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Original Article

Altruistic behavior, personal and psychological well-being of medical students during the COVID-19 pandemic in Kazakhstan

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Abstract

Background/Aim. Due to the dire situation surrounding the COVID-19 pandemic, medical students from all over the world have been involved in the fight against the new virus. We aimed to study the impact of the COVID-19 pandemic on the medical students' quality of life in the context of altruistic behavior.

Methods. In total, 437 medical students from Astana Medical University and Kazakh-Russian Medical University participated in a cross-sectional study. Altruistic behavior was assessed to what extent the participants showed certain acts of altruism. To evaluate the immediate psychological impact of COVID-19, we conducted an online survey, using the Fear of COVID-19 Scale, the Depression, Anxiety and Stress Scale, Personal Well-being Index (PWI), and Academic Motivation Scale.

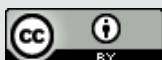
Results. Female students showed a lower level of PWI and a higher level of Fear of COVID-19. The prevalence of depression, anxiety, and stress was 14.4%, 18.1%, and 6.6%, respectively, and was correlated with Fear of COVID-19. Students with confirmed COVID-19, students with family members or friends with confirmed COVID-19, and students who lived with high-risk people had a high risk for low personal and psychological well-being. Altruistic behavior during the COVID-19 was associated with high PWI. Volunteering and providing medical care students demonstrated a higher level of personal and psychological well-being, and satisfaction with the profession. But, working in provisional hospitals was associated with symptoms of stress.

Conclusion. Despite the negative impact of the COVID-19, altruistic behavior had a positive impact on medical students' quality of life.

Keywords: altruistic behavior, medical students, COVID-19, psychological well-being, quality of life.

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Introduction

COVID-19 pandemic caused by coronavirus 2019-nCoV is a global public health problem. The severe situation in the health care system limited by human healthcare resources gives to assume that senior courses medical students can become valuable labor in the fight against the pandemic [1]. Duty- and solidarity-driven medical students from all over the world have rushed to volunteer in the fight with the COVID-19 pandemic [2]. For example, a study from Uganda showed that 80% of medical students were willing to participate in frontline care [3]. COVID-19 Medical Student Response Team created at Harvard Medical School showed activism of students for educational and clinical supporting, and for the community [4]. Since March 2020, medical students at Ochsner Clinical School (U.S.) volunteered for the

patient triage, symptom tracking, and call center, which had a positive effect on students' understanding of and appreciation for healthcare roles [5]. Medical students across Canada demonstrated altruism by offering their services to healthcare professionals in need and volunteered to help with contact tracing. According to Wu et al. these measures can reduce the effect of quarantine on healthcare workers [6].

About 2.500 medical students have been involved in the fight against COVID-19 across Kazakhstan. Volunteering included various activities from public support to working in provisional hospitals; the main areas of activity of medical students during the COVID-19 pandemic in Kazakhstan are presented in Table 1.

Table 1 - Role of medical students during the COVID-19 pandemic in Kazakhstan

Activism area	Student category	Description
Public supporting	Any stage students	Providing the population in need with food, medical masks, and antiseptic agents, as well as other essentials. Disinfection of public transport. Assisting airport staff in collecting personal data, compiling lists, and processing data of people arriving from abroad.
Educational supporting		Dissemination of information about the COVID-19 in terms of evidence-based medicine on quarantine measures, disease prevention, main symptoms, and necessary actions when symptoms are detected.
Services to healthcare professionals		Transportation of necessary things to the needy medical personnel.
Non-hospital medical care		Providing medical care to close relatives and neighbors.
Working and volunteering in non-provisional hospitals	Junior students with previous nursing degrees, internship and residency students	Paramedic, orderly, nurse, and physician assistants.
Working and volunteering in provisional hospitals		Patient triage, symptom tracking, orderly, nurse, and physician assistants.

