Özgün Araştırma

Covid-19 Pandemisinde Okupasyonel Denge, Korku ve Agorafobi

Özgü İnal[1] (iD), Hatice Deniz Özdemir[2] (iD), Fatma Nesrin Turan[3] (iD)

Öz

Amaç: Covid-19 pandemisi sonucunda bireylerin okupasyonel tercihleri ve okupasyonel dengeleri değişime uğramıştır. Bu çalışmanın amacı, Covid-19 Pandemisi sırasında yetişkinlerde okupasyonel denge, Covid-19 korkusu ve agorafobiyi değerlendirmektir.

Gereç ve Yöntem: Çalışmaya altı yüz doksan dokuz kişi dahil edildi. Çalışmada Okupasyonel Denge Anketi (OBQ), Covid-19 Korkusu Ölçeği ve DSM-5 Agorafobi Ölçeği kullanıldı.

Bulgular: Covid-19 Korkusu Ölçeği ile DSM-5 Agorafobi Ölçeği arasında istatistiksel olarak anlamlı orta düzeyde bir ilişki bulundu ($p<0,001$, $r=,497$). Covid-19 Korkusu Ölçeği ve OBQ arasında ise istatistiksel olarak anlamlı bir ilişki bulunmadı ($p<0,05$). Düzenli fiziksel ve serbest zaman aktivite alışkanlıklarına sahip bireyler daha iyi okupasyonel dengeye ve daha az Covid-19 korkusuna sahipti.

Sonuç: Covid-19 pandemisinde bireylerin aktivite tercihleri değişmiştir ve bireyler genellikle sedanter aktiviteleri tercih etmektedir. Covid-19 korkusunun artması, agorafobi düzeyini arttırmaktadır. Düzenli yapılan aktivitenin olumlu etkileri göz önüne alındığında; Covid-19 pandemisinde bireylerin anlamlı ve amaçlı aktivitelerle desteklenmesi ile okupasyonel dengenin geliştirilebileceği ve Covid-19 korkusunun azaltılabileceği düşünülmektedir.

Anahtar kelimeler: Agorafobi, korku, mental sağlık, okupasyonel denge, psikososyal

[1]Özgü İnal (Sorumlu Yazar), Sağlık Bilimleri Üniversitesi, Gülhane Sağlık Bilimleri Fakültesi, Ergoterapi Bölümü, Ankara, Türkiye, +90 312 3046191, e-posta: inalozgu@gmail.com

[2]Hatice Deniz Özdemir, Beykent Üniversitesi, Fen Edebiyat Fakültesi, Psikoloji Bölümü, Avalon Campus, Büyükçekmece_İstanbul-Türkiye, +905333607750, e-posta: deniz.dozdemir@gmail.com

[3]Fatma Nesrin Turan, Trakya Üniversitesi Tıp Fakültesi, Biyoistatistik Anabilim Dalı, Edirne, Türkiye, +90 284 2357642, e-posta: fnesrinturan@yahoo.com.tr

Original Research

Occupational Balance, Fear and Agoraphobia in the Covid-19 Pandemic

Özgü İnal[1] (iD), Hatice Deniz Özdemir[2] (iD), Fatma Nesrin Turan[3] (iD)

Abstract

Objectives: The occupational preferences and occupational balance of individuals have changed during the Covid-19 Pandemic period. This study aims to evaluate occupational balance, fear of Covid-19 and agoraphobia in adults during the Covid-19 pandemic.

Materials and Methods: Six hundred ninety-nine individuals were included in this study. Occupational Balance Questionnaire, Fear of Covid-19 Scale and DSM-5 Agoraphobia Scale were used in the study.

Results: A statistically significant moderate correlation was found between the Covid-19 Fear Scale and the DSM-5 Agoraphobia Scale ($p<0.001$, $r=.497$). There was no statistically significant relationship between the Covid-19 Fear Scale and OBQ ($p<0.05$). Individuals with regular physical and leisure activity habits had better occupational balance and less fear of Covid-19.

Conclusion: In the Covid-19 pandemic, the activity preferences of individuals have changed and individuals generally prefer sedentary activities. Increasing fear of Covid-19 increases the level of agoraphobia. Considering the positive effects of regular activities, it is thought that by supporting individuals with meaningful and purposeful activities in the Covid-19 pandemic, occupational balance can be improved and the fear of Covid-19 can be reduced.

Keywords: Agoraphobia, fear, mental health, occupational balance, psychosocial

[1]**Özgü İnal (Corresponding Author)**, Health Science University, Faculty of Gülhane Health Science, Department of Occupational Therapy, Ankara, Turkey, +90 312 3046191, e-mail: inalozgu@gmail.com
[2]**Hatice Deniz Özdemir**, Beykent University, Faculty of Arts and Sciences, Department of Psychology, Avalon Campus, Büyükçekmece_ Istanbul, Turkey. +905333607750, e-mail: deniz.dozdemir@gmail.com
[3]**Fatma Nesrin Turan**, Trakya University, Medicine Faculty, Department of Biostatistics, Edirne, Turkey, +90 284 2357642, e-mail: fnesrinturan@yahoo.com.tr

Introduction

The pandemic of novel coronavirus disease (Covid-19) has a profound impact on the lives, health and wellbeing of individuals, families and communities around the world. The interruption of daily occupations (all activities of daily living in our daily life) has favoured the adoption of health risk behaviors, such as physical inactivity and sedentary lifestyles (Wang et al., 2020). The feelings of lack of control and isolation, caused by confinement and social distance have increased the incidence of daytime stress (Rubin and Wessely, 2020) and almost complete loss of structured occupations.

