



# The COVID-19 Pandemic May Force the World to Reflect on the Pre-Pandemic Style of Life



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## Abstract

**Introduction:** The COVID-19 pandemic has caused a lot of changes on an individual and societal level. The current study was designed to investigate the impact of the isolation/ social distancing period on people's sense of Being, Belonging, and Becoming at the early stages of the COVID-19 measures.

**Methods:** A cross-sectional survey study design was employed utilizing a researcher-developed questionnaire with items developed based on the Model of Occupational Wholeness to investigate the changes that may have happened to what people have been doing during the COVID-19 measures compared to the time before. A sample of 1206, using snowball sampling, responded to the online questionnaire.

**Results:** Findings indicated that participants at the early stage of the COVID-19 pandemic had changed the pattern of their doings. The change of pattern, which was considered positive, was in relation to people valuing their health, having more time to take care of themselves, and doing activities which they had never had enough time to do before.

**Conclusion:** While these findings are not generalizable, they provide some insights into how the post-pandemic lifestyle of many people does not permit doing a lot of activities that could help with their health and well-being. While enforced isolation may have negative consequences, it is also clear that the pre-COVID-19 pandemic lifestyle did not fully support healthy living. Reflecting on the COVID-19 lockdown experience provides an opportunity to review the essential personal and societal elements for living a healthy life.

**Keywords:** Occupational Science, Occupational Therapy, Public Health, Occupational Wholeness

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## Introduction

COVID-19 is a viral respiratory disease that has spread globally with serious health impacts and high mortality.<sup>1</sup> Coinciding with the outbreak of COVID-19 in early March 2020 in Western countries, strict national policies on public behaviour were implemented around the world from Europe and America, to Australia and Asia. Along with the observance of health laws, social distancing also became the main policy of public behaviour in many societies. This policy included having minimal contact with people outside the home and staying at home as much as possible.<sup>2</sup> On the other hand, in some countries, there have been further measures such as quarantine or social isolation. Social isolation refers

to the physical separation between people from different households, whether from family, friends, or wider social networks and it also requires non-interference in social activities that require people to be close to one another.<sup>3,4</sup> This isolation is due to environmental constraints, not to the ability of the individual to establish or maintain social relationships.<sup>5</sup>

Social distancing, social isolation, and quarantine conditions can lead to high levels of psychological distress and even post-traumatic stress disorder (PTSD) due to lack of or reduced access to other people.<sup>6</sup> Assessment of people's mental health, when exposed to natural disasters, shows that survivors often experience various mental health disorders, including PTSD, depression, general anxiety disorder, panic disorder,

and substance abuse. Even after a 4- to 6-month period of separation and social isolation, symptoms such as anxiety, anger, and worry remain in people.<sup>7</sup> Brooks et al reviewed articles on the psychological impact of quarantine, and they reported negative psychological effects, including symptoms of PTSD (confusion, anger, and stressors during/post-long-term quarantine), fear of infection, frustration, impatience, insufficient resources, insufficient information, financial loss, and stigma.<sup>8</sup> In the early stages of the COVID-19 outbreaks in China, a sample of 1210 isolated people was surveyed. The results of this research demonstrated that more than half of the people experienced moderate to severe psychological effects, and one-third of them reported moderate to severe anxiety. Prevalence of stress, anxiety, and depression was higher in women, students, and individuals with specific physical symptoms.<sup>1</sup> In a review of 19 articles about the impact of the COVID-19 pandemic on mental health in the general population in China, Spain, Italy, Iran, the US, Turkey, Nepal, and Denmark, Xiong and colleagues found that relatively high rates in symptoms of anxiety (6.33% to 50.9%), depression (14.6% to 48.3%), PTSD (7% to 53.8%), psychological distress (34.43% to 38%), and stress (8.1% to 81.9%) are present in these countries.<sup>9</sup> Pfefferbaum and North stated that vague forecasts, severe shortages of resources for testing, treatment, and protection of people and health care providers from infection, public health practices that violate personal freedoms, huge financial losses, and conflicting messages from officials are major sources of stress that undoubtedly contribute to widespread emotional distress and an increased risk of COVID-19-related mental illness.<sup>10</sup>

