

*Original article*

**Running title:** Protective personality factors for health

## **Protective Personality Factors for Stress in the Elderly during COVID-19 Pandemic: A Cross-Sectional Study**

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### **SUMMARY**

**Background/Aim.** One of the anti-epidemic measures in the COVID-19 pandemic in 2020 in Serbia was the mandatory complete ban on movement for people over 65 years of age. Two main stress factors affecting their health have been identified: intensive media coverage of the new disease and total physical and even social isolation of the elderly. The aim of this study was to assess the immediate impact of these anti-epidemic measures to combat the COVID-19 epidemic in Serbia on the health of people over 65 years old and to recognize protective factors for their health in the conditions of their obligatory isolation.

**Methods.** The cross-sectional study was conducted on a 20‰ sample of inhabitants over 65 (184 in total) in the urban part of the city of Kruševac, in the central part of Serbia, during April and May 2020.

**Results.** Anti-epidemic measures to combat the COVID-19 epidemic have been associated with deteriorating health in a significantly large proportion of the elderly in the sample (approximately 84%), such as unreasonable fatigue, tension, difficulties performing routine activities due to immobility, concerns, sleeping disorders, and hypertensive episodes. Gender, higher education, and material status were not related to protection and emotional well-being, but some personality factors are related to stress resilience.

**Conclusion.** The protective personality factors for health are the respondents' inclination toward hope, having a purpose in life, faith, optimism, interest, as well a high appreciation of positive emotions in the respondent's life (love, joy, enthusiasm, closeness, and belonging) and having a fulfilled emotional life.

**Keywords:** COVID-19, stress, protective personality factors for health, cross-sectional study

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## INTRODUCTION

During the curfew that was introduced in Serbia in March 2020, one of the anti-epidemic measures in the COVID-19 pandemic was the mandatory complete ban on movement for people over 65 years of age in all urban environments and it lasted 50 days. The COVID-19 pandemic as well as the manner in which the society and the state responded, aiming to suppress it, present a completely new challenge to each individual and it is highly likely that it goes beyond the known and familiar adaptive mechanisms of individuals to the newly created situation. There are two main disturbing factors which have been detected: fear of contracting COVID-19 and the feeling of hopelessness, especially among the older people. The situation was exacerbated by exaggerations coming from the media that the older people were, in fact, the most vulnerable part of the population.

In these living conditions, the social and economic stressors obviously have noticeable negative effects on a wide range of psychological, neurobiological and physiological processes as well behavior related to health. On a psychological level, these stressors affect the way individuals think and view themselves and those around them. They have an influence on the potential generation of some new threats, an increase in the threat assessment intensity, as well as the undermining of personal resources required to respond to the threats (1). On a neurobiological level, these stressors can affect the development of brain structures as well as the processes necessary for the support of effective self-regulation and stress recovery (2). On a physiological level, self-evaluation of the threat intensity causes the activation of the neuroendocrine, immune and autonomous nervous system in the body (3). On a behavioral level, the stressors can affect the psychobiological systems by shaping behavior connected to health, in terms of substance abuse or excessive food consumption (4).

Another cause of stress, apart from the complete isolation of older people, was the manner in which the mass media reported news concerning the ongoing pandemic, presenting older people as certain victims of the coronavirus, population with poor health, who, in order to stay safe, should not leave their homes or see anyone.

Stress is one of the assumed factors that de-

termine the personality as a strong predictor of health, well-being and a long life. Personality is tied to stress in the following ways: people with specific personality traits have a higher chance to expose themselves to more frequent and intensive stressful experiences, individual differences between personalities can affect the assessment of potential stressful environments and personality traits are connected to the effectiveness of the coping responses, whereby cognitive and behavioral efforts can prevent, mitigate or control the negative consequences of a certain stressful event (5).

Due to the imposed state of emergency in Serbia because of the COVID-19 epidemic, people over 65 in urban environments experienced a complete restriction of movement in the duration of 50 days as well as intensive media coverage about new disease. This situation leads us to consider how sudden and imposed changes in life, including aging, affect the social motivation and consequently social behavior and finally health.