The pandemic also produced effects such as fear of sickness and death in addition to changing daily life and work routines, occupational balance and social participation (Ornell, Schuch, Sordi, & Kessler, 2020; Mamun and Ullah, 2020). Occupational balance is defined as the perception that the individual has the right amount of occupation and an adequate variation in occupations (Wagman, Håkansson, & Björklund, 2012). This term is associated with health and wellbeing (Erlandson & Eklund, 2006; Håkansson, Lissner, Björkelund, & Sonn, 2009). An ideal balance is achieved with a moderate-to- a high level of participation in mental, social and recreational occupations (Wilcock et al., 1997).

The COVID-19 pandemic is associated with distress, anxiety, fear of transmission, and depression in the general population. Restrictions related to social distance and others increase stress, anxiety, and depression in people's daily life (Mehta et al., 2020). People with chronic anxiety and stress-related disorders may be restricted from participating in basic life areas such as social activities (Duncan & Prowse, 2014). Also, there may be concerns about recurrent and sudden intense anxiety attacks and their potential effects, and this situation can be seen as agoraphobia (Lewis, 1996). Agoraphobia is an anxiety disorder characterized by significant fear and anxiety about multiple situations in which one thinks that escape might be difficult or help might not be available if panic-like symptoms or other incapacitating symptoms appear (APA, 2013).

Although attention is drawn to the features of the concepts of occupational dysfunction, fear and agoraphobia that may affect each other in the literature, no study investigating the relationship between occupational balance, fear and agoraphobia has been found. Epidemic diseases that affect societies such as Covid-19 may also appear in the future. Determining which subjects are affected by individuals during the current epidemic process will guide the measures to be taken in the future. This study was planned to investigate occupational balance, fear of Covid-19 and agoraphobia in adults during the Covid-19 pandemic. We think that the results

of this study will provide new information in terms of general literature and can guide intervention programs to be planned during or after the pandemic.

Materials and Methods

Research Design

Before the conduct of this study, a Scientific Research application was submitted to the Republic of Turkey Ministry of Health and the necessary approval was obtained. The ethics committee permission required for the study was obtained from the Scientific Research Ethics Committee of Trakya University Faculty of Medicine (2020/185). The study was designed in a way to cover all provinces of Turkey. Since the face-to-face interview was not possible due to the Covid-19 pandemic, an online method was utilized to communicate with the participants.

Participants and Assessment

Six hundred and ninety-nine individuals over 19 years old were included in this study. At the beginning of the study, an informed consent form about the study was sent to the individuals. After the participants read this, they ticked the box for volunteer participation in the study. Later, they had access to the sociodemographic and other forms related to the study.

The socio-demographic information form prepared by the study team covered age, gender, and education level as well as certain questions about the pandemic (such as employment status, financial changes etc. during this period).

Occupational Balance Questionnaire, Fear of Covid-19 Scale and DSM-5 Agoraphobia Scale were used in the study.

Occupational Balance Questionnaire (OBQ) measures occupational balance in different dimensions. The scale aims to determine satisfaction based on the amount and diversity of daily activities of an individual and identify the individual's occupational balance (Wagman & Håkansson, 2014). The questionnaire contains 11 items with 4 possible answer categories. Higher scores indicate a higher occupational balance. Cronbach's alpha for OBQ11-T total score was 0.785 (Günal et al., 2020).

The Fear of Covid-19 Scale is developed to reveal the effects of Covid-19 on individuals' mental health. This scale contains 7 items, 5 of which are of the Likert type. Higher scores indicate a higher level of fear of Covid-19 (Ahorsu et al., 2020; Satici, Gocet-Tekin, Deniz, & Satici, 2020). Cronbach's alpha was assessed and reliability coefficients for the total scale were found 0.84 in the Turkish adaptation study (Satici, Gocet-Tekin, Deniz, & Satici, 2020).

DSM-5 Agoraphobia Scale is consisting of 10 items based on a five-point Likert scale. Individuals are asked to score the scale considering their thoughts, feelings and behaviors in a crowd, in public places, when in vehicles, when travelling alone or at times away from home in the last seven days. Scores that can be obtained from the scale range from 0-40, and high scores indicate that agoraphobia is severe. Also, there is a section for the clinician to re-evaluate the scores based on clinical interview principles while assessing the scale scores (APA, 2013; Aydın, Coldur, & Aydemir, 2017). The internal consistency of the was found 0.95 and, item-total score correlation coefficients were found between 0.66 and 0.87 in Turkish form (Aydın, Coldur, & Aydemir, 2017).

