

Received: 24 November 2022 / Accepted: 18 December 2022 / Published online: 31 December 2022

DOI 10.34689/SH.2022.24.6.016

UDC 616.8-008.64:614.88

ANALYSIS OF ANXIETY AND DEPRESSION AMONG DOCTORS OF THE AMBULANCE STATION OF ABAI REGION ACCORDING TO THE RESULTS OF THE QUESTIONNAIRE

Diana K. Kussainova¹, <https://orcid.org/0000-0003-2229-2270>

Zaituna A. Khismetova¹, <https://orcid.org/0000-0001-5937-3045>

Umytzhан S. Samarova¹, <https://orcid.org/0000-0002-8943-3384>

Gulzat Z. Sarsenbayeva², <https://orcid.org/0000-0002-1518-6528>

¹ NCJSC «Semey Medical University», Semey c., the Republic of Kazakhstan;

² JSC «South Kazakhstan Medical Academy», Shymkent c., the Republic of Kazakhstan.

Abstract

Introduction. Numerous studies of mental health symptoms among the population during disease outbreaks demonstrate scientific evidence of depression, anxiety, stress, as well as other mental health conditions, including post-traumatic stress disorder, distress, fear, guilt, anger and indirect trauma, conditions that can exacerbate panic or hysterical reactions. Unfortunately, during outbreaks of diseases and other crises, there are almost always not enough adequate resources to minimize negative psychological effects.

From a social perspective, the emerging mental health burden on health care workers and other workers raises serious concerns about the sustainability of health services.

Objective: To conduct an analysis of anxiety and depression among medical workers of the ambulance station of the Abai region.

Methodology: A cross-sectional study was conducted among medical workers of the ambulance station (AS) of the Abai region. The study was attended by doctors of the ambulance station of the Abai region. To assess and analyze anxiety and depression, we used online and offline questionnaires using an adapted hospital scale of anxiety and depression among emergency medical station doctors.

The age profile of the participants was generalized by calculating the average age and interquartile range in years. Categorical variables, including the general characteristics of participants (gender, marital status, level of education, employment), knowledge about the level of anxiety and depression among AS medical workers, were summarized using frequencies and percentages. $P < 0.05$ were considered statistically significant.

Results: In total, 272 medical workers of the AS of the Abai region were included in the study. Medical workers noted that during the current pandemic and outbreaks of diseases, they experience external and internal tension, accompanied by a feeling of sudden panic, the presence of slowness in work and lack of a sense of cheerfulness. Some even stop paying attention to their external working appearance. Only a small number of medical workers are satisfied with their work, attributing this to the fact that their affairs (occupations, hobbies) bring them a sense of satisfaction no longer to the same extent as before.

Conclusion: Special attention should be paid to the mental health of emergency medical workers with the involvement of psychological support services at the place of residence, online mental health services and telemedicine, as well as possible psychological relief in the workplace.

Key words: ambulance station, ambulance, medical workers, anxiety, depression.

Резюме

АНАЛИЗ ТРЕВОГИ И ДЕПРЕССИИ СРЕДИ ВРАЧЕЙ СТАНЦИИ СКОРОЙ МЕДИЦИНСКОЙ ПОМОЩИ ОБЛАСТИ АБАЙ ПО РЕЗУЛЬТАТАМ АНКЕТИРОВАНИЯ

Диана К. Кусаинова¹, <https://orcid.org/0000-0003-2229-2270>

Зайтуна А. Хисметова¹, <https://orcid.org/0000-0001-5937-3045>

Умытжан С. Самарова¹, <https://orcid.org/0000-0002-8943-3384>

Гулзат Ж. Сарсенбаева², <https://orcid.org/0000-0002-1518-6528>

¹ НАО «Медицинский университет Семей», г. Семей, Республика Казахстан;

² АО «Южно-Казахстанская медицинская академия», г. Шымкент, Республика Казахстан.

