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# **ORIGINAL ARTICLE**



# The impact of the covid-19 pandemic and social isolation on behavior and mental health of medical and non-medical staff – experience from a gynecology and obstetrics clinic

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## **Competing interests:**

The authors have declared that no competing interests exist

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# **Summary**

**Introduction/Aim:** Occupational exposure makes health workers m vulnerable and at high-risk for COVID-19 infection and major psychological disturbance. Fear from the unknown, anxiety for close family and friends, rapid exhaustion of protective equipment, direct contact with infected patients, in combination with media-provoked panic, create a considerable psychological burden in healthcare workers. The aim of this study was to assess mental health of medical and non-medical staff of a university gynecology and obstetrics clinic during COVID-19 epidemic in Serbia.

**Methods:** The study was conducted from 1st to 31st of May 2020 through 160 online questionnaires distributed among the staff of Obstetrics and Gynecology Clinic Narodni front. This online survey consisted of two sections: one included questions related to demographic characteristics, medical history, behavior and habits during the COVID-19 pandemic, while the other comprised questions included in Depression, Anxiety and Stress Scale 21 (DASS-21).

**Results:** Among 118 employees who had participated in the study, depression, anxiety, and stress were present in 35.6%, 40.7%, and 27.1% participants. Participants with lower education had higher total DASS, depression, anxiety, and stress scores compared to participants with higher education. Non-medical staff had significantly higher total DASS and anxiety scores than medical staff. Participants with lower education and married subjects were more likely to have anxiety and depression symptoms.

**Conclusion:** Apart from medical staff, non-medical personnel and their mental status should not be neglected, and we believe that future studies related to the psychological impact of public health emergencies, should include this group.

**Key words:** COVID-19, medical staff, non-medical staff, obstetrics and gynecology, psychological impact

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#### INTRODUCTION

Back in December 2019, the history of the world as we know it was rewritten. What started as a cluster of unknown-cause pneumonia cases in Wuhan, Hubei Province, People's Republic of China, led to the World Health Organization (WHO) declaration of the worldwide coronavirus disease 19 (COVID-19) pandemic caused by a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) on March 11th, 2020 (1). The first COVID-19 positive patient in The Republic of Serbia was registered on March 6th, 2020. This was one of the reasons why the national borders of the Republic of Serbia were among the last to close. Many Serbian citizens, working and staying abroad, had to return to their home country. According to national news reports, by Easter holidays, over 340 000 people had arrived in Serbia in a short period of time, most of them coming from countries which were already experiencing major COVID-19 outbreaks. This, along with sparse knowledge of the illness itself, represented a challenge for healthcare institutions. One year later, by March 20th, 2021, there were 546 986 registered COVID-19 cases, with 4900 deaths in the Republic of Serbia (2). The Ministry of Health of the Republic of Serbia designated certain institutions to become COVID-19 centers. In the original decision of the Ministry of Health, two university clinics were envisaged to treat all gynecological and obstetric patients with suspicion of COVID-19 or confirmed COVID-19 disease. From the beginning, recommended epidemiological measures were introduced to protect patients, along with medical and non-medical staff. The regular program was put on hold and only the patients with urgent obstetrical and gynecological conditions were treated surgically. Admission was limited exclusively to emergency cases. Even with the implementation of the prescribed measures, many cases of infection were registered among the staff.

Since the beginning of the pandemic, much effort has been put into achieving the optimal number of health workers, medical devices, and safety equipment supplies in institutions and departments for the treatment of patients with confirmed COVID 19 disease (3). Apart from comprehensive research focused on disease transmission and the mechanisms underlying its short and long-term effects, there has been an urge for a detailed investigation of its psychological effects, especially on healthcare workers (4). Substantial symptoms of anxiety, stress, and depression in healthcare workers had been previously reported in similar viral outbreaks (5,6)and 20 of 218 health care workers (9 percent. Based on previous experience, there was a prompt reaction in conducting similar studies in the current COVID-19 pandemic (7)anxiety, depression, and stress during the initial stage of the COVID-19 outbreak. The data will be used for future reference. Methods: From 31 January to 2 February 2020, we conducted an online survey using snowball sampling techniques. The online survey

