MedAppSci
Journal of Medicine and Applied Sciences

Araştırma Makalesi / Original Article
J Med App Sci, 2021; 1(1): 15-20

Üniversite Öğrencilerinde Depresyon ve Başa Çıkma Mekanizmaları: Karşılaştırmalı Analiz

Depressionand Coping Mechanisms among University Students: A comparative analysis

Sawah E.[1], Sohail M.[2], Sulaiman T.[2], Hamad A.[1], Karimi N.[3], Alsaloum A.[1], Kınacıgil M.[1], Öngün B.[4]

[1] *Marmara Üniversitesi, Tıp Fakültesi, İstanbul, Türkiye.*
[2] *Marmara Üniversitesi, Tıp Fakültesi, Halk Sağlığı AD, İstanbul, Türkiye.*
[3] *Medical Park Hastanesi, Yenidoğan Yoğun Bakım, İstanbul, Türkiye.*
[4] *Doğu Akdeniz Üniversitesi, Tıp Fakültesi, Anatomi AD, Gazimağusa, KKTC.*

Corresponding author / Sorumlu Yazar:
Mariyam Sohail. Marmara Üniversitesi, Tıp Fakültesi, Halk Sağlığı AD, İstanbul, Türkiye.
sohail.mariyam@gmail.com

ÖZET

Bu çalışmanın temel amacı, depresif ve depresyonu olmayan bireylerde olumsuz bir duygulanım durumu ve sonraki yaşam sorunları ile karşılaştıklarında kullanılan çeşitli başa çıkma tekniklerinin sıklığını tahmin etmek ve belirlemektir. Bu çalışmada, medya, eczacılık, tıp ve ekonomi olmak üzere dört fakülteden rastgele örnekleme yöntemiyle seçilen 2. ve 3. sınıf öğrencileri olmak üzere toplam 379 öğrenci seçilmiştir. Üniversite öğrencilerinin depresyon prevalansı %26,4 çıkmıştır, en yüksek tıp öğrencilerine aittir (%42). Erkeklerde ve kadınlarda depresyon düzeylerinin anlamlı olmadığı (p=0,3, >0,05) ve erkeklerde madde kullanımı dışında baş etme mekanizmalarının olmadığı (p=0,03, <0,05) bulundu. Başa çıkma teknikleri depresif öğrenciler ve depresif olmayan öğrenciler için önemli ölçüde farklıydı, depresif öğrenciler uyumsuz başa çıkma yöntemlerini kullanma eğilimi sergilediler, örneğin: kendini suçlama %58 (n=220), dışa vurma %57 (n=216) ve %54 inkar (n=205). Buna karşılık, depresyonu olmayan öğrenciler uyarlanabilir başa çıkma tekniklerini çok daha sık uygulamışlardır, yani aktif başa çıkma (%64 (n=243)), planlama (%61 (n=231)) ve kabullenme (%61 (n=231)) teknikleri. Depresyon prevalansının tıp öğrencileri arasında en yüksek olduğu ve stres, tıbbi hayatın zorlukları gibi faktörler tespit edildi.

Anahtar Kelimeler: Başa çıkma mekanizmaları,üniversite öğrencileri,depresyon yaygınlığı.

ABSTRACT

The primary aim of this study is to estimate and identify the frequency of various coping techniques used among depressed and non-depressed individuals when faced with negative affective state and subsequent life problems. In this cross-sectional study, 2nd and 3rd year university students were selected from four faculties by random sampling including media, pharmacy, medicine and economics yielding a total of 379 students. The prevalence of depression of university students was 26.4%, highest being medical students (42%). Depression levels among males and females was found to be insignificant (p=0.3, >0.05), nor was coping mechanisms, except for substance abuse in males (p=0.03, <0.05). Coping techniques were significantly different for depressed students and non-depressed students, depressed students exhibited a tendency for using maladaptive coping measures such as: self-blame 58% (n=220), venting 57% (n=216) and denial 54% (n=205). In contrast, non-depressed students followed adaptive coping techniques much more frequently, namely, active coping 64% (n=243), planning 61% (n=231) and acceptance 61% (n=231). Prevalence of depression was highest among medical students and factors such as stress and difficulties of medical life were identified.

Keywords: Coping mechanisms, University students, Depression prevalence.

