

Özgün araştırma

COVID-19 Pandemisi Sırasında Sosyal Olarak İzole Edilmiş Bireylerin Okupasyonel Performansları ve Psikososyal Durumları

Mahmut Yaran¹, Esmâ Özkan², Serkan Pekçetin³

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Öz

Amaç: COVID-19 nedeniyle alınan kısıtlayıcı önlemler yaşam tarzlarında değişikliklere neden oldu. Çalışma, Türkiye'de COVID-19 pandemisi sırasında sosyal izolasyonda olan bireylerin okupasyonel performanslarını ve psikososyal durumlarını araştırmayı amaçladı.

Gereç ve Yöntem: Çalışmaya 651 katılımcı dahil edildi. Değerlendirme için sosyodemografik bilgi form, Hastane Anksiyete Depresyon Ölçeği ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği kullanıldı. Okupasyonel performans düzeyleri ve memnuniyetleri 10 üzerinden değerlendirildi.

Bulgular: Katılımcıların uyku düzenlerinde (%65.1), besin alımında (%96.5), fiziksel aktivitede (%89.7), serbest zaman aktivitelerinde (%92.8) ve üretkenlik aktivitelerinde (%77.3) önemli değişiklikler olduğunu göstermiştir. Hastane Anksiyete Depresyon Ölçeği puanları, okupasyonel performans puanları ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği puanları arasında negatif korelasyon vardı ($p<0,001$). Ayrıca okupasyonel performans puanları ile Çok Boyutlu Algılanan Sosyal Destek Ölçeği puanları arasında pozitif bir ilişki vardı ($p<0,001$).

Sonuç: COVID-19 salgını insanların yaşamlarını, okupasyonel performansını ve psikolojik durumlarını etkilemiştir.

Anahtar kelimeler: Koronavirüs; okupasyonel performans; anksiyete; depresyon; sosyal destek.

¹Mahmut Yaran (Sorumlu Yazar). Ondokuz Mayıs Üniversitesi, Ortez ve Protez Bölümü, Samsun, Türkiye. 03623121919. mahmut.yaran@omu.edu.tr, 0000-0002-1703-590X

²Esmâ Özkan. Sağlık Bilimleri Üniversitesi, Ergoterapi Bölümü, Ankara, Türkiye. 03123046248, esmakacarozkan@gmail.com, 0000-0001-6857-4084

³Serkan Pekçetin. Sağlık Bilimleri Üniversitesi, Ergoterapi Bölümü, Ankara, Türkiye. 03123046248, serkanpekçetin@gmail.com, 0000-0001-5110-633X

Original Research

Occupational Performances and Psychosocial Statuses of Socially Isolated Individuals during the COVID-19 Pandemic

Mahmut Yaran¹, Esmâ Özkan², Serkan Pekçetin³

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Abstract

Objectives: Restrictive preventions due to COVID-19 have caused changes in lifestyles. The study aimed to investigate the occupational performances and psychosocial statuses of individuals in social isolation in Turkey during the COVID-19 pandemic.

Materials and Methods: The study included 651 participants. A sociodemographic form, the Hospital Anxiety Depression Scale and the Multidimensional Scale of Perceived Social Support were used for measurement. Occupational performance levels and satisfaction were evaluated out of 10.

Results: The findings indicated that there had been significant changes to participants' sleep patterns (65.1%), nutritional intake (96.5%), physical activity (89.7%), leisure time (92.8%) and productive activities (77.3%). There was a negative correlation between the Hospital Anxiety Depression Scale scores, occupational performance scores and the Multidimensional Scale of Perceived Social Support scores ($p<0.001$). Also, there was a positive correlation between occupational performance scores and the Multidimensional Scale of Perceived Social Support scores ($p<0.001$).

Conclusion: The COVID-19 pandemic has affected people's lives, occupational performance and psychological states.