collected information on demographic data, physical symptoms in the past 14 days, contact history with COVID-19, knowledge and concerns about COVID-19, precautionary measures against COVID-19, and additional information required with respect to COVID-19. Psychological impact was assessed by the Impact of Event Scale-Revised (IES-R. Occupational exposure makes health workers especially vulnerable and at high risk, not only for COVID 19 infection but for major psychological disturbance as well. Reports indicate a more frequent occurrence of anxiety, sleep disturbance, and somatic symptoms manifested during the COVID 19 pandemic among healthcare workers compared to other professions (8)as declared on March 11th 2020 by the World Health Organization, with respect to which institutional variables might distinguish the impact of COVID-19 in medical and non-medical professionals. Methods: A cross-sectional study was performed nationwide between 16th March and the 26th April 2020 in Poland. A total of 2039 respondents representing all healthcare providers (59.8%. Fear of the unknown, fear for close family and friends, rapid exhaustion of personnel protection equipment, direct contact with infected patients, combined with newly created, media-encouraged panic, caused an immersive psychological burden for healthcare workers.

On the other hand, the relationship between SARS Cov-2 and pregnancy remains a highly controversial subject. Firstly, there were concerns regarding prognoses of pregnant patients infected with the virus. Secondly, an increasing number of studies investigate possible vertical transmission of the novel coronavirus and its prospective effects on fetal growth, malformations, and miscarriages (9,10). Since there is a high probability that the answers to these questions will not get a universal consensus, gynecologists and obstetricians remain medical specialists with even more responsibility and, consequently, more psychological pressure.

Understanding the importance of psychological well-being of both medical and non-medical personnel, we tried to assess the impact of the ongoing pandemic and social isolation on mental health of the employees of a University Obstetrics and Gynecology Clinic in Serbia.

#### MATERIALS AND METHODS

# Participants and questionnaire

This cross-sectional study was conducted in the period from 1<sup>st</sup> to 31<sup>st</sup> of May 2020. 160 online questionnaires were distributed to the employees of the University Obstetrics and Gynecology Clinic. The survey was distributed after the first peak of the outbreak had ended and after the majority of staff who had been affected by the virus had recovered.

This study was approved by the Ethics Committee of the Obstetrics and Gynecology Clinic Narodni Front (number 05006-2020-8351). The Ethics Committee of

the Clinic decided that the question "Have you had the SARS CoV-2 infection?" was to be retracted.

The questionnaire contained two parts: the first part had 35 questions regarding demographic characteristics (age, sex, marital status, educational level, being a member of medical or non-medical staff), medical history (presence of any chronic diseases), behavior and habits during the COVID 19 pandemic; the second part comprised questions included in Depression, Anxiety and Stress Scale 21 (DASS 21).

### Depression, anxiety, and stress assessment

Depression, anxiety, and stress were assessed using DASS-21. This scale contains 21 questions divided into 3 subscales (subscale of depression, anxiety, and stress), each composed of 7 items. In every question, the participants were asked to assess how well they agreed with the statement during the first peak of the COVID 19 pandemic, by choosing one number on an ordinal scale (0 - "I never felt that way", 3 - "I felt that way almost all the time"). Depression, anxiety, and stress scores were calculated as a sum of the value of the questions in each subscale, and multiplied by two. Based on the scores, the participants were divided into five categories ("normal", "mild", "moderate", "severe", "extremely severe") in each subscale. DASS-21 was already used to assess the psychological disturbance among medical staff during COVID 19 and previous pandemics (11,12). Moreover, this scale was also used to assess the mental health status of the adult population in Serbia during this pandemic (13).

# Statistical analysis

Numerical data were presented as means with standard deviations or as median with ranges. Categorical variables were summarized by absolute numbers with percentages. Differences in DASS-21 scores among different demographic groups and between medical and non-medical staff were calculated using the Student's t-test or Mann-Whitney U test, based on the normality of the distribution. The normality was assessed using the Shapiro-Wilk test. Pearson's chi-squared test was used to determine the differences in frequency distributions for categorical variables between different groups. Regression models were used to assess predictors of depression, anxiety, and stress, such as sociodemographic characteristics, medical and non-medical staff, and behavior and habits. *p*-value < 0.05 was considered statistically significant. Statistical analysis was performed using jamovi version 1.6 (13).

