

UTICAJ COVID-19 PANDEMIJE NA MENTALNO ZDRAVLJE STANOVNIKA SRBIJE

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SAŽETAK

Dosadašnja istraživanja u oblasti mentalnog zdravlja i COVID-19 bolesti su otkrila različite reakcije i poremećaje mentalnog zdravlja tokom pandemije COVID-19. Ovaj rad predstavlja analizu podataka objavljenih u stručnim i naučnim radovima i izveštajima nakon sprovedenih istraživanja uticaja pandemije COVID-19 bolesti na mentalno zdravlje, kako opšte populacije, tako i vulnerabilnih grupa. Prema podacima Svetske zdravstvene organizacije, u prvoj godini pandemije globalna prevalencija anksioznosti i depresije porasla je za čak 25%. U Republici Srbiji, prema podacima SZO za 2017. godinu, 5% populacije živi sa depresijom, a 3,8% sa anksioznim poremećajem. Mnoge studije ukazuju da su vanredno stanje i karantin tokom COVID-19 pandemije uticali na mentalno zdravlje. Kod 28,9% odraslih postojala je umerena do teška depresija, a kod nešto više od jedne trećine anksioznost i simptomi stresa. Tokom vanrednog stanja, od 1103 mladih uzrasta 15-30 godina, 16,3% se osećalo veoma ugroženo, a 19% ugroženo. Veću ugroženost iskazale su mlade žene, mladi koji žive u gradovima, kao i mladi sa većim stepenom obrazovanja. Tokom vanrednog stanja 33,4% ispitanika je ukazalo da je osećalo ugroženu bezbednost, 42,7% zdravstvenu ugroženost, a strah su najčešće imali u vezi sa mogućnošću da zaraze članove porodice, da se ne zaraze bliski prijatelji i oni sami. Osećanje optimizma u pogledu budućnosti nije imala ¼ ispitanika, ⅓ se osećala potpuno beskorisno, a 14,3% je smatralo da im je veoma pogoršano mentalno zdravlje. Mlađi su smatrali da im je manje pogoršano mentalno zdravlje tokom vanrednog zdravlja nego stariji. U toku vanrednog stanja 11,1% mladih je doživelo nasilje, od čega je najviše bilo reči o verbalnom i *online* nasilju, a u 10,4% o fizičkom. Sva sprovedena istraživanja u Republici Srbiji mogu biti korisna za planiranje intervencija u oblasti mentalnog zdravlja, s ciljem da u uslovima pojave novih pandemija zemlja bude spremna da primeni mere u cilju očuvanja mentalnog zdravlja.

Ključne reči: mentalno zdravlje, pandemija, COVID-19

Uvod

Pandemija se definiše kao epidemija koja se javlja širom sveta ili na veoma širokom području, prelazi međunarodne granice i pogađa veliki broj ljudi (1).

Pandemije obično nastaju zbog nekog oblika zarazne bolesti, odnosno bolesti za koju je većina ljudi osetljiva. Istorijski gledano, istraživači i zdravstvene vlasti su zanemarivali značaj psiholoških faktora tokom dosadašnjih pandemija, uprkos dokazima da su pandemije u velikoj meri i psihološki fenomeni u kojima uverenja i ponašanja utiču na opštu psihičku uznemirenost, širenje bolesti i društvene poremećaje.

Psihološki faktori su važni kada je u pitanju pridržavanje mera i primena metoda ublažavanja pandemije (npr. socijalno distanciranje, zatvaranje mesta za javna okupljanja, nošenje maski, primena vakcinacije), društveni poremećaji u vezi sa pandemijom (npr. panično kupovanje, rasizam, protestni skupovi protiv društvenih ograničenja) i uznemirenost u vezi sa pandemijom koja je povezana sa problemima kao što su anksioznost, poremećaji raspoloženja, opsesivno-kompulzivni poremećaj, produžena tuga i posttraumatski stresni poremećaj (2).

THE IMPACT OF THE COVID-19 PANDEMIC ON THE MENTAL HEALTH OF THE POPULATION OF SERBIA

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SUMMARY

To date research in the field of mental health and COVID-19 disease revealed a variety of mental health responses and disorders during the COVID-19 pandemic. This paper represents an analysis of data published in professional and scientific papers and reports after research conducted on the impact of the COVID-19 pandemic on the mental health of both, general population, and vulnerable groups. According to the World Health Organization, during the first year of the pandemic, the global prevalence of anxiety and depression increased by as much as 25%. In the Republic of Serbia, according to the WHO data for 2017, 5% of the population lives with depression, and 3.8% with anxiety disorder. Many studies indicate that the state of emergency and quarantine during the COVID-19 pandemic had an impact on the mental health: 28.9% of adults had moderate to severe depression, and slightly more than 1/3 had anxiety and stress symptoms. During the state of emergency, out of 1103 young people aged 15-30, 19% felt vulnerable, and 16.3% very vulnerable. Young women, young people living in cities, and young people with higher level of education expressed greater vulnerability. During the state of emergency, 33.4% of respondents indicated that they felt their safety was threatened, 42.7% that their health was threatened, and most often they had fear related to the possibility of infecting family members, close friends and themselves. 1/4 of respondents did not feel optimistic about the future, 1/3 felt completely useless, and 14.3% considered that their mental health had deteriorated greatly. Younger people felt that their mental health worsened less during health emergency, in comparison to older people. During the state of emergency, 11.1% of young people experienced violence, mostly verbal and online, and 10.4% physical violence. All the research conducted in the Republic of Serbia can be useful for planning interventions in the field of mental health, so that in the case of the emergence of new pandemics, the country will be ready to implement measures aimed at preserving mental health.

Keywords: mental health, pandemic, COVID-19

Introduction

A pandemic is defined as an epidemic that occurs worldwide or in a very wide area, crosses international borders and affects a large number of people (1).