After disasters, most people resist and do not succumb to psychological pathology. In fact, some people find new strengths. But some groups may be more vulnerable to the psychosocial effects of epidemics than others. In particular, older people, people whose immune system function is compromised and those who live or are cared for in care centers, as well as people who have previously had medical, psychiatric, or substance abuse problems are at greater risk for psychosocial consequences.<sup>10</sup> However, individual responses to catastrophic and traumatic events such as COVID-19 are not uniform. These responses can be different according to the understanding of traumatic events, a person's belief system, and socio-cultural resources.<sup>11</sup> COVID-19 disease now poses new and unique challenges for individuals and social groups due to its profound impact on social and daily activities.<sup>12</sup>

Loss of routine and frequent social and physical contact with others can lead to boredom, frustration, and feelings of isolation from the rest of the world, which can be distressing. This frustration is exacerbated by the inability to participate in daily routine activities, such as buying essential goods.<sup>8</sup> Researchers, scientists, and policymakers have focused more on the number of deaths from the disease and paid less attention to peoples' occupations. However, this pandemic has negatively affected the meaningful occupations of the world's population. Children are not able to play in the park with their peers or go to school, adults are not able to cope with their schedule of working or studying at home.<sup>13</sup>

Humans, as occupational beings, shape their identity based on what they do and this affects their mental and physical health. Human action falls into the realms of Being, Belonging, and Becoming. "Being" refers to activities that make a person feel good, including activities directed towards meeting basic survival needs, as well as activities that exercise choosing a method of self-care. "Belonging" refers to one's connections and relationships with their environment and other people, and "Becoming" refers to what one does for a better life based on one's own vision.<sup>14</sup> According to Yazdani and Bonsaksen, what meaningful activities people "Do" to meet their needs of Being, Belonging and Becoming, leads to an overall sense of satisfaction with themselves and their own world, this is called Occupational Wholeness. In a major life event such as the COVID-19 pandemic, with isolation and social distancing, people have to adapt to the way they manage their daily lives. How people perceive illness or stressful events is influenced by their previous experiences of such phenomena.<sup>15,16</sup> What is remarkable about the current situation is the short period of time in which lifestyle changes have taken place.

This study was designed to investigate the effect of periods of isolation/social distance on how people feel about their sense of Being, Belonging, and Becoming. The authors also hope to examine whether there is a difference in the perceived impact of isolation/social distance in terms of gender, age, or living status.

## Methods

A cross-sectional survey using a convenience sampling and a web-based questionnaire was conducted in eight languages including English, French, Spanish, German, Indian, Arabic, Greek, and Persian. A survey study design was employed to collect data about participants' perceived sense of Occupational Wholeness. According to Check and Schutt, this design allows the gathering of information from individuals through their responses to questions.<sup>17</sup> The current survey consists of two parts; a questionnaire that was developed by the researchers, and demographic questions.<sup>18-20</sup> The time required to respond to the questionnaire was 15 minutes on average.

## Development of Survey Questions

According to the Model of Occupational Wholeness that underpins the development of the Occupational Wholeness questionnaire (OWQ),<sup>21</sup> people can feel comfortable with themselves and their world if they can define a satisfying combination of "doing or not doing" activities. This range of doing/not doing should include what the individual does to satisfy the need for Being, Belonging, and Becoming. These need to coordinate with each other, to the best of one's ability and depending on their context. A satisfactory combination of activities depends on the meaning that people give to their activities. During personal development, the sense of Being is formed in two stages. First, it forms based on attending to survival needs. Later, Being needs expand to include the need for autonomy and choice in self-care activities. People can feel good about themselves and the world by doing activities relevant to their sense of Being. The sense of Being is based

on the “here and now” and refers to one’s feeling and thinking in the present. In the questionnaire, 11 items are dedicated to the sense of Being. These items represent the amount of time and energy that people spend on themselves and the time and energy spent to reflect on the meaning of health, well-being, and life. Eight items in the questionnaire were allocated to assess the sense of Belonging. Sense of Belonging was assessed through items related to one’s connections, relationships, and togetherness. The sense of Becoming refers to people’s perception of making life changes to make it better; therefore, this concept is about future prospects, development, and improvement. Seven items were developed around this concept to investigate the participants’ sense of Becoming concerning changes they expect for their future life, development in relation to their education or job, new learning, and in particular financial expectations. To see the overall 26 items of the online questionnaire, see [Table 1](#).

