

ORIGINAL STUDIES

ORIGINALNI NAUČNI RADOVI

University of Kragujevac, Kragujevac
Faculty of Medical Sciences

Original study
Originalni naučni rad
UDK 616-036.21:304.35
UDK 616.98:578.834
<https://doi.org/10.2298/MPNS2208211D>

THE IMPACT OF THE CORONAVIRUS DISEASE 2019 PANDEMIC ON WELLNESS AND HEALTHY LIFESTYLE

UTICAJ PANDEMIJE COVID-19 NA VELNES I ZDRAV ŽIVOTNI STIL

Slavica ĐORĐEVIĆ, Snežana KNEŽEVIĆ and Nikola SAVIĆ

Summary

Introduction. The main goal of wellness is to promote proactive and preventive behavior that improves mental health and lifestyle. This study examined how the lifestyle of respondents was affected by the inability to visit spas and wellness centers during the coronavirus disease 2019 pandemic. **Material and Methods.** This cross-sectional study included a total of 186 participants with an average age of 41.31 ± 10.475 years, 137 female and 49 male. We specifically designed a questionnaire to analyze the impact of the lack of wellness services during the coronavirus disease 2019 pandemic. **Results.** There was no statistically significant association between gender, age, education, and marital status and visiting wellness destinations. Monthly income, however, showed a statistically significant association with visiting wellness facilities ($p = 0.002$). There was a significant decrease in the use of wellness centers during the coronavirus disease 2019 pandemic. A small number of the respondents believed the coronavirus disease 2019 pandemic has changed their lifestyle. **Conclusion.** The lack of wellness services has affected the respondents' inability to relax and get away from daily life, but the coronavirus disease 2019 pandemic has not negatively changed their lifestyle ($p = 0.001$).

Key words: COVID-19; Pandemics; Mental Health; Life Style; Health

Sažetak

Uvod. Glavni ciljevi velnesa su proaktivno i preventivno ponašanje koje poboljšava mentalno zdravlje i stil života. Ova studija je ispitala kako je na stil života ispitanika uticala nemogućnost posjećivanja spa i velnes centara tokom pandemije COVID-19. **Materijal i metode.** Studija je sprovedena kao studija preseka koja je uključila ukupno 186 ispitanika, prosečne starosti $41,31 \pm 10,475$ godina, 137 žena i 49 muškaraca. Upitnik je posebno osmišljen da bi analizirao Uticaj nedostatka velnes usluga tokom COVID-19 pandemije. **Rezultati.** Nije bilo statistički značajne povezanosti između pola, starosti, obrazovanja i bračnog statusa sa posetama velnesu. Mesečni prihodi su pokazali značajnu razliku ($p = 0,002$). Tokom pandemije COVID-19 došlo je do značajnog smanjenja korišćenja velnesa. Nije bilo značajnog broja ispitanika koji smatraju da im je pandemija COVID-19 promenila stil života. **Zaključak.** Nedostatak velnes usluga uticao je na nemogućnost ispitanika da se relaksiraju i distanciraju od svakodnevnog života, ali pandemija COVID-19 nije negativno promenila njihov stil života ($p = 0,001$).

Ključne reči: COVID-19; pandemija; mentalno zdravlje; životni stil; zdravlje

Introduction

Over the past decades, people are more engaged in health and environmental awareness as a result of shifting social perspectives towards health and well-being [1]. Well-being is a multi-dimensional concept that includes ideas of conveniences, personal liberties, choices, state of mind, and abilities [2]. The goal of wellness is to balance and improve significant spheres of humankind, including physical, cognitive, emotional, intellectual, professional, and spiritual. Wellness means a healthy balance

between mind and body that leads to overall well-being [3, 4]. The main goal of wellness customers is to pursue proactive and preventive measures to enhance well-being [5]. Tourist satisfaction is positively associated with their intentions to revisit the wellness destination. Beyond the unique attributes of geothermal water, the wellness features, including landscaping, pool design, the surrounding environment, as well as local plants and biodiversity, are significant drivers [1]. A healthy lifestyle is progressively becoming more integrated into various dimensions of wellness services [6].