The aims of this study were: the assessment of the immediate effect of complete physical isolation on inhabitants over 65 in urban area and what was the effect of the media representation of the COVID-19 pandemic on their health, as well as defining the protective factors for the health of those over 65 years of age in the conditions of their mandatory isolation due to the COVID-19 pandemic.

## METHODS

### Study and sample type

A cross-sectional study was conducted on the quota sample of inhabitants in the city of Kruševac in central Serbia. The quota sample is a type of sample most commonly used in the surveying of the public opinion. A 20% sample of inhabitants in the urban area of Kruševac, over 65 years of age, was included in this research ( $n = 184$ ) whose distributions according to the present characteristics (gender, age, education) coincide with the distribution of characteristics in the last census from 2011. This sample can be considered representable, and therefore, there is a standard confidence in the research findings and they can be generalized for the entire elderly population in the urban environment of Kruševac across the entire sample.

## Research instruments

A questionnaire with 40 questions divided into three groups was used as a means of gathering data. The first group of questions (7 questions) defined the socio-demographic characteristics of the respondents. The second group of questions referred to the personality capacities of the respondents (thinking, emotions, the experience of one's body, goals, hopes) (20 questions). The third group of questions referred to the self-evaluation of the respondents' health conditions before and during the complete physical isolation (13 questions). Prior to the distribution of the questionnaire, its validation was performed. Questions relating to personality capacities were derived from a questionnaire with 80 questions, which was tested on tens of thousands of respondents and had the goal of evaluating the entire personality support system (6). The basic supports of personality, as universal and structural characteristics of personality, present the developmentally formed systems of psychological functions and states. These include: "physical body (prime basic support); social matrix - belonging (also prime basic support); thinking, speech, skills and knowledge (secondary basic support); attitudes, religion, hope, purpose (tertiary proactive basic support)" (6). For this research, 5 items with better measures of validity and reliability were selected from each of the four subgroups, taking into account that they make sense for a population over 65 years of age. The third group of questions refers to the presence or absence of symptoms related to stress, and those questions are based on a modified version of The Impact of Event Scale - Revised (IES-R), and was used to assess the extent of stress including durable negative emotions resulting from the pandemic (panic, anxiety, sleeping troubles, irritability and anger, concentration issues and being focused, fatigue) (7), as well as the psychosomatic consequences of stress (hypertension, tachycardia, palpitations, lack of interest, motivation or energy, feeling depressed or sad, muscular tension, appetite problems, heart problems/chest pain, more frequent infections, indigestion or nausea) in the sense of measuring the change of specific described symptoms respondents exhibited before and during the mandatory complete ban of movement.

The survey was conducted in two ways: by filling out online questionnaires and by direct con-

tact. Face to face survey was conducted by five surveyors. Persons with predetermined characteristics were surveyed in their homes. The survey was conducted in the period from 7 April to 3 May 2020.

## Methods of statistical analysis

The database was made in Microsoft Excel. For statistical processing, a program called PSPP was used (an open-source clone of the SPSS program). The data was processed using the methods of descriptive statistics, while the relevance of the hypothesis was tested with the Chi-square test (used to estimate the relevance of the distinction) and the Contingency Coefficient (as the measurement of the strength of the relation). A P-value < 0.05 was considered to be statistically significant.

## RESULTS

Of the 184 participants who participated in the survey, 42.4% were males and 57.6% were females (Table 1). All participants were aged between 65 and 88 years.

The main way of expressing the basic personality supporters is creating polarities: physical body (impotence - omnipotence); belonging (isolation - symbiosis); thinking (non-thinking - intellectualization); purposes, faith, hope (fatalism - fanaticism). The forming of the support system itself is based on a psycho-ecological approach - the personality and the environment are treated as one, they are not separated and no side is favored. Without this environment or the psychological support system, a human cannot survive - it sets the basis of all mental processes and activities. The psychological support system allows control over the variable psychological field. When the basic supporters are balanced, the entire supportive system is harmonious. The basic personality supporters, actually, represent the individual's capacity to adapt. In this research, the assessment of these capacities is related to the ability to maintain good health when the individual is affected by intensive stressors.