### **RESULTS**

Out of 160 initially randomly selected employees, 43 respondents either refused to participate in the study or

completed their questionnaire incorrectly or incompletely. A total of 118 employees participated in the study: 81 were medical staff (doctors and nurses) and 36 were non-medical staff (human recourses department, janitors, cleaners). More than 80% of participants were female. 55% of the participants were older than 40. Most of the younger employees belonged to the medical staff. More than half of the respondents were married. 30% of the participants were smokers and 48 participants were diagnosed with some chronic disease. The demographic and medical characteristics of the participants are presented in **Table 1**.

Behavior and habits of medical and non-medical staff during the COVID-19 pandemic are presented in Table 2. Overall, more participants had fear for their family and close friends (79.7%) than for themselves (51.7%). Difficulty with concentrating and sleeping were present in 28% and 40.7% of the participants, respectively. There were no statistically significant differences between behavior and habits between males and females, older and younger participants, participants with lower and higher educational levels, and medical and non-medical staff.

More than half of the participants reported avoiding information about COVID 19, while an increase in activities such as watching TV, reading books or magazines, and using social networks was reported in 57.6%, 59.3%, and 59.3% of the participants, respectively. There were no significant differences in behavior and habits between groups (Table 2).

Based on DASS-21 scores, depression, anxiety, and stress were present in 42 (35.6%), 48 (40.7%), and 32 (27.1%) participants, respectively (**Table 3**).

Anxiety and depression were significantly more frequent in participants with lower education compared to the participants with higher education (p = 0.01; p = 0.03; **Table 3**).

Participants with lower education had significantly higher total DAS-21, depression, anxiety, and stress scores compared to participants with higher education (Table 4). On the other hand, non-medical staff had significantly higher total DASS-21 and anxiety scores than medical staff (Table 4).

There were no significant differences in depression, anxiety, and stress types between genders, age groups, married and unmarried participants, participants with higher and lower education, and medical and non-medical staff.

Regression analysis revealed that participants with lower education were more than twice as likely to have anxiety symptoms (Odds Ratio (OR): 2.58, 95% Confidence Interval (CI): 1.21 - 5.4; p = 0.01; **Table 5**.) than participants with higher education. Participants with lower education were also more than twice as likely to have depression symptoms compared to participants with higher education (OR: 2.25, 95% CI: 1.04 - 4.86; p = 0.03; **Table 5**.). Married subjects were more likely



Table 1. Demographic and medical characteristics of the respondents

		n (%)	Medical staff n=82 (%)	Non-medical staff n=36 (%)
Gender	Male	25 (21.2%)	13 (15.9%)	12 (33,3%)
	Female	93 (78.8)	69 (84,1%)	24 (66,7%)
Age	younger (18-39)	53 (44.9%)	40 (48.8%)	13 (36.1%)
	older (40+)	65 (55.1%)	42 (51.2%)	23 (63.9%)
Marital status	not married (single/widowed/	59 (50%)	42 (51.2%)	17 (47.2%)
	extramarital union)			
	married	59 (50%)	40 (48.8%)	19 (52.8%)
Level of education	elementary/high school	55 (46.6%)	29 (35.4%)	26(72.2%)
	higher education	63 (53.4%)	53 (64.6%)	10 (27.8%)
Smoking Previous chronic condition		38 (32.2%) 48 (40.7%)	26 (31.7%)	12 (32.3%)
Hypertension		27 (23.1%)	31 (37.8%)	17 (47.2%)
Hyperlipidemia		4 (3.4%)		
Diabetes Mellitus		3 (2.6%)		
Asthma		3 (2.6%)		
Eczema		4 (3.4%)		
Migraine		25 (21.4%)		
Cerebrovascular insults		4 (3.4%)		
Psychiatric diseases		2 (1.7%)		
1 Sychiatric diseases		Total 118		
		(100%)		
		, ,		