Pandemics are usually caused by some form of infectious disease, that is, a disease to which most people are susceptible. Historically, researchers and health authorities have neglected the importance of psychological factors during past pandemics, despite evidence that pandemics are largely psychological phenomena in which beliefs and behaviors affect general psychological distress, the spread of disease and social disorders.

Psychological factors are important when it comes to adherence to measures and the implementation of pandemic mitigation methods (e.g. social distancing, closing places of public gatherings, wearing masks, vaccination), social disorders related to the pandemic (e.g. panic shopping, racism, protests against social restrictions) and pandemic-related distress that is associated with problems such as anxiety, mood disorders, obsessive-compulsive disorder, prolonged mourning, and post-traumatic stress disorder (2).

The COVID-19 pandemic has led to dramatic social and economic changes. The first studies

Pandemija COVID-19 bolesti dovela je do dramatičnih društvenih i ekonomskih promena. Prve studije su pokazale uticaj na mentalno zdravlje opšte populacije koji je podrazumevao veći nivo anksioznosti, stresa i depresije (3).

U početku je prijavljen povećan nivo psihičkog stresa od strane opšte javnosti i kod medicinskog osoblja na prvoj liniji, ali karakteristike stresa nisu bile dobro utvrđene. Osetljivost na psihički stres u pandemiji COVID-19 bolesti može se pripisati različitim faktorima, uključujući pol, društvenu podršku, specifična iskustva sa SARS-CoV-2 infekcijom, dužinu izolacije i količinu izloženosti medijskim sadržajima.

Prva studija koja je imala za cilj istraživanje psihološkog zdravlja populacionih grupa sa različitim nivoima izloženosti epidemiji COVID-19 bolesti, i to pacijenata koji su doživeli SARS-CoV-2 infekciju, pojedinaca u karantinu i šire javnosti, otkrila je različite nivoe psihičkog stresa u navedenim grupama. Povećana prevalencija depresije pronađena je pretežno kod pacijenata koji su imali SARS-CoV-2 infekciju, dok prevalencija anksioznosti nije bila statistički različita u ove tri grupe. Identifikovani su trendovi povećane prevalencije depresije u kombinaciji sa anksioznošću kod pacijenata koji su imali infekciju, ali i kod opšte javnosti i u poređenju sa onima u karantinu.

Pacijenti koji su imali infekciju i opšta javnost češće su pokazali depresivno raspoloženje i somatske simptome u poređenju sa pojedincima u karantinu. Ponašanje nalik anksioznosti, uključujući i razdražljivost, manifestovalo se prvenstveno u opštoj populaciji i kod pacijenata koji su imali infekciju (4).

Istraživanja su pokazala da zbog društvene izolacije, uočene opasnosti, neizvesnosti, fizičke nelagodnosti, neželjenih efekata lekova, straha od prenošenja virusa na druge i negativnih vesti na društvenim mrežama, pacijenti sa COVID-19 bolešću mogli su da iskuse usamljenost, bes, anksioznost, depresiju, nesanicu i posttraumatske simptome stresa koji mogu imati negativan uticaj na pojedince, društveno i profesionalno funkcionisanje i kvalitet života (5).

Prema naučnom izveštaju koji je objavila Svetska zdravstvena organizacija (SZO), u prvoj godini pandemije, globalna prevalencija anksioznosti i depresije porasla je za čak 25%. Jedno od glavnih objašnjenja za veću učestalost poremećaja mentalnog zdravlja je stres izazvan društvenom izolaci-

jom kao posledicom pandemije i ograničenjima radne sposobnosti, podrške voljenih i angažovanja u zajednici. Usamljenost, strah od infekcije, patnje i smrti za sebe i za najbliže, tuga nakon gubitka bliskih osoba i finansijske brige su takođe navedeni kao stresori koji dovode do anksioznosti i depresije. Među zdravstvenim radnicima, iscrpljenost je bila glavni okidač za pojavu suicidalnih misli (6).

Izveštaj koji je zasnovan na sveobuhvatnom pregledu postojećih dokaza o uticaju COVID-19 bolesti na mentalno zdravlje i pružanje usluga u domenu mentalnog zdravlja, koji uključuje procene iz najnovije studije Globalno opterećenje bolestima pokazuje da je pandemija najviše uticala na mentalno zdravlje mladih ljudi, žena i osoba sa već postojećim fizičkim poremećajima zdravlja, kao što su astma, maligna oboljenja i bolesti srca, koji su češće razvijali simptome mentalnih poremećaja. Osobe sa već postojećim mentalnim poremećajima su imale veću verovatnoću za hospitalizacijom, za teškom formom bolesti i smrtnim ishodom u poređenju sa osobama bez mentalnih poremećaja. Posebno su bile ugrožene osobe sa težim mentalnim poremećajima, kao što su psihoze, ali i mlađe osobe sa mentalnim poremećajima (6).

Tokom većeg dela pandemije, zdravstvene usluge za mentalna, neurološka oboljenja i poremećaje usled zloupotrebe supstanci značajno su bile ugrožene. Mnoge zemlje su prijavile da je pružanje usluga koje se odnose na prevenciju samoubistava bilo u velikoj meri ograničeno (6). U nemogućnosti direktnog pristupa zdravstvenim službama, mnogi su tražili podršku na mrežama, signalizirajući hitnu potrebu da se pouzdani i efikasni digitalni alati učine lako dostupnim. Međutim, razvoj i primena digitalnih intervencija ostaje veliki izazov u zemljama i okruženjima sa ograničenim resursima.

Do kraja 2021. situacija se donekle poboljšala, ali i danas veliki broj ljudi i dalje nije u mogućnosti da dobije negu i podršku koja im je potrebna, kako za postojeće tako i za novonastale probleme mentalnog zdravlja. Zabrinutost zbog potencijalnog povećanja učestalosti poremećaja mentalnog zdravlja je navela 90% anketiranih zemalja da uključe mentalno zdravlje i psihosocijalnu podršku u svoje planove za reagovanje na COVID-19 bolest (6).