Statistical Analysis

Since there is no similar study in the literature, the sample size was not calculated before the study. As the study data were obtained with an internet-based fill-in method, they were transferred to the Excel program, and IBM SPSS Statistics for Windows, Version 19.0 Armonk, NY: IBM Corp., LISREL 9.3 and TURCOSA (Turcosa Analytics, 2017) programs were utilized for statistical analyses. Data were transferred to the statistics program and normal distribution suitability of the data was examined by the Shapiro-Wilk test, skewness and kurtosis were assessed, and since normality assumption was not met, the non-parametric Spearman's Rho correlation analysis was used for evaluating the Occupational Balance Questionnaire, Fear of Covid-19 Scale and DSM-5 Agoraphobia Scale. Mann-Whitney U test and the Kruskal-Wallis test were used for inter-group comparisons. If a statistically significant difference was found with the Kruskal-Wallis test, Dunn's test was applied. The construct validity of the Occupational Balance Questionnaire, the Fear of Covid-19 Scale and the DSM-5 Agoraphobia Scale were evaluated by confirmatory factor analysis and reliability was evaluated by Cronbach Alpha coefficient.

Results

A total of 699 participants completed the study (492 females, 207 males). The socio-demographic characteristics of the participants were presented in Table 1.

In the study, participants were questioned about the time they spent on their occupations during the day. It was determined that participants spend 7.02±3.55 hours for sitting, 1.97±1.99 hours for walking, 2.78±3.09 hours for lying down (except for sleeping), 7.79±1.48 hours for sleeping, 2.63±2.28 hours for watching television, 2.92±3.13 hours for using a computer, 3.60±2.76 hours for using mobile phones (including social media), 0.64±0.84 for doing physical

exercise, 1.38±1.70 hours for leisure activities/hobbies, 1.48±0.71 for eating and 1.02±0.56 for self-care (Mean±SD).

Table 1. Descriptive characteristics of individuals.

Variables		N=699	%
Gender	female	492	70.4
	male	207	29.6
Age	19-25 years	210	30.0
	26-40 years	228	32.6
	41-64 years	249	35.6
	>=65 years	12	1.8
Marital status	married	338	48.4
	single	361	51.6
Education	primary-secondary school	6	0.8
	high school	206	29.5
	university and higher	487	69.7
Change of income during the pandemic	no change	443	63.4
	decreased	238	34.0
	increased	18	2.6
Employment	goes to work every day	37	5.3
	flexible hours	138	19.7
	online working	244	34.9
	none	280	40.1
Presence of chronic disease	yes	149	21.3
Physical activity before the pandemic	yes	295	42.2
Physical activity during the pandemic	yes	235	33.6
Leisure time activities before the pandemic	yes	258	36.9
Leisure time activities during the pandemic	yes	265	37.9

With the Covid-19 pandemic, the activity (physical and leisure time) preferences of individuals have changed. The activity preferences of the participants before and during the pandemic are presented in Table 2.

The study revealed a statistically significant moderate correlation between the Fear of Covid-19 Scale and DSM-5 Agoraphobia Scale scores ($p<0.001$, $r=.497$). Post-hoc power was calculated at 0.89 according to the correlation between The Fear of Covid-19 Scale and DSM-5 Agoraphobia Scale scores ($r=0.497$, $p<0.001$). No correlation was found between the Fear of Covid-19 scale and OBQ ($p<0.05$).

According to the results of the confirmatory factor analysis study; all goodness-of-fit values except for compliance X^2/df had a good fit in the assessment of both the OBQ and the Fear of Covid-19 scale. It is thought that the X^2/df findings may be resulting from the sample size.

Table 2. Activity preferences of the participants before and during the pandemic.