Table 2. Behavior and habits of medical and non-medical staff during the COVID-19 pandemic

	All n=118 (%)	Medical staff n=82 (%)	Non-medical staff n=36 (%)	<i>p</i> value
Fear for self	61 (51.7%)	39 (48.1%)	21 (58.3%)	0.309
Fear for family and friends	94 (79.7%)	66 (81.5%)	28 (77.8%)	0.642
Difficulties with concentration	33 (28.0%)	20 (24.7%)	13 (36.1%)	0.205
Sleep disturbances	48 (40.7%)	31 (38.3%)	17 (47.2%)	0.364
Change of appetite	23 (19.5%)	18 (22.2%)	6 (16.7%)	0.492
Weight loss	25 (21.2%)	20 (24.7%)	5 (13.9%)	0.188
Weight gain	35 (29.7%)	24 (29.6%)	10 (27.8%)	0.839
Increased use of alcohol	10 (8.5%)	6 (7.4%)	4 (11.1%)	0.722
Increased use of drugs	15 (12.7%)	10 (12.3%)	5 (13.9%)	0.818
Aggravation of chronic conditions	5 (4.2%)	4 (4.9%)	1 (2.8%)	0.594
Aggravation of mental health	12 (10.2%)	10 (12.3%)	3 (8.3%)	0.524
Avoiding Information about COVID-19	62 (52.5%)	46 (56.8)	16 (44.4)	0.217
Watching TV	68 (57.6%)	48 (59.3)	20 (55.6)	0.708
Reading books, magazines, comic books	70 (59.3%)	53 (65.4)	17 (47.2)	0.064
Spent more time on social networks	70 (59.3%)	52 (64.2)	18 (50)	0.148
Physical exercises (including breathing, mediation)	48 (40.7%)	33 (40.7)	15 (41.7)	0.925

to have anxiety symptoms than the unmarried subject (OR: 2.53, 95% CI: 1.07 - 5.98; p = 0.03; **Table 5**.). Participants who feared for themselves and their family and

friends were more likely to have depression, anxiety, and stress symptoms (**Table 5**).

 $\textbf{Table 3.} \ Differences in stress, anxiety, and depression symptoms and types between medical and non-medical staff and between subjects with higher and lower education (*- indicates statistically significant difference)$ 

		All n=118	Medical staff n=82	Non-medical staff n=36	Higher education n= 63	Lower education n= 55
Stress type	Normal	85	63	23	49	37
	Mild	8	4	4	4	4
	Moderate	6	4	2	3	3
	Severe	13	8	5	4	9
	Extremely severe	5	3	2	3	2
No. of subjects with stress symptoms (%)	32 (27.1%)	19 (23.2%)	13 (36.1%)	14 (22%)	18 (32.7)	
Anxiety type	Normal	52	42	10	44	26
	Mild	11	7	4	1	5
	Moderate	22	12	10	9	10
	Severe	8	5	3	2	4
	Extremely severe	24	15	9	7	10
No. of subjects with anxiety symptoms (%)	48 (40.7%)	29 (35.4%)	19 (52.8%)	19(30%)	29(53%)*	
Depression type	Normal	64	57	19	46	30
	Mild	12	9	3	6	6
	Moderate	17	10	7	7	10
	Severe	6	5	1	1	5
	Extremely severe	7	1	6	3	4
No. of subjects with depression symptoms (%)	42 (35.6%)	25 (30.5%)	17 (47.2%)	17(27%)	25(45.5%)*	

**Table 4.** DASS-21\* scores in medical and non-medical staff and participants with higher and lower education (SD – standard deviation; \*-Depression, Anxiety and Stress Scale 21; \*\* - indicates statistically significant difference)