Cilj ovog preglednog rada je da analizira podatke do sada objavljenih istraživanja u stručnim i naučnim radovima i izveštajima o uticaju pandemije COVID-19 bolesti na mentalno zdravlje kako opšte populacije, tako i vulnerabilnih grupa.

showed an impact on the moral health of the general population, which included higher levels of anxiety, stress and depression (3).

Initially, increased levels of psychological stress were reported by the general public and frontline medical staff, but the characteristics of stress were not well established. Susceptibility to psychological stress in the COVID-19 pandemic may be attributed to various factors including gender, social support, specific experiences with SARS-CoV-2 infection, length of isolation, and amount of exposure to media content.

The first study that aimed to investigate the psychological health of population groups with different levels of exposure to the pandemic of COVID-19, namely patients who experienced SARS-CoV-2 infection, individuals in quarantine and the general public, revealed different levels of psychological stress in the above mentioned groups. The increased prevalence of depression was found predominantly in patients who had SARS-CoV-2 infection, while the prevalence of anxiety was not statistically different in these three groups. Trends of increased prevalence of depression combined with anxiety were identified in patients who had the infection, but also in the general public and compared to those in quarantine.

Patients who had the infection and the general public were more likely to show depressive mood and somatic symptoms compared to individuals in quarantine. Behavior similar to anxiety, including irritability, was manifested primarily in the general population and patients who had the infection (4).

Research has shown that due to social isolation, observed danger, uncertainty, physical discomfort, side effects of medications, fear of spreading the virus to others and negative news on social networks, patients with the COVID-19 disease could experience loneliness, anger, anxiety, depression, insomnia and post-traumatic stress symptoms that can have a negative impact on individuals, social and professional functioning and the quality of life (5).

According to the scientific report published by the World Health Organization (WHO), in the first year of the pandemic, the global prevalence of anxiety and depression increased by 25%. One of the main explanations for the higher incidence of mental health disorders is the stress caused by

social isolation as a result of the pandemic and restrictions of work capability, support from the loved ones and engagement in the community. Loneliness, fear of infection, suffering and death, grief because of the loss of loved ones and financial worries are also listed as stressors leading to anxiety and depression. Among healthcare workers, exhaustion was the main trigger for suicidal thoughts (6).

The report, which is based on the comprehensive review of existing evidence about the impact of COVID-19 on mental health and providing services in the domain of mental health, including the estimates from the latest study Global Burden of Disease, shows that the pandemic affected most the mental health of young people, women, and people with the already existing physical health disorders such as asthma, malignancies, and heart diseases, who more often developed the symptoms of mental disorders. People with the pre-existing mental disorders had a higher probability of hospitalization, severe form of the disease and deathly outcome in comparison to people without mental disorders. People with severe mental disorders, such as psychosis, as well as young persons with mental disorders were especially at risk (6).

During the pandemic, health services for mental, neurological and disorders related to substance abuse were significantly compromised. Many countries reported that the provision of services related to suicide prevention was severely limited (6). Since people could not directly access health services, many of them sought support online, signaling the urgent need to make reliable and effective digital tools readily available. However, the development and application of digital interventions remains a major challenge in countries and environments with limited resources.

By the end of 2021, the situation has improved to some extent, but even today, a large number of people are still unable to get the care and support they need, both for existing and emerging mental health problems. Concerns about the potential increase in mental health disorders have induced 90% of surveyed countries to include mental health and psychosocial support in their plans to respond to the COVID-19 disease (6).

Metode

U okviru ovog preglednog rada biće uključeni rezultati dosadašnjih istraživanja objavljenih u stručnim i naučnim radovima, kao i izveštaji, koji se odnose na uticaj pandemije COVID-19 bolesti na mentalno zdravlje kako opšte populacije tako vulnerabilnih grupa. Ovim istraživanjem obuhvaćen je period od 2020. do 2023. godine, a u pretraživanju literature korišćene su sledeće ključne reči: pandemija COVID-19, mentalno zdravlje, depresija, anksioznost i stres. U cilju pretraživanja podataka korišćena je MEDLINE baza podataka.

Mentalni poremećaji u opštoj populaciji Republike Srbije

U Republici Srbiji ne postoji registar za mentalne poremećaje na osnovu kojeg bi mogli da pratimo kretanje ovih poremećaja zdravlja u populaciji, odnosno epidemiološku situaciju. U Republici Srbiji, prema podacima SZO za 2017. godinu, 5% populacije živi sa depresijom, a 3,8% sa anksioznim poremećajem (7).

Prema podacima istraživanja pod nazivom „Istraživanje zdravlja stanovništva Srbije 2019. godine”, koje je obuhvatilo period pre pandemije, 2,1% stanovnika Republike Srbije ima simptome depresije, a 4,3% je obolelih od depresije prema sopstvenom iskazu (8).

Mnogi stručnjaci iz oblasti psihologije, psihijatrije i srodnih disciplina, iz sektora zdravstva i obrazovanja, kao i organizacija civilnog društva, su sprovedeli istraživanja u našoj zemlji, baveći se uticajem pandemije COVID-19 na mentalno zdravlje različitih populacionih grupa.