Актуальность. Многочисленные исследования симптомов психического здоровья среди населения во время вспышек заболеваний демонстрируют научные доказательства депрессии, тревоги, стресса, а также других психических состояний здоровья, включая посттравматическое стрессовое расстройство, дистресс, страх, чувство

вины, гнев и косвенную травму, состояния, которые могут усугубить панику или истерические реакции. К сожалению, во время вспышек заболеваний и других кризисов почти всегда не хватает адекватных ресурсов для минимизации негативных психологических эффектов.

С социальной точки зрения возникающее бремя психического здоровья у медицинских работников и других работников вызывает серьезную озабоченность в отношении устойчивости медицинских услуг.

Цель. Провести анализ тревожности и депрессии среди медицинских работников станции скорой медицинской помощи области Абай.

Материалы и методы исследования. Проведено поперечное исследование среди медицинских работников станции скорой медицинской помощи (ССМП) области Абай. В исследовании приняли участие врачи станции скорой медицинской помощи области Абай. Для оценки и анализа тревоги и депрессии, мы использовали онлайн и офлайн анкетирование с помощью адаптированной госпитальной шкалы тревоги и депрессии среди врачей станции скорой медицинской помощи.

Возрастной профиль участников был обобщен путем расчета среднего возраста и межквартильного диапазона в годах. Категориальные переменные, включая общие характеристики участников (пол, семейное положение, уровень образования, занятость), знания об уровне состояния тревожности и депрессии у медицинских работников ССМП, были суммированы с использованием частот и процентов. $P < 0,05$ считались статистически значимыми.

Результаты. Всего в исследование было включено 272 медицинских работника ССМП области Абай. Медицинские работники отмечали, что во время текущей пандемии и вспышек заболеваний испытывают внешнее и внутренне напряжение, сопровождающееся чувством внезапной паники, присутствием медлительности в работе и отсутствием чувства бодрости. Некоторые даже перестают обращать внимание на свой внешний рабочий вид. Лишь небольшое количество медицинских работников удовлетворены своей работой, связывая это с тем, что их дела (занятия, увлечения) приносят им чувство удовлетворения уже не в той степени, как раньше.

Выводы. Следует уделять особое внимание психическому здоровью медицинских работников скорой медицинской помощи с привлечением служб психологической поддержки по месту жительства, онлайн-службам психического здоровья и телемедицине, а также возможной психологической разгрузки на рабочем месте.

Ключевые слова: станция скорой медицинской помощи, скорая помощь, медицинские работники, тревога, депрессия.

Түйіндеме

САУАЛНАМА НӘТИЖЕЛЕРІ БОЙЫНША АБАЙ ОБЛЫСЫНЫҢ ЖЕДЕЛ МЕДИЦИНАЛЫҚ ЖӘРДЕМ СТАНЦИЯСЫНЫҢ ДӘРІГЕРЛЕРІ АРАСЫНДАҒЫ МАЗАСЫЗДЫҚ ПЕН ДЕПРЕССИЯНЫ ТАЛДАУ

Диана К. Кусаинова¹, <https://orcid.org/0000-0003-2229-2270>

Зайтуна А. Хисметова¹, <https://orcid.org/0000-0001-5937-3045>

Умытжан С. Самарова¹, <https://orcid.org/0000-0002-8943-3384>

Гульзат Ж. Сарсенбаева², <https://orcid.org/0000-0002-1518-6528>

¹ «Семей медицина университеті» КеАҚ, Семей қ., Қазақстан Республикасы;

² «Оңтүстік Қазақстан медицина академиясы» АҚ, Шымкент қ., Қазақстан Республикасы.