	All n=118	Medical staff n=82	Non-medical staff n=36	p value	Higher education n=63	Lower education n=55	p value
Total DASS-21 score (mean ± SD)	28.2±27.9	24.2±23.40	37.2±33.20	0.020**	22.5±21.59	34.7±29.20	0.017**
Total depression score (mean ± SD)	8.71±7.91	7.0±6.41	12.6±12.4	0.064	6.73±5.83	10.9±10.7	0.013**
Total anxiety score (mean ± SD)	8.15±7.21	7.1±6.59	10.6±10.2	0.048**	6.44±5.53	10.1±9.64	0.020**
Total stress score (mean ± SD)	11.3±10.4	10.1±9.90	14.0±11.0	0.050	9.24±8.97	13.7±10.4	0.008**

**Table 5.** Factors associated with the presence of anxiety, depression, and stress (\* - Reference value)

Factors associated with the presence of anxiety symptoms						
Factor	OR	95% CI	p value			
Lower education (Ref.* Higher education)	2.58	1.21 – 5.49	0.01			
Married subject (Ref. Unmarried subject)	2.53	1.07 – 5.98	0.03			
Fear for self (Ref. Without fear)	9.45	3.90 – 22.86	< 0.01			
Fear for family and friends (Ref. Without fear)	3.2	1.10 – 9.29	0.03			
Factors associated with the presence of depression symptoms						
Lower education (Ref. Higher education)	2.25	1.04 – 4.86	0.03			
Fear for self (Ref. Without fear)	5.186	2.22 – 12.10	< 0.01			
Fear for family and friends (Ref. Without fear)	4.96	1.38 – 17.80	0.01			
Factors associated with the presence of stress symptoms						
Fear for self (Ref. Without fear)	6.31	2.35 – 16.92	< 0.01			
Fear for family and friends (Ref. Without fear)	5.15	1.13 – 23.36	< 0.01			

#### DISCUSSION

To the best of our knowledge, this is the first study regarding behavior and mental status of medical and non-medical staff in an obstetrics and gynecology clinic in the Balkan region. Some studies investigated psychological burden in obstetricians and gynecologists (14–16) p=0.023. but non-medical staff were not included in these studies. Lu et al. showed that medical staff had significantly higher levels of fear, anxiety, and depression than administrative staff (17). Another study that compared mental health of medical and non-medical professionals during the pandemic revealed that medical staff presented more often with anxiety and other psychopathological symptoms, while male sex and older age were associated with lower General Health Questionnaire-28 (GHQ-28) scores among medical personnel (8) as declared on March 11th 2020 by the World Health Organization, with respect to which institutional variables might distinguish the impact of COVID-19 in medical and non-medical professionals. Methods: A cross-sectional study was performed nationwide between 16th March and the 26th April 2020 in Poland. A total of 2039 respondents representing all healthcare providers (59.8%.

In our study, 35.6%, 40.7%, and 27.1% of medical staff had symptoms of depression, anxiety, and stress, respectively. There are several meta-analyses regarding psychological disturbances among healthcare workers during the COVID-19 pandemic. Pappa et al. included 13 studies in their meta-analysis, of which 12 were from China (18). The prevalence of depression and anxiety was 22.8% and 23.21%, respectively, while this prevalence in doctors was 25.23% for depression and 21.73% for anxiety. They also showed that the prevalence of depression and anxiety in nurses was 30.3% and 25.80%, respectively. Another, more recent (19), meta-analysis included 62 studies and compared the prevalence of anxiety, depression, and stress among healthcare workers and general public. This study showed that the overall anxiety prevalence was 33% and that it was similar between general public and healthcare workers. The prevalence of anxiety among healthcare workers ranged between 7 and 57%, the highest being in studies from Italy. A depression prevalence followed a similar pattern, and it ranged from 9 to 51% of healthcare workers, with studies from China being the ones with highest percentages. Finally, Batra et al. concluded that the prevalence of anxiety, depression, and stress in healthcare workers was 34.4%, 31.8%, 40.3%, respectively (20).

Interestingly, there were no significant differences in behavior and habits, depression, anxiety, and stress symptoms between these groups in our study. Non-medical staff had higher total DASS-21 scores, along with higher anxiety scores than medical staff.