According to Stetson et al. crises such as the pandemic can change, hinder, or accelerate the medical students' professional identity formation [7]. Moreover, empowering students to participate in the fight against the COVID-19 pandemic reinforces such important values as altruism, service in times of crisis, and solidarity with the profession [8]. However, we must not forget that the COVID-19 pandemic can threaten the mental well-being of medical trainees [9]. A study conducted in Greece indicates that during the pandemic medical students' quality of life worsened by 57.0%, the number of possible clinical cases of depression increased 2.5-3 times [10]. Study among the Iranian population concluded

that the mean scores of stress, anxiety, and depression were significantly higher among medical students compare with medical staff and community populations [11]. On the other hand Kapila et al. revealed that 42% of medical students reported that the COVID-19 crisis increased their proximity to the field of medicine, and 85% were satisfied with their decision to study medicine [12].

Based on the above we set a **goal to study** the impact of the COVID-19 pandemic on the personal and psychological well-being of medical students in the context of altruistic behavior.

Methods

Study design. This cross-sectional questionnaire-based study was carried out during the lockdown period from July 28 to August 13, 2020 in Kazakhstan.

Ethical approval. The present study was approved by the Local Ethics Committee of NpJSC "Astana Medical University" (extract from protocol No. 6 of April 6, 2020).

Participants and Procedure. The study was attended by a bachelor to residency medical students at Astana Medical University (Nur-Sultan city) and Kazakh-Russian Medical University (Almaty city). Participants were invited via the "messengers" app to fill out an anonymous online questionnaire created on the Google Forms. The questionnaire is available upon request from the corresponding author.

Measures. The survey consisted of a series of scales, demographic and personal information. The demographic measures included sex and year of study. The personal measures included altruistic behavior, a confirmed diagnosis of COVID-19 in the respondent and his/her close relatives, and living with people at high risk during a pandemic.

Altruistic behavior. Altruistic behavior was assessed by how students responded to the following items: "I protect high-risk individuals (elders, people with chronic diseases) by keeping distance", "I support people at high risk, for example by offering help with shopping", "I encourage other people to follow quarantine guidelines", "I provide emotional support to my family members", "I provide medical assistance to people during

the quarantine period”. Additionally, participants noted whether they volunteered or worked in health facilities during the COVID-19 pandemic.

Fear of COVID-19. Fear of COVID-19 was assessed by the 7-item Fear of COVID-19 Scale created by Ahorsu et al. (2020). The participants are asked to indicate their level of agreement with the statements using a five-item Likert type scale. Answers included “strongly disagree”, “disagree,” “neither agree nor disagree,” “agree,” and “strongly agree”. This was quantified as 1, 2, 3, 4, and 5 respectively. A total score is calculated by adding up each item score (ranging from 7 to 35). The higher the score, the greater is the fear of COVID-19 [13]. Fear of COVID-19 Scale demonstrated excellent internal consistency (Cronbach’s alpha = 0.903).

Psychological well-being / Mental health. Psychological well-being was examined with the Depression, Anxiety, and Stress Scale short form (DASS-21). Each subscale comprises 7-items. Items are rated on a 4-point scale, scored ranging from 0 “did not apply to me at all” to 3 “applied to me very much, or most of the time”. Depression scores were interpreted as: <9 normal, 10 mild, 14 moderate, 21 severe, and >28 extremely severe symptoms; anxiety scores: <7 normal, 8 mild, 10 moderate, 15 severe, >20 extremely severe; and stress scores: <14 normal, 15 mild, 19 moderate, 26 severe and >34 extremely severe [14]. The DASS-21 has demonstrated internal consistency for the states of depression (Cronbach’s alpha = 0.899), anxiety ($\alpha = 0.902$), and stress ($\alpha = 0.919$).

Personal well-being / Quality of life. Quality of life was assessed by the 7-items Personal Well-

Being Index (PWI). Each item addressing to measure satisfaction with specific life domains (standard of living, health, achieving in life, relationships, personal safety, community-connectedness, future security) and one optional item about overall life satisfaction. Responses are rated on a numeric scale from 0 “completely dissatisfied” to 10 “completely satisfied,” and averaged to yield the total PWI [15]. PWI scale demonstrated good internal consistency (Cronbach’s alpha = 0.878).

Academic amotivation. Academic amotivation level was assessed by the 4-items amotivation subscale of the Academic Motivation Scale created by Vallerand et al. Participants responded to the question “Why do you go to college?” by rating their level of agreement with each item using a 7-point format (1 = does not correspond at all, to 7 = corresponds exactly). The average was calculated to determine the level of amotivation to study [16]. Academic amotivation subscale demonstrated good internal consistency (Cronbach’s alpha = 0.899).

