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Research Article

EFFECTS ON HEALTH AND LIFE CHANGES OF LOCKDOWNS

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Abstract: The precautions taken aimed to provide protection against COVID-19, but by ignoring human nature and psychosociological structures, they also caused the emergence of negative outcomes. This study aimed to explain how people spend time, the effect on health, and life changes during the COVID-19 quarantine. This study is an analytical cross-sectional study. A total of 1708 participants were included, and data were collected by using Google Forms. Data were presented in numbers and frequency; Chi-square analysis was used in the comparisons of categorical data. Backward logistic regression analysis was performed to evaluate the status of experienced COVID-19 and life changes. Weight gain, use of social media and the internet, sedentary life, and unhappiness occurred due to quarantine reported in this study. It was found that more than half of the participants were unhappy and gained weight during lockdown. It has been determined that people who had COVID-19 sleep more and use social media more gain more weight and are more unhappy during quarantine. There was no planning in some countries for a healthy lifestyle during the lockdown was perhaps the greatest deficiency of pandemic management. Not only do these negative effects cause individuals to feel more anxiety, stress, and depression, but the continuation of lockdown habits will have seriously negative effects on health. There should be recommendations and guides for people to lead healthy lives in disasters.

Keywords: Covid-19, Health, Lockdown, life changes, pandemic

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1. Introduction

The SARS-CoV-2 coronavirus, as the agent of COVID-19 infection, spread around the world in a short period of approximately three months. The initial cases were in China at the end of 2019, and by the first week of March 2020, the number of cases worldwide was reported to exceed 100.000 [1,2]. As the outbreak became a global pandemic, countries began to implement precautions related to healthcare policies according to the speed and status of transmission. In many countries, precautions such as social distancing and individual isolation at home are aimed at preventing the spread of infection as much as possible.

These precautions taken because of the pandemic are evaluated as a social phenomenon that has affected individuals, families, and societies in many areas. The perceived threat created by the infectious disease and the cases of death occurring caused anxiety and stress, and people exhibited abnormal behaviours. The prolonged period of the pandemic, emerging uncertainty, and increasing case numbers revealed a need for crisis management. The psychosocial and emotional status of people was seen to affect the social, psychological, economic, and other societal structures of society. It is important to

determine how the psychological, social, and emotional effects of the pandemic were managed and how societies were affected [3].

In countries where these precautions were taken, the lack of planning, such as how to pass the time at home, time management, and activities that children can do at home, to reduce the effects of these restrictions, further increased the effects. In the literature related to pandemic psychology, the behaviours demonstrated by people have been categorised through observation. Accordingly, the behaviours shown were in the form of increased stress because of increases in infections and deaths, shopping and stockpiling of food and cleaning products because of panic and anxiety, over-eating, over-sleeping, self-protection by exclusion and stigmatisation of communities, and feeling disease symptoms and unnecessarily using the healthcare system. Then, after having followed the rules of staying at home and social distancing restrictions, the rules were subsequently seen to be ignored, and non-compliant behaviours emerged [3,4]. COVID-19, which was perceived as a great threat to health and the global economy, caused almost every country to implement important regulations such as the temporary closure of many public offices and institutions guiding daily life and formal education institutions at different levels, part-time working, working from home, social isolation and social distancing. By affecting the daily behaviour of individuals, these interventions related to the ongoing flow of life sometimes caused panic and anxiety, and sometimes an increased tendency for depression [5,6].

The efforts made by individuals in accordance with the restrictions to prevent the spread of COVID-19 are thought to have had adverse effects on physical and mental health. This view is supported by the results of social isolation implemented in the past [7]. Whatever the age, gender, or health status of an individual, the disruption of routine, having to stay at home, and the lack of a planned program caused people to spend time at home with limited resources and continue life according to the facilities available without knowing what to do.

In Turkey, the first pandemic restrictions and lockdown started on 1 March 2020, and subsequently, distance learning, flexible working and working from home were implemented. Although gradual normalisation was introduced on 1 June 2020, the schools did not re-open and the changed working hours in public offices continued.

The aim of this study was to determine how people passed the time during lockdowns in the COVID-19 pandemic and the effects on their health.

2. Methods

2.1. Design

The research was conducted in an analytic cross-sectional design. The study aims to investigate contributing factors of life changes and what life changes in lockdown are.

2.2. Population and sampling

The population of the study consists of 431,848 people living in the province where the study was conducted between 19 December 2020 and 19 April 2021. Following a scan of the literature, a questionnaire was prepared by the researchers. Data was collected online via Google Forms. Participants were recruited through convenience sampling and snowball sampling. We posted the recruitment announcement through the social media accounts of researchers. Among the 1785 participants who accessed the survey, 1708 voluntary participants were included in this study.