A possible explanation could be that the level of education plays a part in determining the amount of fear an

individual feels, or, more specifically, that medical staff have prior knowledge of illnesses, possibilities of treatment, preventative measures, and therapies available (21). In our study, participants with lower education had higher total DASS-21, depression, anxiety, and stress scores. Moreover, based on DASS scores, anxiety and depression were more frequent in these participants. Naturally, the level of education was higher in medical staff. The age of the respondents should also be taken into consideration, as well as the presence of chronic illnesses, since the majority of younger participants belonged to medical staff, and, while there was no statistical significance, chronic conditions were more prevalent in non-medical staff. There are strong suggestions that elderly people with chronic diseases (especially hypertension) belonged to the group of those who had a higher risk of having more serious forms of COVID 19 (22,23).

There were no significant differences in behavior and habits between healthcare and non-health-care workers. Moreover, none of the habits of the participants were associated with either higher or lower probability of depression, anxiety, or stress manifestations, except for the fear for self and fear for family and friends. On the other hand, more participants feared for the health of their families and close friends than for their own health. This is in accordance with other studies which showed that these were the most common concerns and that they were associated with a higher probability of meeting the criteria for significant mental deterioration (21,24). Many studies have reported that increased physical activity not only was one of the most common coping mechanisms of healthcare workers during the pandemic (25), but it was one of the protective factors for health-related quality of life, anxiety, and depression, in both healthcare workers and other subgroups of general population (26). However, increased physical activity was observed in less than half of the participants in our study, among both healthcare and non-healthcare workers.

Participants with lower education in our study were more likely to meet the criteria for depression and anxiety than participants with higher education. Age, gender, being a member of healthcare or non-health-care staff, and having a chronic illness were not associated with a higher probability of developing the symptoms of depression, anxiety, and/or stress. Chen et al. reported that subjects with higher educational degree were more likely to have anxiety symptoms (27). We think that lower educational levels are undoubtedly associated with a sparse knowledge of pathophysiological mechanisms of the novel coronavirus and available treatment options, so the fear of the unknown, while also being present in the population with higher education, is one of the main contributors to this result of our study.

According to literature, one of the main risk factors for serious mental deterioration was being employed as a front-line health worker. Many studies confirmed that front-line health workers were more likely to develop the symptoms of depression, stress, and anxiety (28,29). Moreover, some studies suggested that second-line healthcare workers were less likely to have symptoms of depression and anxiety and that they had significantly lower scores in various scales used to determine the presence of previously mentioned psychological disturbances (29). In our questionnaire, which was designed by the Ministry of Health, there were no questions about frontand second-line workers, so we could not determine the exact impact of these positions on mental health of the caregivers.

Gender had a substantial impact on mental deterioration of healthcare workers during the COVID-19 pandemic. The results of many studies indicate that females are more likely to develop anxiety, depression, and stress symptoms (28–30). Moreover, other studies concluded that nurses were more likely to present with symptoms of anxiety compared to other healthcare workers (28)survey-based, region-stratified study collected demographic data and mental health measurements from 1257 health care workers in 34 hospitals from January 29, 2020, to February 3, 2020, in China. Health care workers in hospitals equipped with fever clinics or wards for patients with COVID-19 were eligible. The degree of symptoms of depression, anxiety, insomnia, and distress was assessed by the Chinese versions of the 9-item Patient Health Questionnaire, the 7-item Generalized Anxiety Disorder scale, the 7-item Insomnia Severity Index, and the 22-item Impact of Event Scale-Revised, respectively. Multivariable logistic regression analysis was performed to identify factors associated with mental health outcomes. A total of 1257 of 1830 contacted individuals completed the survey, with a participation rate of 68.7%. A total of 813 (64.7%.

Married subjects in our study were more likely to develop symptoms of anxiety compared to unmarried subjects. This is in accordance with the results of other studies (27). This could be explained by greater fear for the members of the close family, which was, as it has been mentioned, one of the most common concerns of healthcare workers during the pandemics.

While there are fewer studies that included non-healthcare workers in their investigations, Zhang et al. reported that in this population, having an organic disease was a major risk factor for depression symptoms (30). We have previously mentioned that many healthcare workers were transferred to other facilities or institutions or were doing assignments which were not in their primary field of work. Keihanian et al. reported that even in the group of non-physician healthcare workers, the COVID-19 pandemic had a great impact on work schedule, reassignments, and greater concerns about job security (31).