activities before the pandemic	n	%	activities during the pandemic	n	%
walking (outside)	183	26.2	walking	27	3.9
reading	97	13.9	reading	111	15.9
fitness (gym center)	67	9.6	fitness (home)	26	3.7
handcraft/craftwork	59	8.4	handcraft/craftwork	66	9.4
pilates (gym center)	40	5.7	pilates (home)	47	6.7
playing a musical instrument	29	4.1	playing a musical instrument	15	2.1
painting	25	3.6	painting	36	5.1
running	24	3.4	running	9	1.3
swimming	24	3.4	swimming	-	-
watching movies/series/tv	23	3.3	watching movies/series/tv	62	8.9
sculpture/ceramic/mosaic/ stone painting	23	3.3	sculpture/ceramic/mosaic/stone painting	9	1.3
listening to music	21	3.0	listening to music	11	1.6
yoga (gym center)	20	2.9	yoga (home)	37	5.3
playing football	19	2.7	playing football	2	0.3
fishing	19	2.7	fishing	-	-
spending time with friends	18	2.6	spending time with friends	-	-
cycling	18	2.6	cycling	-	-
flower care/gardening	17	2.4	flower care/gardening	23	3.3
wood painting	16	2.3	wood painting	7	1.0
going to the cinema/theatre	15	2.1	going to the cinema/theatre	-	-
photography	13	1.8	photography	-	-
cycling	10	1.4	cycling	2	0.3
swimming	10	1.4	swimming	-	-
dance	10	1.4	dance	10	1.4
computer games/other games, e.g. backgammon	8	1.1	computer games/other games, e.g. backgammon	13	1.8
folk dancing	7	1.0	folk dancing	1	0.1
cooking and baking	6	0.8	cooking and baking	37	5.3
travel	5	0.7	travel	-	-
looking after grandchildren	4	0.6	looking after grandchildren	-	-
tennis	4	0.6	tennis	1	0.1
kickbox	4	0.6	kickbox	-	-
basketball	4	0.6	basketball	-	-
volleyball	4	0.6	volleyball	1	0.1
learning a foreign language	4	0.6	learning a foreign language	12	1.7
pet care	3	0.4	pet care	6	0.8
Jiu-jitsu	2	0.3	Jiu-jitsu	-	-
orienteering	2	0.3	orienteering	-	-
meditation	2	0.3	meditation	4	0.6
bowling	2	0.3	bowling	-	-
exercise at home	1	0.1	exercise at home	86	12.3
rowing	1	0.1	rowing	-	-
mountain climbing	1	0.1	mountain climbing	-	-
repair/renovation	1	0.1	repair/renovation	2	0.3
volunteering (e.g. tutoring, care for stray animals)	1	0.1	volunteering (e.g. tutoring, care for stray animals)	-	-
participation in online trainings	1	0.1	participation in online trainings	11	1.6
making puzzle	-	-	making puzzle	24	3.4
writing and poetry	-	-	writing and poetry	2	0.3
learning sign language	-	-	learning sign language	6	0.8

In the examination of the OBQ, Fear of Covid-19 and DSM-5 Agoraphobia Scales, the RMSEA compliance fit index was weak and the GFI value was within the acceptable goodness-of-fit range (Table 3).

Table 3. Goodness-Of-Fit Values in the Confirmatory Factor Analysis Performed With Occupational Balance, Fear of Covid-19 and DSM-5 Agoraphobia Scales.

	X^2	df	X^2/df	RMSEA	SRMR	CFI	NFI	IFI	RFI	GFI
Occupational Balance *Questionnaire*	272.96	40	6.82	0.091	0.043	0.097	0.97	0.97	0.95	0.93
Fear of Covid-19 Scale	79.10	10	7.91	0.099	0.037	0.098	0.98	0.98	0.96	0.97
DSM-5 Agoraphobia Scale	106.18	31	3.42	0.099	0.072	0.097	0.96	0.97	0.95	0.92

RMSEA: Root Mean Square Error of Approximation; SRMR: Standardized Root Mean Square Residuals; CFI: Comparative Fit Index; NFI: Normed Fit Index; IFI: Incremental Fit Index; RFI: Relative Fit Index; GFI: Goodness of Fit Index

In the study, a significant difference was found between the genders in the Covid-19 Scale and DSM-5 Agoraphobia Scale scores (p=0.001), and the mean score was higher in women compared to men. The occupational balance of the individuals in the 41-64 age group was better than the other age groups. A statistical difference was observed between single individuals and married individuals in terms of agoraphobia and occupational balance. Married participants had better occupational balance and lower agoraphobia levels (p=0.003 and p=0.007, respectively). A significant difference was found according to education level in the OBQ and Fear of Covid-19 Scale (p=0.010 and 0.034, respectively). Individuals with university or higher education had a better occupational balance, and individuals with high school degrees had less fear of Covid-19 than other individuals. There was a significant presence of chronic disease difference in the Fear of Covid-19 Scale (p=0.032). Participants with chronic diseases had a higher level of fear. A significant difference was found in terms of OBQ and Fear of Covid-19 Scale in individuals with physical and leisure activity habits. Those who did physical and leisure time activities before and during the pandemic had better occupational balance (p=0.001). Also, individuals who engaged in physical and leisure time activities during the pandemic had less fear of Covid-19 (p=0.001) (Table 4).

Table 4. Significance of Occupational Balance (OBQ), Fear of Covid-19 and DSM-5 Agoraphobia Scales according to variables.

