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Research article

Depression in medical students during the COVID-19 lockdown in Greece

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ABSTRACT

The COVID-19 pandemic has caused a mental health crisis. The purpose of this study was to estimate the prevalence of depression in medical students in Greece during a nationwide lockdown. The secondary aims were to assess the association of depression with socio-demographic factors and students' attitudes regarding the quality of their studies. The data was gathered anonymously through a self-administered online questionnaire between January 11 and 27, 2021. The CES-D scale was used to measure depression rates. Multiple logistic regression was used to identify factors independently associated with depression. In total, 978 sixth- and fifth-year medical students participated; their mean age was 23.2 years and 65.6% were females. The prevalence of clinical depression was 21.3% (95% CI: 18.7%, 24.0%), whereas 17.9% (95% CI: 15.5%, 20.4%) experienced severe distress. Depression was more prevalent in females (25.4% vs 13.1% in males, p<0.001). Approximately half (53.4%) of the participants reported a change in plans regarding their medical career due to the pandemic and 16.9% expressed a decreased willingness to practice medicine. Factors independently associated with depression were female gender, living alone or with housemates at high risk for COVID-19, being anxious about becoming infected with SARS-CoV-2, studying in one of the three largest medical schools, negatively evaluating the adjustment of the teaching personnel to online teaching and the university's response to the pandemic. The findings of this study report depression in one out of five medical students during the COVID-19 pandemic, highlighting the need to protect the most vulnerable medical students during a pandemic. Medical students must be able to seek professional mental health services, even in the era of a pandemic. Universities should increase accessibility to support services and provide a student-centered approach in their strategies, as the pandemic has placed a spotlight on an existing phenomenon.

KEYWORDS: Depression, distress, medical students, questionnaire, COVID-19 lockdown, SARS-CoV-2.

Introduction

A mental health crisis has occurred around the globe due to the COVID-19 pandemic. The psychological impacts of this pandemic have been increasingly reported with every new wave of the novel coronavirus and reoccurring lockdown measures.[1] Changes in working conditions, daily habits, and routines, as well as in social interactions and relationships can trigger feelings of stress and loneliness. Fear and worry are also predominant in cases of economic crisis and possible unemployment.[1]

University students constitute a vulnerable group regarding mental issues as they go through a transitional

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stage from adolescence to adulthood.[2] Any disturbance during the time of the studies has significant long-standing consequences in the lives of the individuals. With the continuous spread of COVID-19, strict isolation measures, and delays in starting schools, colleges and universities have had a great influence on the mental health of university students with rising rates of anxiety, depression, and suicidal thoughts.[3,4] Several published studies suggest that medical students may be at high risk for depression and anxiety, with varying prevalence reported across the globe.[5]

Greece is a country that had relatively strict measures in action during the first year of the coronavirus pandemic, with medical students relying completely on online education before the distribution of the vaccine. Medical Schools were shut down and no practical training took place from the beginning of the pandemic in Greece in March 2020, until June 2021, when students were vaccinated against SARS-CoV2.

The aim of the present study was to estimate the prevalence of clinical depression in the population of senior medical students in Greece during the lockdown period in the winter of the 2020–2021 academic year. The secondary aims were to assess the association of depression with socio-demographic factors and students' attitudes regarding the quality of their studies.

Material and Method

Survey

In January 2021, a cross-sectional survey was conducted to assess the attitudes of Greek medical students regarding their education during the COVID-19 pandemic. The data was gathered anonymously through a self-administered online questionnaire between January 11 and 27, 2021, during a nationwide lockdown period. On January 11, 2021, the questionnaire was administered for the first time through Facebook. The groups utilized for this purpose were already existent, constituted solely by students of each respective medical school, separated by year of study, and are mainly used for informative and organizing purposes. The invitation for the survey only addressed sixth- and fifth-year medical students. Furthermore, the investigators communicated with the secretaries of the Medical Schools so that the questionnaire would be subsequently sent to the academic email accounts of all the presumptive participants. The survey stopped receiving new responses on January 27, 2021, reaching a total of 978.