Кіріспе. Аурудың өршуі кезінде халықтың психикалық денсаулығының белгілері туралы көптеген зерттеулер депрессияның, мазасыздықтың, стресстің, сондай-ақ басқа психикалық денсаулық жағдайларының, соның ішінде жарақаттан кейінгі стресстің бұзылуы, күйзеліс, қорқыныш, кінә, ашулану және жанама жарақаттың ғылыми дәлелдерін көрсетеді, дүрбелеңді немесе истерикалық реакцияларды нашарлатуы мүмкін жағдайлар. Өкінішке орай, аурудың өршуі және басқа дағдарыстар кезінде жағымсыз психологиялық әсерлерді азайту үшін әрдайым жеткілікті ресурстар жетіспейді.

Әлеуметтік тұрғыдан алғанда, денсаулық сақтау мамандары мен басқа да қызметкерлердің психикалық денсаулығының ауыртпалығы медициналық қызметтердің тұрақтылығына қатысты үлкен алаңдаушылық туғызады.

Мақсаты: Абай облысының Жедел медициналық жәрдем станциясының медицина қызметкерлері арасында мазасыздық пен депрессияға талдау жүргізу.

Материалдар мен әдістер: Абай облысының Жедел медициналық жәрдем станциясының (ЖМЖС) медицина қызметкерлері арасында көлденең зерттеу жүргізілді. Зерттеуге Абай облысының Жедел медициналық жәрдем станциясының дәрігерлері қатысты. Мазасыздық пен депрессияны бағалау және талдау үшін біз жедел жәрдем станциясының дәрігерлері арасында бейімделген ауруханалық мазасыздық пен депрессия шкаласы арқылы онлайн және офлайн сауалнаманы қолдандық.

Қатысушылардың жас профилі орта жастағы және кварталаралық диапазонды есептеу арқылы жинақталды. Қатысушылардың жалпы сипаттамаларын (жынысы, отбасылық жағдайы, білім деңгейі, жұмыспен қамтылуы), ЖМЖС медицина қызметкерлеріндегі мазасыздық пен депрессия деңгейі туралы білімді қоса алғанда, категориялық айнымалылар жиіліктер мен пайыздарды пайдалана отырып жинақталды. $P < 0,05$ статистикалық маңызды болып саналды.

Нәтижелері: Зерттеуге Абай облысының ЖМЖС-ның 272 медицина қызметкері енгізілді. Медицина мамандары қазіргі пандемия мен аурудың өршуі кезінде кенеттен дүрбелең сезімімен, жұмыста баяулықтың болуымен және сергектік сезімінің болмауымен бірге жүретін сыртқы және ішкі шиеленісті сезінетінін атап өтті, кейбіреулері тіпті сыртқы жұмыс түріне назар аударуды тоқтатады. Медицина қызметкерлерінің аз ғана бөлігі өз жұмысына қанағаттанады, мұны олардың істері (кәсіптері, хоббиі) оларға бұрынғыдай емес дәрежеде қанағаттану сезімін беретіндігімен байланыстырады.

Қорытынды: Тұрғылықты жері бойынша психологиялық қолдау қызметтерін, онлайн-психикалық денсаулық қызметтерін және телемедицинаны тарта отырып, жедел медициналық Жәрдем медицина қызметкерлерінің психикалық денсаулығына, сондай-ақ жұмыс орнында ықтимал психологиялық түсіруге ерекше назар аудару қажет.

Негізгі сөздер: жедел медициналық жәрдем станциясы, жедел жәрдем, медицина қызметкерлері, мазасыздық, депрессия.

Bibliographic citation:

Kussainova D.K., Khismetova Z.A., Samarova U.S., Sarsenbayeva G.Z. Analysis of anxiety and depression among doctors of the ambulance station of Abai region according to the results of the questionnaire // *Nauka i Zdravookhranenie* [Science & Healthcare]. 2022, (Vol.24) 6, pp. 120-125. doi 10.34689/SH.2022.24.6.016

Кусаинова Д.К., Хисметова З.А., Самарова У.С., Сарсенбаева Г.Ж. Анализ тревоги и депрессии среди врачей станции скорой медицинской помощи области Абай по результатам анкетирования // *Наука и Здравоохранение*. 2022. 6(Т.24). С. 120-125. doi 10.34689/SH.2022.24.6.016