Received/Geliş: *14/05/2021*
Revised/Revizyon: *07/06/2021*
Accepted/Kabul: *22/06/2021*

INTRODUCTION

Young people's mental health and well-being is of great importance and a global concern [1], depression is one of the most commonly encountered emotional distress in both the general public and in various types of clinical populations [2]. Meanwhile, university students perceive workload as the main cause of depression in comparison to other causes such as health, social and family problems.

The importance of the mental health of students is highlighted by studies suggesting psychological disorders interfere with university attendance and reduces the likelihood of success in university completion [3], according to another study conducted in 2009 by Eskisehir Osmangazi university in Turkey, depression prevalence was 21.8%, and among health sciences faculty (n=179/822), showed the following causes as significant risk factors for depression ($p<0.05$); family history of depression, acne breakout, smoking, and alcohol consumption [4].

Suggested by a study conducted in 2013, published by Medical Science Monitor, in contrast to healthy people, depressed people often use avoidance and denial techniques while having more difficulty identifying positive outcome of circumstances in comparison to healthier people [5]. In fact, number of students developing psychological problems has increased in the last few years and this makes it a growing concern.

It was predicted that depression prevalence of university students varies according to the faculty. This means that those enrolled in more demanding fields such as medicine were expected to manifest higher levels of depression as compared to those enrolled in less demanding fields.

Additionally, coping techniques differ between depressed and non-depressed, and the depressed students were predicted to resort to mal-adaptive techniques [6].

This study aims to estimate and recognize the effect of various coping strategies used by depressed and non-depressed university students, as well as to assess depression prevalence of university students, who are considered a stressed population.

MATERIALS AND METHODS

Participants

A cross-sectional analysis was performed with a group of 379 university students at Eastern Mediterranean University in North Cyprus. Among the participants 48.8% were males and 51.2% females. The target populations of this study were undergraduate students from the faculty of medicine (11.3%); business and economics (36.4%); pharmacy (30.1%) and media studies (22.2%). Only second (47.2%) and third year (52.8%) students participated in this study. First year and graduating students were eliminated from this study due to the difference in the academic curriculum among the previously mentioned faculties.

Measures

The questionnaire consisted of three parts; demographics, Beck's Depression Inventory-II, and Cope Inventory [7].

The Beck Depression Inventory-II, a 21-item questionnaire, was used to measure depressive symptoms in this study. BDI-II is a self-report inventory that is one of the most commonly used tools for assessing depression severity that was created by Dr. Aaron T. Beck. It may also be used in a non-clinical setting as a depression screening test. The BDI-II was found to be a legitimate and accurate testing tool. The potential score range for each statement in this inventory is 0 to 3, with a total score of 63. Normal is a score of 0 to 9, mild mood disturbance is a score of 10 to 16, moderate depression is a score of 17 to 29, and severe depression is a score of 30 to 63. Students who received a score of 17 or higher were diagnosed with clinical depression. The questionnaires were distributed in English and validated Turkish translations.

The participants' coping styles were investigated using the Brief Cope Inventory (COPE) [8].

Developed by Carver at the University of Miami, and it is now one of the most widely used coping measures, with over 900 publications citing it as of August 2011 [9].

This study used an abridged version of the original COPE Inventory, which assesses 14 coping styles with 28 questions (2 questions per type). "Active coping" (I have been taking steps to improve the situation), "religion" (I have been praying or meditating), and "venting" are examples of these (I have been expressing my negative feelings). The answers to these questions are graded on a 4-point Likert scale, with 1 being "I haven't done this at all" and 4 being "I have done this a lot"). Turkish and English validated translations were available.

Procedure and Evaluation

During January and February of 2016, data was collected using a questionnaire to determine the presence of depressive symptoms and the type of coping strategy used. Prior to the questionnaire, the participants gave their informed consent. In addition, the questionnaires were tested before being administered to target population for any misleading or vague questions in the questionnaire.

Statistical Analysis

SPSS 13.0 was used for statistical analysis. The relationship between depression levels within different faculties was assessed by ANOVA test. T-test was used for assessing the variance between trends of coping techniques in depressed and non- depressed individuals. Eastern Mediterranean University's Research and Publication Ethics Board accepted the conduction of the study.

RESULTS

Out of the 379 students asked, 100 were positive for clinical depression according to the BDI-II classification (BDI-II score >= 17), 76 were graded as moderate depression (17-29) and 24 as severe depression (29-60). This showed a depression prevalence of 26.4%. The average score of the BDI-II test in the population is 13.75.