The questionnaire contained 7 distinct sections, with a total of 45 multiple-choice and scale question items and an open-ended question. The first section consisted of 11 questions about the demographics of the sample, connections with people at high risk for COVID-19, positive and quarantine cases, and the fear that the students had regarding re-infection. The second section was composed of 15 questions that were oriented to the online lessons and addressed the impact that COVID-19 had on medical studies, student satisfaction in relation to the handling of the situation by the Medical Schools, technical problems during online lessons and online exams, the quality of lessons and exams, as well as a comparison to the live lessons and exams and students' willingness to continue online lessons after the pandemic. Section three embodied 5 questions with respect to clinical rotations, for which only students who had answered previously to have taken part in rotations during the pandemic were allowed to answer (61.5%). The questions addressed the response of the clinics during the pandemic, the provision and training for the use of COVID-19 personal protective equipment, the maintenance of prevention measures, the frequency of PCR testing for SARS-CoV-2, the management of positive cases, the overall feeling of safety, the providence for students being at high risk or living with people at high risk for COVID-19, as well as the student satisfaction with clinical rotations. The fourth section addressed actions in the future regarding COVID-19 and consisted of 11 questions that referred to anxiety about the possible non-replacement of lost practice hours, students' willingness to become volunteers, willingness to continue clinical rotations in case of a new lockdown, a change in plans regarding a medical career due to COVID-19, willingness and preparedness for practicing medicine, change of plans due to COVID-19 and willingness to get vaccinated against SARS-CoV-2. Section five had 1 question geared exclusively towards students who had changed their specialty choice (9.9%), regarding their new preference. Section six encompassed a Greek translation of the Centre for Epidemiologic Studies–Depression scale (CES-D)[6] as well as an extra question concerning the change in the feelings of CES-D compared to the period before the COVID-19 pandemic. The survey closed with the seventh section, which was composed of a sole optional open-ended question that asked for actions that should have been taken differently during the COVID-19 lockdown and recommendations for the future.

CES-D included 20 questions regarding feelings or situations occurring in the week before the completion of the questionnaire. Each of the questions was graded with a score from 0 to 3, based on the frequency of appearance. Cases of major depression were identified using the cut-off score 23/24 for the CES-D and a derived algorithm based on only three factors of the scale, in order to increase the specificity.[6] Cases of depression were identified with both methods, while those being positive in only one of the two methods were consid-

ered false-positive cases. These cases were identified as having severe distress.

All students who participated in the survey were informed in advance about the purpose of the study and were assured of the confidentiality and anonymity of their answers. According to the Greek legislation (Law 2328/1995, Presidential Decree 310/1996, Law 3603/2007, Law 2472/1997, Law 3471/2006), there is no need for ethics approval for telephone and internet surveys such as the one presented here (Association of Opinion Polls and Survey Organizations - www.sedea.gr). Therefore, the study protocol was not submitted to the ethical committee of any institution for approval.

Sample

Medical students from all seven Medical Schools in Greece were asked to voluntarily fill in the questionnaire. Of note, only students in their final two years of their medical studies –namely, the 5th and 6th years - were considered eligible to take part in the study, as to assert that all participants would be attending a clinical year. Medical Schools included were the Aristotle University of Thessaloniki (A.U.T.H.), the Democritus University of Thrace (D.U.T.), the National and Kapodistrian University of Athens (N.K.U.A.), the University of Crete (U.O.C.), the University of Ioannina (U.O.I.), the University of Patras (U.O.P.), and the University of Thessaly (U.O.T.).

The Greek medical training system consists of Undergraduate and Postgraduate education and there is no pre-medical training. There are seven Medical Schools across the country, and all of them are national. In the first two years, mainly basic sciences prevail. In the following two years, there is a mixture of theoretical and practical education, while the last two years are spent almost entirely in the affiliated teaching hospitals with clinical rotations throughout a wide range of medical specialties.[7]

Statistical analysis

Mean and standard deviation (SD) or percentages were used to describe participants' characteristics/answers, as appropriate. We calculated the prevalence of depression in the sample as the proportion of students with depression out of the total number of participants, along with the 95% confidence interval (95% CI).

We performed an univariable analysis to identify factors associated with depression using the chi-squared test. Multiple logistic regression was used to assess variables independently associated with depression. Variable selection was performed using the algorithm proposed by Hosmer, Lemeshow and Sturdivant.[8] Analyses were conducted using Stata version 16.0 (College Station, TX: StataCorp LLC) and the IBM® SPSS® v.26 software.