Filozofski fakultet u Beogradu je sproveo istraživanje 2020. godine, posle uvođenja vanrednog stanja u R. Srbiji 15.03.2020. godine, gde su identifikovane tri psihološke faze vanrednog stanja (9). Sve ove tri faze (akutna faza, faza adaptacije, faza relaksacije) međusobno su bile različite u odnosu na emocije, bolest, poverenje u različite izvore informisanja i preventivno ponašanje. Zabrinutost je tokom prve faza rasla, procenjivana je verodostojnost informacija iz različitih izvora, kao i važnost sprovođenja preventivnih mera. U fazi adaptacije zabrinutost i strah po pitanju COVID-19, kao i sprovođenje preventivnih mera je bilo na relativno stabilnom nivou. U fazi relaksacije, došlo je do redukcije straha, zabrinutosti i okupiranosti koronavirusom kod ljudi, ali i preventivnim ponašanjem i

razmatranjima verodostojnosti informacija.

U drugom istraživanju koje je sprovedeno u Srbiji tokom 35 dana vanrednog stanja, ispitivane su longitudinalne promene u četiri emocionalna stanja tokom pandemije: zabrinutost, strah, dosada i ljutnja (10). Rezultati ukazuju da su tokom vremena učestalostsva četiri emocionalna stanja smanjena tokom vremena. Najveći pad je zabeležen kod zabrinutosti, zatim straha i dosade. Pridržavanje mera zaštite, kao i povećana izloženost medijima, značajno su bili povezani sa pojavom zabrinutosti i straha.

U preglednom radu publikovanom 2021. godine se ukazuje na neuropsihijatrijske efekte samog virusa tokom pandemije COVID-19, kao i da pandemija može da dovede do psihičkih smetnji uticajem psiholoških, socijalnih i bioloških faktora (11).

U studiji Vujčić i saradnika, sprovedenoj od marta do aprila 2020. godine, ispitan je uticaj vanrednog stanja i karantina tokom epidemije COVID-19 na mentalno zdravlje (12). Studija je metodom grudve snega obuhvatila 1057 odraslih ispitanika R. Srbije. Rezultati istraživanja su pokazali da je kod 28,9% ispitanika postojala umerena do teška depresija, a kod nešto više od 1/3 ispitanika anksioznost i simptomi stresa. Depresija, anksioznost i stres su značajno inverzno bili povezani sa nivom socioekonomskog stanja. Oni su češće bili prisutni kod ispitanika koji su osećali nemir u vezi sa vestima o COVID-19 i bespomoćnost, kao i onih koji su smatrali da imaju veći rizik od smrti i prisustvo simptoma COVID-19. Mlađi su imali značajno veći stepen depresije i stresa u odnosu na ispitanike starije životne dobi.

Mentalni poremećaji u vulnerabilnim grupama u Republici Srbiji

U istraživanju Kuljanić i saradnika, sprovedenom tokom maja i juna 2020. godine, ukazano je na posledice pandemije uzrokovane SARS-CoV-2 virusom, već posle prvog talasa i restriktivnih mera u Republici Srbiji (13). One su se ispoljile ne samo po pitanju javljanja mentalnih poremećaja kod lica bez psihijatrijskih bolesti, nego i po pitanju pogoršanja zdravstvenog stanja ranije obolelih lica od psihijatrijskih bolesti u vidu anksiozne i depresivne simptomatologije, poremećaja sna, postojanja suicidalnih misli i zloupotrebe sedativa.

Studija UNICEF-a i USAID-a, koja je obuhvatila 1061 domaćinstvo sa decom uzrasta do 17 godina

The aim of this review article is to analyze the data of research published so far in professional and scientific studies and reports on the impact of COVID-19 pandemic on the mental health of both the general population and vulnerable groups.

Methods

This review article will include the results of the previous research published in professional and scientific papers, as well as reports related to the impact of the COVID-19 pandemic on the mental health of both the general population and vulnerable groups. This study will include the period from 2020 to 2023, and the following key words will be used in literature search: COVID-19, pandemic, mental health, depression, anxiety and stress. The MEDLINE database was used for the search of data.

Mental disorders in the general population of the Republic of Serbia

In the Republic of Serbia, there is no registry for mental disorders based on which we could monitor the movement of these health disorders in the population, that is, the epidemiological situation. In the Republic of Serbia, according to the WHO for 2017, 5% of the population lives with depression, and 3.8% with anxiety disorder (7).

According to the data of the research entitled "Research on the health of the population of Serbia in 2019", which included the period before the pandemic, 2.1% of the inhabitants of the Republic of Serbia had symptoms of depression and 4.3% were suffering from depression according to their own statement (8).

Many experts in the field of psychology, psychiatry and related disciplines, from the health and education sectors, as well as civil society organization, have conducted research in our country, dealing with the impact of the COVID-19 pandemic on the mental health of different population groups.

The Faculty of Philosophy in Belgrade conducted a research in 2020, after the state of emergency was introduced in the Republic of Serbia on the 15th of March, 2020, where the three psychological phases of emergency state were identified (9). All these three phases (acute phase, adaptation phase and relaxation phase) were different in relation to emotions, illness, trust in different sources of

information and preventive behavior. Concerns grew during the first phase, the credibility of information from different sources was evaluated, as well as the importance of implementing preventive measures. In the adaptation phase, concerns and fear regarding COVID-19, as well as the implementation of preventive measures were at a relatively stable level. In the relaxation phase, there was a reduction in fear, concern, and preoccupation with the coronavirus, but also in preventive behavior and considerations of the credibility of information.

In another study, which was conducted in Serbia during 35 days of the state of emergency, longitudinal changes in four emotional states during the pandemic were examined: worry, fear, boredom, and anger (10). The results indicate that the frequency of all four emotional states decreased over time. The biggest decrease was recorded for anxiety, followed by fear and boredom. The adherence to protective measures and the increased exposure to media were significantly associated with the occurrence of anxiety and fear.

In a review article, which was published in 2021, it was pointed to the neuropsychiatric effects of the virus itself during the COVID-19 pandemic, as well as that the pandemic could lead to psychological problems due to the influence of psychological, social and biological factors (11).