Table 2 shows the changes in respondents' health during the mandatory complete isolation as a measure of suppression of the COVID-19 pandemic.

No statistically significant differences were found in the occurrence of health impairment and

**Table 1.** Sociodemographic characteristics of participants

<b>Variables</b>	<b>All (n = 184)</b>	<b>Males (n = 78)</b>	<b>Females (n = 106)</b>
Mean age (years)	72,5	73,2	72,0
Education levels, n (%)			
Incomplete and complete elementary school	40 (21,7%)	12 (6,5%)	28 (15,2%)
Secondary school	100 (54,3%)	46 (25,0%)	54 (29,3%)
Higher education	44 (23,9%)	20 (10,9%)	24 (13,0%)
<i>Marital status, n (%)</i>			
Married	113 (61,4%)	56 (30,4%)	57 (31,0%)
Single/Divorced	71 (38,6%)	22 (12,0%)	49 (26,6%)
<b>Variable</b>	<b>Mean</b>	<b>Mediana</b>	<b>Mod</b>
Number of household members	3,7	3	2
<b>Variable</b>	<b>All (n = 184)</b>		
Self-assessment of the material status of the household, n (%)			
Very good	9 (4,9%)		
Good	67 (36,4%)		
Medium	95 (51,6%)		
Poor	13 (7,1%)		
Very poor	/		

**Table 2.** Frequency distribution of the type of the respondents' health problems during complete isolation

<b>Variable (Health problem)</b>	<b>Distinctly more often than usual, n (%)</b>	<b>With no change in the health condition, n (%)</b>
Hypertension	43 (23,4%)	141 (76,6%)
Heart problems/chest pain	25 (13,6%)	159 (86,4%)
More frequent infections	5 (2,7%)	179 (97,3%)
Hyperglycemia	16 (8,7%)	167 (91,3%)
Problems with sleeping	69 (37,5%)	115 (62,5%)
The feeling of irritability and anger	85 (46,7%)	97 (53,3%)
The feeling of worry and hopelessness	69 (37,5%)	115 (62,5%)
The feeling of loneliness and rejection	41 (22,4%)	142 (77,6%)
Problem to concentrate and focus	40 (21,7%)	144 (78,3%)
Problems with performing daily work activities at home	34 (18,5%)	150 (81,5%)
Moving troubles	82 (44,8%)	101 (55,2%)
Appetite problems	27 (14,7%)	156 (85,3%)
Fatigue	103 (56,3%)	80 (43,7%)

**Table 3.** The significance of the relationship between the personality's capacities to adapt and the respondents' health condition