Variable		OBQ			Fear of Covid-19 Scale			DSM-5 Agoraphobia Scale		
		Mean±SD	Median, min-max	z/χ^2 P-value	Mean±SD	Median, min-max	z/χ^2 P-value	Mean±SD	Median, min-max	z/χ^2 P-value
Gender	female	18.48±0.32	19 (0-33)	-0.227	17.91±0.28	18 (7-35)	-6.204	11.65±0.36	10.5 (0-40)	-3.508
	male	18.41±0.50	18 (0-33)	0.821†	14.86±0.41	14 (7-35)	0.001†	9.30±0.51	8 (0-36)	0.001†
Age	19-25 years	17.39±0.45	17.5 (0-33)		16.47±0.43	15.5 (7-32)		11.39±0.54	11 (0-36)	
	26-40 years	17.55±0.49	18 (0-33)	25.325	17.21±0.43	16 (7-35)	6.845	11.31±0.54	10 (0-40)	5.666
	41-64 years	20.19±0.43	21 (1-33)	0.001†	17.07±0.38	16 (7-35)	0.077	10.19±0.50	8 (0-36)	0.129
	>=65 years	18.33±2.38	17.5 (5-33)		21.58±2.05	23 (9-34)		12.25±0.67	11.5 (4-19)	
Marital status	married	19.15±0.37	20 (0-33)	-2.699	17.1±0.33	16 (7-35)	-0.501	10.08±0.42	9 (0-35)	-2.932
	single	17.81±0.38	18 (0-33)	0.007†	16.93±0.34	16 (7-35)	0.617	11.77±0.43	11 (0-40)	0.003†
Education	primary-secondary school	17.17± 2.36	17 (0-33)		21.5±2.40	18.5 (16-29)		13.33±2.81	13.5 (3-23)	
	high school	17.17± 0.48	19 (0-33)	9.282 0.010††	16.26±0.43	15.5 (7-35)	6.749 0.034††	10.75±0.54	10 (0-36)	0.967 0.617
	university or higher	19.01±0.32	4 (2-5)		17.28±0.28	16 (7-35)		11.01±0.36	10 (0-40)	
Change of income during the pandemic	no changed	18.70±0.33	19 (0-33)		16.81±0.29	16 (7-35)		10.91±0.38	10 (0-40)	
	decreased	17.94±0.46	18 (0-33)	2.829	17.41±0.43	16 (7-35)	0.773	11.29±0.50	10 (0-36)	4.863
	increased	19.39±1.65	18 (7-33)	0.243	16.78±1.64	15 (7-31)	0.679	7.61±2.05	5 (0-26)	0.088
Employment	goes to work every day	20.22±1.09	21 (5-33)		17.11±1.18	16 (7-32)		11.30±1.30	12 (0-25)	
	working flexible hours	17.82±0.60	18 (0-33)		19.74±0.50	16 (7-31)		10.77±0.65	10 (0-38)	
	online working	18.45±0.46	18 (0-33)	3.639	17.12±0.41	16 (7-35)	0.108	11.27±0.51	10 (0-40)	1.100
	not working	18.55±0.42	19 (0-33)	0.303	17.05±0.37	17 (7-33)	0.991	10.73±0.49	10 (0-36)	0.777
	yes	10.66±0.40	21 (1-33)		16.98±0.32	15 (7-35)		10.66±0.40	10 (0-40)	
Presence of chronic disease	no	18.36±0.30	18 (0-33)	-0.644	16.74±0.26	16 (7-35)	-2.151	10.89±0.33	10 (0-38)	-0.064
	yes	18.82±0.57	19 (0-33)	0.520	18.01±0.51	18 (7-35)	0.032†	11.19±0.69	10 (0-40)	0.949
Physical activity before the pandemic	no	17.27±0.35	18 (0-33)	-4.655	17.16±0.30	17 (7-33)	-1.208	11,076±0.38	10 (0-35)	-0.984
	yes	20.85±0.39	20 (3-30)	0.001†	16.81±0.38	16 (7-35)	0.227	10.79±0.48	10 (0-40)	0.325
Physical activity during the pandemic	no	17.52±0.31	18 (0-33)	-4.713	17.40±0.29	17 (7-35)	-2.529	10.99±0.36	10 (0-38)	-0.679
	yes	20.29±0.47	21 (1-33)	0.001†	16.24±0.41	15 (7-35)	0.011†	10.87±0.54	10 (0-40)	0.497
Leisure time activities before the pandemic	no	17.57±0.33	18 (0-33)	-4283	17.35±0.30	17 (7-35)	- 2.134	10.98±0.38	10 (0-40)	-0.010
	yes	19.96±0.43	20 (1-33)	0.001†	16.43±0.40	15 (7-35)	0.033†	10.90±0.49	10 (0-38)	0.992
Leisure time activities during the pandemic	no	17.43±0.33	17 (0-33)	-4.985	17.47±0.30	17 (7-35)	-2.556	11.18±0.39	10 (0-40)	-0.863
	yes	20.13±0.43	20 (0-33)	0.001†	16.26±0.37	16 (7-35)	0.011†	10.58±0.47	10 (0-36)	0.388

SD: Standart Deviation, †: Mann-Whitney U test, ††: Kruskal-Wallis

Discussion

This study was planned to investigate occupational balance, fear and agoraphobia in adults during the Covid-19 pandemic. It was determined that the physical activity levels of individuals decreased, while their leisure time activities increased during the Covid-19 pandemic and individuals' occupation preferences changed. Also, it has been determined that individuals with physical and leisure time activity habits have better occupational balance and less fear of Covid-19. The study also highlighted the relationship between Covid-19 fear and agoraphobia.