Results

Description of the sample

In total, 978 medical students participated by completing the questionnaire (estimated target population 2964). Table 1 shows detailed sample characteristics, including gender, year of study, residence information, and COVID-19 epidemic-related information. The mean (SD) age of the participants was 23.2 (2.1) years; 65.6% were females, 33.4% were males, and 0.9% identified as "Other/Prefer to not say". Regarding university of origin, 27% were medical students from the N.K.U.A., 21% from the A.U.T.H., 17.2% from the U.O.P., 10.1% from the U.O.C., 9,7% from the U.O.I, 8.2% from the D.U.T. and 6.9% from the U.O.T.

Approximately two-thirds of the participants studied in a city other than that of their permanent residence. A small proportion (5.7%) reported being at high risk for COVID-19 whereas 16.3% lived with housemates who were at high risk for COVID-19.

Prevalence and correlates of depression

The prevalence of clinical depression according to the simultaneous application of both CES-D methods (CES-D cut-off 23/24 and CES-D algorithm) was 21.37% (95% CI: 18.7%, 24.0%). The prevalence of severe distress (only positive in CES-D cut-off 23/24 or only in the algorithm) was 17.9% (95% CI: 15.5%, 20.4%). The results of the univariable analysis for selected sociodemographic characteristics and other variables are presented in table 2 (the complete univariable analysis is provided in Supplementary table 1). The prevalence of depressive symptoms was higher in females than in males (25.4% vs 13.1%, respectively, $p<0.001$), in medical students reporting being at high risk for COVID-19 (32.1% vs. 20.6% in those not at high risk, $p=0.041$) and in those living with people at high risk for COVID-19 during their studies (28.8% vs. 19.8% among those not living with a high-risk person, $p=0.011$). Medical students who expressed concerns about becoming infected with SARS-CoV-2 had a higher prevalence of depression as compared to those with little or no concerns (26.8% vs. 16.8%, respectively, $p=0.008$). Similarly, participants who reported feeling unsafe during clinical rotations in the pandemic had higher depression rates compared to those who felt safe or were neutral (24.3 vs. 13.1 and 19.2, respectively, $p=0.026$). Of note, 53.4% of the participants reported a change of plans regarding their medical career due to the pandemic, and 16.9% expressed a decreased willingness to practice medicine. Among these students, high depression rates have been identified (28.7% and 41.2%, respectively) (table 2).

Table 1. Sociodemographic characteristics and COVID-19 related information of 978 medical students (January 2021).

Characteristics	n	%
Gender		
Male	327	33.4
Female	642	65.6
Other	9	0.9
Medical School		
Athens (N.K.U.A.)	264	27.0
Alexandroupoli (D.U.T.)	80	8.2
Heraklion (U.O.C.)	99	10.1
Thessaloniki (A.U.T.H.)	205	21.0
Ioannina (U.O.I.)	95	9.7
Larisa (U.O.T.)	67	6.9
Patra (U.O.P.)	168	17.2
Age, mean (SD)	23.1	(2.0)
Year of studies		
5th	617	63.1
6th	361	36.9
Permanent residence/residence during studies		
Same	319	32.6
Different	659	67.4
Residence during studies		
Without housemates	516	52.8
With housemates not at high risk for COVID-19	293	30.0
With housemates at high risk for COVID-19	160	16.3
Dormitory	9	0.9
At high risk for COVID-19		
Yes	56	5.7
No	922	94.3
Everyday contact with people at high risk for COVID-19		
Yes	292	29.9
No	686	70.1
Been in quarantine after contact with a confirmed case of COVID-19		
Yes	273	27.9
No	705	72.1
Tested positive for SARS-CoV-2		
Yes	56	5.7
No	922	94.3

In the multivariable analysis, the factors independently associated with higher odds of depression were female gender (OR vs male: 2.39, p<0.001), living alone (OR 1.51, p=0.038) or with housemates at high risk for COVID-19 (OR 1.59, p=0.063) (vs. living with housemates not at high risk of COVID or in dormitory), being anxious about becoming infected with SARS-CoV-2 (OR vs. neutral, somewhat worried or not at all: 2.10, p=0.009), evaluating the adjustment of the teaching personnel to online teaching as ineffective – very ineffective (OR vs. effective, very effective: 2.42, p<0.001) and evaluating the university's response to the pandemic as neutral (OR 2.69, p=0.017) or ineffective – very ineffective (OR 3.31, p=0.002) (vs. effective, very effective) (table 3). Studying in a Medical School other than the three largest medical schools (Athens, Thessaloniki, and Patra) was associated with lower odds of depression (OR 0.60, p=0.020).

