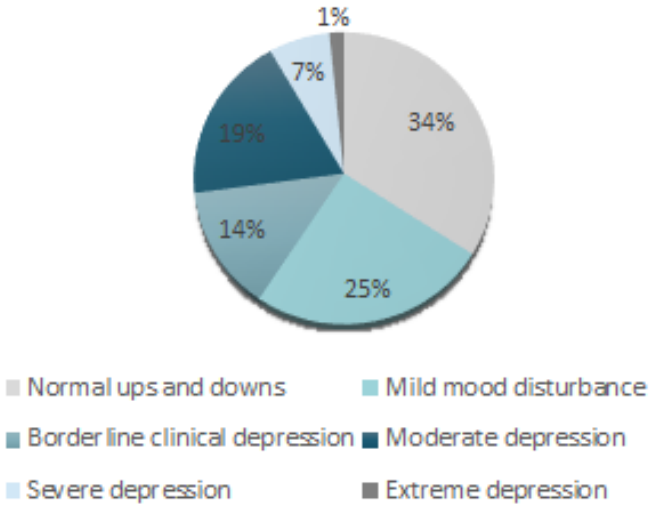

Figure 2. Depression levels among medical students

There was no statistically significant association between the number of family members, university, or marital status and the level of depression among students.

Prevalence of depression among students and its association with gender

A significant relationship between the female gender and depression was observed ($\alpha \leq 0.05$). Female students showed higher percentages of depression in its various stages relative to males from both medical and non-medical fields. In particular, more female medical students suffered from moderate (21.2%) and severe depression (7.5%) compared to males (12.9% and 5.3%, respectively), as shown in Figure 3.

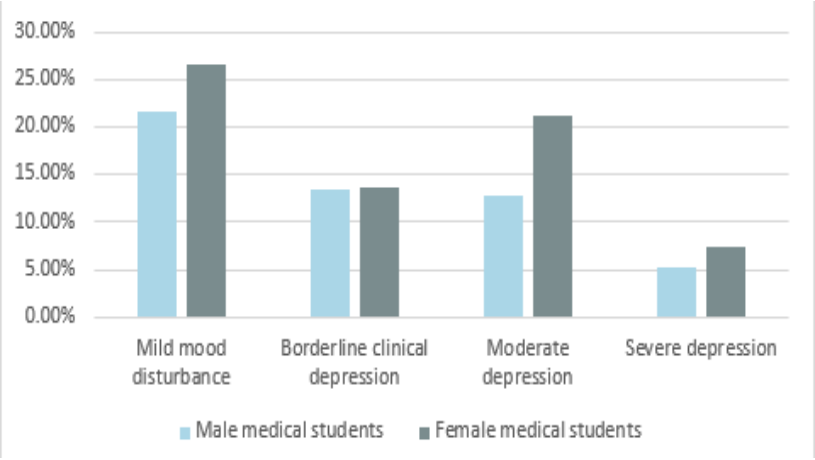

Figure 3. Gender and depression among medical students

Relationship between year of study and depression

There was no significant correlation between the prevalence of depression among medical students and the year of study. However, there are some noteworthy points to highlight:

- Second, fourth, and sixth year medical students suffered from severe depression at 8.2%, 11%, and 9.5%, respectively. These student groups accounted for ~66% of all the medical students with severe depression.
- Moderate depression was clearly higher among fourth-year non-medical students, with a percentage of 35.7% compared to 23.2% for medical students (Figure 5).