In the study, it was determined that the participants generally exhibited sedentary behaviors such as sitting, lying down and sleeping during the day. Furthermore, individuals reported considerably short durations of walking and physical activity during the day. The literature shows that sedentary behavior is an important independent predictor of an individual's health status beyond the level of physical activity (Katzmarzyk, Church, Craig, & Bouchard, 2009). The time spent sitting was 7.02 and lying was 2.78 hours (except sleeping) per day in the present study. This situation suggests that individuals often spend sedentary activities during the day due to social isolation caused by the pandemic and the decrease in productivity activities during this period. The prevalence of sedentary behavior is higher in older adults (Harvey, Chastin, & Skelton, 2013). However, in this study, almost all participants were under 65 years of age and recorded low rates of physical activity during the day and long periods of sedentary behavior.

It was determined that the physical activity levels of individuals decreased, while their leisure time activities increased during the Covid-19 pandemic. Before the pandemic, the most physical activities individuals did were walking outside, fitness and Pilates at a gym center. During the pandemic, the most preferred physical activities were exercise at home, Pilates and yoga at home. It was determined that the participants were inclined to physical activities that can be performed in the home environment without requiring considerable equipment during the pandemic.

While the most common leisure time activities were reading, handcraft and playing a musical instrument before the pandemic, the most common leisure time activities were found to be reading, handcraft and watching movies/series/tv during the pandemic. Moreover, individuals reported adopting new leisure time activities they could perform at home such as making puzzles and writing/poetry rather than leisure time activities performed outdoors (e.g. cycling). Leisure time activities may be defined as activities performed with intrinsic

motivation that is not related to work, self-care or sleep. This concept consists of discovering leisure time and leisure time participation. While the new leisure activities included in this study are important in terms of exploring different activities, it is thought that they may contribute to the decrease in physical activity levels of individuals in the future, as they are performed indoors and generally in a sedentary position.

The study revealed increased levels of agoraphobia with increased levels of fear of Covid-19. The literature associates the presence of agoraphobia with panic severity and increased social and occupational dysfunction, highlighting that agoraphobia may be an indicator of fear (Kessler et al., 2006; Wittchen et al., 2010). In this study, the mean score of the participants on the agoraphobia scale was found to be 10.96±7.93. In the Turkish validity study of the scale, this value was found to be 2.36±4.37 (Aydın, Coldur, & Aydemir, 2017). This finding draws attention to the increase in the level of agoraphobia in the Covid-19 pandemic. Considering the relationship of agoraphobia with anxiety, panic severity and fear, the idea that fear of Covid-19 can increase agoraphobia supports the relevant literature.

The study presented herein revealed higher levels of agoraphobia and fear of Covid-19 in women. Another study investigating fear of Covid-19 (Wang et al., 2020) also reported higher levels of fear in women compared to that in men. The results of the present study are consistent with these results as well as the literature.

Participants aged between 41-64 years were observed to have better occupational balance during the pandemic. Working is a potentially important occupation for occupational balance perception among persons of working age (Leufstadius, Eklund, & Erlandsson, 2009). One of the measures taken in Turkey during the Covid-19 pandemic was a curfew for individuals younger than 20 years or older than 65 years ago. The finding that participants in working-age had better occupational balance may be associated with the fact that individuals in this age group have had continued productivity activities and social participation during the pandemic.

Married participants had better occupational balance and lower agoraphobia levels in this study. Another study (Cramm, Møller, & Nieboer, 2012) showed that only marital status in demographic variables is a strong indicator of subjective well-being. A study conducted with 1700 adults (Arrindell, Heesink, & Feij, 1999) reported the effect of marital status on satisfaction with life, demonstrating higher scores of satisfaction with life in married individuals. In another study on balance in life (Matuska, Bass, & Schmitt, 2013), balance in life subscale scores was significantly lower in single, divorced or widowed participants

compared to married or partnered participants. Single individuals were found to have more fear and avoidance in terms of both social interaction and performance (Hart, Turk, Heimberg, & Liebowitz, 1999). A study investigating different family structures (Afifi, Cox, & Enns, 2006) reported the highest prevalence of agoraphobia in those who never married and in separated/divorced mothers. Another study looking at agoraphobia in the elderly (McCabe et al., 2006) showed a higher prevalence of agoraphobia in younger age groups, women and widowed/divorced individuals. The results of the present study are consistent with these results in the literature.

Participants with chronic disease had a higher level of fear in this study. A higher level of fear of Covid-19 may be an expected finding in those with chronic disease. During the pandemic, all sources of information (e.g. television) underlined that Covid-19 affects those with chronic diseases and even increases the risk of death in this group. Exposure to such information may naturally have played a role in increasing the fear of Covid-19 in individuals with chronic diseases (Bakioğlu, Korkmaz, & Ercan, 2020).