The questionnaire consisted of 26 sentences with positive and negative values. The questions were originated from the Occupational Wholeness Model, informed by the OWQ, modified to suit the context of COVID-19 isolation measures.<sup>21</sup> Participants were asked to compare their current

situation with the time before the period of social isolation on a five-point Likert scale. For example, in a statement: “I have more opportunities to do what I like”, the scores were “0 = it has not changed compared to the time before isolation/social distancing period”, “-2 = absolutely “disagree”, “-1 = disagree”, “1 = agree”, “and “2 = absolutely agree. A higher score in each item indicates a higher level of satisfaction. By sum scores of the questions related to each component (i.e., Being, Belonging, and Becoming), the score of each of them can be obtained.

In an online panel discussion, a group of four occupational therapists reviewed the relevance and necessity of the items. After that, the fluency and clarity of the items were assessed by five experts, and the face validity of the questions was confirmed.<sup>22</sup> To establish the content validity, items of the questionnaire originated from the literature followed by the evaluation through an expert panel.<sup>23</sup> This questionnaire was administered experimentally to further test the validity, involving eight people of different ages and from different socio-economic backgrounds. This was conducted through an in-depth cognitive interview to assess participants’ perceptions of the items. Notes collected from interviews

**Table 1.** Mean and Standard Deviations for the Whole Questions in the Questionnaire

N	Question	N	Min	Max	Mean	SD
1	I am pleased with the time I spend with my family	1168	-1	1	0.52	0.75
2	I have more opportunities to do what I like	1163	-1	1	0.23	0.92
3	I have a chance to review the meaning of my life	1170	-1	1	0.57	0.73
4	I have an opportunity to learn new skills to help me develop more job and career-related skills	1169	-1	1	0.37	0.84
5	I have an opportunity to grow spiritually	1166	-1	1	0.52	0.73
6	There is an opportunity for me to learn new ways to communicate with others like using mobile apps	1161	-1	1	0.52	0.72
7	I have opportunities to increase my knowledge in areas I like	1171	-1	1	0.54	0.74
8	I can do things I never had time and space for before	1197	-1	1	0.51	0.78
9	I have discovered some new characteristics about myself	1198	-1	1	0.40	0.77
10	I have the opportunity to reflect on the value of my health	1206	-1	1	0.69	0.60
11	I have the opportunity to take care of my health	1202	-1	4	0.43	0.79
12	Some issues have worried me about my future (financial, job, or family-related, ...)	1146	-1	1	-0.63	.68
13	I have opportunities to do things to help others	1194	-1	1	0.42	.78
14	My family relationships have become strained	1198	-1	1	0.45	.77
15	I have fewer opportunities to do things I like	1186	-1	1	0.19	.93
16	Life has lost its meaning for me	1199	-1	1	0.64	0.69
17	There is no opportunity to educate myself for further development	1202	-1	1	0.65	0.67
18	I have a lot on my to-do list but with less chance to do them	1172	-1	1	0.15	0.93
19	I have less time and space to think about myself	1199	-1	1	0.45	0.83
20	My ways of communication lead to conflicts at home	1202	-1	1	0.53	0.74
21	There is no time to spend on my own mental health and well being	1194	-1	1	0.48	0.81
22	There are fewer opportunities to be useful to others	1183	-1	1	0.32	0.88
23	I have less motivation to put effort to achieve what I want for my life	1183	-1	1	0.32	0.87
24	I have more opportunities to play my social roles and do volunteer activities	1169	-1	1	-0.15	0.86
25	I have more motivation to build my future	1189	-1	1	0.16	0.84
26	I use my home space and furniture in a positive new way to meet my needs	1202	-1	1	0.37	0.77