Health problems	Basic personality supporters							
	Physical body		Social matrix – belonging		Thinking, speech, skills and knowledge		Purpose, hope, religion	
Hypertension	$\chi^2 = 24.76$	df = 15	$\chi^2 = 26.16$	df = 13	$\chi^2 = 10.67$	df = 11	$\chi^2 = 37.65$	df = 14
	p = 0.053	CC = 0.35	p = 0.016*	CC = 0.36	p = 0.471	CC = 0.24	p = 0.001**	CC = 0.41
Heart problems/ chest pain	$\chi^2 = 24.41$	df = 15	$\chi^2 = 25.02$	df = 13	$\chi^2 = 11.38$	df = 11	$\chi^2 = 27.13$	df = 14
	p = 0.058	CC = 0.34	p = 0.023*	CC = 0.35	p = 0.412	CC = 0.24	p = 0.019*	CC = 0.36
More frequent infections	$\chi^2 = 10.20$	df = 15	$\chi^2 = 17.31$	df = 13	$\chi^2 = 13.00$	df = 11	$\chi^2 = 5.35$	df = 14
	p = 0.807	CC = 0.23	p = 0.185	CC = 0.30	p = 0.293	CC = 0.26	p = 0.980	CC = 0.17
Hyperglycemia	$\chi^2 = 39.16$	df = 15	$\chi^2 = 23.29$	df = 13	$\chi^2 = 13.35$	df = 11	$\chi^2 = 36.86$	df = 14
	p = 0.001**	CC = 0.42	p = 0.038*	CC = 0.34	p = 0.271	CC = 0.26	p = 0.001**	CC = 0.41
Sleeping problems	$\chi^2 = 32.74$	df = 15	$\chi^2 = 16.80$	df = 13	$\chi^2 = 10.71$	df = 11	$\chi^2 = 30.42$	df = 14
	p = 0.005**	CC = 0.39	p = 0.208	CC = 0.29	p = 0.468	CC = 0.24	p = 0.007**	CC = 0.38
The feeling of irritability and anger	$\chi^2 = 25.25$	df = 15	$\chi^2 = 11.13$	df = 13	$\chi^2 = 9.87$	df = 11	$\chi^2 = 28.68$	df = 14
	p = 0.047*	CC = 0.35	p = 0.600	CC = 0.24	p = 0.542	CC = 0.23	p = 0.012*	CC = 0.37
The feeling of worry and hopelessness	$\chi^2 = 22.47$	df = 15	$\chi^2 = 11.24$	df = 13	$\chi^2 = 10.08$	df = 11	$\chi^2 = 25.79$	df = 14
	p = 0.096	CC = 0.33	p = 0.591	CC = 0.24	p = 0.523	CC = 0.23	p = 0.028*	CC = 0.35
The feeling of loneliness or rejection	$\chi^2 = 25.23$	df = 15	$\chi^2 = 19.59$	df = 13	$\chi^2 = 11.23$	df = 11	$\chi^2 = 33.12$	df = 14
	p = 0.047*	CC = 0.35	p = 0.106	CC = 0.31	p = 0.424	CC = 0.24	p = 0.003**	CC = 0.39
Concentration issues and be focused	$\chi^2 = 34.86$	df = 15	$\chi^2 = 8.49$	df = 13	$\chi^2 = 12.98$	df = 11	$\chi^2 = 32.34$	df = 14
	p = 0.003**	CC = 0.40	p = 0.810	CC = 0.21	p = 0.295	CC = 0.26	p = 0.004**	CC = 0.39
Problems with performing daily work activities at home	$\chi^2 = 32.97$	df = 15	$\chi^2 = 20.28$	df = 13	$\chi^2 = 9.01$	df = 11	$\chi^2 = 31.43$	df = 14
	p = 0.005**	CC = 0.39	p = 0.088	CC = 0.32	p = 0.621	CC = 0.22	p = 0.005**	CC = 0.38
Moving troubles	$\chi^2 = 16.55$	df = 15	$\chi^2 = 14.26$	df = 13	$\chi^2 = 9.44$	df = 11	$\chi^2 = 18.82$	df = 14
	p = 0.346	CC = 0.29	p = 0.356	CC = 0.27	p = 0.581	CC = 0.22	p = 0.172	CC = 0.31
Appetite problems	$\chi^2 = 18.83$	df = 15	$\chi^2 = 18.72$	df = 13	$\chi^2 = 10.17$	df = 11	$\chi^2 = 16.90$	df = 14
	p = 0.221	CC = 0.31	p = 0.132	CC = 0.31	p = 0.515	CC = 0.23	p = 0.262	CC = 0.29
Fatigue	$\chi^2 = 20.64$	df = 15	$\chi^2 = 29.96$	df = 13	$\chi^2 = 16.67$	df = 11	$\chi^2 = 31.09$	df = 14
	p = 0.149	CC = 0.32	p = 0.005**	CC = 0.38	p = 0.118	CC = 0.29	p = 0.005**	CC = 0.38

Note: \*statistical significance, \*\* high statistical significance

socio-demographic characteristics of the respondents (age, education levels, marital status, and number of household members and self-assessment of the material status of the households). However, some of the individual capacities to respond to stressors have significant impact on health or on disease.