In the study of Vujčić and associates, which was conducted from March to April 2020, the impact of the state of emergency and quarantine during the COVID-19 epidemic on mental health was examined (12). The study included 1,057 adult respondents from the Republic of Serbia and it was conducted using the snowball method. The research results showed that 28.9% of respondents had moderate to severe depression, and slightly more than 1/3 of respondents had anxiety and symptoms of stress. Depression, anxiety and stress were significantly inversely related to the level of socioeconomic status. They were more often present in respondents who felt uneasiness related to the news about COVID-19 and helplessness, as well as those who felt that they had a higher risk of death and the presence of symptoms of COVID-19. Younger people had significantly higher levels of depression and stress compared to older respondents.

u periodu od juna do jula 2020. godine, je ukazala na porast zabrinutosti majki/staratelja usled pandemije COVID-19 (37%) u odnosu na prethodno istraživanje sprovedeno u aprilu 2020. godine na istom uzorku (27%) (14). U posmatrana dva perioda dolazi do neznatnog pada broja majki/staratelja koje se psihički osećaju lošije, kao i do porasta onih sa poboljšanim fizičkim zdravljem. Potrebu za psihološkom pomoći u poslednjih mesec dana imalo je 5% ispitanica, a svaka druga nije uspela da je realizuje, najčešće jer nisu znale kome da se obrate. Takođe, ovom studijom analizirano je mentalno zdravlje dece na osnovu procene majki/staratelja. Svaka treća majka/staratelj smatrala je da je mentalno zdravlje deteta bolje posle ukidanja vanrednog stanja zbog COVID-19 epidemije. Najčešće kod dece bila je prisutna nervoza i iritabilnost (30%). Skoro kod svakog petog deteta javljala se teška usredsređenost, osećaj usamljenosti i uznemirenost.

Međutim, studija Markovića i saradnika (15) bavila se ispitivanjem uticaja COVID-19 epidemije na mentalno zdravlje ljudi koji rade u obrazovanju, vojsci i zdravstvu. Ukupno je bilo uključeno 110 ispitanika, a od toga oko 60% su činile žene. Studija je sprovedena jula 2020. pokazala je da su informacije u vezi sa epidemijom putem medija češće bile uznemirujuće za zdravstvene radnike i žene. Veći prosečan nivo anksioznosti imali su zdravstveni radnici nego lica u vojsci, a žene ne samo anksioznost, već i depresiju, u odnosu na muškarce. Uočeno je da nepoverenje u zdravstveni sistem i mere koje se donose može značajno da utiče na psihičko zdravlje (16). Uočeno je da osobe sa hroničnim bolestima imaju, takođe, češće stres, depresivnost i anksioznost, u odnosu na osobe bez komorbiditeta, kada je procena rađena pet meseci od proglašenja COVID-19 pandemije.

U studiji sprovedenoj od avgusta do oktobra 2020. godine uključeno je 1103 mladih uzrasta 15-30 godina, sa ciljem sagledavanja uticaja COVID-19 pandemije na njihov život i zdravlje (17). Tokom vanrednog stanja 16,3% mladih se osećalo veoma ugroženo, a 19% ugroženo. Veću ugroženost iskazale su mlade žene, mladi koji žive u gradovima, kao i mladi sa većim stepenom obrazovanja. Tokom vanrednog stanja 33,4% ispitanika je ukazalo da je osećalo ugroženu bezbednost, 42,7% zdravstvenu ugroženost, a strah su najčešće imali u vezi sa mogućnošću da zaraze članove porodice, da se ne zaraze bliski prijatelji i oni sami. Osećanje

optimizma u pogledu budućnosti nije imala ¼ ispitanika, ⅓ se osećala potpuno beskorisno, a 14,3% je smatralo da im je veoma pogoršano mentalno zdravlje. Mlađi su smatrali da im je manje pogoršano mentalno zdravlje tokom vanrednog zdravljane stariji. U toku vanrednog stanja 11,1% mladih je doživelo nasilje, od čega najviše je bilo reči o verbalnom i *online* nasilju, a u 10,4% o fizičkom.

Prediktori mentalnih poremećaja

Epidemiološko istraživanje koje je sprovedeno od juna do oktobra 2021, tokom druge godine pandemije, je razmatralo uticaj stresora povezanih sa COVID-19 (infekcija SARS-CoV-2, infekcija bliskog rođaka, samoizolacija i nedostatak zaštitne opreme na radu), i uticaj drugih stresora tokom pandemije koji nisu direktno povezani sa rizikom od infekcije, na mentalno zdravlje odrasle populacije (18–65 godina) (18). Stresori povezani sa COVID-19 bolešću, iako se često prijavljuju, nisu dramatično uticali na prevalenciju mentalnih poremećaja. Prisutnost bilo kog mentalnog poremećaja evidentirano je kod 15,2% ispitanika, poremećaji raspoloženja kod 4,6%, poremećaji anksioznosti kod 4,3% i poremećaji upotrebe supstanci kod 8,0%. Nedostatak zaštitne opreme bio je povezan sa većom učestalošću anksioznih poremećaja. Ova studija nije pružila dokaze da je prevalencija mentalnih poremećaja premašila opseg pre pandemije na osnovu podataka iz postojeće literature.

Interesantno je i istraživanje sprovedeno na reprezentativnog uzorku od 1000 ispitanika, uzrasta 18-65 godina sa područja Republike Srbije. Rezultati ovog istraživanja su pokazali da 15,6% (11,1% muškarci i 20,1% žene) ispitanika ima simptome depresije, 7,2% (4,1% muškarci i 10,2% žene) simptome anksioznosti, a 1,6% (2,4% muškarci i 1,8% žene) suicidalne misli (19). Od svih prediktora psihičkih tegoba najvažnijim se smatra stres i trauma koji su se desili u poslednjih godinu dana (npr. teška bolest, povreda, napad, smrt člana porodice, smrt bliskog prijatelja, raskid duge veze i drugo). Međutim, suicidalnost se povezuje sa celoživotnim iskustvom traume. Tako su onda i stresna iskustva tokom pandemije COVID-19 uzrok pojave simptoma depresije, anksioznosti, suicidalnih ideja itd.