Note: The results of questions 12 and 24 are negative and those of others are positive.

were reviewed and corrections were made.<sup>22</sup> When using Likert scales, calculating, and reporting Cronbach's alpha coefficient is essential for internal consistency reliability. The reliability of the instrument used for this study, which was tested using Cronbach's alpha, was generally  $\alpha=0.909$ , which is considered excellent. Cronbach's alpha for three subscales measured sense of Being  $\alpha=0.815$  (good), sense of Belonging  $\alpha=0.727$  (acceptable), sense of Becoming 0.734 (acceptable).<sup>24</sup> The final instrument was a self-administrated questionnaire with an original 26 items (sense of Being=11, sense of Belonging=8, and sense of Becoming=7) and 17 demographic questions (Table 1).

**Procedure**

This study was conducted between May and June 2020. First, an invitation was sent to stakeholders, and healthcare professionals, in Germany, France, Greece, India, Jordan, Spain, Iran, and the UK by email. The link to the questionnaire then was added to social media: Twitter, Facebook, Instagram, and LinkedIn to alert people to participate in this study. The snowball method was used to encourage the circulation of the link.

**Statistical Analysis**

The resulted data were entered into SPSS, version 22 for the analysis. Prior to the beginning of the analysis, data were checked twice for any unforeseen error during the process of data coding and entry. Then, descriptive and inferential statistical methods were used to analyse the results. These included mean, standard deviation, number, and percentages, as well as one-sample t-statistics, student t test, and analysis of variance (ANOVA).

**Results**

In total 1206 people participated in this study. SPSS version 22 was used to analyse the results. Descriptive statistics were used to understand the participants' characteristics. Tables 2 and 3 demonstrate the sociodemographic information of the participants. The majority of the participants were Greek (20.7), Iranian (18.9), and French (16.2). Most of the participants were female (69.6%), living alone (46.1%), and had university education. At the time of data collection, the majority of the participants reported that they had been

**Table 2.** Distribution of Participants According to Their Countries

Country of Participants	Frequency	Percent
Arab countries (Middle East)	178	14.7
Indian	43	3.5
Spanish	90	7.5
Iranian	228	18.9
French	195	16.2
German	24	2.0
Greek	250	20.7
Other countries	198	16.4
Total	1206	100.0

**Table 3.** Demographic Characteristics

Variables	No.	%
<b>Gender</b>		
Female	840	69.6
Male	200	16.6
Missing	167	13.8
<b>Age</b>		
<25	291	24.1
26-35	274	22.7
36-45	237	19.6
>45	234	19.4
Missing	171	14.2
<b>Status living</b>		
Alone	147	12.2
With other people	267	22.1
With partner/husband	186	15.4
Partner/husband/wife/children	352	29.2
Partner/husband/wife/children/other	96	8.0
Missing	159	13.2
<b>Number of children</b>		
Non	557	46.1
one	166	13.8
Two	224	18.6
Three	64	5.3
Four and more	23	1.9
Missing	173	14.3
<b>Duration of Isolation:</b>		
Almost a week	45	3.7
Almost 2 weeks	15	1.2
Almost 3 weeks	20	1.7
Almost 4 weeks	52	4.3
Almost 5 weeks	143	11.8
Missing	153	12.7
<b>Time spend outside home</b>		
0%-10% less than before	127	10.5
10%-30% less than before	118	9.8
30%-60% less than before	256	21.2
60%-90% less than before	447	37.0
Almost 100% isolated	192	15.9
Missing	67	5.6
<b>Education level</b>		
Professional qualification	83	6.9
High school	65	5.4
Bachelor/honor degree or equivalent	539	44.7
MSc/MA or equivalent	296	24.5
PhD	71	5.9
Missing	153	12.7

isolated for more than four weeks and spent a much greater amount of their time at home compared to the time before the

COVID-19 outbreak (Table 3).