Abbreviations

COVID-19 - coronavirus disease 2019

The World Health Organization declared a coronavirus disease 2019 (COVID-19) pandemic on March 11, 2020 [7, 8]. In Serbia, the first case of COVID-19 infection was registered on March 6, 2020 [9]. The pandemic arose suddenly and spread quickly and wellness tourists have been disturbed due to the threat to their health. It was also necessary to abruptly adapt to the recommended measures including hand hygiene, mask wearing, and maintaining social distancing. Travel fear, anxiety and decreased travel readiness followed, in order to avoid the possibility of contracting the new coronavirus [10].

The aim of this research was to examine how the lifestyle of respondents was affected by the inability

to visit spas and wellness centers during the COVID-19 pandemic.

Material and Methods

The study was conducted as a quantitative study. The instrument was an online questionnaire consisting of two parts. The concept of the questionnaire was based on the researches of Mak et al. (2009), Clark-Kennedy et al. (2017), and Chen et al. (2014) [1, 2, 11]. The first part of the questionnaire included information on sociodemographic characteristics of the respondents, while those who do not visit wellness destinations were excluded from the study. The second part included questions/answers on the attitudes to lifestyle changes due to the COVID-19 pandemic.

Table 1. Sociodemographic characteristics of the respondents

Tabela 1. Sociodemografski parametri ispitanika

Sociodemographic characteristics/Sociodemografske karakteristike (N/Br=186)	f	%
Gender/Pol		
Female/Ženski	137	73.7
Male/Muški	49	26.3
Age/Starost*	41.31 ± 10.475	(18-66)
<= 24	6	3.2
25 - 30	30	16.1
31 - 36	25	13.4
37 - 42	37	19.9
43 - 48	27	14.5
49 - 54	42	22.6
55 - 60	16	8.6
61+	3	1.6
Education/Obrazovanje		
Primary school/Osnovna škola	1	0.5
High school/Srednja škola	55	29.6
Faculty/Fakultet	108	58.1
Graduate studies/Postdiplomske studije	22	11.8
Monthly income/Mesečni prihodi		
Under 30.000 dinars/Ispod 30.000 dinara	17	9.1
30.000 - 50.000 dinars/dinara	33	17.7
50.000 - 100.000 dinars/dinara	83	44.6
More than 100.000 dinars/Više od 100.000 dinara	23	12.4
I do not want to answer/Ne želim da se izjasnim	30	16.1
Marital status/Bračni status		
Unmarried/Neoženjen/neudata	84	45.2
Married/Oženjen/udata	102	54.8
Do you visit wellness resorts/Da li posećujete velnes destinacije?		
Yes/Da	109	58.6
No/Ne	77	41.4
*AS ± SD (Min-Max)		

Continuous variables were expressed as p-values and medians, as a measure of central tendency. Categorical variables were expressed as absolute numbers and percentages. The Pearson χ^2 (chi-square) test was used to examine the correlation between two variables. To examine the differences in the frequency of visiting wellness centers before and during the pandemic, the marginal homogeneity test was used for polytomous variables. For certain answers, a five-point Likert scale was used ranging from: 1 – strongly disagree; 2 – partially disagree; 3 – neither agree nor disagree; 4 – partially agree; 5 – completely agree. The software package SPSS was used for statistical analysis and calculation. The questionnaire was distributed in the period from 25 to 31 December 2021. The survey was conducted in Serbian language in Serbia.

Results

The sociodemographic characteristics of the respondents are shown in **Table 1**.

We analyzed the differences in the popularity of wellness centers in regard to sociodemographic characteristics of the respondents (**Table 2**).

The results of testing the frequency of wellness visits in regard to sociodemographic characteristics showed a statistically significant difference only in monthly income of respondents ($p = 0.002$).

The **Table 3** shows that the lack of wellness services had the greatest impact on stress and escape from everyday life, and the least impact on fun and socializing ($p = 0.001$).

Most of the respondents (34 - 31.2%) completely agreed that the COVID-19 pandemic significantly