Кусаинова Д.К., Хисметова З.А., Самарова У.С., Сарсенбаева Г.Ж. Сауалнама нәтижелері бойынша Абай облысының жедел медициналық жәрдем станциясының дәрігерлері арасындағы мазасыздық пен депрессияны талдау // *Ғылым және Денсаулық сақтау*. 2022. 6(Т.24). Б. 120-125. doi 10.34689/SH.2022.24.6.016

Introduction

Over the past decade, the number of calls from the population served by the ambulance service of the Republic of Kazakhstan has increased from 5,781,241 calls in 2010 to 6,994,864 calls in 2020 (MOH RK 2010-2020) [21]. The number of calls to the ambulance service (AS) is steadily growing, associated with the chronicity of diseases and the aggravation of the condition of patients (Vertkin A. L., 2012) [20]. In 2020, 517,672 calls were served in the East Kazakhstan region (MH RK 2020) [21]. According to the World Health Organization (WHO), about 20% of people in the world die due to the lack and untimely provision of qualified medical care at the prehospital stage [22].

The psychological impact of working during disease outbreaks has been significant: worldwide, thousands of health care workers have died from the infection, and some have even committed suicide [14, 18]. It is important to note that healthcare professionals are critical to any healthcare system. Health care workers are at significantly increased risk of contracting severe acute respiratory syndrome and may experience significant harm as a result. Patients may not always be the main source of infection and healthcare workers may come into contact with atypical patients, infected family members and colleagues [3]. The global mental health of medical workers is negatively affected not only by various outbreaks of infectious and non-communicable diseases, but also by the unstable situation and economic crises in the country [1, 4, 15]. From a social perspective, the emerging mental health burden on healthcare workers [2, 4, 6, 8, 16, 19] and other workers raises serious concerns about the sustainability of health care delivery. While meeting the needs of healthcare workers during a pandemic and other crisis is a high priority in every country, research on this issue remains conflicting. Thus, this research topic is relevant.

Objective. To conduct an analysis of anxiety and depression among medical workers of the ambulance station of the Abai region.

Materials and methods

Design and study area. A cross-sectional study was conducted among medical workers of the ambulance station (AS) in the Abai region from June to September 2022. The study involved doctors of the ambulance station of the Abai region. To assess and analyze anxiety and depression, we used online and offline questionnaires using the adapted hospital anxiety and depression scale HADS among doctors at the emergency medical station. In total, the questionnaire included 58 questions and consisted of several blocks for assessing anxiety and depression, the severity of insomnia, and quality of life. This article presents the results of a survey on the block assessment of the state of anxiety and depression in medical workers of the emergency medical service, which consisted of 14 questions.

In total, 272 medical workers of the emergency medical service of the Abai region took part in the study.

Data collection tool and procedure. In addition to general and demographic characteristics such as age, gender, location and marital status, other variables such as employment and educational attainment were taken into account. Knowledge of levels of anxiety and depression among health workers in the ESS was assessed using questions adapted from the validated HADS questionnaire used in a multi-country survey.[17]. The questionnaire consisted of four sections. The first section included the socio-demographic data of the respondents. The second section included questions to assess the severity of insomnia. The third section included questions on a scale of professional and life qualities, and the fourth section included questions on assessing the level of anxiety and depression.

The tool used was developed in kazakh and russian. The time for completing the questionnaire ranged from 20 to 60 minutes. The objectives of the study were clearly explained to participants prior to data collection.

The confidentiality of the respondents was ensured by the fact that the questionnaire did not ask for their identification information, such as name, employee

identification number. We used all data for research purposes and it was encrypted and stored electronically in a secure location with a password used by the principal investigator to ensure confidentiality. Informed consent was obtained from each participant and then a structured questionnaire was distributed to collect all data.