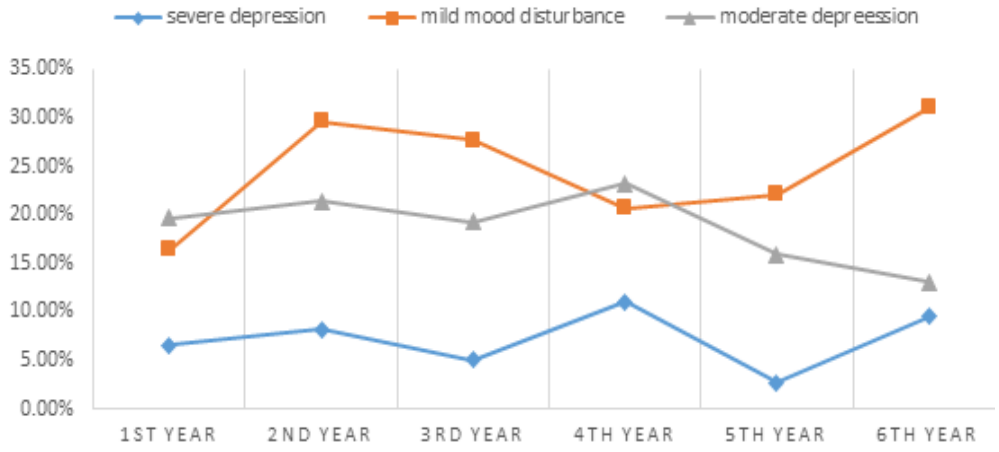

Figure 5. Effect of year of study on depression level among medical students

- Sixth-year medical students had the highest percentage of mild mood disturbance (31%), and fourth-year students had the highest moderate (23.2%) and severe (11%) depression.
- First-year medical students suffered from the lowest rate of mild mood disturbances (Figure 5).
- Fourth-year medical students had the highest rate of moderate and severe depression (Figure 5).

Effect of GPA on the prevalence of depression symptoms

There was a significant negative correlation between depression and GPA (α =0.00). Medical

students with a lower GPA suffered more from depression in both universities.

The percentage of medical students with severe and extreme depression increased as GPA scores went down. The respective percentages for severe depression were 3.4% for >90 GPA, 5.5% for 80–90, 7.6% for 75–79, and 17.8% for 65–74. For extreme depression, the results were 1.7% for >90 GPA, 1% for 80–90, 1.9% for 75–79, and 4.4% for 65–74 (Figure 6).

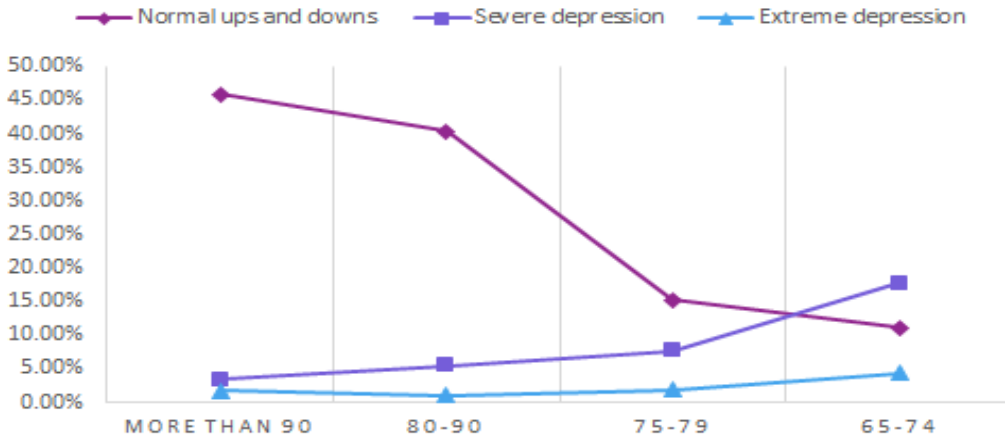

Figure 6. Effect of GPA on depression level among medical students

Association between family income and the prevalence of depression symptoms among medical participants

Statistical analysis showed a significant negative association between family income and depression, with $\alpha \leq 0.05$. It can be noted that, as family income per month went down, medical students reported more severe depression. In percentage terms, 8.3% of medical students with very low family income had severe depression, compared to 6.2% of those having an average family income, and 5.7% of those having a high family income. The same trend was seen when evaluating moderate and extreme depression. The percentages of moderate depression were 19.4% and 12% in students with very low family income and with very high family income, respectively; extreme depression was reported by 2.8% and 1.8% of students with very low family income and average income, respectively.

Prevalence of depression and its relationship with working status

The majority of our sample subjects were unemployed students. Work had a significant effect on both medical and non-medical students ($\alpha \leq 0.05$), but the effect differed in the two groups: work increased the depression level in non-medical students (positive correlation), but decreased it in medical students (negative correlation). Additionally, normal ups and downs and mild mood disturbances were higher in medical students who worked.

Accommodation and depression

Medical students living with family members suffered from borderline clinical depression (12.2%) and severe depression (5.1%); these values were lower compared to medical students living in dormitories (14.5% and 8.8%, respectively). Levels of moderate and extreme depression were higher in those living with family members, at 19% with moderate depression and 1.9% with extreme depression.