Keywords: *Coronavirus; occupational performance; anxiety; depression; social support.*

¹Mahmut Yaran (**Corresponding Author**). Ondokuz Mayıs University, 1Department of Orthosis and Prosthetics, Samsun, Turkey. 03623121919. mahmut.yaran@omu.edu.tr, 0000-0002-1703-590X

²Esmâ Özkan. University of Health Sciences, Department of Occupational Therapy, Ankara, Turkey. 03123046248, esmakacarozkan@gmail.com, 0000-0001-6857-4084

³Serkan Pekçetin. University of Health Sciences, Department of Occupational Therapy, Ankara, Turkey. 03123046248, serkanpekçetin@gmail.com, 0000-0001-5110-633X

Introduction

Viral diseases have so far posed a serious threat to public health around the world. Over the past two decades, several viral outbreaks have occurred, including those of severe acute respiratory syndrome coronavirus (SARS-CoV-1), H1N1 influenza and Middle East respiratory syndrome coronavirus (MERS-CoV). On December 31 2019, an outbreak of pneumonia of unknown aetiology was detected in Wuhan City, Hubei Province, China. The Chinese National Health Commission reported that the common point of contact of the individuals affected by the outbreak was a seafood market in Wuhan city. On 11th February 2020, WHO announced that the disease caused by this new virus had been identified as 'COVID-19'. On 11th March 2020, WHO declared the spread of the disease to be a pandemic (Singh et al., 2020).

After the first case in Turkey on 11th March 2020, the Ministry of Health Scientific Committee convened and announced basic rules to curb this, including washing hands, physical distancing and using masks to prevent the spread of the virus. In addition, many precautions were taken by the government; for example, face-to-face education and training activities were stopped, restrictions were introduced to prevent coexistence in public living areas and flexible and remote working conditions were encouraged for public employees. Measures have since been taken to commence a lockdown period, ensuring that people do not leave their homes.

Restrictive preventions to intercept the spread of COVID-19 have caused changes to individuals' routines, habits and, in short, their lifestyles. It has become even more difficult for individuals to adapt to this sudden situation due to curfews, school closures, uncertainty and health concerns (Shigemura et al., 2020). It is thought that the COVID-19 pandemic will have a significant negative impact on the occupational performance of individuals and communities in the short and long term (Ha et al. 2021). It has been reported that, during lockdown periods, various changes have been made to the lifestyles of individuals from many different countries. These are thought to be decreased levels of physical activity, increased food intake and changed sleep patterns (Canello et al., 2020; Cheval et al., 2020; Maugeri et al., 2020; Romero-Blanco et al., 2020).

The loss of employment or threat of failure caused by the pandemic can lead to anxiety, stress, a lack of concentration, the inability to maintain a daily routine or structure, low mood/self-esteem, tense relationships with family and friends and so on (Fardin, 2020). During and after the pandemic situation, it is essential to consider the occupational status, functioning and participation of the individuals who have priority (Heinemann et al., 2020). For this reason,

the aim of the study was to examine the occupational performance and psychosocial status of individuals in social isolation in Turkey during the COVID-19 pandemic.

Material and methods

The study was performed according to the ethical codes of the World Medical Association (Declaration of Helsinki) and was approved by the Ondokuz Mayıs University Ethics Commission (Protocol No: 2020/142, Date: 04.17.2020). Informed consent was obtained from all participants.

Participants

The convenience sampling method was employed in this cross-sectional study. The participants were invited to the study via e-mail or social media. They completed online questionnaires on the 18th and 19th of April 2020. 651 participants replied and answered the inquiries. To be included in the study, participants had to be 18 years old or over. Participants in the study were reached by snowball sampling method.

Measurement Tools

Demographics

The participants' demographic characteristics, including age, gender, occupation, income, practice area and family members, were recorded. In addition, individuals were asked how many times a day they washed their hands and how many times they left their homes in the last week. Regarding complying with the recommendations of the coronavirus scientific research board, people were asked whether they comply between 1 and 10. 1 means that they do not comply at all, 10 means that they comply very much.

Occupational performance

The effects of participants' occupational performance changes on sleep, nutrition, physical activity, leisure activities, and productive activities were recorded. The importance of the activities for them, current performance and performance satisfaction level were also recorded. Importance, performance and satisfaction were scored from 1 to 10 (1 = bad, 10 = excellent).