Ethical considerations. Ethical permission for this study was obtained by the Semey Medical University Ethics Committee. Permission to conduct the study was obtained from the participants prior to the interview.

Data analysis. The data was entered into the database and cleaned before being checked for completeness. The data were then analyzed using the Statistical Package for the Social

Sciences (SPSS) version 20. The age profile of the participants was summarized by calculating the mean age and interquartile range in years. Categorical variables, including participants' general characteristics (gender, marital status, educational level, employment), anxiety and depression questions, were summarized using frequencies and percentages. $P < 0.05$ were considered statistically significant.

Results. Of the 272 respondents who took part in the study, 81 (29.6%) were men and 191 (70.4%) were women. The average age of the participants was 37 years. The majority of participants, 226 (83.1%), had a secondary education, 46 (16.9%) had a higher education. Information about the level of anxiety is presented in Table 1.

Table 1. Information about the level of anxiety (n=272).

Anxiety level	Frequency (%)
one	2
1. I'm feeling stressed, I'm not feeling well	
all time	11 (3.9)
often	26 (9.5)
from time to time, sometimes	141 (51.7)
I don't feel at all	94 (35)
2. I feel fear, it seems that something terrible is about to happen	
definitely it is, and the fear is very great	19 (7.1)
yes, it is, but the fear is not very great	58 (21.3)
sometimes but it doesn't bother me	97 (35.5)
I don't feel at all	98 (36.1)
3. Restless thoughts swirling in my head	
constantly	15 (5.4)
most part of time	25 (9.1)
from time to time and not so often	90 (33.1)
only sometimes	142 (52.4)
4. I can easily sit down and relax	
definitely it is	117 (43.1)
probably it is	66 (24.3)
only occasionally, it is	80 (29.4)
I can't at all	9 (3.2)
5. I experience inner tension or trembling	
I don't feel at all	109 (40.1)
sometimes	137 (50.5)
often	21 (7.8)
very often	5 (1.5)
6. I feel restless, I constantly need to move	
definitely it is	38 (14)
probably it is	58 (21.3)
only to some extent, it is	93 (34.1)
I don't feel at all	83 (30.6)
7. I have a sudden feeling of panic	
Very often	10 (3.4)
often	23 (8.6)
not so often	109 (40.2)
does not happen at all	130 (47.8)

Respondents in the questionnaire noted which of the listed answer options corresponds to their state at the time of the survey. The list contained status questions to assess the level of depression. Each statement corresponded to 4 answer options (Table 2).

Discussion.

According to the data of our sociological survey, 23.7% of doctors in the ambulance station experience tension from time to time. In the responses, 16.3% of the respondents are afraid,

and it seems to them that something terrible might happen, and only 9.7% answered yes, it is, but the fear is not very great. 15.2% of respondents gave an answer to the question "restless thoughts are spinning in my head from time to time and not so often".

To the question "I can easily sit down and relax", only 11.1% of respondents chose this answer. 23.2% of healthcare professionals reported experiencing internal tension or trembling. The answer "I feel restless" was chosen only to

some extent by 15.6% of the respondents and the answer "probably so" was chosen by only 9.7% of the respondents.

To the next question, "I have a sudden feeling of panic," 18.4% of respondents answered infrequently. To the question "what brought me great pleasure, and now gives me the same

feeling", only 17% of ambulance medical workers answered positively; the ability to laugh and see the funny in this or that event is stated by only 14.1% of the respondents. And only 8.8% of respondents answered probably, this is so.

Table 2. The result of a sociological survey of respondents on the level of depression (n=272).