2.3. Statistical analysis

Data obtained in the study were analyzed statistically using SPSS 22.0 software. Results were presented as mean $\pm$ standard deviation values, number [n], and percentage [%]. Chi-square analysis

was used in the comparisons of categorical data. Data were stated in a 95% confidence interval, and a value of $p < 0.05$ was accepted as statistically significant. Backward logistic regression analysis was performed to evaluate the status of experienced COVID-19 and life changes.

Ethical Statement

Approval for the study was granted by the Social and Humanities Ethics Committee of Kahraman Maraş Sütçü İmam University (Date: 23.12.2021; Number: 2021/58).

3. Results

The mean age of the research participants was 30.14 ± 12.03 years [range, 18-72 years]. Comparisons of some sociodemographic characteristics according to whether or not the participants had contracted COVID-19 infection are shown in Table 1.

Table 1. Comparison of experienced COVID-19 and sociodemographic variables of participants

Variables	I had Covid19 n(%)*	I had no Covid19 n(%)*	Total n (%)**	Variables	I had COVID-19 n(%)*	I had no COVID-19 n(%)*	Total n (%)**
Gender				Working Status in COVID-19 quarantine			
Female	636(63.3)	369(36.7)	1005(58.8)	Working	304(67.4)	147(32.6)	451(26.4)
Male	476(67.7)	227(32.3)	703(41.2)	Not working	808(64.3)	449(35.7)	1257(73.6)
X^2/p^{***}		3.567/0.033		X^2/p^{***}		1.427/0.128	
Age Groups				Working type in the COVID-19 quarantine			
18-20	275(62.4)	166(37.6)	441(25.8)	Home office	304(67.4)	147(32.6)	451(26.4)
21-30	405(67.3)	197(32.7)	602(35.2)	Full time	308(66.2)	157(33.8)	465(27.2)
31-40	204(69.4)	93(30.6)	294(17.2)	Alternately	85(69.7)	37(30.3)	122(7.1)
40 and over	228(61.5)	143(38.5)	371(21.7)	Not working	415(61.9)	255(38.1)	670(39.2)
X^2/p^{***}		7.262/0.064		X^2/p^{***}		5.387/0.146	
Education status				Income Status			
Primary School	21(67.7)	10(32.3)	31(1.8)	High	208(68.0)	98(32.0)	306(17.9)
High School	106(61.6)	66(38.4)	172(11.0)	Middle	517(64.9)	268(34.1)	785(46.0)
University	985(65.4)	520(34.6)	1505(88.1)	Low	387(62.7)	230(37.3)	617(36.1)
X^2/p^{***}		1.031/0.597		X^2/p^{***}		2.847/0.241	
Living Place				Family Type			
Metropol	548(66.5)	276(33.5)	824(48.2)	Alone	55(58.5)	39(41.5)	94(5.5)
City	288(66.2)	147(33.8)	435(25.5)	Nuclear	883(66.9)	437(33.1)	1320(77.3)
District	186(64.4)	103(35.6)	289(16.9)	Single Parent	58(55.8)	46(44.2)	104(6.1)
Village	90(56.3)	70(43.8)	160(9.4)	Extended family	116(61.1)	74(38.9)	190(11.1)
X^2/p^{***}		6.536/0.088		X^2/p^{***}		7.388/0.061	
Marital Status				Number of Child			
Single	549(63.9)	366(36.1)	1015(59.4)	No child	222(64.2)	124(35.8)	346(20.3)
Married	463 (66.8)	230(33.2)	693(40.6)	1-2	463(65.8)	241(34.2)	704(41.2)
				3-4	345(66.2)	175(33.7)	520(30.4)
				4 and over	82(59.4)	56(40.6)	138(8.1)
X^2/p^{***}		1.493/0.121		X^2/p^{***}		2.587/0.460	
Total	1112(65.1)	596(34.9)	1708(100.0)	Total	1112(64.1)	596(34.9)	1708(100.0)

*Row Percent, **Column Percent, ***Chi square test, $p < 0.05$

The study participants with a history of COVID-19 infection comprised 65.1%. There was a history of COVID-19 infection in 63.3% of the female participants and in 67.7% of the males ($p < 0.05$). When COVID-19 status was evaluated according to age groups, the lowest rates were in the 31-40 years age group. The majority of the participants with a history of COVID-19 lived in a metropolis and were employed.