Individuals with ongoing physical activity had better occupational balance and a lower level of fear of Covid-19 in the present study. It is known that a decrease in functional capacity may lead to impaired occupational balance (Wilcock, 2006). There is increasing evidence in the literature that show the effect of physical activity in anxiety treatment. Randomized controlled studies have revealed moderate effects of an aerobic exercise program lasting for a few weeks on specific symptomatology of panic attack, generalized anxiety disorder or social anxiety disorder (Lindenberger et. al., 2017; Ströhle et. al., 2009). Ensuring that individuals remain active to overcome their fear of Covid-19 or any other natural disaster is likely to be both a therapeutic and preventive factor (Bakioğlu, Korkmaz, & Ercan, 2020). Considering the results of the present study and the relevant literature, it is important to increase the physical activity levels of individuals during the pandemic, as is the case in every moment of life.

In the study, participants with leisure time activities before and during the pandemic had better occupational balance and a lower level of fear of Covid-19. Occupational therapy focuses on improving functionality independent from the individual's life roles and promoting health and well-being through meaningful occupations. The literature emphasizes the importance of participation in meaningful occupations for occupational balance (Håkansson, Dahlin-Ivanoff, & Sonn, 2006). Maintaining the balance between different occupational balance areas such as productivity, leisure time, relaxation and sleep-related occupational balance, is important in terms of achieving adequate occupational balance. Therefore, the relationship between

individuals' leisure time activities and occupational balance is an expected finding in the present study.

Conclusion

This study was planned to investigate occupational balance, fear and agoraphobia in adults during the Covid-19 pandemic. The findings of the study revealed that individuals generally preferred sedentary activities during the day, and their activity preferences changed. Also, increased fear of Covid-19 was observed to increase agoraphobia among study participants. During the Covid-19 pandemic; time and space may restrict or enable certain occupations. In the present study, it was observed that individuals had more leisure time and resting activities compared to before. Occupational diversity is an important factor in achieving occupational balance. The diversity between physically challenging/demanding occupations and more relaxing occupations, between physical and mental occupations, and between compulsory and enjoyable occupations is necessary for adequate occupational balance. Although it is good for individuals to discover new leisure activities, it is thought that the decrease in physical activity and the sedentary position of new leisure activities will negatively affect occupational balance and general health. In this context, it is thought that especially client-centred lifestyle redesign programs can be an effective method in planning intervention programs, protecting the occupational balance of individuals and reducing fear and stress during the Covid-19 pandemic.

Limitations

In this study, the DSM-5 Agoraphobia Scale was used to determine the severity of agoraphobia of the participants. Normally, this is a scale that allows clinicians to evaluate individuals. Since the part of the scale to be filled in by the expert upon clinical interview could not be filled during the pandemic, we cannot conclude whether the participants in the study have agoraphobia. Lack of clinical interviews with the participants due to the Covid-19 pandemic and interpretation of results solely based on scale scores are limitations of the present study. However, being based on participant-reported complaints, the findings obtained herein provide preliminary information for future studies.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

References

Afifi, T. O., Cox, B. J., Enns, M. W. J. S. p., & epidemiology, p. (2006). Mental health profiles among married, never-married, and separated/divorced mothers in a nationally representative sample. *41*(2), 122-129.

Ahorsu, D. K., Lin, C.-Y., Imani, V., Saffari, M., Griffiths, M. D., Pakpour, A. H. J. I. j. o. m. h., & addiction. (2020). The fear of COVID-19 scale: development and initial validation. 1-9.

American Psychiatric Association, & American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5. *United States*.

Arrindell, W. A., Heesink, J., Feij, J. A. J. P., & differences, i. (1999). The satisfaction with life scale (SWLS): Appraisal with 1700 healthy young adults in The Netherlands. *26*(5), 815-826.

Aydin, O., Coldur, E. O., & Aydemir, O. J. A. P. D. (2017). Reliability and validity of Turkish Form of Agoraphobia Scale/DSM-5 Agorafobi Olcegi Turkce Formunun gecerliligi ve guvenilirligi. *18*(S2), 24-31.

Bakioğlu, F., Korkmaz, O., Ercan, H. J. I. j. o. m. h., & addiction. (2020). Fear of COVID-19 and positivity: mediating role of intolerance of uncertainty, depression, anxiety, and stress. 1-14.

Cramm, J. M., Møller, V., & Nieboer, A. P. J. S. i. r. (2012). Individual-and neighbourhood-level indicators of subjective well-being in a small and poor Eastern Cape township: The effect of health, social capital, marital status, and income. *105*(3), 581-593.

Duncan, M., Prowse, C. J. O. t. i. p., mental health. 5th ed. Chichester, W. S. J. W., & Sons, I. (2014). Occupational therapy with mood disorders. 389-407.

Erlandsson, L. K., & Eklund, M. J. J. o. O. S. (2006). Levels of complexity in patterns of daily occupations: Relationship to women's well-being. *13*(1), 27-36.

Günal, A., Pekçetin, S., Demirtürk, F., Şenol, H., Håkansson, C., & Wagman, P. J. S. j. o. o. t. (2020). Validity and reliability of the Turkish Occupational Balance Questionnaire (OBQ11-T). *27*(7), 493-499.