Anxiety and depression

Participants rated their symptoms on the Hospital Anxiety and Depression Scale (HADS), which consists of 14 items. Each is scored from zero to three. HADS is a self-report questionnaire in which symptoms of anxiety and depression are screened (Zigmond & Snaith, 1983). A Turkish translation of HADS was written and verified. The cut-off point for anxiety

is 10 and for depression is 7 (Aydemir et al., 1997). Participants were asked to report their feelings from the previous three weeks.

Perceived social support

Multidimensional Scale of Perceived Social Support (MSPSS) is an easy-to-use, brief scale that subjectively measures the proficiency of social support from three different aspects (Zimet et al., 1988). MSPSS is a scale consisting three groups of sources of support: family, friends and special person(s). Each aspect consists of 4 items. A high score indicates that perceived social support is high. The validity and reliability of the Turkish version of the instrument was obtained (Eker & Arkar, 1995).

Statistical analysis

The Statistical Package for the Social Sciences (SPSS) Version 21.0 was employed to analyse the data. Descriptive statistics findings were shared by giving number (n), frequency (%), minimum, maximum, mean (\bar{x}) and standard deviation values. The Shapiro–Wilk test was used to ascertain whether the data showed normal distribution; the data did show normal distribution. Therefore, an Independent Sample t test was used to make pairwise comparisons. Correlations between variables were analysed using the Pearson correlation coefficient. According to the calculated (r) values, associations between variables were classified as either very weak (.00–.19), weak (.20–.39), moderate (.40–.59), strong (.60–.79) or very strong (.80–1.0). Level of significance was set to .05. The G Power 3.1.9.2 program was used for sample size analysis (Faul, Erdfelder, Lang, & Buchner, 2007). In the analysis made using the reference source, the minimum sample size to be reached at 0.05 error and 0.80 confidence level was calculated as 348.

Results

The demographic characteristics and the data on the working and economic status of the participants are presented in Table 1.

The individuals went out 2.93 ± 2.89 (min = 0, max = 20) times in the last week for any reason. On average, participants were washing their hands 12.86 ± 7.70 (min = 1, max = 50) times per day. The average perception of participant compliance with Coronavirus Scientific Committee recommendations was 8.74 ± 1.34 (min = 1, max = 10). The data regarding the adaptation of individuals to the process is shown in Table 2.

Table 1: Sociodemographics of the participants

		n	%
Gender	Male	304	46.70%
	Female	347	53.30%
Work Status (before COVID-19)	Active workers	423	64.98%
	Unemployed	228	35.02%
Status Change (after COVID-19)	Active workers	374	88.42%
	Laid workers	49	11.58%
Working Schedule	Rutine work	76	20.32%
	Flexible work	144	30.50%
	Home office	154	41.18%
Workplace status	Private sector	269	71.93%
	Public institute	105	28.07%
Decrease in Income	Yes	225	34.6%
	No	426	65.4%

n=participants %=percentage

Table 2: The adaptation of individuals to COVID-19 hygiene and social isolation

	X	SD	min	max
Times of going out home in a week	2.93	2.89	0	20
Times of hand washing per day	12.86	7.70	1	50
Compliance with the recommendations	8.74	1.34	1	10

X=mean SD=standart deviation min=minimum max=maximum

It was found that there were changes in 65.1% of participants' sleep patterns, 96.5% of participants' nutritional intake, 89.7% of participants' physical activity, 92.8% of participants' leisure activities and 77.3% of participants' productivity activities. The data on occupational changes is given in Table 3.

The sleep performance score was 5.64 ± 2.89 , the nutritional performance score was 6.16 ± 2.83 and the physical activity performance score was 4.24 ± 2.42 . Individuals' performance for leisure activities score was 4.46 ± 2.81 , and the performance of productive activities score was 4.71 ± 2.91 . Data on the importance, performance and satisfaction of the activities is given in Table 4.