Level of depression	Frequency (%)
one	2
1. What brought me great pleasure, and now makes me feel the same way	
definitely it is	99 (36.7)
probably it is	101 (37.2)
only to a very small extent, it is	45 (16.4)
it's not like that at all	27 (9.8)
2. I am able to laugh and see something funny in this or that event	
definitely it is	123 (45.4)
probably it is	84 (30.9)
only to a very small extent, it is	52 (19.3)
not at all able	13 (4.4)
3. I feel energized	
I don't feel at all	14 (4.9)
very rarely	50 (18.2)
sometimes	113 (41.7)
almost all the time	95 (35.1)
4. It seems to me that I began to do everything very slowly	
almost all the time	11 (4.1)
often	32 (11.7)
sometimes	131 (48.3)
not at all	98 (36)
5. I don't care about my appearance	
definitely it is	25(9)
I don't spend as much time on it as I need to	43 (15.7)
maybe I've started to devote less time to this	57 (21.1)
I take care of myself just like before	147 (54.2)
6. I believe that my activities (occupations, hobbies) can bring me a sense of satisfaction	
just like usual	159 (58.3)
yes, but not to the same extent as before	70 (25.8)
much less than usual	33 (12.3)
I don't think so at all	10 (3.5)
7. I can enjoy a good book, radio or TV program	
often	165 (60.8)
sometimes	72 (26.5)
rarely	21 (7.9)
very rarely	14 (4.7)

To the question "I feel cheerful" 19.1% of respondents say sometimes and only 8.3% very rarely. 22.1% of the respondents answered the next question "I think that I started to do everything very slowly. Also, 9.6% of medical workers answered that they began to devote less time to their appearance; only 11.8% of respondents believe that their activities (occupations, hobbies) can bring them a sense of satisfaction not to the same extent as before, and only 12.1% of respondents answered that they can sometimes enjoy a good book, radio or television program.

Anxiety disorders among medical workers, according to various researchers, range from 23.2% to 48.77%, from 22.8% to 57.63% of doctors and medical personnel who worked with patients during pandemic suffer from depression of varying severity [5, 9, 23]. The researchers note that anxiety, depression, and sleep disorders are more common in women

than in men, and in younger people [11, 12, 23] and for nurses, which can probably be explained by the fact that nurses spend more time with seriously ill patients than doctors. According to a number of researchers, medical workers most often complained of moral exhaustion, detachment from others, anxiety when working with patients, insomnia, irritability, impaired concentration, difficulty in making decisions, in some cases, disgust for their work and a strong desire to quit [5, 9–12, 23]. In some publications, special attention is paid to the problem of the development of post-traumatic stress disorder in health workers who worked during disease outbreaks [5], an increase in alcohol and drug abuse among hospital staff, suicides among healthcare workers, and unexpected layoffs of clinic staff [9, 11, 12], the problem of providing poor-quality medical care to patients. On the contrary, some studies have noted some protective factors. For example, higher levels of

social support have been associated with greater resilience and positive mental health of healthcare workers [7]. Other authors have noted that trusting relationships with patients reduce the risk of burnout [13].

Conclusion.

Thus, interpreting the research data, we came to the conclusion that medical workers during work experience external and internal stress, accompanied by a feeling of sudden panic, the presence of slowness in work and a lack of cheerfulness. Some even stop paying attention to their external work appearance. Only a small number of medical workers are satisfied with their work, linking this to the fact that their activities (occupations, hobbies) bring them a sense of satisfaction not to the same extent as before.

Based on the foregoing, we believe that special attention should be paid to the mental health of emergency medical workers with the involvement of psychological support services at the place of residence, online mental health services and telemedicine, as well as possible psychological relief at the workplace.

Authors' contribution: Kussainova D.K. – data set, descriptive part, formal analysis. Khismetova Z.A. - scientific guidance, conception and conceptualization. Samarova U.S., Sarsenbayeva G.Z. - data collection and research resource management.

Financing: No funding was provided by outside organizations.

Conflicts of interest: The authors declare no conflict of interest.