Considering that personality is a strong predictor of health, and stress specifically indicates this, Table 3 shows the relationship between the capacities of personality to respond to stressors and the changes in the respondent's health condition.

Over a third of potential relations between the basic personality supporters and health problems have statistically significant values of the Chi-square tests. For the deterioration of health, the most indicative dimensions are purpose, hope, religion (have statistically significant  $\chi^2$  for 10 out of 13 listed deteriorations in health), followed by physical body (statistically significant  $\chi^2$  for five deteriorations in health). Social matrix – belonging has a statistically significant  $\chi^2$  for four types of health deterioration. At the same time, thinking, speech, skills and knowledge are not related to health deterioration. In all of these cases, the contingency coefficient (CC) varies between 0.42 (physical body - hyperglycemia) and 0.34 (belonging - hyperglycemia), which is considered a moderately strong relation. There are eight types of health deterioration which have a statistically significant connection with two psychological dimensions. Only problems with infections, moving and appetite do not have any statistical significance with any basic personality supporters.

Based on observing the residues in the tables of contingency, we noticed a general rule. The increase in scores of dimensions of basic personality supporters is negatively associated with the appearance or an increase in the mentioned health issues, or in other words: high scores are positively related with stable health. Increased emotional, social, physical and spiritual resilience are very strong protective factors for health improvement.

## DISCUSSION

Two stressors were recognized: the total physical (and, in most cases, social) isolation of the elderly over 50 days and the manner in which the media reported about the COVID-19 pandemic.

A general uncertainty accompanied the pandemic as the time passed. This caused the consequences of isolation to complicate with additional reactions of panic and anxiety (8), constant excessive

concern for one's health and the health of those close to them and too much focus on following the current information about the COVID-19 pandemic. Considering that dealing with meaningful activities is one of the key elements for improving the quality of life and the general health of the individual (9), it is a logical conclusion that the total ban of movement of the elderly led into an interruption of their routine activities (socializing, participating in associations and clubs for the elderly, going to buy groceries, doing hobbies and other activities). This interruption presents one of the important factors which contributed to the increase of anxiety and the feeling of uselessness in the elderly. In addition to this, social isolation and disconnection put older adults at greater risk of anxiety and depression, increased proinflammatory and decreased antiviral immune response (10) and represent a "serious public health concern" because of their increased risk of cardiovascular, autoimmune, neuro-cognitive, and mental health problems (11).

A research in China conducted in February 2020 on 1,074 people of all ages, during the COVID-19 epidemic, and in which 29% of the respondents were suffering from different forms of anxiety (12, 13), has shown a greater prevalence of anxiety (around 37%) which is expected as the people in question are elderly. Another study conducted in Bangladesh has shown that around 85,6% of the respondents of general population had COVID-related stress which manifested as sleeping disorder, the feeling of tension and short temper (14), which is almost identical to the prevalence of these disorders in our research (83,7%). The manifestations in the elderly are similar to those of the researched mentioned above, but only to a certain extent: inexplicable fatigue, the feeling of tension, sleeping problems, feelings of worry and hopelessness. In both papers, the fear of COVID-19 was perceived as the highest cause of stress, while the other cause of stress was different. It is noted that in the research conducted in Bangladesh, participants faced financial difficulties, while in our research, participants had a feeling of being drowned in bad news, having the feeling of uncertainty.

This research shows that the most significant protective factor against stress is, in fact, when people are turned to faith, hope, a purpose of life, i.e., when they appreciate dealing with those eternal topics that preoccupy our mind. It has been noted that these topics are very valuable for mental health,

even more than everyday topics (15). These results correlate with other researches that confirm a link between resilience and hope in people when they find themselves in some difficult life situations (16, 17).