Potrebna su dalja istraživanja u ovoj oblasti i preduzimanje odgovarajućih mera u cilju smanjenja rizika od razvoja mentalnih bolesti u

Mental disorders in vulnerable groups in the Republic of Serbia

In the study of Kuljanić and associates, which was conducted during May and June 2020, it was pointed out to the consequences of the pandemic caused by the SARS-CoV-2 virus, already after the first wave and restrictive measures in the Republic of Serbia (13). They manifested themselves not only as mental disorders in people without psychiatric diseases, but also in terms of deterioration of the health status of people who previously suffered from psychiatric diseases in the form of anxiety and depressive symptomatology, sleep disorders, existence of suicidal thoughts and abuse of sedatives.

A study by UNICEF and USAID, which included 1061 households with children aged up to 17 years in the period from June to July 2020, indicated an increase in the concerns of mothers/guardians due to the COVID-19 pandemic (37%) compared to the previous research conducted in April 2020 on the same sample (27%) (14). In the two observed periods, there was a slight decrease in the number of mothers/guardians who felt worse psychologically, as well as an increase in those with improved physical health. 5% of female respondents had a need for psychological help in the previous month, while every second one failed to realize it, most often because they did not know who to turn to. Also, this study analyzed the mental health of children based on the evaluation of mothers/guardians. Every third mother/guardian believed that the child's mental health was better after the state of emergency due to the COVID-19 epidemic was ended. Nervousness and irritability were most often present in children (30%). Almost every fifth child reported difficulties while concentrating, feelings of loneliness and anxiety.

However, the study of Marković and associates (15) examined the impact of the COVID-19 epidemic on the mental health of people working in education, army and healthcare. A total of 110 respondents were included, and about 60% of them were women. The study was conducted in July 2020 and showed that the information related to the epidemic through media was more likely to be distressing for health workers and women. Healthcare workers had a higher average level of anxiety than people in the military, while women had a higher level of anxiety and depression

compared to men. It was observed that distrust in the health system and taken measures could significantly affect psychological health (16). It was also observed that people with chronic diseases also had more often stress, depression and anxiety compared to people without comorbidities, when the evaluation was made five months after the declaration of the COVID-19 pandemic.

A study, which was conducted from August to October 2020, included 1103 young people aged 15-30 years, with the aim of assessing the impact of the COVID-19 pandemic on their life and health (17). During the state of emergency, 16.3% of young people felt very vulnerable, while 19% felt vulnerable. Young women, young people living in cities, as well as young people with a higher level of education expressed greater vulnerability. During the state of emergency, 33.4% of respondents indicated that their felt their safety was threatened, 42.7% felt their health was threatened, and they most often had fear related to the possibility of infecting family members, their close friends and themselves. $\frac{1}{4}$ of respondents did not feel optimistic about the future, $\frac{1}{3}$ felt completely useless, and 14.3% felt that their mental health worsened greatly. Younger respondents thought that their mental health worsened less in comparison to older people. During the state of emergency, 11.1% of young people experienced violence, mostly verbal and online violence, and 10.4% experienced physical violence.

Predictors of mental disorders

The epidemiological study, which was conducted from June to October 2021, during the second year of the pandemic, analyzed the impact of stressors associated with COVID-19 (SARS-CoV-2 infection, infection of a close relative, self-isolation and lack of protective equipment at work), and the impact of other stressors during the pandemic that are not directly related to the risk of infection on the mental health of the adult population (18-65 years) (18). Stressors associated with the COVID-19 disease, although frequently reported, did not dramatically affect the prevalence of mental disorders. The presence of any mental disorder was recorded in 15.2% of respondents, mood disorders in 4.6%, anxiety disorders in 4.3% and disorders related to substance abuse in 8%. The lack of protective equipment was associated with a higher frequency

vanrednim situacijama, što uključuje donošenje novih strategija kako u oblasti mentalnog zdravlja tako i u oblasti planiranja reagovanja u vanrednim situacijama.

Zaključak

Rezultati našeg preglednog rada pokazuju da je vanredna situacija kao što je epidemija COVID-19 negativno uticala na mentalno zdravlje stanovništva i da je neophodno u budućnosti staviti akcenat na ranu identifikaciju poremećaja mentalnog zdravlja što će omogućiti pravovremenu primenu javno zdravstvenih intervencija. Iako studije pokazuju da se prevalencija mentalnih poremećaja donekle smanjila tokom trajanja pandemije, nije jasno da li će posledice ove krize ostaviti dugoročan efekat po mentalno zdravlje. Psihologija pandemija je raznolika i kompleksna, a njeno izučavanje je od vitalnog značaja za oblikovanje kliničke prakse i smernica javnog zdravlja za COVID-19 i buduće pandemije.

Konflikt interesa

Autor je izjavio da nema konflikta interesa.