Table 2. The difference in popularity of wellness centers

Tabela 2. Razlika u popularnosti velnes centra

Do you visit wellness resorts? <i>Da li posećujete velnes turističke destinacije?</i>		Yes/Da	No/Ne	χ^2	df	p/p
Gender <i>Pol</i>	Female/Ženski	84 (61.3%)	53 (38.7%)	1.576	1	0.209
	Male/Muški	25 (51%)	24 (49%)			
Age <i>Starost</i>	Millennials/Milenijalci	45 (60%)	30 (40%)	0.10	1	0.750
	Others/Ostali	64 (57.7%)	47 (42.3%)			
Education <i>Obrazovanje</i>	Primary school/Osnovna škola	28 (50%)	28 (50%)	2.55	2	0.278
	High school/Srednja škola	68 (63%)	40 (37%)			
	Graduate studies	13	9			
	Postdiplomske studije	(59.1%)	(40.9%)			
Monthly income <i>Mesečni prihodi</i>	To the 30.000 dinars/Ispod 30.000 dinara	10 (58.8%)	7 (41.2%)	15.1	3	0.002
	30.000 - 50.000 dinars/dinara	10 (30.3%)	23 (69.7%)			
	50.000 - 100.000 dinars/dinara	55 (66.3%)	28 (33.7%)			
	More than 100.000 dinars <i>Više od 100.000 dinara</i>	17	6			
Marital status <i>Bračni status</i>	Unmarried/Neoženjen/neudata	50 (59.5%)	34 (40.5%)	0.054	1	0.817
	Married/Oženjen/udata	59 (57.8%)	43 (42.2%)			

Table 3. Lack of wellness services due to the COVID-19 pandemic

Tabela 3. Izostanak wellness usluga zbog pandemije COVID-19

Lack of wellness has affected: <i>Izostanak velnes usluga je uticao na:</i>	N <i>Br.</i>	Mean <i>Prosek</i>	Std. Deviation <i>Standardna devijacija</i>	Mean Rank <i>Prosečan rang</i>	χ^2	df	p/p
Fun and socializing/Zabavu i druženje	109	2.98	1.394	2.70	18.003 ^a	4	0.001
Hedonism and a luxurious experience <i>Hedonizam i doživljaj luksuznog iskustva</i>	109	3.02	1.381	2.88			
I don't feel healthier or happier <i>Da se ne osećam zdravije i srećnije</i>	109	3.17	1.261	2.96			
I can't get rid of stress and get away from everyday life/Da ne mogu da se oslobodim stresa i da pobegnem od svakodnevice	109	3.35	1.279	3.27			
My overall physical and mental health <i>Moje opšte fizičko i mentalno zdravlje</i>	109	3.33	1.195	3.20			

a. Friedman Test

Table 4. Opinions on the COVID-19 pandemic and lifestyle changes*Tabela 4. Stav o pandemiji COVID-19 i promeni načina života*

The pandemic has significantly changed my lifestyle/ <i>Pandemija je značajno promenila moj životni stil</i>	f	%
I completely agree/ <i>Slažem se u potpunosti</i>	34	31.2
I partially agree/ <i>Delimično se slažem</i>	19	17.4
I neither agree nor disagree/ <i>Nemam stav</i>	15	13.8
I partially disagree/ <i>Delimično se ne slažem</i>	24	22.0
I do not agree at all/ <i>Uopšte se ne slažem</i>	17	15.6
In total/ <i>Ukupno</i>	109	100.0

Table 5. Wellness travel before and during the COVID-19 pandemic*Tabela 5. Velnes putovanja pre i tokom pandemije COVID-19*

How often have you visited wellness resorts?/ <i>Koliko redovno ste koristili usluge velnes turizma</i>	Before the pandemic <i>Pre pandemije</i>		During the pandemic <i>Tokom pandemije</i>		Marginal homogeneity test <i>Test marginalne homogenosti</i>
	f	%	f	%	
Once a week/ <i>Jednom nedeljno</i>	2	1.8	2	1.8	Std. MH Statistic/ <i>MH stand. statistika</i>
Once a month/ <i>Jednom mesečno</i>	10	9.2	3	2.8	
Several times a year <i>Nekoliko puta godišnje</i>	69	63.3	15	13.8	
Once a year/ <i>Jednom godišnje</i>	28	25.7	22	20.2	p/p (2-tailed)/ <i>(dvostrana)</i>
Never/ <i>Nijednom</i>	0	0.0	67	61.5	
In total/ <i>Ukupno</i>	109	100.0	109	100.0	

changed their lifestyle (**Table 4**), but the Chi-square test showed no statistically significant difference.

We analyzed whether there were differences in wellness travel before and during the COVID-19 pandemic (**Table 5**).

The above-mentioned results showed a significant reduction in wellness visits during the COVID-19 pandemic.