Table 3: Occupational changes during social isolation

Occupations	How is it now?	n	%
Sleep	More	261	40.1
	Less	163	25.0
	No changes	227	34.9
Nutrition	Much	419	64.4
	Less	209	32.1
	No changes	23	3.5
Physical activities	More	28	4.3
	Less	555	85.3
	No changes	68	10.4
Lesiure activities	Much	148	22.7
	Less	456	70.0
	No changes	47	7.2
Productivity activities	More	160	24.6
	Less	343	52.7
	No changes	148	22.7

n=participants %=percentage

Table 4: Results of occupations' importance, performance and satisfaction

Occupations		n	Min	Max	X	SD
Sleep	<i>Importance</i>	651	1.00	10.00	6.68	3.04
	<i>Perfromance</i>	651	1.00	10.00	5.63	2.89
	<i>Satisfaction</i>	651	1.00	10.00	5.30	3.16
Nutrition	<i>Importance</i>	651	1.00	10.00	6.84	2.96
	<i>Perfromance</i>	651	1.00	10.00	6.16	2.82
	<i>Satisfaction</i>	651	1.00	10.00	5.43	3.00
Physical Activities	<i>Importance</i>	651	1.00	10.00	6.38	2.89
	<i>Perfromance</i>	651	1.00	10.00	4.24	2.42
	<i>Satisfaction</i>	651	1.00	10.00	3.50	2.46
Leisure activities	<i>Importance</i>	651	1.00	10.00	6.79	2.92
	<i>Perfromance</i>	651	1.00	10.00	4.47	2.81
	<i>Satisfaction</i>	651	1.00	10.00	3.93	2.87
Productivity activities	<i>Importance</i>	651	1.00	10.00	6.66	3.08
	<i>Perfromance</i>	651	1.00	10.00	4.71	2.91
	<i>Satisfaction</i>	651	1.00	10.00	4.24	2.86

n=participants X=mean SD=standart deviation min=minimum max=maximum

While the mean anxiety score obtained from the HADS (HADS-A) questionnaires was 8.97 ± 3.94 , the mean depression score (HADS-D) was 8.00 ± 3.91 . The anxiety score of 42.09 % of individuals was over 10. While the depression score of 65.28% of individuals was above 7 points. The mean MSPSS score was 60.86 ± 19.46 . There was negative correlation between HADS-A and MSPSS scores ($p < 0.001$), and also HADSD scores ($p < 0.001$). The relationships between HADS, MSPSS, and occupational performance scores are shown in Table 5.

Table 5: Correlations between HAD, MSPSS and occupational performance scores

		1	2	3	4	5	6	7	8
1. HADS-A	r	1							
	p	-							
2. HADS-D	r	.685	1						
	p	0,000*	-						
3. MSPSS	r	-.171	-.270	1					
	p	0,000*	0,000*	-					
4. Sleep Performance	r	-.270	-.297	0,000*	1				
	p	0,000*	0,000*		-				
5. Nutrition Performance	r	-.211	-.254	.354	.739	1			
	p	0,000*	0,000*	0,000*	0,000*	-			
6. Physical Activity Performance	r	-.237	-.304	.282	.537	.597	1		
	p	0,000*	0,000*	0,000*	0,000*	0,000*	-		
7. Leisure Performance	r	-.210	-.288	.309	.462	.463	.521	1	
	p	0,000*	0,000*	0,000*	0,000*	0,000*	0,000*	-	
8. Productivity Performance	r	-.218	-.305	.321	.486	.540	.541	.562	1
	p	0,000*	0,000*	0,000*	0,000*	0,000*	0,000*	0,000*	-

Pearson correlation test r: Pearson correlation coefficient * Correlation is significant at the 0.001 level (2-tailed).

Discussion

The purpose of the study was to uncover the occupational performances and psychosocial status of socially isolated individuals in Turkey during COVID-19. The results demonstrated that, after one month under lockdown conditions, participants saw changes in their sleep patterns, nutritional intake, physical activity levels, leisure activities and productive activities. Furthermore, results show that individuals with high social support levels had lower levels of depression and anxiety.

It is a well-known fact that quarantine is important in hindering the spread of infections. However, quarantining can impact on other health dimensions (Jiménez-Pavón et al., 2020), as Duan and Zhu (2020) state that pandemics have negative effects on individuals and society (Duan & Zhu, 2020). The researchers further state that early psychological interventions should be implemented, and it is reported that safe services should be created to provide psychological counselling for patients, healthcare professionals and the general public handling electronic appliances (like smartphones) (Xiang et al., 2020).