Psychological support, hobbies, and extracurricular activities, and their association with depression levels

A negative correlation was observed between depression levels among medical students and psychological support, hobbies, and extracurricular activities (Table 2). Thus, appropriate psychological support could significantly decrease depression. Additionally, practicing hobbies and extracurricular activities (Table 2) also decreased depression in medical students; however, no significant association was reported between these two variables.

Table 2: Association between the following factors and depression

	Medical students		Non-medical students	
	Correlation Coefficient	***p*-value**	**Correlation Coefficient**	***p*-value**
Psychological support	-.394**	.000	-.267**	.000
Hobbies	-.175**	.000	.077	.168
Extracurricular activities	-.211**	.000	-.054	.250
Thoughts to give up courses due to academic stress	.439**	.000	.468**	.000
Use of stimulants/ anxiolytics	.315**	.000	.235**	.002
Experiencing serious/ distressing past life events	.123**	.002	.129	.054
Thoughts to hurt themselves	.457**	.000	.422**	.000
Experiencing anxiety attack	.422**	.000	.324**	.000
Feeling depressed	.581**	.000	.457**	.000

Relationship between depression and thoughts about quitting medical school, self-harm, the use of anxiolytic medications, difficult past life events, and anxiety attacks

The analysis showed a positive correlation between depression and thoughts about quitting medical school, self-harm, the use of anxiolytic medications, having lived through difficult/ distressing/ serious events, and, finally, experiencing anxiety attacks (Table 2).

DISCUSSION

Medical students suffer from academic stressors, and they commonly 'believe' that they suffer from some form of depression. Paradoxically, this research shows that depression was significantly higher in non-medical compared to medical students (p=0.028 by chi-square [test of independence=11.794]). Thus, it can be concluded that medical students do not suffer from a higher level of depression relative to non-medical students. One possible explanation for the lower rate of depression among medical students could be their adaptation to stress and hard work as realized from high school forward. That is, when students join medical schools, they are already accustomed to dealing with a huge workload and stress. On the other hand, mild mood disturbances were higher among medical students; a possible explanation for this observation is that medical students' stress is usually linked to exams, study load, and other academic stressors. The non-medical students did not suffer from higher rates of mild mood disturbances, but did have higher depression rates.

Our finding on female depression is congruent with the literature and re-affirms that female students are more prone to depression than their male colleagues. Surprisingly, having a larger family is not a depression contributor and could mean better support for the medical student, since this may translate into a wider supportive group. Family income had a significant negative relationship with depression levels in both medical and non-medical students, and lower family income translated into higher depression levels. Typically, a higher family income provides better financial support to the student, allowing them to feel secure and be fully focused on academic work.

Furthermore, family size and income are two related factors that may synergistically influence the depression rate. For example, a medical student of a low-income family with >5 members had a higher rate of depression than one with 3–5 family members. Such an observation could be due to a large family on a lower income being a compound stressor.

There is a bidirectional relationship between the GPA and depression. Low GPA scores may negatively impact the mental status of the student, making them less motivated and satisfied in medical school, which may subsequently cause depression. In the other direction, depressive symptoms can include biological/physical and emotional changes (e.g., loss of interest or pleasure, fatigue or loss of energy, feelings of worthlessness) which can directly influence the student's academic achievement. Therefore, a higher GPA means greater satisfaction and self-esteem.

Working medical students differed significantly in their depression levels from employed non-medical students. Specifically, work status appears to significantly lower the depression level of medical students, which may be attributed to an improvement

in economic status. Working medical students may have better economic status and may be able to help their families with academic expenses. In addition, medical students generally have less time to work, and thus may find working is a way to beat the stress associated with medical school and take their minds off academic concerns; in other words, by working, they can break away from the stressful exam/ study routine of medical school. On the other hand, the significant positive correlation between depression and work among non-medical students could be attributed to having more time available for work, and this then became the main stressor in their lives.

The results of this study support how appropriate psychological support can significantly decrease depression. This finding is congruent with other studies and indicates that support, no matter its source, can improve mental health and reduce depression. Similar trends were obtained in the form of significant negative relationships between depression and practicing hobbies or extracurricular activities. In fact, both approaches are used today as tools to relieve the stresses of everyday life and maintain a healthy mind and body.

Generally, these undergraduate university students had higher rates of depression prevalence (30.6%) compared to the general population (9%), which can be attributed to the students being more stressed about their future (63). According to a systematic review and meta-analysis (64), medical students generally have a prevalence rate of 27.2% for depression and depressive symptoms, while for the medical students in our sample, this rate was 33.3%. The same study (64) concluded that medical students have an increased percentage (13.5%) of depressive symptoms compared to before they attended medical school.