The Comparison of activities and life changes during pandemic lockdowns is shown in Table 2.

Table 2. Comparison of Activities and Life Changes in Lockdown and Experiencing COVID-19

Lockdown Activities	I had COVID-19 n[%]*	I had no COVID-19n[%]*	Total n [%]**	Chi Square Test/p
Used the Internet & social media				
Less	316[63.1]	185 [36.9]	501[29.3]	1.324/ 0.516
More	763[66.0]	393[34.0]	1156[67.7]	
Not use	33[64.7]	18[35.3]	51[3.0]	
Shopping				
Less	111[60.3]	73 [39.7]	184[10.8]	4.167/ 0.125
More	976[66.0]	503[34.0]	1476[86.6]	
Not changed	25[55.6]	20[44.4]	45[2.6]	
Sleep				
Less sleep	198[58.8]	139[41.2]	337[19.7]	7.478/ 0.024
More sleep	458[66.9]	227[33.1]	685[40.1]	
Not changed	456[66.5]	230[33.5]	686[40.2]	
Housework [cooking, cleaning, etc.]				
Less	523[64.7]	285[35.3]	808[47.3]	0.505/ 0.777
More	545[65.7]	284[34.3]	829[48.5]	
Not changed	44[62.0]	27[38.0]	71[4.2]	
Life Changes				
Physical status				
I lost weight	205[70.9]	84[29.1]	289[16.9]	5.202/ 0.013
I gained weight	907[63.9]	512[36.1]	1419[83.1]	
Not changed	0[0.0]	0[0.0]	0[0.0]	
Social Status				
My lifestyle has changed	971[62.5]	554[36.3]	1525[89.3]	0.430/ 0.482
Not changed	112[61.2]	71[38.8]	183[10.7]	
Psychological status				
I feel unhappy	702[61.6]	421[37.5]	1123[65.7]	10.06/ 0.007
Not changed	278[69.3]	123[30.7]	401[23.5]	
I feel happy	132[71.7]	52[28.3]	184[10.8]	
Total	111[65.1]	596[34.9]	1708[100.0]	

It was stated by 3% of the respondents that they didn't use the internet and social media, 12.6% stated that they slept more, and 48.5% did more housework. Weight was reported to have been gained

during the lockdown by 83.1% of the study participants, and 89.3% reported a lifestyle change. After lockdown, 65.7% of the respondents felt unhappy with themselves, 23.5% experienced no change in their feelings, and 10.8% reported that they were happy.

Table 3. The Logistic Regression Model for COVID-19 Status on Life Changes and Lockdown Activities

Factors	β	SE	p	OR	95% CI	
Status: I had COVID-19						
I gained weight	0.022	0.102	0.045	1.022	0.835	1.249
I feel unhappy	-0.071	0.075	0.035	1.932	1.805	2.079
Sleep(more)	-0.163	0.092	0.040	1.120	1.005	1.248
Use social media (more)	-0.800	0.053	0.047	1.563	1.006	2.428

Note. SE: Standard error; OR=odds ratio; CI= confidence interval

A model was established with life changes and lockdown activities and status of having COVID-19 and then analyzed using a backward stepwise logistic regression test. The results of the logistic regression test are presented in Table 4. After logistic regression analysis, independent predictors of status of having COVID-19 were found to be the group of “I gained weight” [OR:1.02] and “I feel unhappy” [OR:1.93]. More slept [OR:1.12] and more use of social media [OR:1.56] were found to be independent predictors of status of had COVID-19.

4. Discussion

During the COVID-19 pandemic, people were exposed to unprecedented restrictions, with the implementation of home isolation, the closure of social areas, working from home, and the closure of schools, with children continuing their education at home. For the first time, personal freedom was restricted by focussing on decreasing the number of people affected by the disease to prevent the spread of the pandemic and this resulted in continuing life within the home while not knowing how to do this, thereby causing the emergence of physiological, psychological and social problems [4].

The effects of the global pandemic will undoubtedly be able to be observed objectively after a long period. This study aimed to determine how people evaluated their time during the pandemic and the effects on their health. More than half [65.1%] of the study participants reported that they had contracted COVID-19 infection. According to the WHO data, a total of 500,186,525 cases have been recorded worldwide, and 6,190,349 deaths [1]. In the current study, it was determined that 67.7% of the male participants and 63.3% of the female participants had a history of COVID-19 infection positivity. 69.4% of the 31-40 years age group, 66.5% living in a metropolis, and 67.4% who were employed had experienced COVID-19. The data of the WHO and the Turkish Ministry of Health show that more COVID-19 cases and deaths are among males and in the 25-64 years age range [1]. In a meta-analysis of 57 studies to determine the relationship between COVID-19 and gender, males were shown to contract COVID-19 infection at a higher rate than females [8].