Discussion

According to our study, the prevalence of depression among medical students during the COVID-19 pandemic in Greece was 21.2%. The factors independently associated with higher odds of depression were female gender, living alone or with housemates at high risk for COVID-19, being anxious about becoming infected with SARS-CoV-2, being dissatisfied with the adjustment of the teaching personnel to online teaching and with the university's response to the pandemic, as well as studying in the three largest medical schools. Moreover, medical students with depression expressed more frequently a decreased willingness to practice medicine and feeling unsafe during clinical rotations during the COVID-19 period.

The literature suggests that medical students manifest high rates of depression even during periods of low stress. In a study comparing depression rates between three international cohorts of medical students, those from the Middle East had the highest rates of positive depression screens (41.1%), followed by those from China (14.1%), whereas in the US the relevant rates were low (3.8%).[5] However, when comparing medical students, physicians, and the general population, data from the US has consistently demonstrated higher overall psychological distress and depression among medical students.[9] In the only study from Greece during a normal period (non-pandemic) in a population of university students including, among others, students from the School of Health, the prevalence of depression was 20.4% (7.7% was borderline, 9.4% moderate, and 3.3% extreme).[10] Whether medical students begin their training with a greater predisposition to depression or develop it throughout the studies is still unclear. A meta-analysis,[11] which included 77 cross-sectional studies covering a total of 62,728 medical students, demonstrated a global prevalence of depression among 28.0% (CI 24.2–32.1%) of medical students, while another analysis,[12] which included 167 cross-sectional studies (n=116.628) and 16 longitudinal studies (n=5728) from 43 countries, estimated the prevalence of depression or depressive symptoms to be 27.2%.

Table 2. Association of participants' characteristics/answers with depression (univariable analysis, N= 978 medical students).

Variable	Number	With Depression, n (%)	p
Gender			<.001
Male	327	43 (13.1)	
Female	642	163 (25.4)	
Other	9	2 (22.2)	
Medical School			.135
Athens (N.K.U.A.)	264	72 (27.3)	
Alexandroupoli (D.U.T.)	80	16 (20)	
Heraklion (U.O.C.)	99	20 (20.2)	
Thessaloniki (A.U.T.H.)	205	39 (19)	
Ioannina (U.O.I.)	95	15 (15.8)	
Larisa (U.O.T.)	67	10 (14.9)	
Patra (U.O.P.)	168	36 (21.4)	
Residence during studies			.011
With housemates not in high risk for COVID-19	818	162 (19.8)	
With housemates in high risk for COVID-19	160	46 (28.8)	
At high risk for COVID-19			.041
Yes	56	18 (32.1)	
No	922	190 (20.6)	
Worried about getting infected by SARS-CoV-2			.008
Very much / A lot	321	86 (26.8)	
Neither much, nor little	372	74 (19.9)	
A little / Not at all	285	48 (16.8)	
Impact of COVID-19 pandemic on studies			.050
Very positive / Positive	42	4 (9.5)	
Neither positive, nor negative	69	10 (14.5)	
Negative / Very Negative	867	194 (22.4)	
University response			<.001
Very effective / Effective	112	8 (7.1)	
Neither effective, nor ineffective	243	47 (19.3)	
Ineffective / Very ineffective	623	153 (24.6)	
Experience from online lessons			<.001
Very positive / Positive	296	41 (13.9)	
Neither positive, nor negative	293	58 (19.8)	
Very negative / Negative	389	109 (28)	
Professors' adjustment to online teaching			<.001
Very effective / Effective	506	84 (16.6)	
Neither effective, nor ineffective	313	71 (22.7)	
Ineffective / Very ineffective	159	53 (33.3)	
Feeling of safety during clinical rotations in COVID-19 period			.026
Very safe / Safe	213	28 (13.1)	
Neither safe, nor unsafe	182	35 (19.2)	
Unsafe / Very Unsafe	140	34 (24.3)	
Change of plans regarding medical career due to COVID-19			<.001
Yes	522	150 (28.7)	
No	456	58 (12.7)	
Willingness to practice medicine			<.001
Increased	325	58 (17.8)	
Same	488	82 (16.8)	
Decreased	165	68 (41.2)	
Change of mind about specialty			<.001
Yes	97	35 (36.1)	
No	492	87 (17.7)	
Haven't decided yet	389	86 (22.1)	