From the total female population, 72.2% experienced depression whilst from the total male population, 76.5% experienced depression. The percentage of depression prevalence among females was insignificantly higher than males at 27.8% and 24.9% respectively (p value = 0.3). Table 1 shows the frequency of depression in different faculties, medicine showed the highest prevalence of depression (42%), while media studies showed the lowest (24%). ANOVA test was done to assess variation between faculties giving a p value= 0.18. Table 1 shows Post-Hoc test done to understand the variance between the faculties. All faculties showed significant difference with medicine faculty without showing any significant difference with each other.

The average score for each faculty in the BDI-II test is shown in the table 1. The highest score was medicine with 17.8 while the lowest score was 11.6 for media.

Coping strategies

Depressed students and non-depressed students coping techniques were significantly different. Non-depressed students showed significantly higher frequency of adaptive coping strategies when compared to depressed students. The most frequent adaptive strategies deployed by non-depressed participants that was statistically significant when compared to depressed, are active coping (64%, p-value=0.025), planning (61%, p-value=0.00), positive refraining (58%, p-value=0.00), and acceptance (61%, p-value=0.00). On the other hand, depressed students" most frequent adaptive strategies are emotional (58%), instrumental (45%) and active coping (43%). (Figure 1)

Depressed students are more frequently using maladaptive techniques when coping compared to the non-depressed students (Figure 2). The most frequent techniques deployed by the depressed students that showed statistically significant when compared to non-depressed are self-blame (58%, p-value=0.00), substance use (20%, p-value=0.02), venting (57%, p-value=0.00), and behavioral (52%, p-value=0.00). While for non-depressed students, the most frequent maladaptive techniques deployed are denial (53%), self-distraction (43%) and self-blame (35%).

Depressed males and females attitude didn't show any statistically significant difference in terms of maladaptive coping except for substance use for depressed males (p value = 0.03). (Figure 3).

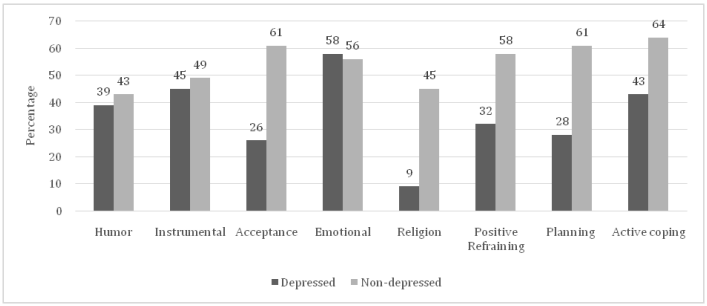

Figure 1: Adaptive coping results in depressed and non-depressed participants.

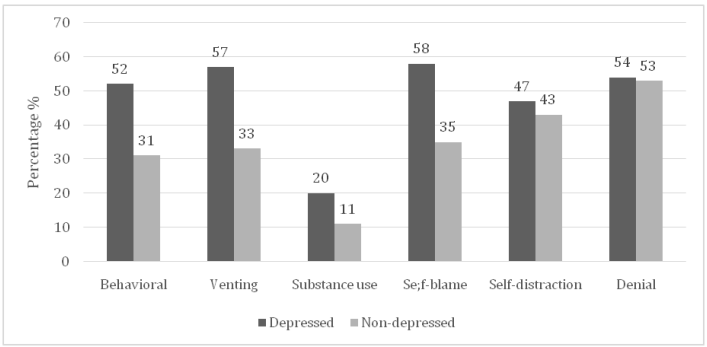

Figure 2: Maladaptive coping results in depressed and non-depressed participants.

Table 1. Frequency of depression

Faculties	n (%)	Depressed n (%)	BDI-II scores	Medicine		
				Mean difference	Std. error	Sig.
Business and economics	138 (36.4%)	39 (28%)	13.8	0.277	0.086	0.01
Pharmacy	114 (30.1%)	38 (33%)	14.1	0.242	0.088	0.038
Communication and media	84 (22.2%)	20 (24%)	11.6	0.328	0.091	0.003
Medicine	43 (11.3%)	18 (42%)	17.8	-	-	-

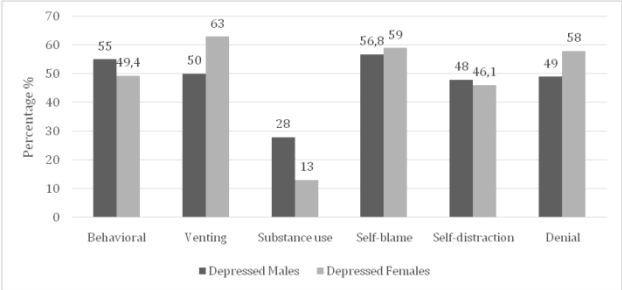

Figure 3: Maladaptive coping in males and females.