The results of the current study showed that in the frequency of activities during COVID-19 lockdowns, shopping was ranked first followed by use of the internet/social media, housework and sleep respectively. The enforced leisure-time because of the lockdowns caused boredom, triggering feelings of hopelessness and unhappiness [9]. In literature there has been reported to have been a dramatic increase in internet and mobile phone use during lockdowns. Studies have shown that problematic internet and mobile phone use causes mental health problems, and in addition to psychological effects, depression, mood regulation problems and internalisation have also been reported. Internet and mobile phone use is evaluated as an important risk factor negatively affecting human health, and it is thought

that the increased use during the pandemic will have adverse effects such as changes of habit and lifestyle [10]. However, Internet and social media use also presented alternative solutions to meet people's needs while in lockdown, and activities of need, want, and entertainment are run on social media. It has been reported that in addition to activities such as establishing more contact with family members and sharing experiences on social media, there was also an increase in the number of online games being played [11].

Media is a valuable tool that can be used to re-discover in periods of mandatory restrictions such as lockdowns [12,13]. In a study in South Africa, it was reported that in addition to work related to school or normal employment, they were spent on activities such as physical activities, handicrafts, hobbies, preparing food, arts, drama, and playing board games [14]. The fact that those who have had COVID-19 have to be isolated at home has paved the way for more psychosocial problems. While the restricted freedom and compulsory isolation at home during lockdowns provided the opportunity of people to spend more time together, the evaluations of free time alone can be defined as "living alone together".

When asked about the effects of lockdown on health, more than half of the current study participants reported gaining weight and 16.9% stated that they had lost weight. Almost all of the study participants reported a lifestyle change (89.3%) and 65.7% stated that they were unhappy. Negative effects of lockdown on eating and physical activity habits were reported in another study, with weight gain in the majority of participants [15]. Another meta-analysis reported that there was greater weight gain during the pandemic and weight loss was seen in a smaller proportion of people [16]. In the current study, according to logistic regression model; experienced COVID-19 of participants was reported sleeping more (OR: 1.12), more, using social media (OR:1.56), gained weight (OR:1.02) feel unhappy (OR:1.93). In a study of 3533 subjects in Italy, there were reported to be positive changes such as a tendency to quit smoking, to eat organic food, and to engage in physical activity [17]. It has been reported that running a business from home, restricted physical activity, hoarding foodstuffs and preparing food cause a change in eating habits associated with stress levels, and not going to work causes a change in sleeping habits [18,19]. The development of systematic approaches including psychological support systems is important for predictable times when home isolation is required for an indefinite period such as a pandemic.

This study has revealed the need to be prepared for potential quarantine/lockdown periods, and it can be considered that specialists providing or who will provide psychological support services will be able to contribute to the subject of potential risks and the precautions to be taken. It is extremely important that psychological support services are included in emergency action plans created for conditions requiring indefinite periods of home isolation such as pandemics, and that these services are structured according to the ecological characteristics of families with the collaboration of different professional groups [20,21].

5. Conclusion

In conclusion, people experienced lockdowns during the COVID-19 pandemic as a suddenly developing mandatory situation of a period of uncertainties. They did not what to do, while they stayed at home. In pandemic, weight gain, social media and Internet addiction, sedentary life and unhappiness occurred due to quarantine. This study showed that participants with Covid19 disease gained more weight, slept more, were unhappy and used social media. While health policies focus on disease spread and patient treatments, we think it is important the preparation of guidance such as the evaluation of free time in the home when people do not know what to do in times of lockdown. These measures will protect against the negative effects on psychological, social, and physical health.

Study Limitation

This study was conducted on Google Forms and included only users of the Internet. The inclusion of only internet users is a limitation of the research.

Ethical Statement

Approval for the study was granted by the Social and Humanities Ethics Committee of Kahraman Maraş Sütçü İmam University (Date: 23.12.2021; Number: 2021/58).

Conflicts of Interest

None declared

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Authors' Contributions:

M.S.: Conceptualization, Methodology, Analysis, Resources, Writing, Original draft preparation, Evaluation of the research report in terms of content N.A.: Conceptualization, Collect of data, All authors read and approved the final manuscript.

Generative AI statement

The author(s) declare that no Gen AI was used in the creation of this manuscript.

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