A cross-sectional study (65) showed that non-medical students suffered from higher levels of moderate and severe depression compared to medical students, and this is somewhat consistent with our finding that non-medical students had higher levels of all depression forms.

A study conducted in the Gaza Strip concluded that Al Azhar University students had a higher total GHQ-28 score, anxiety, and more depression than students at the universities of Islamic and Al Quds (60).

Strengths and limitations of the study

Throughout this research project, we faced some obstacles and limitations. We acknowledge there is a built-in bias with a self-administrated questionnaire. We realize that using a self-reported questionnaire is insufficient for assessing depression, especially since we cannot ensure that our participants gave accurate answers to every question rather than shallow, quick responses. We also understand that an interview-based questionnaire would be more suitable in this case, but using one was not feasible.

Sampling was another challenge, since equal numbers of medical and non-medical (control) students were not obtained; namely, 78% of our total sample were medical students while only 22% were non-medical students. However, even with the non-medical group being a distinct minority, our results show significantly higher depression levels among the non-medical group.

As for the strengths, we consider our sample to be highly representative of both universities and of different years of study. The number of pre-clinical and clinical students in our sample were almost equal, which allowed us to compare these periods. Furthermore, using the well-known BDI was a strength of our research.

CONCLUSION

Our study has shown that the field of study has a significant effect on the level of distress, with non-medical students having higher depression rates than medical students. Among the latter, female students, those with a lower GPA, and those having a lower family income were more depressed. Some protective factors that were shown to have significant positive relationships with the mental status of a medical student included finding someone who offers appropriate mental support, playing sports, and practicing hobbies and extracurricular activities.

RECOMMENDATIONS

The authors recommend that medical students be encouraged to practice hobbies and extracurricular activities. More research is needed on the depression issues and mental health of university students, as well as the whole Palestinian population, and newer study designs need to be implemented to assess the multifactorial relationships that we could not assess effectively in our study design, such as a cohort study or interview-based questionnaire.

ACKNOWLEDGEMENTS

The authors acknowledge the Medical Research Club of Al-Quds University for their support during the research. Our gratitude goes to Mr. Mohammad Zawahra for his contribution to the statistical and data analysis.

REFERENCES

1. Abdel-Hady El-Gilany, Mostafa Amr, Sabry Hammad. Perceived stress among male medical students in Egypt and Saudi Arabia: effect of sociodemographic factors. Annals of Saudi Medicine 2008; 28(6): 442-448
2. Calkins EV, Arnold L, Willoughby TL. Medical students' perceptions of stress: gender and ethnic considerations. Journal of the Association of American Medical College, Academic Medicine. 1994 Oct;69(10 Suppl):S22-4. doi: 10.1097/00001888-199410000-00030. PMID: 7916816.
3. C, Sahu P., et al. Study Of Depression Among Medical Students Of Different Pathies In Nanded City, Maharashtra. Journal of Evolution of Medical and Dental Sciences, vol. 2, no. 22, 2013, pp. 3978–3986., doi:10.14260/jemds/791.
4. Khan, M S, et al. Prevalence Of Depression, Anxiety and Their Associated Factors among Medical Students of Sindh Medical College, Karachi, Pakistan. American Journal of Epidemiology, vol. 163, no. suppl_11, 2006, doi:10.1093/aje/163.suppl_11.s220-c.
5. Marzo, Roy Rillera. Study of Association between Psychological Stress and Depression among Undergraduate Medical Students from Asia Metropolitan (Amu) in Johor Bahru. Texila International Journal Of Academic Research, vol. 3, no. 1, 22 July 2016, pp. 41–51., doi:10.21522/tijar.2014.03.01.art005.
6. Rotenstein, L. S., Ramos, M. A., Torre, M., Segal, J. B., Peluso, M. J., Guille, C., . . . Mata, D. A. (2016). Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students. Jama, 316(21), 2214. doi: 10.1001/jama.2016.17324
7. Alharbi, H., Almalki, A., Alabdan, F., & Hadad, B. (2018). Depression among medical students in Saudi medical colleges: A cross-sectional study. Advances in Medical Education and Practice, Volume 9, 887-891. doi: 10.2147/amep.s182960
8. Wahed, W. Y., & Hassan, S. K. (2017). Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. Alexandria Journal of Medicine, 53(1), 77-84. doi:10.1016/j.ajme.2016.01.005
9. Kroska, E. B., Calarge, C., O'Hara, M. W., Deumic, E., & Dindo, L. (2017). Burnout and depression in medical students: Relations with avoidance and disengagement. Journal of Contextual Behavioral Science, 6(4), 404-408. doi:10.1016/j.jcbs.2017.08.003
10. El-Gilany, A., Amr, M., & Hammad, S. (2008). Perceived Stress among Male Medical Students in Egypt and Saudi Arabia: Effect of Sociodemographic Factors. Annals of Saudi Medicine, 28(6), 442-448. doi:10.5144/0256-4947.2008.442
11. Alvi, Tabassum & Assad, Fatima & Ramzan, Mussarat & Aslam Khan, Faiza. (2010). Depression, Anxiety and Their Associated Factors Among Medical Students. Journal of the College of Physicians and Surgeons--Pakistan : JCPSP. 20. 122-6.
12. Tabalipa, F. D., Souza, M. F., Pfützenreuter, G., Lima, V. C., Traebert, E., & Traebert, J. (2015). Prevalence of Anxiety and Depression among Medical Students. Revista Brasileira De Educação Médica, 39(3), 388-394. doi:10.1590/1981-52712015v39n3e02662014
13. Schwenk, T. L., Davis, L., & Wimsatt, L. A. (2010). Depression, Stigma, and Suicidal Ideation in Medical Students. Jama, 304(11), 1181. doi:10.1001/jama.2010.1300
14. Silva, V., Costa, P., Pereira, I., Faria, R., Salgueira, A. P., Costa, M. J., Sousa, N., Cerqueira, J. J., … Morgado, P. (2017). Depression in medical students: insights from a longitudinal study. BMC medical education, 17(1), 184. doi:10.1186/s12909-017-1006-0
15. Bunevicius, Adomas, et al. Symptoms of Anxiety and Depression in Medical Students and in Humanities Students: Relationship With Big-Five Personality Dimensions and Vulnerability To