References:

1. Banerjee D. The COVID-19 outbreak: Crucial role the psychiatrists can play // *Asian Journal of Psychiatry*. 2020. (50). C. 102014.
2. Bao Y. [и др.]. 2019-nCoV epidemic: address mental health care to empower society // *The Lancet*. 2020. № 10224 (395). C. e37–e38.
3. Bielicki J.A. [и др.]. Monitoring approaches for healthcare workers during the COVID-19 pandemic // *The Lancet Infectious Diseases*. 2020. № 10 (20). C. e261.
4. Cao J. [и др.]. A Study of Basic Needs and Psychological Wellbeing of Medical Workers in the Fever Clinic of a Tertiary General Hospital in Beijing during the COVID-19 Outbreak // *Psychotherapy and Psychosomatics*. 2020. № 4 (89). C. 1.
5. Huang Y., Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey // *Psychiatry Research*. 2020. (288). C. 112954.
6. Kang L. [и др.]. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus // *The Lancet Psychiatry*. 2020. № 3 (7). C. e14.
7. Lai J. [и др.]. Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019 // *JAMA Network Open*. 2020. № 3 (3). C. e203976–e203976.

8. Lai J. [и др.]. Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019 // *JAMA Network Open*. 2020. № 3 (3).

9. Pappa S. [и др.]. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis // *Brain, Behavior, and Immunity*. 2020. (88). C. 901.

10. Patel R. S. [и др.]. Factors Related to Physician Burnout and Its Consequences: A Review // *Behavioral Sciences*. 2018. № 11 (8). C. 1–7.

11. Shah K. [и др.]. Focus on Mental Health During the Coronavirus (COVID-19) Pandemic: Applying Learnings from the Past Outbreaks // *Cureus*. 2020. № 3 (12). C. 1–8.

12. Shah K. [и др.]. How Essential Is to Focus on Physician's Health and Burnout in Coronavirus (COVID-19) Pandemic? // *Cureus*. 2020. № 4 (12). C. 1–3.

13. Starace F., Ferrara M. COVID-19 disease emergency operational instructions for Mental Health Departments issued by the Italian Society of Epidemiological Psychiatry // *Epidemiology and Psychiatric Sciences*. 2020. (29). C. 1–4.

14. Wang C. [и др.]. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China // *Brain, Behavior, and Immunity*. 2020. (87). C. 40.

15. Xiang Y. T. [и др.]. The COVID-19 outbreak and psychiatric hospitals in China: managing challenges through mental health service reform // *International Journal of Biological Sciences*. 2020. № 10 (16). C. 1741.

16. Yang Y. [и др.]. Mental health services for older adults in China during the COVID-19 outbreak // *The Lancet Psychiatry*. 2020. № 4 (7). C. e19.

17. YQ Tan B. [и др.]. Burnout y factores asociados entre los trabajadores de la salud en Singapur durante la pandemia de COVID-19 // *Jamda*. 2020. № January (21). C. 1751–1758.

18. Zaka A. [и др.]. COVID-19 pandemic as a watershed moment: A call for systematic psychological health care for frontline medical staff // *Journal of Health Psychology*. 2020. № 7 (25). C. 883–887.

19. Zhong Q. COVID-19 and Labour Law: Japan // *Italian Labour Law e-Journal*. 2020. № 1S (13).

20. Верткин А.Л. Национальное руководство по скорой помощи 2012.

21. Ministry of healthcare of the Republic of Kazakhstan URL: <https://www.gov.kz/memleket/entities>

22. WHO Coronavirus (COVID-19) Dashboard | WHO Coronavirus (COVID-19) Dashboard With Vaccination Data. URL: <https://covid19.who.int/> (дата обращения: 21.11.2021).

23. РОП. URL: <https://psychiatr.ru/news/1102> (дата обращения: 21.11.2021).

Contact information:

Kussainova Diana Kasenovna - 2-year doctoral student of the specialty "Public Health", NCJSC "Semey Medical University", Semey c., Republic of Kazakhstan.

Postal address: Republic of Kazakhstan, 071408, Semey, Ak. Satpayev str. 186-73.

E-mail: from7sk@gmail.com

Phone: 7 747 3558005