DISCUSSION

The prevalence of depression among Eastern Mediterranean University students was found to be 26.4%. This is similar to other studies done in Turkey, a study conducted in Denizli, Turkey which showed that 26.1% of university students had clinical depression (BDI-II score >= 17) [10]. According to another study conducted in 2009 by Eskisehir Osmangazi university in Turkey, depression prevalence was 21.8%, and among health sciences faculty (n=179/822), showed the following causes as significant risk factors for depression ($p<0.05$); family history of depression, acne breakout, smoking, and alcohol consumption [4]. Another study was done which involved a systematic review of studies of depression prevalence in university students [11], Twenty-four articles were identified reported a weighted mean prevalence of 30.6%.

In this study, medical students in Eastern Mediterranean University showed the highest depression prevalence at 42%. This might be due to some factors such as; having longer class hours, more study material, less semester breaks, starting the academic year earlier and ending it later than the rest of the students. A study done in Dokuz Eylül Medical University in Turkey, showed that depression levels across medical class years ranges from 21% to 44% [12].

When the frequencies of different coping techniques were studied, it was found that the depressed and non-depressed students showed different attitudes when facing negative educational and life problems. By comparing depressed and non-depressed students, non-depressed students were more presumable to use adaptive coping strategies. Meanwhile, depressed students were more liable to be involved in poorly adapted coping skills compared to non-depressed students. According to results from a study conducted at a Chinese university, when compared to non-depressed students, Chinese university students with depressive symptoms reported experiencing a greater number of negative events In addition,

undergraduates with depressive symptoms were more likely than other undergraduates to utilize maladaptive coping methods [13].

Furthermore, students with depressive symptoms were more presumable to use maladaptive coping strategies. These results were similar to the results from a study conducted in 2013, depressed people often use avoidance and denial techniques while having more difficulty identifying positive outcome of circumstances in comparison to healthier people [5]. People who are depressed see life events as more threatening and difficult to cope with. This viewpoint is consistent with Lazarus' Cognitive Appraisal Theory, which notes that an occurrence is viewed as stressful based on the individual's significance attributed to it [14].

Usage of religion as a coping style was much more prevalent in non-depressed people when compared to depressed people, with 45% and 9% respectively. Non-depressed people were more likely to answer positively for questions such as; "I've been attempting to discover solace in my religion or otherworldly convictions" or "I've been supplicating or reflecting". At least 444 studies have been quantitatively examining these relationships. Religion/Spirituality association has been linked to less depression in several studies, especially in the setting of life difficulty [15].

Substance abuse results have been shown to be different among the depressed and non-depressed university students, 20% and 11% respectively. As stated by the National Institute of Mental Health, substance use is more common among students with depression than in those without depression [16].

In addition, the gender difference in substance abuse was found to be significant with males two times more likely to resort to alcohol, illicit drugs etc. than females.

Thus far, the dispute is whether the symptoms of depression contribute to choosing less effective ways to deal with stress, or maybe these strategies are used by the patients before the onset of the disease and this way become risk factors for depression. Our study revealed statistically significant differences between the depressed and the non-depressed group in most of the analyzed coping strategies, but still doesn't solve the dilemma. Therefore parallel studies should be reviewed, in which coping strategies in populations of patients at risk of developing depressive disorder would be assessed before the onset and during the exacerbation and remission of symptoms, but no such report exist in the current literature.

The cross-sectional nature of the study and the use of tools that use self-reported data to measure the seriousness of symptoms and the frequency of use of a specific coping technique are the drawbacks of this study. As a result, causality cannot be proven. Another drawback is the application of the screening tool (BDI-II) to determine depression and measure its severity.

CONCLUSION

According to this study, university students, especially those enrolled in challenging fields such as medicine, have significantly higher rates of depression than students in other faculties. University students showing moderate and severe depressive symptoms more often use coping strategies involving maladaptive methods while facing stressful situations. They are also more likely to use strategies like cognitive avoidance and evasion thus making positive reinterpretation of stressful events more difficult. In this study, males and females do not significantly differ in choosing preferred coping methods with the exception of males more likely to engage in substance abuse. Mood disorders such as chronic depressive disorder or depressive episode can play a role in the negative evaluation of one's ability to cope with difficult situations and the propensity to interpret stressful events as overwhelming.