Stress. International Journal of Social Psychiatry, vol. 54, no. 6, Nov. 2008, pp. 494–501., doi:10.1177/0020764008090843.

16. Erschens, R., Herrmann-Werner, A., Bugaj, T., Nikendei, C., Zipfel, S., & Junne, F. (2016). Methodological aspects of international research on the burden of anxiety and depression in medical students. Mental Health & Prevention, 4(1), 31-35. doi:10.1016/j.mhp.2016.01.003
17. Ibrahim, M. B., & Abdelreheem, M. H. (2015). Prevalence of anxiety and depression among medical and pharmaceutical students in Alexandria University. Alexandria Journal of Medicine, 51(2), 167-173. doi:10.1016/j.ajme.2014.06.002
18. Seweryn, Małgorzata, et al. Evaluation of the level of depression among medical students from Poland, Portugal and Germany. Psychiatr Danub, Vol. 27, Suppl. 1,2015, pp 216–222
19. Ling, L., Qin, S., & Shen, L. (2014). An investigation about learning burnout in medical college students and its influencing factors. International Journal of Nursing Sciences, 1(1), 117-120. doi:10.1016/j.ijnss.2014.02.005
20. Fares, Jawad, et al. Extracurricular Activities Associated with Stress and Burnout in Preclinical Medical Students. Journal of Epidemiology and Global Health, vol. 6, no. 3, 2016, pp. 177–185., doi:10.1016/j.jegh.2015.10.003.
21. Mustafa, M. B., Nasir, R., & Yusooff, F. (2010). Parental Support, Personality, Self-Efficacy and Depression among Medical Students. "Procedia - Social and Behavioral Sciences', 7, 419-424. doi:10.1016/j.sbspro.2010.10.057.
22. Baldassin, S., Silva, N., Tânia Correa De Toledo Ferraz Alves, Castaldelli-Maia, J. M., Bhugra, D., Nogueira-Martins, M. C., . . . Nogueira-Martins, L. A. (2013). Depression in medical students: Cluster symptoms and management. Journal of Affective Disorders, 150(1), 110-114.

doi:10.1016/j.jad.2012.11.050.