Reference

1. Last JM, editor. A dictionary of epidemiology, 4th edition. New York: Oxford University Press; 2001.
2. Taylor S. The Psychology of Pandemics. *Annu Rev Clin Psychol* 2022;18:581-609. doi: 10.1146/annurev-clinpsy-072720-020131
3. Knolle F, Ronan L, Murray GK. The impact of the COVID-19 pandemic on mental health in the general population: a comparison between Germany and the UK. *BMC Psychol* 2021; 9:60. doi: 10.1186/s40359-021-00565-y
4. Zhang J, Lu H, Zeng H, Zhang S, Du Q, Jiang T, Du B. The differential psychological distress of populations affected by the COVID-19 pandemic. *Brain Behav Immun*. 2020; 87:49–50. doi: 10.1016/j.bbi.2020.04.031
5. Bo H, LiW, YangY, WangY, ZhangQ, CheungT, et al. Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med* 2021;51(6):1052-1053. doi: 10.1017/S0033291720000999.
6. WHO. COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide. Evidence from: 2nd March 2022; Available at: <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>
7. Program o zaštiti mentalnog zdravlja u republici srbiji za period 2019-2026. godine. Sl. glasnik RS br. 84/19.
8. Institut za javno zdravlje Batut. Istraživanje zdravlja stanovništva Srbije 2019. godine. Beograd: Institut za javno zdravlje Batut, 2021.
9. Damjanović K, Ilić S, Teovanović P, Lep Ž. Psihološki profil pandemije u Srbiji, Univerzitet u Beogradu Filozofski fakultet 2020. Available at: https://www.researchgate.net/publication/345243669_Psiholoski_profil_pandemije_u_Srbiji
10. Sadiković S, Branovački B, Oljača M, Mitrović D, Pajić D, Smederevac S. Daily monitoring of emotional responses to the Coronavirus pandemic in Serbia: A citizen science approach. *Frontiers in Psychology* 2020;11:21133. doi: 10.3389/fpsyg.2020.02133
11. Marić NP. Psihičko zdravlje i pandemija COVID-19 - pregled literature. *Med Podml* 2021;72(3):78-86. doi: 10.5937/mp72-32877
12. Vujčić I, Safiye T, Milikić B, Popović E, Dubljanin D, Dubljanin E, Dubljanin J, Čabarkapa M. Coronavirus Disease 2019 (COVID-19) Epidemic and Mental Health Status in the General Adult Population of Serbia: A Cross-Sectional Study. *Int J Environ Res Public Health*. 2021;18(4):1957. doi: 10.3390/ijerph18041957
13. Kuljančić D, Cvjetković-Bošnjak M, Vejnović A, Bjelan S. Pandemija SARS-CoV-2 virusa i njen uticaj na mentalno zdravlje psihijatrijskih pacijenata u odnosu na psihički zdrave osobe. *Timočki medicinski glasnik* 2021;46(4):161-168.
14. UNICEF, USAID. Istraživanje o uticaju pandemije Covid-19 na porodice sa decom u Srbiji (drugi talas istraživanja). Srbija, jun-jul 2020. godine. Dostupno: 1.07.2022. https://www.unicef.org/serbia/media/15861/file/Istrazivanje%20o%20uticaju%20pandemije%20Covid19%20na%20porodice%20sa%20decom%20u%20Srbiji_drugi%20talas.pdf
15. Marković I, Nikolovski S, Milojević S, Živković D, Knežević S, Mitrović A, et al. Public trust and media influence on anxiety and depression levels among skilled workers during the COVID-19 outbreak in Serbia. *Vojnosanit Pregl* 2020;77(11):1201–1209. doi: 10.2298/VSP200713108M
16. Mikić D, Zvelkić Svorcan J, Jovanović Lj, Vučićević VR. Mental health of patients with chronic diseases during the coronavirus disease 2019 pandemic in serbia—a cross-sectional study. *Medicinski pregled* 2020;73(7-8):212-220. doi: 10.2298/MPNS2008212M
17. Krovna organizacija mladih Srbije. Organizacija za krovnu bezbednost i saradnju. Misija u Srbiji. Život mladih u Srbiji: Uticaj KOVID-19 pandemije. Dosijske studije: Beograd, 2020. Pristupljeno 4.07.2022. Dostupno na: <https://koms.rs/wp-content/uploads/2020/12/Zivot-mladih-u-Srbiji-uticaj-kovid-19-pandemije.pdf>
18. Marić NP, Lazarević LjB, Priebe S, Mihić Lj, Pejović Milovančević M, Terzić Šupić Z, Tošković O, Vuković O, Todorović J, Knežević G. Covid-19-related stressors, mental disorders, depressive and anxiety symptoms: a cross-sectional, nationally-representative, face-to-face survey in Serbia. *Epidemiol Psychiatr Sci* 2022;31:e36. doi: 10.1017/S2045796022000117

of anxiety disorders. This study did not provide evidence that the prevalence of mental disorders exceeded the number before the pandemic based on data from the existing literature.

The study, which was conducted on a representative sample of 1000 respondents aged 18-65 years from the territory of the Republic of Serbia, is interesting. The results of this study showed that 15.6% of respondents (11.1% of men and 20.1% of women) had symptoms of depression, 7.2% (4.1% of men and 10.2% of women) had symptoms of anxiety, and 1.6% (2.4% of men and 1.8% of women) had suicidal thoughts (19). Of all the predictors of psychological problems, stress and trauma that happened in the last year are considered the most important (e.g. serious illness, injury, attack, death of a family member, death of a close friend, breakup of a long relationship, etc.). However, suicidality is associated with the lifelong experience of trauma. Stressful experiences during the COVID-19 pandemic are also the cause of symptoms of depression, anxiety, suicidal thoughts, etc.

Further research is needed in this field and taking appropriate measures to reduce the risk of developing mental illnesses in emergency situations, which includes adopting new strategies both in the field of mental health and in the field of emergency response planning.

Conclusion

The results of our review article show that the emergency situation such as the COVID-19 epidemic has had a negative impact on the mental health of the population and that it is necessary in the future to emphasize the early identification of mental health disorders, which will enable the timely application of public health interventions. Although studies show that the prevalence of mental disorders has decreased to a certain extent during the pandemic, it is not clear whether the consequences of this crisis will have a long-term effect on mental health. The psychology of pandemics is diverse and complex, and its study is of vital importance for clinical practice and public health guidelines for COVID-19 and future pandemics.

Competing interests

The author declared no competing interests.