Statistical analysis. Data analysis was conducted using SPSS version 20.0 and Jamovi version 1.2.17. A statistically significant difference was accepted at a p-value of less than 5%.

Descriptive statistics were performed using Mean (M), Standard Deviation (SD), and confidence intervals (95% CI) for quantitative variables. Percentages were computed for qualitative variables. We performed forward ANOVA to compare the effect of different variables, and χ^2 -test and regression analysis to evaluate independent associations.

Results

The total number of respondents from Astana Medical University (Nur-Sultan city) and Kazakh-Russian Medical University (Almaty city) was 437. Table

2 presents the baseline socio-demographic and personal data of participants.

Table 2 - Population characteristics (N = 437)

Variable	N	%	
Gender	Female	331	75.74
	Male	106	24.26
Year of study	1st year	61	13.96
	2nd year	78	17.85
	3rd year	114	26.09
	4th year	79	18.08
	5th year	31	7.09
	Internship or residency students	74	16.93
Volunteering during the COVID-19 pandemic	Yes	51	11.67
	No	386	88.33
Working in hospitals during the COVID-19 pandemic	Yes	62	14.19
	No	375	85.81
Confirmed diagnosis with COVID-19	Yes	38	8.70
	No / Not diagnosed	399	91.30
Confirmed diagnosis with COVID-19 among family members	Yes	159	36.38
	No / Not diagnosed	278	63.62
Living with people at high risk	Yes	220	50.34
	No	217	49.66

In the current study, 24.3% of the participants were male. The male gender was characterized by a

significantly high level of Personal Well-being Index than female (PWI; 8.04 ± 1.96 vs 7.62 ± 1.77), $p < 0.05$.

Moreover, male students showed higher satisfaction level on personal health (8.66±2.06 vs 8.06±1.89), personal safety (8.07±2.45 vs 7.48±2.54), and future security (7.86±2.74 vs 7.23±2.56) than females, $p < 0.05$. Female students had higher levels of fear of COVID-19 than males (17.47±6.42 vs 14.33±6.31), $p < 0.001$.

The mean scores of depression, anxiety, and stress were 4.71, 3.26, and 5.73 respectively. The overall prevalence of students reporting mild to severe depression was 18.1%, mild to extremely severe anxiety

– 14.4%, and 6.6% of participants had mild to moderate stress. The mean score on the Fear of COVID-19 scale was 16.71 (SD = 6.52). The level of fear of COVID-19 was correlated with the level of depression ($r^2 = 0.255$), anxiety ($r^2 = 0.361$), and stress ($r^2 = 0.292$), $p < 0.01$.

About half of the respondents indicated that they lived with people at high risk (elderly people, people with chronic diseases) during the COVID-19 pandemic; the personal and psychological well-being of students presented in table 3.

Table 3 - Living with people at high risk and personal/psychological well-being of medical students during the COVID-19 pandemic

Variables	Living with people at high risk	
	Yes Mean (SD / 95% CI)	No Mean (SD / 95% CI)
Personal health	7.80 (2.02)	8.61 (1.79)**
Personal safety	7.20 (2.68)	8.05 (2.27)**
Feature security	6.95 (2.78)	7.82 (2.39)**
PWI	7.50 (1.79)	7.95 (1.83)*
Fear of COVID-19	17.50 (6.99)	15.91 (5.92)*
Depression	5.27 (4.52-6.02)	4.14 (3.47-4.82)*
Anxiety	3.90 (3.20-4.59)	2.62 (2.07-3.16)*
Stress	5.56 (4.79-6.33)	3.89 (3.23-4.56)*

PWI - Personal Well-being Index
 * $p < 0.05$
 ** $p < 0.001$

In the current study, 8.70% of respondents indicated that they had a confirmed diagnosis of COVID-19. Students who were diagnosed with COVID-19 showed lower scores in personal well-being and a higher score in academic a motivation compared to students who were not diagnosed or were not tested: satisfaction with personal relationships (7.21±2.98 vs 8.21±2.11), community-connectedness (6.68±3.72 vs 7.57±2.67), academic amotivation (1.83, 95% CI 1.41-2.25 vs 1.41, 95% CI 1.34-1.49), $p < 0.05$.