23. Khan, M. S., Mahmood, S., Badshah, A., Ali, S., & Jamal, Y. (2006). Prevalence Of Depression, Anxiety and their Associated Factors among Medical Students of Sindh Medical College, Karachi, Pakistan. American Journal of Epidemiology, 163(Suppl_11). doi:10.1093/aje/163.suppl_11.s220-c.
24. Gupta, A., Salunkhe, L. R., Hameed, S., & Halappanavar, A. B. (2018). Study of association between psychological stress and depression among medical students in Mangalore. International Journal Of Community Medicine And Public Health, 5(10), 4398. doi:10.18203/2394-6040.ijcmph20183982.
25. Inam, S., Saqib, A., & Alam, E. (february, 2003). Prevalence of Anxiety and Depression among Medical Students of Private University. Journal Of Pakistan Medical Association.
26. Rab, F., Mamdou, R. & Nasir, S. (2008). Rates of depression and anxiety among female medical students in Pakistan.
27. Griffiths, Mark D. (2016, September 29). A Brief Look at Medical Student syndrome. Retrieved from https://www.psychologytoday.com/us/blog/in-excess/201609/brief-look-medical-student-syndrome
28. Richards, D. Prevalence and clinical course of depression: a review. ClinPsychol Rev. 2011;31 (7):1117–1125.
29. What Is Depression? (2018, January). Retrieved from https://www.psychiatry.org/patients-families/depression/what-is-depression
30. What is the definition of Depression? (n.d.). Retrieved from https://www.webmd.com/schizophrenia/qa/what-is-the-definition-of-depression
31. King, Ari. (2015, December 21). 4 Reasons Why It's Important To Talk About Depression. Retrieved from https://www.theodysseyonline.com/4-reasons-important-talk-depression
32. Murray C, Lopez A. World Health Report 2002: Reducing Risks, Promoting Healthy Life. Geneva, Switzerland: World Health Organization. American Psychiatric Association, 2017.
33. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among US and Canadian medical students. Journal of the Association of American Medical College,

Academic Medicine. 2006;81(4):354-373.)

34. Cavestro JDM, Rocha FL. Depression prevalence among university students. Journal Brasil Psiq. 2006; 55(4):264-7.
35. Prinz P, Hertrich K, Hirschfelder U, de Zwaan M. Burnout, depression and depersonalisation—psychological factors and coping strategies in dental and medical students. German Medical Science Journal for Medical Education Ausbildung . 2012;29(1):Doc10.
36. Supe AN. A study of stress in medical students at Seth G S Medical College. Journal of Postgraduate Medicine. 1998;44(1):1-6.).
37. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. JAMA. 2016 Dec 6;316(21):2214-2236.

doi: 10.1001/jama.2016.17324. Review. PubMed PMID: 27923088; PubMed Central PMCID: PMC5613659.

38. Rosal MC, Ockene IS, Ockene JK, Barrett SV, Ma Y, Hebert JR. A longitudinal study of students' depression at one medical school. Journal of the Association of American Medical College, Academic Medicine. 1997;72 (6): 542-546.
39. Dahlin M, Joneborg N, Runeson B. Stress and depression among medical students: a cross-sectional study. Association for the study of Medical Education 2005; 39 (6):594-604.
40. Tyssen R, Vaglum P, Gronvold NT, Ekeberg O: Factors in medical school that predict postgraduate mental health problems in need of treatment. A nationwide and longitudinal study. Association for the study of Medical Education 2001; 35(2):110-120.
41. Carson AJ, Dias S, Johnston A, et al. Mental health in medical students: a case control study using the 60 item General Health Questionnaire. Scottish Medical Journal 2000;45(4):115-116.
42. Rosenthal JM, Okie S. White coat, mood indigo—depression in medical school. The New England Journal of Medicine 2005; 353(11):1085-1088.
43. Zoccolillo M, Murphy GE, Wetzel RD. Depression among medical students. Journal of Affective Disorders 1986; 11 (1): 91-96.) .
44. Firth J. Levels and sources of stress in medical students. British Medical Journal 1986; 292:1177-80.
45. Supe AN. A study of stress in medical students at Seth GS Medical College. Journal of Postgraduate Medicine 1998; 44:1-6.).
46. Kaya M, Genc M, Kaya B, Pehlivan E. Prevalence of depressive symptoms, ways of coping, and related factors among medical school and health services higher education students. Turkish Journal of Psychiatry 2007; 18:137-46. Turkish.
47. Khan MS, Mahmood S, Badshah A, Ali SU, Jamal Y. Prevalence of depression, anxiety and their associated factors among medical students in Karachi, Pakistan. The Journal of the Pakistan Medical Association. 2006;56:583-6.
48. Pickard M, Bates L, Dorian M, Greig H, Saint D. Alcohol and 126 Journal of the College of Physicians and Surgeons Pakistan 2010, Vol. 20 (2): 122-126 Tabassum Alvi, Ms Fatima Assad, Mussarat Ramzan and Faiza Aslam Khan drug use in second-year medical students at the University of Leeds. Medical Education 2000; 34:148-50.
49. Abdallah AR, Gabr HM. Depression, anxiety and stress among first year medical students in an Egyptian public university. International Research Journal of Medicine and Medical Sciences 2014;2(1):11–9.
50. Amr M, El-Gilany A, El-Sayed M, El-Sheshtawy E. Study of stress among medical students at Manssoura University. Benha Medical Journal 2007;2007(37):25–31.
51. Carter AO, Elzubeir M, Abdulrazzaq YM, Revel AD, Townsend A. Health and lifestyle needs assessment of medical students in the United Arab Emirates. Medical Teacher 2003;25(5):492–6.
52. Puthran, R., Zhang, M. W. B., Tam, W. W., & Ho, R. C. (2016, April). Prevalence of depression amongst medical students: a meta-analysis. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/26995484.
53. Moir, F., Yielder, J., Sanson, J., & Chen, Y. (2018, May 7). Depression in medical students:

currentinsights. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5944463/.

54. Setia, M. S. (2016). Methodology Series Module 3: Cross-sectional Studies.
55. García-Batista, Z. E., Guerra-Peña, K., Cano-Vindel, A., Herrera-Martínez, S. X., & Medrano, L. A. (2018, June 29). Validity and reliability of the Beck Depression Inventory (BDI-II) in general and hospital population of Dominican Republic.
56. Ibrahim Ismail & Ismail Lubb, Lubb Ibrahim, Lubbad Ibrahim, Rn Mcmh, Abdel Mcmh, Mousa Aziz, Thabet, Abdel Thabet. (2009). The impact of siege on prevalence of depression and anxiety disorder among universities students in Gaza governorates. Retrieved from https://www.researchgate.net/publication/256554572_The_impact_of_siege_on_prevalence_of_depression_and_anxiety_disorder_among_universities_students_in_Gaza_governorates
57. Mohammad Alswerki, Abdallah Alwali, Mahmoud Hamouda, Khaled Alshabrawi, Hisham Abuamro,, Abdullah AlJamal , Khamis Elessi. Islamic University of Gaza (IUG) and Al-Quds University – Azhar Branch (Q-AZ) Medical Schools, Gaza Strip, Palestine. Prevalence of Stress, Anxiety, and Depression among Medical Students in Gaza Strip: A Cross-Sectional Descriptive Study. Retrieved from: https://www.researchgate.net/publication/329069956_Prevalence_of_Stress_Anxiety_and_Depression_among_Medical_Students_in_Gaza_Strip_A_Cross-Sectional_Descriptive_Study
58. Sample Size Calculator. (n.d.). from https://www.surveysystem.com/sscalc.htm
59. Aysheha Yousef Mosallam and Abdel Aziz Thabet (2016) Coping With Stressful Life Events and Mental Health Disorders among University Students. BAOJ Psychology 1: 011.
60. Abdelaziz M Thabet, Taysir Abdalla. Mental Health Problems among University Palestinian Students. JOJ Nurse Health Care. 2018; 7(1): 555704. DOI: 10.19080/JOJNHC.2018.07.555704
61. Herzallah, M., M., Moustafa, Natsheh, Abdellatif, M., S., . . . A., M. (2013, August 26). Learning from negative feedback in patients with major depressive disorder is attenuated by SSRI antidepressants. Retrieved from https://www.frontiersin.org/articles/10.3389/fnint.2013.00067/full
62. Wickramasinghe, D., Almeida, I., & Samarasekera, D. (2018, December 21). Depression and stressful life events among medical students during undergraduate career: Findings from a medical school in South Asia. Retrieved from http://theasiapacificscholar.org/depression-and-stressful-life-events-among-medical-students-during-undergraduate-career-findings-from-a-medical-school-in-south-asia/
63. Gonalez O, Berry J, McKnighty-Eliy I, Strine T, Edwards V, Lu H, et al. Current depression among adults e United States, 2006 and 2008. MMWR 2010;59:1229e35.
64. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. JAMA. 2016 Dec 6;316(21):2214-2236.

doi: 10.1001/jama.2016.17324. PMID: 27923088; PMCID: PMC5613659.