Discussion

The results of testing the popularity of wellness centers in regard to sociodemographic characteristics showed a statistically significant difference only in monthly income of the respondents. Age, gender, marital status, and education did not show a statistically significant difference in regard to the frequency of visiting wellness centers. These results indicate that there was a significant reduction in the use of wellness services during the COVID-19 pandemic. Lack of wellness services had the greatest impact on the respondents' inability to get rid of stress and escape from everyday life, and the least impact on fun and socializing. The COVID-19 pandemic did not change the participants' lifestyle.

The coronavirus outbreak has increased people's physical vulnerability, disturbing the socially accepted paradigm of modern life [12]. According to Wenn, the COVID-19 pandemic had an impact on the rising popularity of independent and free travel, including health and wellness tourism [13]. Fresh air was considered to be a preventive

measure aimed to improve health and reduce the mortality rate.

Our results are in agreement with the results of several published studies. Clark-Kennedy et al. (2017), indicated that the majority of wellness visitors were motivated by relaxation (99%), feeling absolute peace (95%), joy (88%), escapism (86%), overall health advantages (77%) and a connection with nature (74%) [1]. In a Hong Kong study, the most significant motivating factors were leisure, relaxation, escapism, self-reward, hedonism, and esthetics [1, 11]. The impact of wellness on the quality of life and well-being is one of the key aspects [14]. The experience of wellness affects the visitor's satisfaction during free time, and beyond that time, contributes the perception of the overall quality of life [15]. In a study by Voigt et al., 61% of respondents were university educated [16]. Our results are in line with the mentioned study (58.1%). Wellness-related lifestyle includes physical, psychological, social, and spiritual dimensions of health [17]. Iso-Ahola et al. (1982) stated that tourists search for personal escape, interpersonal escape, and interpersonal seeking, and we agree [18]. The concept of well-being in tourist destinations is focused on the psychological, spiritual, and social effects [19]. Crompton (1979) places the concept of travel motives in a socio-psychological-cultural continuum [20]. Individuals visiting wellness centers have a proactive intention to improve their health by acting preventively [21]. Wellness users feel responsible for their health, so their lifestyle includes

physical activity, healthy diet, relaxation, mindfulness, cosmetic care, enhanced mental activity, and social interaction [22]. Terme Olimia offers a program called selfness. This innovative concept is based on establishing the harmony of body and mind. Selfness therapy improves the quality of life and relaxation [23, 24]. Paying more attention to psychological factors in the assessment of medical conditions can improve the healthcare [25].

Findings demonstrated that well-being can boost the body's immunological response [26]. When the immune system operates in harmony and balance, it is protected from outside threats, and supported by healthy lifestyle decisions it promotes holistic immunity [24]. Immunity is a key factor against viral diseases, so we can conclude that the paradoxical measures applied due to the coronavirus pandemic, led to avoiding wellness and inadequate immune response.

There are some limitations in our study. Given the sample, it should be emphasized that the study was conducted by random sampling and therefore our conclusions do not apply to the entire Serbian population. It is possible that participants were more interested than the typical person in improv-

ing their health and spending more on various spa and wellness activities, given the way the data were gathered and the present epidemiological crisis caused by the pandemic. Only those who could afford a wellness retreat were evaluated in the study, and as a result, only their opinions were considered. The questionnaire was made to prevent the respondents to voice their personal views through open questions, so they were not included in the questionnaire. Finally, the results should be interpreted cautiously due to the study sample size and the fact that there were more female than male respondents [24–26].

Conclusion

The findings of our study revealed there was a significant decrease in the use of wellness services during the coronavirus disease 2019 pandemic. The coronavirus disease 2019 pandemic significantly affected the overall sense of well-being. The lack of wellness services had the greatest impact on the respondents' inability to relax and get away from everyday life, but the coronavirus disease 2019 pandemic has not negatively changed their lifestyle.