Thirty-six percent of respondents indicated that their close relatives had a confirmed diagnosis of COVID-19. Medical students with relatives who have had the COVID-19 showed a lower score for PWI (7.36±1.75 vs 7.93±1.83), satisfaction with standard of living (7.71±2.19 vs 8.30±2.13), personal health (7.83±1.88 vs 8.42±1.96), achieving in life (6.84±2.24 vs 7.35±2.50), personal relationships (7.83±2.07 vs 8.28±2.27), personal safety (7.16±2.65 vs 7.88±2.42), community-connectedness (7.00±3.01 vs 7.76±2.61), $p < 0.05$; and higher scores for depression (6.04, 95% CI 5.14-6.94 vs 3.95, 95% CI 3.36-4.54), anxiety (4.15, 95% CI 3.30-5.00 vs 2.75, 95% CI 2.25-3.25), and stress (6.00, 95% CI 5.11-6.90 vs 4.00, 95% CI 3.39-4.62), $p < 0.001$, compared with students whose relatives have not been diagnosed with COVID-19.

Three-quarters of respondents (74.14%) indicated that they protected high-risk individuals by keeping distance, 57.67% - supported high-risk individuals (for example, by offering them help with shopping), 85.58% - gave recommendations on compliance with quarantine measures, 82.15% of respondents demonstrated emotional support, and about half of the

participants (50.57%) provided medical care outside the hospital. Female students were more likely to provide emotional support (84.89% vs 73.59%, $\chi^2 = 7.00$, $p < 0.05$) and recommendations (89.12% vs 74.53%, $\chi^2 = 13.86$, $p < 0.001$) compared to male students. The main differences in the level of personal well-being and fear of COVID-19 depending on the manifestation of altruistic behavior are presented in table 4. Students who supported high-risk individuals (4.41, 95% CI 4.31-4.52 vs 4.01, 95% CI 3.86-4.16, $p < 0.001$), provided medical care outside the hospital (4.41, 95% CI 4.30-4.53 vs 4.07, 95% CI 3.94-4.20, $p < 0.001$), or worked in hospitals (4.55, 95% CI 4.37-4.73 vs 4.19, 95% CI 4.09-4.29, $p < 0.05$) showed higher level on satisfaction with the chosen profession than students who did not.

Table 4 - Altruistic behavior, fear of COVID, and personal well-being of medical students during the COVID-19 pandemic

Personal well-being	Altruistic behavior									
	Keeping distance Mean (SD)		Supporting Mean (SD)		Giving recommendations Mean (SD)		Emotional supporting Mean (SD)		Medical care Mean (SD)	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Standard of Living	8.14 (2.10)	7.92 (2.34)	8.50 (1.99)	7.51 (2.27)**	8.12 (2.09)	7.84 (2.57)	8.19 (2.11)	7.59 (2.38)*	8.42 (1.99)	7.74 (2.28)*
Personal Health	8.27 (1.87)	8.03 (2.16)	8.52 (1.74)	7.78 (2.14)**	8.18 (1.95)	8.35 (1.97)	8.26 (1.94)	7.92 (1.96)	8.46 (1.83)	7.94 (2.04)*
Achieving in Life	7.39 (2.12)	6.52 (3.04)*	7.70 (2.18)	6.43 (2.53)**	7.34 (2.26)	6.10 (2.99)**	7.32 (2.30)	6.44 (2.81)*	7.59 (2.31)	6.73 (2.45)**
Personal Relationships	8.31 (1.97)	7.58 (2.72)*	8.51 (1.96)	7.58 (2.42)**	8.25 (2.06)	7.37 (2.85)*	8.31 (2.02)	7.26 (2.79)**	8.40 (2.11)	7.83 (2.28)*
Personal Safety	7.79 (2.38)	7.12 (2.86)*	7.92 (2.48)	7.21 (2.55)*	7.66 (2.50)	7.38 (2.72)	7.75 (2.46)	7.04 (2.77)*	7.80 (2.53)	7.43 (2.52)
Community-Connectedness	7.67 (2.65)	6.96 (3.08)*	7.73 (2.60)	7.15 (2.99)*	7.57 (2.72)	6.95 (3.09)	7.56 (2.71)	7.13 (3.07)	7.69 (2.66)	7.27 (2.90)
Future Security	7.60 (2.42)	6.75 (3.07)*	7.96 (2.40)	6.59 (2.72)**	7.51 (2.51)	6.62 (3.14)	7.60 (2.50)	6.37 (2.98)**	7.80 (2.54)	6.95 (2.66)*
PWI	7.88 (1.65)	7.27 (2.18)*	8.12 (1.68)	7.18 (1.87)**	7.80 (1.73)	7.23 (2.24)*	7.86 (1.72)	7.11 (2.13)*	8.02 (1.76)	7.41 (1.84)**
Fear of COVID-19: emotional response	10.99 (4.12)	9.87 (3.85)*	11.21 (4.31)	10.01 (3.64)*	10.99 (4.07)	8.95 (3.75)**	10.94 (4.10)	9.60 (3.81)*	10.91 (4.32)	10.49 (3.82)
Fear of COVID-19: physiological response	5.91 (2.92)	6.27 (2.83)	6.30 (3.14)	5.62 (2.48)*	5.99 (2.93)	6.11 (2.69)	5.98 (2.96)	6.15 (2.58)	6.25 (3.22)	5.76 (2.50)
Fear of COVID-19	16.91 (6.58)	16.14 (6.35)	17.50 (6.99)	15.63 (5.67)*	16.99 (6.55)	15.06 (6.18)*	16.92 (6.60)	15.76 (6.12)	17.16 (7.10)	16.25 (5.86)