Table 3. Results of the multiple logistic regression analysis with depreassion as dependent variable (N= 978 medical students).

Variables	b	SE	Wald's x^2	p	OR (95% CI)
Gender					
Male					Reference category
Female	.87	.20	4.45	<.001	2.39 (1.62, 3.51)
Medical School					
Athens (N.K.U.A.)					Reference category
Thessaloniki (A.U.T.H.)	-.26	.24	-1.10	.273	.77 (.48, 1.23)
Patra (U.O.P.)	-.27	.25	-1.10	.273	.76 (.47, 1.24)
Other	-.51	.22	-2.32	.020	.60 (.39, .92)
Living conditions					
With housemates not at high risk of COVID-19 or in dormitory					Reference category
Alone	.41	.20	2.08	.038	1.51 (1.02, 2.23)
With housemates at high risk for COVID-19	.46	.25	1.86	.063	1.59 (.98, 2.59)
University response to the pandemic					
Very effective/Effective					Reference category
Neutral	.99	.41	2.39	.017	2.69 (1.20, 6.02)
Ineffective/Very Ineffective	1.20	.40	3.03	.002	3.31 (1.52, 7.18)
Adjustment of the teaching personnel to online teaching					
Very effective/Effective					Reference category
Neutral	.22	.19	1.15	.249	1.24 (.86, 1.81)
Ineffective/Very Ineffective	.88	.23	3.87	<.001	2.42 (1.55, 3.78)
Worried about getting infected by SARS-CoV-2					
Very worried	.74	.28	2.62	.009	2.10 (1.20, 3.66)
Worried	.21	.19	1.11	.269	1.23 (.85, 1.79)
Neutral/Somewhat worried/Not at all					Reference category

A recent systematic review and meta-analysis on the prevalence of depression in medical students during the COVID-19 pandemic, which included eleven studies, estimated the overall prevalence of depression in medical students to be 31% (95% CI: 23%-40%).[13] In a cross-sectional study that was conducted by recruiting medical students at Chiang Mai University during the pandemic, a total of 27% of the participants were identified as having depression, using the Patient Health Questionnaire (PHQ-9) to measure depressive symptoms.[14] A cross-sectional study in Mexico during the COVID-19 pandemic reported a prevalence of 67.9% for anxiety and 81.3% for depression, using the Goldberg Anxiety and Depression Scale (GADS).[15] In a smaller study with a sample of 144 medical students that used the Hospital Anxiety and Depression Scale (HADS) for screening anxiety and depression symptoms during the pandemic, symptoms of depression were found in 38.9% of females and 41.9% of males.[16]

Regarding the estimated prevalence of depression, it is important to mention that the heterogeneity of the study populations and the variety of the methodology used by the researchers make comparisons difficult. However, it is worth noting that the methodology utilized by the current study (combined use of a cut-off point and an algorithm) returned lower but more reliable rates, as it corrects for the rate of false positive events reducing the possibility of misclassification.