We recommend the following for further research:

• Increase in the number of participating faculties and students with equal numbers of students from each faculty, needs to be implemented for better analysis of depression prevalence.

• Large-sample study from different universities should be conducted.

• Interventions aimed at assisting stressed students with poor coping tolerance in the development of skills necessary to deal with stressful life events.

ETHICS

Ethics Committee Approval: KKTC Ministry of Interior.

Informed Consent: participants were informed about the study and their informed consents were collected prior to protocols.

REFERENCES

1. Patel V, Flisher AJ, Hetrick S, McGorry P. Mental health of young people: a global public-health challenge. Lancet. 2007;369(9569):1302-1313. doi:10.1016/S0140-6736(07)60368-7.

2. Depression. World Health Organization (WHO). Jan, 2021. https://www.who.int/news-room/fact-sheets/detail/depression

3. Grøtan K, Sund ER, Bjerkeset O. Mental Health, Academic Self-Efficacy and Study Progress Among College Students - The SHoT Study, Norway. Front Psychol. 2019;10:45. Published 2019 Jan 24. doi:10.3389/fpsyg.2019.00045).

4. Arslan G, Ayranci U, Unsal A, Arslantas D. Prevalence of depression, its correlates among students, and its effect on health-related quality of life in a Turkish university. Ups J Med Sci. 2009;114(3):170-177. doi:10.1080/03009730903174339.

5. Dyrbye LN, Thomas MR, Eacker A, et al. Race, ethnicity, and medical student well-being in the United States. Arch Intern Med. 2007;167(19):2103-2109. doi:10.1001/archinte.167.19.2103.

6. Sawhney M, Kunen S, Gupta A. Depressive Symptoms and Coping Strategies Among Indian University Students. Psychol Rep. 2020;123(2):266-280. doi:10.1177/0033294118820511.

7. Beck Depression Inventory (BDI). American Psychological Association. jan, 2021. https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/beck-depression?fbclid=IwAR1tudKxmn6-VwqwW4DwRDGXAXJmDY7a7tVWqRQC17omv4d3cd5wce5AErg.)

8. Yusoff N, Low WY, Yip CH. Reliability and validity of the Brief COPE Scale (English version) among women with breast cancer undergoing treatment of adjuvant chemotherapy: a Malaysian study. Med J Malaysia. 2010;65(1):41-44.

9. Shean G, Baldwin G. Sensitivity and specificity of depression questionnaires in a college-age sample. J Genet Psychol. 2008;169(3):281-288. doi:10.3200/GNTP.169.3.281-292.

10. Bostanci M, Ozdel O, Oguzhanoglu NK, et al. Depressive symptomatology among university students in Denizli, Turkey: prevalence and sociodemographic correlates. Croat Med J. 2005;46(1):96-100.

11. Ibrahim AK, Kelly SJ, Adams CE, Glazebrook C. A systematic review of studies of depression prevalence in university students. J Psychiatr Res. 2013;47(3):391-400. doi:10.1016/j.jpsychires.2012.11.015.

12. Akvardar Y, Demiral Y, Ergor G, Ergor A. Substance use among medical students and physicians in a medical school in Turkey. Soc Psychiatry Psychiatr Epidemiol. 2004;39(6):502-506. doi:10.1007/s00127-004-0765-1.

13. Zong JG, Cao XY, Cao Y, et al. Coping flexibility in college students with depressive symptoms. Health Qual Life Outcomes. 2010;8:66. Published 2010 Jul 13. doi:10.1186/1477-7525-8-66.

14. Scherer, K. R., & Shorr, A., & Johnstone, T. (Ed.). (2001). Appraisal processes in emotion: theory, methods, research . Canary, NC: Oxford University Press.

15. Bonelli R, Dew RE, Koenig HG, Rosmarin DH, Vasegh S. Religious and spiritual factors in depression: review and integration of the research. Depress Res Treat. 2012;2012:962860. doi:10.1155/2012/962860.

16. Goldstein BI, Shamseddeen W, Spirito A, et al. Substance use and the treatment of resistant depression in adolescents. J Am Acad Child Adolesc Psychiatry. 2009;48(12):1182-1192. doi:10.1097/CHI.0b013e3181bef6e8

.