PWI - Personal Well-being Index
 * $p < 0.05$
 ** $p < 0.001$

About 12% of respondents indicated that they volunteered during the COVID-19 pandemic in public supporting systems and provisional hospitals, and 14% of respondents worked in provisional hospitals. Male students were more likely to volunteer (17.92% vs 9.67%, $\chi^2 = 5.31, p < 0.05$) and work in a hospital (26.42% vs 10.27%, $\chi^2 = 17.17, p < 0.001$) than female students. Students who volunteered during the pandemic were 2.64 (95% CI 1.17-5.95) times more likely to be diagnosed with COVID-19, $p < 0.05$. The main differences

in the quality of life and mental health states of medical students who worked/volunteered or not during the COVID-19 pandemic are presented in Table 5. There were no significant differences in fear of COVID-19 between volunteering/working students and who did not. Students who did not work in hospitals during the COVID-19 pandemic were less stressed (OR = 2.50, 95% CI 1.05-5.92, $p < 0.05$), students who volunteered were less depressed OR = 0.16, 95% CI 0.04-0.69, $p < 0.05$).

Table 5 - Volunteering or working and personal/psychological well-being of medical students during the COVID-19 pandemic

Variables	Volunteered		Worked	
	Yes Mean (SD / 95% CI)	No Mean (SD / 95% CI)	Yes Mean (SD / 95% CI)	No Mean (SD / 95% CI)
Personal Health	8.71 (1.88)	8.14 (1.95)*	8.69 (1.73)	8.12 (1.97)*
Achieving in Life	8.08 (2.03)	7.04 (2.44)*	8.19 (2.46)	6.99 (2.37)**
Future Security	8.24 (2.07)	7.27 (2.67)*	8.11 (2.54)	7.26 (2.63)*
PWI	8.23 (1.82)	7.65 (1.82)*	8.11 (1.91)	7.66 (1.80)
Depression	2.75 (1.78-3.71)	4.97 (4.41-5.53)*	4.35 (2.92-5.79)	4.77 (4.23-5.31)
Stress	2.71 (1.59-3.82)	5.00 (4.44-5.56)*	4.60 (3.02-6.18)	4.75 (4.21-5.30)

PWI - Personal Well-being Index
 * $p < 0.05$
 ** $p < 0.001$

Discussion

This study conducted during the lockdown period by COVID-19 pandemic on medical students in Kazakhstan illustrated the presence of the possible factors that could affect the personal and psychological well-being of students: an altruistic behavior and living conditions during the COVID-19 pandemic.