References

- Clark-Kennedy J, Cohen M. Indulgence or therapy? Exploring the characteristics, motivations and experiences of hot springs bathers in Victoria, Australia. *Asia Pacific Journal of Tourism Research*. 2017;22(5):501-11.
- Chen KH, Chang FH, Tung KX. Measuring wellness-related lifestyles for local tourists in Taiwan. *Tourism Analysis*. 2014;19(3):369-76.
- Mueller H, Kaufmann EL. Wellness tourism: market analysis of a special health tourism segment and implications for the hotel industry. *Journal of Vacation Marketing*. 2001;7(1):5-17.
- Smith M, Kelly C. Wellness tourism. *Tourism Recreation Research*. 2006;31(1):1-4.
- Global Wellness Summit. Past Global Wellness Summits [Internet]. 2010 [cited 2021 Jun 15]. Available from: <https://www.globalwellnesssummit.com/about-us/past-summits/>
- Senić V, Manojlović N. Contemporary tendencies in tourism. *Hotel and Tourism Management*. 2017;5(1):18-27.
- WHO. Coronavirus disease (COVID-19) pandemic [Internet]. 2020 [cited 2022 Nov 3]. Available from: <https://www.who.int/europe/emergencies/situations/covid-19>
- Mikić D, Zvekić Svorcan J, Jovanović L, Vučičević VR. Mental health of patients with chronic diseases during the Coronavirus disease 2019 pandemic in Serbia: a cross-sectional study. *Med Pregl*. 2020;73(7-8):212-20.
- Bošković K, Gojković Z, Jović M, Jovičević P, Janković T, Zvekić-Svorcan J. Health concerns of patients with rheumatoid arthritis during the coronavirus disease 2019 pandemic. *Med Pregl*. 2021;74(9-10):291-7.
- Zhang K, Hou Y, Li G. Threat of infectious disease during an outbreak: influence on tourists' emotional responses to disadvantaged price inequality. *Ann Tour Res*. 2020;84:102993.
- Mak AHN, Wong KKF, Chang RY. Health or self-indulgence? The motivations and characteristics of spa-goers. *International Journal of Tourism Research*. 2009;11(2):185-99.
- Kock F, Nørfelt A, Josiassen A, Assaf AG, Tsionas MG. Understanding the COVID-19 tourist psyche: the Evolutionary Tourism Paradigm. *Ann Tour Res*. 2020;85:103053.
- Wen J, Kozak M, Yang S, Liu F. COVID-19: potential effects on Chinese citizens' lifestyle and travel. *Tourism Review*. 2020;76(1):74-87.
- Kim HL, Woo E, Uysal M, Kwon N. The effects of corporate social responsibility (CSR) on employee well-being in the hospitality industry. *International Journal of Contemporary Hospitality Management*. 2018;30(3):1584-600.
- Luo Y, Lanlung C, Kim E, Tang LR, Song SM. Towards quality of life: the effects of the wellness tourism experience. *Journal of Travel and Tourism Marketing*. 2018;35(4):410-24.
- Voigt C, Brown G, Howat G. Wellness tourists: in search of transformation. *Tourism Review*. 2011;66(1/2):16-30.
- Chen CC, Petrick JF. Health and wellness benefits of travel experiences: a literature review. *J Travel Res*. 2013;52(6):709-19.
- Iso-Ahola SE. Toward a social psychological theory of tourism motivation: a rejoinder. *Ann Tour Res*. 1982;9(2):256-62.
- Gao J, Kerstetter DL, Mowen AJ, Hickerson B. Changes in tourists' perception of well-being based on their use of emotion regulation strategies during vacation. *Journal of Travel and Tourism Marketing*. 2018;35(5):567-82.
- Crompton JL. Motivations for pleasure vacation. *Ann Tour Res*. 1979;6(4):408-24.
- Živanović S, Manojlović N. Definition of wellness and its concepts. *Hotel and Tourism Management*. 2016;4(1):74-82.
- Živanović S. Oblici i trendovi zdravstvenog turizma. 2nd ed. Vrnjačka Banja: Fakultet za hotelijerstvo i turizam; 2020.
- Terme Olimia. Selfness [Internet]. [cited 2022 Nov 3]. Available from: <https://www.terme-olimia.com/en/adventures/selfness>
- Košćak M, Mišković I, Romanov R, Holodkov V. Education for work in wellness tourism: case study. *TIMS Acta*. 2018;12(2):89-96.

25. Knežević VA, Ratković D, Knežević J, Ivanović-Kovačević S, Okanović M, Pavlović S. Psychological medicine. *Med Pregl.* 2019;72(9-10):321-5.

Rad je primljen 14. XI 2022.

Recenziran 23. XI 2022.

Prihvaćen za štampu 24. XI 2022.

BIBLID.0025-8105:(2022):LXXV:7-8:211-216.

26. Abdurachman, Herawati N. The role of psychological well-being in boosting immune response: an optimal effort for tackling infection. *Afr J Infect Dis.* 2018;12(1 Suppl):54-61.