In the current study, a higher prevalence of depression was observed in females (25.0% vs 13.0%), which is in agreement with several studies that identified female gender as a risk factor for depression.[9,17–20] A study conducted in Greece with 559 medical students revealed that female medical students were experiencing significantly more severe symptoms in all mental health measures scores (GAD-7, PHQ-9, IES-COVID19) that this survey used to assess depression. About the specified cutoff values of 5, 10, 15, and 20 that align with different levels of depression symptoms (mild, moderate, moderately severe, and severe), the research findings indicated that females exhibited a higher average PHQ-9 score (9.95±6.16) in comparison to males (7.93±5.98, p=0.001).[17–21] Consistently, in a study conducted by Karakasi et al., a sample of 342 medical students from Northern Greece was examined, revealing a greater prevalence of self-reported increase in pessimistic thoughts, anxiety, agitation, and sleep disturbances among female participants.[22] Meanwhile, another study including general university students from the University of Patras highlighted that depressive symptoms during

the COVID-19 pandemic increased to 51.2%, but this score did not differ between males and females, while the anxiety score was higher in females.[23] Furthermore, a higher prevalence of depression was identified among participants who reported being at high risk for COVID-19 infection, who expressed stronger concerns about becoming infected with SARS-CoV-2, and who were residing with people at high risk for COVID-19 during their studies. In the literature, high levels of concern about other family members getting COVID-19 were significantly associated with higher stress,[24] and having symptoms compatible with COVID-19 was identified among risk factors for at least one mental health outcome in a large survey study of a 69,054-student sample in France.[19]

From a different point of view, researchers suggest that regardless of the actual risk during the pandemic, people with depression tend to express higher levels of COVID-19-related fear.[25–27] Therefore, individuals' perceptions tend to depend heavily on underlying depressive symptoms, particularly when they are faced with stressful external events, like the COVID-19 pandemic in our case. Moreover, we report that medical students with depression seem to have a different perception of several other issues as they evaluate the university's response to the COVID-19 pandemic more strictly, the adjustment of the teaching personnel to online teaching as ineffective – very ineffective, and the university's response to the pandemic as neutral or ineffective – very ineffective.

This study highlights the need to protect the most vulnerable of medical students during a pandemic. Medical students must be able to seek professional mental health services, even in the era of a pandemic. Universities should increase the accessibility to support services and provide a student-centered approach in their strategies, as the pandemic has placed a spotlight on an existing phenomenon.

Moreover, the pandemic calls for flexibility, preparedness, and innovation. Since the majority of medical students rated the University's' response to the pandemic as "ineffective/very ineffective" and "slow/very slow" on relevant questions and, in contrast to our expectations, more than 70% stated that the University's' response to the second wave of the pandemic was not better than their response in the first wave (Supplementary table 1B), we have to ensure that Universities will be more adaptive. The pandemic highlights the importance of updating the educational environment and using synchronous and asynchronous online methods of learning, especially -but not exclusively- when this is the only option given and must be seen as an opportunity for growth.

Now that the acute crisis is over, medical students must stand at the frontline, as they can play a major role in policy-making and crisis management, in close cooperation with medical school administrators and educators. The recovery calls for meaningful inclusion of medical students in the post-pandemic reform,[28,29] which, through the recent policy proposal of the International Federation of Medical Students Associations (IFMSA), included a stronger focus on public health & epidemic preparedness, interprofessional education, collaboration, and knowledge exchange, tech-based andragogy, student-faculty partnership, and mental health education.[30]

The current study investigates the rates of probable depression on a large scale, specifically among medical students in Greece, while also emphasizing the analysis of associated factors. In total, 978 medical students participated by completing the questionnaire, which is approximately one-third of the total population of medical students in their 5th and 6th years of study in Greece. In addition, geographical coverage was achieved with participants from all Medical Schools. The number of participants per Medical School reflects the anticipated numerical discrepancies between student populations across the respective Medical Schools.

A limitation of our study is that the sample was recruited through Facebook as well as emails. This source of recruitment may have introduced selection bias, i.e., a systematic difference between students participating in the study and those who did not. It should be noted, however, that the survey was implemented during a nationwide lockdown period, which did not allow us to reach the target population using other approaches. Nevertheless, we feel that the sample still provides a representative image of the influence that the COVID-19 pandemic had on depression severity among medical students in Greece. An additional limitation is the paucity of relevant pre- and post-pandemic data, which is essential for a more robust assessment of the pandemic's impact and to derive definitive conclusions.

In conclusion, the current study reports depression in one out of five medical students during the COVID-19 pandemic. Higher prevalence rates were found among female students who perceived the environment of the pandemic in a more worrisome way, were less satisfied with the interventions, changed their plans regarding an upcoming a medical career, and simultaneously were feeling less inclined towards practicing clinical medicine.