In their study evaluating the early psychological effects of the COVID-19 pandemic, Wang et al. (2020) reported that 16.5% of their 1.210 participants had moderate to severe depressive symptoms, while 28.8% had moderate to severe anxiety symptoms (Wang et al., 2020). In the current study, 56.22% of individuals showed moderate to severe depressive symptoms, while 78.49% had moderate to severe anxiety. It is thought that this is due to the confusion and panic that has emerged as a result of the pandemic.

Since quarantining is acquainted with interruption of work routine, it can cause stress and anxiety. A constant flow of information about the pandemic can also create stress. Stress has been associated with greater amounts of fat, carbohydrate and protein consumption (Moynihan et al, 2015). Our findings showed that there were changing in eating habits amongst most participants. Many stated that they consumed more food. It is very important to inform individuals about the importance of a healthy and balanced diet that will increase their immune functions.

Sleep is an important indicator of health, and good sleep is essential for physical and mental well-being. Considering the impact of the COVID-19 pandemic, many factors have been affecting people's sleep quality (Besedovsky et al., 2019). The quarantining process has caused significant changes to many people's routines. For those who want to work from home, there may be disruption to daily routines and work schedules. Also, those working in closed businesses will likely experience more stress and concern regarding business continuity and financial security. Not being able to visit friends and family, shop or participate in cultural and sports activities may also affect individuals' sleep patterns and sleep quality by causing the balance between time at home, relaxation and sleep to deteriorate (Altena et al., 2020; Xiao et al., 2020b). In our study, 40% of individuals stated that they slept more and 25% stated that they slept less. These results show that most participants experienced changes to their sleep patterns. Sleep and immunity affect each other mutually. Sleep disturbance impairs immune function, and sleep patterns change when someone has an infection (Imeri & Opp, 2009).

Continuity of one's sleep routine is essential in both supporting the immune system and preventing mental disorders such as depression, anxiety and bipolar disorder. Individuals in the process of quarantining can be educated online about sleep hygiene, physical activity, and relaxation techniques to maintain their sleep routines (Altena et al., 2020).

Many countries around the world have taken measures to control the speed at which the virus is spreading. Such measures include imposing the requirement of special permits to enter and exit cities, closing schools, encouraging working from home and even setting a curfew. Understandably, these measures have limited social and physical activity. It is well known that inadequate physical activity is a crucial risk factor for cardiovascular disease, hypertension, diabetes, prostate cancer and colon cancer. Also, inadequate physical activity is reported to cause an increase in sedentary screen time and anxiety levels, which can pose significant risks to people's health and well-being (Lippi et al., 2020). In our study sample, 85% of participants stated that their levels of physical activity had decreased. Physical activity performances and satisfaction were also found to be quite low. During the quarantining process, it should be encouraged that individuals perform physical activity routines to maintain their physical and mental health. Also, administrations have allowed walking, jogging or other individual activities in suitable outdoor areas, providing that social distancing is maintained.

Physical and leisure activities have many psychological benefits and are used as an effective intervention method for sufferers of depression (Goodman et al., 2017). In the current study, it was observed that the changes to leisure activities were similar to the changes seen to physical activities. The participants' participation and satisfaction levels regarding leisure activities were low. Individuals who spend their time at home due to COVID-19 restrictions are not able to participate in leisure activities with the public and the community. However, our findings suggest that individuals should adopt new in-home leisure habits to maintain their well-being.

According to the report of the International Labour Organisation (ILO), more than four in five people in the global workforce have lived in places where full or partial workplace closures have occurred due to COVID-19, emphasising that the crisis has worsened the global labour market (ILO, 2020). It was also reported that around 25 million people worldwide could lose their jobs by the end of 2020 due to the pandemic (ILO, 2020). These economic effects often affect the most vulnerable workers in society and are exacerbated by job losses and the pandemic's rate of spread. In our study, 11.58% of the participants had lost their jobs due to COVID-19, and 34.6% of them had seen a decrease in their income. Furthermore, more than

half of the participants reported that their productive activity levels had decreased. Mental health disorders can develop due to long-term telework, long-term social isolation and a lack of workplace interactions (Sim, 2020). For this reason, it is thought that regulations should be made to maintain the productivity of individuals who work at home or who are taking a break from work due to social isolation in the healthiest way possible.