In these areas, it is a general opinion that mental health is important, but only when there is time. The people in this country, with their historical background, are always at the beginnings of making their material foundation which they could use to create something more. But, as soon as the living conditions improve, they start tumbling down, because of some new difficulties and challenges like wars, sanctions, crises, problems, social instability. This is why the fact that around 84% respondents from the research had at least one symptom of stress during the mandatory complete isolation is no surprise. They were almost exclusively those who value a logical way of thinking and look at life and the world rationally. Rational observation makes life easier and simpler, but not in stressful situations. It is evident that banal convictions about the purpose of life which advocate simplicity, eternal happiness, success, instant fun and similar motives do not provide protective factors for mental health in people as a species (15).

The second most important protective factor for mental health in this research is shown to be highly appreciating emotions in the respondent's life. This finding correlates with another study which showed that only individuals whose dominant coping style is one that is focused on emotions or tasks; thus a reduction in trauma-specific symptoms over time has been shown (18). This is in line with the finding which shows that adequate social and emotional relationships are protective factors against increased mortality rates during a crisis impacting the most vulnerable parts of populations (19).

Negative emotions (dreariness, misery, discomfort, tension, worry) are an essential component of the response to stressful factors related to illnesses which arise as a result of stress: cardiovascular diseases, asthma, slow wound healing, anxiety disorders, depression (20, 21). Also, high levels of positive emotions (joy, cheerfulness, enthusiasm, optimism, serenity, belonging, satisfaction) are important in resilience and adaptation (22), and their influence is manifested in two ways. First, positive emotions (especially mild excitement) remove the psychological and cognitive residues of stressors and enhance cognitive flexibility and openness (21) with various

mechanisms: influencing the information-processing style by flexibly disposing attention and better processing important information, not "tying" the person to details and analyzing the situation, which might inevitably lead to attention narrowing and focusing too much on the problem. It also enhances cognitive control, social perception, memory and visual perception (21) by reassessing the situation and reshaping the meaning of stressful situations and decentralizing, i.e. observing oneself and one's experience more objectively (22). Another way is related to the fact that people have a tendency to remember events and reconstruct their memory according to the emotionally congruous schemes and attitudes toward the event that has taken place (21). This input of positive emotions contributes to making positive memories more accessible and more present, and prevent the self-perpetuating negative emotional cycle. Emotions also provide evaluation of the importance and value of an object or a situation, so it can be assumed that positive emotions can have a protective effect on health by providing an informing signal that a certain environment is positive and safe (21, 22). Both mechanisms lead to expansion of consciousness i.e. finding new, diverse and exploring thinking patterns and behavior, as well as promoting openness and increasing curiosity towards life, and acquiring an individual tolerance to negative emotions.

Likewise, according to the literature, there is a simultaneous experience of both positive and negative emotions in an individual during tough situations, and those mixed emotions can ensure a successful adaptation and well-being (23). Considering that this research is focused on people over 65, it is clear that they have had chances to feel mixed emotions because of some events in their lifetime (grief about the death of a close friend, but also the pleasure that they knew them; concern over the war and sanctions in the 90's of the previous century, but also the relief that they managed to survive and get back on their feet, etc.) and that they have acquired enough life experience fighting adversity to have some tolerance for distress. This research concluded that this is precisely a significant protective factor during the exposure to a completely new stressful factor during COVID-19 pandemic. Thus, the secondary mixed emotions pattern has a new recognizable quality. Experiencing affects in extreme forms, one by one in the form of two-single valent emotions is related to high levels of emotional tension and ambivalence,

which can reduce the adequate copying ability during stressful periods (23). On the other hand, when someone experiences opposing affects within one discrete emotion, known as “a secondary mixed emotion”, it may reduce ambiguity and give adequate attitudes and directions during a stressful situation, motivate appropriate action, and provide the individuals with more adequate coping processes than linear mixed emotions (23).

Considering that around 37% of the respondents in this research reported some forms of depression, we should keep in mind the great significance of the psychological aspect. An identical part of respondents with symptoms of depression was noted by the research in China during the COVID-19 pandemic, where 37,1% of the respondents of all ages had various forms of depression, underlying that these disorders and lower level of mental health were relatively the most prominent among 21 - 30 years age group (13). That study has suggested that young people can easily create stress on their own because they have a tendency to collect information from social media, which, in fact, points to a widening gap between the consumable virtual reality created by information that is unverified or very difficult to verify and the reality as it actually is.