A study among China college students concluded that female students had a higher risk perception of COVID-19 during the quarantine [17]. Another study from China showed that women were twice as likely to be depressed [18]. In the current study three-quarters of the participants were female and the female gender was associated with a lower level of personal well-being and higher level on fear of COVID-19. The prevalence of anxiety disorder was 14.4%, depression - 18.1%, and stress was 6.6%. Moreover, fear of COVID-19 was positively correlated with depression, anxiety, and stress.

People with confirmed or suspected COVID-19 and their family members or friends had a high risk for symptoms of depression, anxiety, insomnia, and acute stress [19,20]. In the current study students living with high-risk people (elders, people with chronic diseases) during the pandemic had lower personal well-being and more pronounced fear of COVID-19, depression, anxiety, and stress. This was expressed in a lower level of satisfaction with personal health and safety, and future security. Moreover, students with diagnosed COVID-19 relatives showed a lower score for personal well-being, satisfaction with standard of living, personal health, achieving in life, personal relationships, personal safety, community-connectedness; and higher scores for depression, anxiety, and stress. Students with confirmed COVID-19 showed lower scores in personal well-being (satisfaction with personal relationships and community-connectedness) and a higher score in academic motivation. This indicates that the COVID-19 pandemic negatively affected on medical students' quality of life and motivation to study.

Wang et al. concluded that healthcare workers caring for patients with COVID-19 had low-stress levels which were indicated by their professional devotion and altruism during the COVID-19 epidemic [21]. Study provided among China hospital employees after the severe acute respiratory syndrome (SARS) outbreak in 2003 found that reported altruistic acceptance of risk was

negatively related to posttraumatic stress [22]. However, a study conducted among university students in China during the COVID-19 outbreak concluded that high altruistic individuals exhibited more negative affect than those with low altruism, which indirectly increased their anxiety and depressive symptoms [23]. Moreover, Fekih-Romdhane et al. reported that working in isolation unit residents had a higher risk of feeling anxious than working in normal outpatient or inpatient units [24].

The altruistic behavior of respondents during the COVID-19 pandemic manifested itself in different ways. Female students were more likely to provide emotional support and recommendations, while male students were about twice as likely to volunteer or work in a hospital. Students who demonstrated altruistic behavior not related to medical care or volunteering had a more pronounced emotional response to fear. In contrast, a study among the Saudi population concluded that Fear of COVID-19 did not predict the frequency of physical distancing [25].

Altruistic behaviors such as protecting high-risk individuals by keeping distance, supporting by offering them help with shopping, giving recommendations, emotional supporting, and provided medical care to relatives and neighbors outside the hospital were associated with higher scores for personal well-being like satisfaction with standard of living, personal health, achieving in life, personal relationships and safety, community-connectedness, and future security.

Students who officially volunteered or worked in hospitals during the pandemic had higher rates of satisfaction with personal health, achieving in life, and future security. Volunteering students showed a lower level of depression and stress. Providing medical care or working in a hospital was associated with a higher level of satisfaction with the chosen profession. Moreover, while volunteering students were more than twice as likely to be diagnosed with COVID-19, they scored higher on the personal well-being scale. Post concluded that altruistic behaviors are associated with greater well-being and health [26]. On the other hand, students who worked in hospitals were stressed 2.5 times more often, which can be explained by the harsh working conditions. In confirmation of this Lai et al. showed that front-line health care workers reported experiencing symptoms of depression, anxiety, insomnia, and distress [27].

Conclusion

COVID-19 pandemic demonstrated negative impact on medical students' personal and psychological well-being. Despite of this medical students in Kazakhstan exhibited high levels of altruistic behavior. Moreover, altruistic behavior of students was associated with higher scores for quality of life and mental health.

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Қазақстандағы COVID-19 пандемиясы кезіндегі медицина студенттерінің альтруистік мінез-құлығы, жеке және психологиялық әл-ауқаты

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Түйіндеме

Алғышарттары/Мақсаты. COVID-19 пандемиясына кезіндегі тұрақсыз жағдайға байланысты жаңа вируспен күресуге әлемнің түкпір-түкпірінен медицина студенттері тартылды. Зерттеудің мақсаты - альтруистік мінез-құлық контекстінде COVID-19 пандемиясының медицина студенттердің өмір сапасына әсерін бағалау.