There are several limitations to our study. Firstly, we think that obtaining the data about personal habits and psychological disturbances before and during the COVID 19 pandemic would be more representative in terms of the actual impact of the ongoing pandemic on mental status in medical and non-medical personnel. We think that the study would be more informative if there were questions regarding infection with SARS CoV-2 and more detailed questions regarding the actual position of the medical staff (i.e., obstetrics and gynecology specialist, anesthesiologist, nurse, etc). Questions regarding the treatment of infected patients (front-line positions) and transfer to other institutions or job positions would give more specific information regarding the mental health of these participants. Since the questionnaire was designed by the Ministry of Health of the Republic of Serbia, we did not have any influence on the questions. Thus, with more informative data and a multicenter study, along with other obstetrics and gynecology centers in Serbia, we would try to conduct a similar, and more illustrative investigation regarding the psychological impact of the COVID 19 pandemic on medical and non-medical staff in obstetrics and gynecology centers.

# **CONCLUSION**

While there are unquestionable catastrophic consequences of the COVID 19 pandemic on health and healthcare sectors, we think that the psychological impact of the pandemic on healthcare workers will be perceived in the coming months or even years. Apart from medical staff, non-medical personnel and their mental status should not be neglected, and it is our aim in future studies, regarding the psychological impact of public health emergencies, to include this group in research.

#### **Conflict of interest:**

None to declare

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# UTICAJ PANDEMIJE KOVIDA 19 I SOCIJALNE IZOLACIJE NA MENTALNO ZDRAVLJE MEDICINSKOG I NEMEDICINSKOG OSOBLJA – ISKUSTVO IZ JEDNE GINEKOLOŠKO-AKUŠERSKE KLINIKE

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#### Sažetak

**Uvod:** Profesionalna izloženost zdravstvene radnike čini posebno osetljivim i pod visokim rizikom za oboljevanje od infekcije KOVID-19 i nastanak velikih psiholoških poremećaja. Strah od nepoznatog, strah za bližnje, brza potrošnja i manjak lične zaštitne opreme, u kombinaciji sa medijski podstaknutom panikom, stvaraju značajno psihološko opterećenje zdravstvenih radnika. Cilj ove studije je bio da se proceni mentalno zdravlje medicinskog i nemedicinskog osoblja u jednoj univezitetskoj ginekološko-akušerskoj klinici tokom pandemije kovida 9 u Srbiji.

**Metode:** Studija je sprovedena u period od 1. do 31. maja 2020. putem 160 onlajn upitnika podeljenih osoblju Klinike za ginekologiju i akušerstvo. Onlajn anketa se sastojala od dva odeljka: prvi je sadržao pitanja koja se odnose na demografske karakteristike, istoriju bolesti, ponašanja i navike tokom pandemije kovida 19; drugi

su činila pitanja u sklopu skale depresije, anksioznosti i stresa 21 (engl. Depression, Anxiety and Stress Scale 21, DASS-21).

**Rezultati:** Među 118 zaposlenih koji su učestvovali u istraživanju, depresija, anksioznost i stres su bili prisutni kod 35,6%, 40,7% i 27,1% učesnika. Učesnici sa nižim obrazovanjem imali su veći ukupni DASS skor, depresiju, anksioznost i stres u poređenju sa učesnicima sa visokim obrazovanjem. Nemedicinsko osoblje imalo je značajno više ukupne rezultate DASS-a i anksioznosti od medicinskog osoblja. Učesnici sa nižim obrazovanjem i oženjeni ispitanici su češće imali simptome anksioznosti i depresije.

**Zaključak:** Osim medicinskog, ne smemo zanemariti nemedicinsko osoblje i njihovo mentalno zdravlje. Buduća istraživanja o psihološkom uticaju vanrednih situacija na javno zdravlje bi nesumnjivo trebalo da uključe i istraže ovu grupu.

Ključne reči: kovid 19, medicinsko osoblje, nemedicinsko osoblje, ginekologija i akušerstvo, psihološki uticaj

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