References

1. Last JM, editor. A dictionary of epidemiology, 4th edition. New York: Oxford University Press; 2001.
2. Taylor S. The Psychology of Pandemics. *Annu Rev Clin Psychol* 2022;18:581-609. doi: 10.1146/annurev-clinpsy-072720-020131
3. Knolle F, Ronan L, Murray GK. The impact of the COVID-19 pandemic on mental health in the general population: a comparison between Germany and the UK. *BMC Psychol* 2021; 9:60. doi: 10.1186/s40359-021-00565-y
4. Zhang J, Lu H, Zeng H, Zhang S, Du Q, Jiang T, Du B. The differential psychological distress of populations affected by the COVID-19 pandemic. *Brain Behav Immun*. 2020; 87:49–50. doi: 10.1016/j.bbi.2020.04.031
5. Bo H, LiW, YangY, WangY, ZhangQ, CheungT, et al. Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med* 2021;51(6):1052-1053. doi: 10.1017/S0033291720000999.
6. WHO. COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide. Evidence from: 2nd March 2022; Available at: <https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide>
7. Program o zaštiti mentalnog zdravlja u republici srbiji za period 2019-2026. godine. Sl. glasnik RS br. 84/19.
8. Institut za javno zdravlje Batut. Istraživanje zdravlja stanovništva Srbije 2019. godine. Beograd: Institut za javno zdravlje Batut, 2021.
9. Damjanović K, Ilić S, Teovanović P, Lep Ž. Psihološki profil pandemije u Srbiji, Univerzitet u Beogradu Filozofski fakultet 2020. Available at: https://www.researchgate.net/publication/345243669_Psiholoski_profil_pandemije_u_Srbiji
10. Sadiković S, Branovački B, Oljača M, Mitrović D, Pajić D, Smederevac S. Daily monitoring of emotional responses to the Coronavirus pandemic in Serbia: A citizen science approach. *Frontiers in Psychology* 2020;11:21133. doi: 10.3389/fpsyg.2020.02133
11. Marić NP. Psihičko zdravlje i pandemija COVID-19 - pregled literature. *Med Podml* 2021;72(3):78-86. doi: 10.5937/mp72-32877
12. Vujčić I, Safiye T, Milikić B, Popović E, Dubljanin D, Dubljanin E, Dubljanin J, Čabarkapa M. Coronavirus Disease 2019 (COVID-19) Epidemic and Mental Health Status in the General Adult Population of Serbia: A Cross-Sectional Study. *Int J Environ Res Public Health*. 2021;18(4):1957. doi: 10.3390/ijerph18041957
13. Kuljančić D, Cvjetković-Bošnjak M, Vejnović A, Bjelan S. Pandemija SARS-CoV-2 virusa i njen uticaj na mentalno zdravlje psihijatrijskih pacijenata u odnosu na psihički zdrave osobe. *Timočki medicinski glasnik* 2021;46(4):161-168.
14. UNICEF, USAID. Istraživanje o uticaju pandemije Covid-19 na porodice sa decom u Srbiji (drugi talas istraživanja). Srbija, jun-jul 2020. godine. Dostupno: 1.07.2022. <https://www.unicef.org/serbia/media/15861/file/>

19. Živanović M, Vukčević Marković M, Dimoski J, Gvozden M. Mentalno zdravlje u Srbiji: procena potreba, faktora rizika, i barijera u dobijanju stručne podrške. Rezultati istraživanja. Beograd, 2022. Pristupljeno 5.07.2022. Available at: <https://psychosocialinnovation.net/wp-content/uploads/2022/05/PROCENA-POTREBA-FAKTORA-RIZIKA-I-BARIJERA-U-DOBIJANJU-STRUCNE-PODRSKE.pdf>



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- Istrazivanje%20o%20uticaju%20pandemije%20Covid19%20na%20porodice%20sa%20decom%20u%20Srbiji_drugi%20talas.pdf
15. Marković I, Nikolovski S, Milojević S, Živković D, Knežević S, Mitrović A, et al. Public trust and media influence on anxiety and depression levels among skilled workers during the COVID-19 outbreak in Serbia. *Vojnosanit Pregl* 2020;77(11):1201–1209. doi: 10.2298/VSP200713108M
 16. Mikić D, Zvelkić Svorcan J, Jovanović Lj, Vučićević VR. Mental health of patients with chronic diseases during the coronavirus disease 2019 pandemic in serbia—a cross-sectional study. *Medicinski pregled* 2020;73(7-8):212-220. doi: 10.2298/MPNS2008212M
 17. Krovna organizacija mladih Srbije. Organizacija za krovnu bezbednost i saradnju. Misija u Srbiji. Život mladih u Srbiji: Uticaj KOVID-19 pandemije. Dosije studio: Beograd, 2020. Pristupljeno 4.07.2022. Dostupno na: <https://koms.rs/wp-content/uploads/2020/12/Zivot-mladih-u-Srbiji-uticaj-kovid-19-pandemije.pdf>
 18. Marić NP, Lazarević LjB, Priebe S, Mihić Lj, Pejović Milovančević M, Terzić Šupić Z, Tošković O, Vuković O, Todorović J, Knežević G. Covid-19-related stressors, mental disorders, depressive and anxiety symptoms: a cross-sectional, nationally-representative, face-to-face survey in Serbia. *Epidemiol Psychiatr Sci* 2022;31:e36. doi: 10.1017/S2045796022000117
 19. Živanović M, Vukčević Marković M, Dimoski J, Gvozden M. Mentalno zdravlje u srbiji: procena potreba, faktora rizika, i barijera u dobijanju stručne podrške. Rezultati istraživanja. Beograd, 2022. Pristupljeno 5.07.2022. Available at: <https://psychosocialinnovation.net/wp-content/uploads/2022/05/PROCENA-POTREBA-FAKTORA-RIZIKA-I-BARIJERA-U-DOBIJANJU-STRUCNE-PODRSKE.pdf>



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