65. Honney K, Buszewicz M, Coppola W, Griffin M. Comparison of levels of depression in medical and non-medical students. The Clinical Teacher. 2010 Sep;7(3):180-4.

doi: 10.1111/j.1743-498X.2010.00384.x. PMID: 21134179.

الاكتئاب لدى طلاب الطب، مقارنةً مع غيرهم من طلبة التخصصات الأخرى، في جامعات الضفة الغربية الفلسطينية

ميار ادكيدك[1]، بيسان مرعب[1]، نيڤين شريف[1]، أسيل رشق[1]، علاء الدين حليقاوي[1]، سارة ادكيدك[1]، محمد عمران خليل[1]، لانا حمد[1]، حسين حلاق[2]

[1] نادي البحث العلمي في كلية الطب، كلية الطب البشري، جامعة القدس، القدس، فلسطين

[2] قسم علم العقاقير، كلية الطب البشري، جامعة القدس، أبو ديس، الضفة الغربية، فلسطين

الملخص

هدفت هذه الدراسة إلى بحث احتمالية الاكتئاب لدى طلاب الطب مقارنة في طلاب التخصصات الأخرى في جامعات الضفة الغربية الفلسطينية، إضافةً إلى تقييم العوامل الاجتماعية، الديموغرافية والأكاديمية التي قد تؤثر على احتمالية الإصابة في الاكتئاب.

أُجريَت الدراسة الوصفية المقطعية على 714 من طلاب الطب وغير الطب من جامعتي القدس والنجاح الوطنية. تم جمع البيانات من خلال استبيان يشمل: المعلومات الاجتماعية، الديموغرافية والحالة الأكاديمية للطلبة، وأيضاً تم قياس الاكتئاب باستخدام استبيان "بيك للاكتئاب– Beck Depression Inventory " ثمّ، تمّ تحليل البيانات باستخدام برنامج التحليل الإحصائي SPSS الإصدار 20.0

أشارت نتائج الدراسة إلى أنّ حوالي ثلث طلاب الطب في العينة يعانون من شكل من أشكال الاكتئاب. حيث أنّ نسبة الاكتئاب "المعتدل" كانتْ مرتفعة نسبيًا بين طلاب الطب (18.7٪) وطلاب التخصصات الأخرى (25.5٪)، في جميع مستويات الاكتئاب. أيضاً، كان هناك انخفاض ملحوظ في معدل انتشار الاكتئاب بين طلاب الطب مقارنة بطلاب غير الطب، باستثناء أن طلاب الطب عانوا من معدل أعلى من الاضطرابات المزاجية الخفيفة (25.1٪) مقارنة بطلاب التخصصات الأخرى (14.6٪).

إضافةً على ذلك، كان هناك ارتباط ذو دلالة إحصائية (القيمة الاحتمالية $P \leq 0.05$) بين ارتفاع معدل انتشار الاكتئاب والجنس الأنثوي، انخفاض المعدل التراكمي، انخفاض الحالة الاقتصادية، ونقص الدعم النفسي. بينما لم تظهر المتغيرات الأخرى، مثل مكان الإقامة والسنة الدراسية، أي علاقة ذات دلالة احصائية مع الاكتئاب.

أظهرت الدراسة أن الاكتئاب منتشرًا بشكل كبير بين الطلاب بغض النظر عن الجامعة أو مجال الدراسة، مما يعكس على الأرجح ارتفاع معدلات الاكتئاب في المجتمع الفلسطيني بشكل عام. على الرغم من ذلك، فإن سبب انخفاض معدل انتشار الاكتئاب بين طلاب الطب مقارنةً بغيرهم، قد يُعزى إلى أنّ الطلبة الذين يُقبلون في كلية الطب هم ذاتهم الطلبة المتميزون والمتفوقون على مستوى الوطن، وبالتالي معتادون على الضغط، كما قد يكون لديهم القدرة على التكيّف مع الإجهاد والضغط الدراسي الذي قد يؤدي للاكتئاب.

أخيرًا، تتناقض نتائج دراستنا مع التصوّر العام بارتفاع معدل الاكتئاب بين طلبة كلية الطب مقارنةً بغيرهم.

الكلمات الدالة: الاكتئاب لدى طلاب الطب ، استبيان بيك للاكتئاب ، طلاب الجامعات ، الدعم النفسي ، العوامل الاجتماعية والديموغرافية