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Ερευνητική εργασία

Κατάθλιψη στους φοιτητές ιατρικής κατά τη διάρκεια της COVID-19 απαγόρευσης κυκλοφορίας στην Ελλάδα

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ΠΕΡΙΛΗΨΗ

Η πανδημία COVID-19 έχει προκαλέσει μια κρίση ψυχικής υγείας. Σκοπός αυτής της μελέτης ήταν να εκτιμήσει τον επιπολασμό της κατάθλιψης στους φοιτητές ιατρικής κατά τη διάρκεια της πανελλαδικής απαγόρευσης κυκλοφορίας. Δευτερεύοντες στόχοι ήταν η εκτίμηση της συσχέτισης της κατάθλιψης με κοινωνικοδημογραφικούς παράγοντες και με την άποψη των φοιτητών σχετικά με την ποιότητα των σπουδών τους. Τα δεδομένα συγκεντρώθηκαν ανώνυμα μέσω ενός διαδικτυακού ερωτηματολογίου μεταξύ 11 και 27 Ιανουαρίου 2021. Ο υπολογισμός του επιπολασμού της κατάθλιψης πραγματοποιήθηκε μέσω της χρήσης της κλίμακας CES-D. Η πολλαπλή λογιστική παλινδρόμηση χρησιμοποιήθηκε για τον εντοπισμό παραγόντων που σχετίζονται ανεξάρτητα με την κατάθλιψη. Συνολικά συμμετείχαν 978 φοιτητές από το πέμπτο και το έκτο έτος από όλες τις σχολές Ιατρικής της χώρας. Η μέση ηλικία τους ήταν τα 23,2 έτη και το 65,6% ήταν γυναίκες. Ο επιπολασμός της κλινικής κατάθλιψης ήταν 21,3% (95% CI: 18,7%, 24,0%) ενώ το 17,9% (95% CI: 15,5%, 20,4%) βίωνε σοβαρή ψυχική καταπόνηση. Η κατάθλιψη ήταν πιο διαδεδομένη στις γυναίκες (25,4% έναντι 13,1% στους άνδρες, $p<0,001$). Περίπου οι μισοί (53,4%) των συμμετεχόντων ανέφεραν αλλαγή σχεδίων σχετικά με την ιατρική τους σταδιοδρομία λόγω της πανδημίας και το 16,9% μειωμένη προθυμία να ασκήσει κλινικά την ιατρική. Παράγοντες που συνδέθηκαν ανεξάρτητα με την κατάθλιψη ήταν το γυναικείο φύλο, η διαβίωση με ή χωρίς συγκατοίκους σε υψηλό κίνδυνο για COVID-19 νόσηση, η μεγάλη ανησυχία για μόλυνση από τον ιό SARS-CoV-2, η φοίτηση σε μία από τις τρεις μεγαλύτερες ιατρικές σχολές, καθώς και η αρνητική αξιολόγηση της προσαρμογής του διδακτικού προσωπικού στη διαδικτυακή διδασκαλία και της ανταπόκρισης του πανεπιστημίου στην πανδημία. Στην μελέτη αυτή ανευρέθη κατάθλιψη σε έναν στους πέντε φοιτητές ιατρικής κατά τη διάρκεια της πανδημίας COVID-19, τονίζοντας με τον τρόπο αυτό την ανάγκη προστασίας των πιο ευάλωτων φοιτητικών ομάδων κατά τη διάρκεια μιας πανδημίας. Οι φοιτητές ιατρικής πρέπει να μπορούν να αναζητούν επαγγελματικές υπηρεσίες ψυχικής υγείας, ακόμη και στην εποχή μίας πανδημίας. Τα πανεπιστήμια οφείλουν να αυξήσουν την προσβασιμότητα στις υπηρεσίες υποστήριξης και να υιοθετήσουν μια προσέγγιση με επίκεντρο τον φοιτητή, καθώς μέσω της πανδημίας αναδύθηκε ένα ήδη υπάρχον φαινόμενο.

ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ: Κατάθλιψη, ψυχική καταπόνηση, φοιτητές ιατρικής, ερωτηματολόγιο, covid-19 απαγόρευση κυκλοφορίας, SARS-CoV-2.

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