In our study, there was a negative relationship between occupational performance, perceived social support, and anxiety and depression. In addition, the perceived performance of occupations was positively associated with perceived social support. More people's mental health is affected than the number of people affected by the symptoms of the virus (Ornell et al., 2020; Ransing et al., 2020). Nutrition, exercise, and sleep all play a role in the aetiology, progression, and treatment of mental disorders, according to the research, and lifestyle and nutritional adjustments are considered therapeutic behaviors for them (Rössler, 2016). Similarly, in a study on healthcare workers treating COVID-19 patients, anxiety was reported to affect sleep quality (Xiao et al., 2020a). Individuals who have to stay at home will face daytime stress, anxiety and depression. They may also experience impaired sleep patterns, which may affect emotional functioning that reflects the next day (Altena et al., 2020). Due to nutritional imbalance and altered eating habits, immune responses may be impaired and make people more susceptible to viral infections. For this reason, during isolation, it is necessary to follow a healthy and balanced diet that includes a high amount of minerals, antioxidants and vitamins (Lippi et al., 2020; Muscogiuri et al., 2020). Quarantine is known to restrict physical activity. After two weeks of inactivity, muscle tissue insulin resistance, decreased muscle glucose, muscle atrophy will occur and the beneficial metabolic and cardiovascular response will be lost (Lippi et al., 2020) and may also have consequences that affect one's mental health. Xiao et al. (2020b) reported that the social capital (the measurement of social trust, social belonging and participation) of the participants who isolated themselves due to COVID-19 had seen a decrease in their quality of sleep and an increase in feelings of anxiety and stress. In another study by Xiao et al. (2020a), anxiety, social support and sleep quality are reported to be related. In their study on Weibo users who were in the process of quarantining, Li et al. (2020) reported that participants began to take more care of their health and were more likely to seek social support from their families rather than meeting with their friends (Li et al., 2020). In addition, managing sleep problems optimally during lockdown can narrow down stress and probably hinder the disruption of social relationships (Altena et al., 2020). Our study shows that perceived social support reduces anxiety and depression. It is thought that social and emotional

support provided by friends, family members or someone valuable to the person can help reduce that person's anxiety and depression during the social isolation process.

Leisure activities, such as resting, having fun, developing knowledge or skills and voluntarily participating in community life, are important for well-being (Newman et al., 2014). Productive activities include paid/unpaid work, home administration management and school/play activities. Successful performance and participation in both leisure activities and productive activities lead to a sense of competence, success and satisfaction (Feldhacker et al., 2018). All occupational performance areas contribute to an individual's self-realisation process. In this context, occupational performance is important for the development of individuals' well-being

Conclusion

The data we obtained from 651 people aged 18–72 showed that individuals' occupational performance patterns were impaired, and leisure activities and productive activities were decreased, as some participants had lost work or had seen a decrease in income. There was a substantial increase in levels of anxiety and depression. It was observed that individuals who have high levels of social support had better mental health regarding occupational performance.

Since our research was carried out in a certain time period, it is important in terms of revealing the current situation, but it has limitations in terms of causality and generalization.

The findings may support the determination of strategies for improving the health and well-being of societies affected by the social isolation caused by COVID-19. It may also aid the implementation of community and person-centred measures. This study can guide occupational therapists, physiotherapists, nutritionists, psychiatrists, psychologists and public health professionals in their decisions. Furthermore, this study will provide informative proof for future policy decisions made by policymakers.

This study also had some limitations, as the data was received in a short amount of time and results were self-reported. The online test application limited our review of all activities of the individuals. In future studies, the medium and long-term effects of the pandemic in Turkey should be examined.

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Declaration of interest statement

The authors have no potential conflicts of interest to disclose.

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