Everything that person cares about or matters will persist. The same goes for mental health. The vitality of the mental system requires psychical activity, i.e. daily contemplation about yourself and your life circumstances (15). This does not entail the consumption of information which was very intense during the state of emergency, and where everything was turning outward. Even if these mental processes are turned outward, they should not be consumed and be something in which a person can invest serious energy. If an individual leads an uneventful life, sooner or later a person will fall into a pattern - a

“dry period” for their mental system. On this level, vitality cannot survive. One should go further, deeper, learn, notice things and develop spiritually. This is the best way to maintain and improve overall health and especially mental health.

## CONCLUSION

COVID-19 pandemic introduced something the world has encountered for the first time, not only because of the intensity of the disease, which has been very traumatizing in its most severe form, but also because the world has never experienced isolation, both physical and social, to this degree or for so long. Deterioration of health has appeared in a great majority of respondents (83,7%) during the enforced total isolation as a countermeasure against COVID-19 pandemic. The respondents have reported various anxious disorders and depression. The magnitude of this occurrence is concerning because it can represent a risk factor for potential psychological disorders in future.

Mental health and general health protective factors are focused to turn towards spiritual and emotional life nurturing friendships and closeness with others, continuous psychological activities, as well as media exposure restriction.

It is important to take into account the implementation of health care monitoring plans, in order to preserve and improve the public mental health as a response to COVID-19-related psychological challenges.

## Conflict of interest

The study was not funded by any organization. The authors declare that there is no conflict of interests.



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## Article info

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## Zaštitini faktori ličnosti za stres kod starih osoba tokom pandemije COVID-19 virusa: studija preseka

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### SAŽETAK

**Uvod/Cijevi.** Jedna od protivepidemijskih mera u pandemiji COVID-19 virusa u Srbiji 2020. godine bila je obavezna, potpuna zabrana kretanja za starije od 65 godina. Prepoznata su dva glavna stresogena činioca, koja su delovala na njihovo zdravlje: intenzivno izveštavanje putem sredstava javnog informisanja o novoj bolesti i potpuna fizička, pa i socijalna izolacija starih. Cilj ovog istraživanja bio je da se proceni neposredni uticaj tih antiepidemijskih mera za suzbijanje COVID-19 epidemije u Srbiji na zdravlje ljudi starijih od 65 godina, kao i da se prepoznaju zaštitini faktori za zdravlje u uslovima obavezne izolacije.

**Metode.** Studija preseka sprovedena je na dvadesetoprocentnom uzorku građana starijih od 65 godina (ukupno njih 184) urbanog dela grada Kruševca, u centralnom delu Srbije, tokom aprila i maja 2020. godine.

**Rezultati.** Protivepidemijske mere za suzbijanje COVID-19 epidemije bile su povezane sa pogoršanjem zdravlja kod značajno velikog udela starih osoba u uzorku (oko 84%), kao što su: bezrazložni umor, napetost, otežano obavljanje rutinskih aktivnosti zbog nekretanja, briga, poremećaj spavanja i hipertenzivne krize. Pol, više obrazovanje i materijalni status nisu bili povezani sa zaštitinim faktorima za zdravlje i emocionalnu dobrobit, ali su neki faktori ličnosti u vezi sa otpornošću na stres.

**Zaključak.** Protektivni faktori ličnosti za zdravlje su okrenutost ispitanika nadi, svrsi života, veri, optimizmu, interesovanjima, kao i visoko vrednovanje i prisustvo razvijenog emocionalnog života i prisustvo pozitivnih emocija u životu ispitanika (ljubav, radost, entuzijazam, osećanje bliskosti i pripadanja).

**Ključne reči:** COVID-19, stres i protektivni faktori ličnosti za zdravlje, studija preseka