Әдістері. Көлденең зерттеу жұмысына Астана медициналық университеті және Қазақстан-Ресей медициналық университетінің медицина факультетінің жалпы саны 437 студенті қатысты. Альтруистік мінез-құлық респонденттердің альтруизмнің кейбір әрекеттерінің көрінісі туралы жауаптары арқылы бағаланды. COVID-19 пандемиясының психологиялық әсерін бағалау үшін COVID-19 жұқтыру қорқыныш шкаласы, депрессия, мазасыздық және стресс шкаласы, жеке әл-ауқат индексі (PWI) және академиялық мотивация шкаласы арқылы онлайн сауалнама жүргізілді.

Нәтижелер

Әйел жынысты респонденттерде PWI деңгейінің төмендігі және COVID-19 қорқынышының жоғары деңгейі көрініс тапты. Депрессияның, мазасыздықтың және стресстің таралуы тиісінше 14,4%, 18,1% және 6,6% құрады және COVID-19 жұқтыру қорқынышымен корреляцияланды. Коронавирустық жұқпа расталған студенттерде, сонымен қатар, COVID-19 расталған отбасы мүшелері немесе достары бар, жұқтыру қауіптілігі жоғары адамдармен бірге тұратын студенттерде жеке және психологиялық әл-ауқатының нашарлау қаупі жоғары болды. COVID-19 кезінде альтруистік мінез-құлық PWI жоғары деңгейлерімен байланысты болды. Медициналық көмек көрсеткен студент-еріктілер мен респонденттер жеке және психологиялық әл-ауқатының жоғары деңгейін, сондай-ақ таңдаған мамандығына қанағаттанушылық танытатындығын көрсетті. Бірақ уақытша ауруханалардағы жұмыс стресс белгілерімен байланысты болды.

Қорытынды. COVID-19 теріс әсеріне қарамастан, альтруистік мінез-құлық медицина студенттерінің өмір сапасына оң әсер етті.

Түйін сөздер: альтруистік мінез-құлық, медицина студенттері, COVID-19, психологиялық әл-ауқат, өмір сапасы.

Альтруистическое поведение, личностное и психологическое благополучие студентов-медиков во время пандемии COVID-19 в Казахстане

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Резюме

Предыстория/Цель

Из-за нестабильной ситуации, связанной с пандемией COVID-19, студенты-медики со всего мира были вовлечены в борьбу с новым вирусом. Целью исследования является оценка влияния пандемии COVID-19 на качество жизни студентов-медиков в контексте альтруистического поведения.

Методы. Всего в поперечном исследовании приняли участие 437 студентов-медиков из Медицинского университета Астана и Казахстанско-Российского медицинского университета. Альтруистическое поведение оценивалось с помощью ответов респондентов о проявлении определенных актов альтруизма. Для оценки непосредственного психологического воздействия COVID-19, был проведен онлайн-опрос с использованием шкалы страха перед COVID-19, шкалы депрессии, беспокойства и стресса, индекса личностного благополучия (PWI) и шкалы академической мотивации.

Результаты. Студенты женского пола показали более низкий уровень PWI и более высокий уровень страха перед COVID-19. Распространенность депрессии, тревоги и стресса составляла 14,4%, 18,1% и 6,6%, соответственно, и коррелировала со страхом перед COVID-19. Студенты с подтвержденным диагнозом COVID-19, студенты с членами семьи или друзьями с подтвержденным диагнозом COVID-19 и студенты, которые жили с людьми из группы высокого риска, имели высокий риск низкого уровня личностного и психологического благополучия. Альтруистическое поведение во время COVID-19 было связано с высоким уровнем PWI. Студенты-волонтеры и респонденты, оказывавшие медицинскую помощь, продемонстрировали более высокий уровень личностного и психологического благополучия, а также удовлетворенность выбранной профессией. Но работа в провизорных стационарах была связана с симптомами стресса.

Заключение. Несмотря на негативное влияние COVID-19, альтруистическое поведение положительно сказалось на качестве жизни студентов-медиков.

Ключевые слова: альтруистическое поведение, студенты-медики, COVID-19, психологическое благополучие, качество жизни.