Håkansson, C., Dahlin-Ivanoff, S., & Sonn, U. J. J. o. o. S. (2006). Achieving balance in everyday life. *13*(1), 74-82.

Håkansson, C., Lissner, L., Björkelund, C., & Sonn, U. J. S. J. o. O. T. (2009). Engagement in patterns of daily occupations and perceived health among women of working age. *16*(2), 110-117.

Harvey, J. A., Chastin, S. F., Skelton, D. A. J. I. j. o. e. r., & health, p. (2013). Prevalence of sedentary behavior in older adults: a systematic review. *10*(12), 6645-6661.

Hart, T. A., Turk, C. L., Heimberg, R. G., Liebowitz, M. R. J. D., & Anxiety. (1999). Relation of marital status to social phobia severity. *10*(1), 28-32.

Katzmarzyk, P. T., Church, T. S., Craig, C. L., Bouchard, C. J. M., sports, s. i., & exercise. (2009). Sitting time and mortality from all causes, cardiovascular disease, and cancer. *41*(5), 998-1005.

Kessler, R. C., Chiu, W. T., Jin, R., Ruscio, A. M., Shear, K., & Walters, E. E. J. A. o. g. p. (2006). The epidemiology of panic attacks, panic disorder, and agoraphobia in the National Comorbidity Survey Replication. *63*(4), 415-424.

Leufstadius, C., Eklund, M., & Erlandsson, L.-K. J. W. (2009). Meaningfulness in work–Experiences among employed individuals with persistent mental illness. *34*(1), 21-32.

Lewis, G. J. P. M. (1996). DSM-IV. Diagnostic and Statistical Manual of Mental Disorders, 4th edn. By the American Psychiatric Association.(Pp. 886;£ 34.95.) APA: Washington, DC. 1994. *26*(3), 651-652.

Lindenberger, B. L., Plag, J., Schumacher, S., Gaudlitz, K., Bischoff, S., Bobbert, T., Dimeo, F., Petzold, M. B., Kirschbaum, C., Dudás, Z. J. D., & anxiety. (2017). Clinical and neurobiological effects of aerobic exercise in dental phobia: A randomized controlled trial. *34*(11), 1040-1048.

Mamun, M. A., Ullah, I. J. B., behavior,, & immunity. (2020). COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty?–The forthcoming economic challenges for a developing country. *87*, 163.

Matuska, K., Bass, J., Schmitt, J. S. J. O. o., participation, & health. (2013). Life balance and perceived stress: Predictors and demographic profile. *33*(3), 146-158.

McCabe, L., Cairney, J., Veldhuizen, S., Herrmann, N., & Streiner, D. L. J. T. A. j. o. g. p. (2006). Prevalence and correlates of agoraphobia in older adults. *14*(6), 515-522.

Mehta, P., McAuley, D. F., Brown, M., Sanchez, E., Tattersall, R. S., & Manson, J. J. J. T. l. (2020). COVID-19: consider cytokine storm syndromes and immunosuppression. *395*(10229), 1033-1034.

Ornell, F., Schuch, J. B., Sordi, A. O., & Kessler, F. H. P. J. B. J. o. P. (2020). "Pandemic fear" and COVID-19: mental health burden and strategies. *42*(3), 232-235.

Rubin, G. J., & Wessely, S. J. B. (2020). The psychological effects of quarantining a city. *368*.

Satici, B., Gocet-Tekin, E., Deniz, M. E., Satici, S. A. J. I. j. o. m. h., & addiction. (2020). Adaptation of the Fear of COVID-19 Scale: Its association with psychological distress and life satisfaction in Turkey. 1-9.

Ströhle, A., Graetz, B., Scheel, M., Wittmann, A., Feller, C., Heinz, A., & Dimeo, F. J. J. o. p. r. (2009). The acute antipanic and anxiolytic activity of aerobic exercise in patients with panic disorder and healthy control subjects. *43*(12), 1013-1017.

Turcosa Analytics (2017). Turcosa Analytics [Cloud-based statistical software]. Retrieved from https://release.turcosa.com.tr

Wagman, P., & Håkansson, C. J. S. j. o. o. t. (2014). Introducing the occupational balance questionnaire (OBQ). *21*(3), 227-231.

Wagman, P., Håkansson, C., & Björklund, A. J. S. j. o. o. t. (2012). Occupational balance as used in occupational therapy: A concept analysis. *19*(4), 322-327.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., Ho, R. C. J. I. j. o. e. r., & health, p. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *17*(5), 1729.

Wilcock, A. A. (2006). *An occupational perspective of health*. Slack Incorporated.

Wilcock, A., Chelin, M., Hall, M., Hamley, N., Morrison, B., Scrivener, L., Townsend, M., & Treen, K. J. O. T. I. (1997). The relationship between occupational balance and health: A pilot study. *4*(1), 17-30.

Wittchen, H. U., Gloster, A. T., Beesdo-Baum, K., Fava, G. A., Craske, M. G. J. D., & Anxiety. (2010). Agoraphobia: a review of the diagnostic classificatory position and criteria. *27*(2), 113-133.