The one-sample *t* test was utilized to compare the sense of Being, Belonging, and Becoming to the hypothesized value (the expected average score for each variable based on their total score) to determine if the sample mean is significantly greater or less than that value. The results show that the *P* values for all are significantly smaller than 0.05. As the observed means are greater than the expected value, these suggest that the participants perceived a higher level of positive attribution to their experience of the COVID-19 isolation period compared to the time before (Table 4). In this analysis, the 5-point scale was converted into three-point scales as follows: -1 = Definitely Disagree or Disagree; 0 = no difference compared to before, +1 = Definitely agree or agree.

To understand the differences in the three subscales of questionnaires (including Being, Belonging, and Becoming)

**Table 4.** Summary of one sample t-test for comparing belonging, being, becoming

Variable	Excepted value	Observed Mean	SD	T	P Value
Belonging	0	2.80	3.2	29.1	<0.001
Being	0	4.50	5.0	29.4	<0.001
Becoming	0	1.77	3.1	19.4	<0.001
Total	0	8.57	9.7	28.8	<0.001

between male and female participants, student *t* test was used. The results demonstrated no statistically significant differences between the two genders (Table 5).

To examine differences in the subscales concerning participants' living status, the number of children, their age, and the ANOVA was used. The results showed that participants in different living statuses were not statistically different in their sense of Being, Belonging, and Becoming. However, participants with four children and more demonstrated higher scores in Being, Belonging, and Becoming ( $P < 0.005$ ). Different age groups also demonstrated no statistical differences in the three subscales of the questionnaire except in the sense of Being. Post hoc analysis showed that only participants older than 45 years of age had a statistically lower sense of Belonging compared to participants under 25 ( $P = 0.05$ ) (Table 5).

The mean and standard deviation for each item in the questionnaire indicated in Table 1, demonstrates the distribution of the participants' responses in this study.

## Discussion

This survey data analysis demonstrates that the COVID-19 isolation/social distancing measures have resulted in a positive impact on the overall sense of wholeness. To discuss the findings further, we considered the characteristics of the members of the public who participated in this study and

**Table 5.** The Comparison of the Perceived Sense of Being, Becoming and Belonging Based on the Participants' Demographic Characteristics

Variables	Sense of Being			Sense of Becoming			Sense of Belonging		
	Mean	SD	<i>P</i> <sup>a</sup>	Mean	SD	<i>P</i>	Mean	SD	<i>P</i>
Gender <sup>a</sup>									
Male	4.5	4.6	0.95	1.5	3.3	0.47	2.7	3.1	0.66
Female	4.5	5.2		1.3	3.2		2.9	3.2	
Living status									
Alone	4.9	5.1	1.98	1.8	3.1	1.89	2.7	3.2	2.29
With other people	4.9	4.7		1.39	3.1		2.5	3.2	
With partner/husband	4.2	4.9		0.9	3.4		2.6	3.106	
Partner/husband/wife/children	3.9	5.2		1.2	3.4		3.2	3.1	
Partner/husband/wife/children/other	4.4	5.7		1.4	3.3		2.6	3.4	
Number of children									
Non	4.9	4.9	4.44*	1.5	3.1	2.82*	2.6	3.1	1.20
one	3.7	5.1		0.7	3.2		2.9	3.1	
Two	4.0	5.3		1.1	3.5		3.0	3.3	
Three	2.9	5.6		1.6	3.4		2.9	3.1	
Four and more	5.6	4.6		2.6	3.1		3.7	3.6	
Age									
<25	5.2	4.6	2.80*	1.5	3.0	0.98	2.7	3.3	0.82
26-35	4.4	4.9		1.1	3.4		2.8	3.2	
36-45	4.0	5.1		1.3	3.5		3.1	3.0	
>45	4.1	5.6		1.3	3.3		2.7	3.2	

SD, standard deviation

<sup>a</sup> T student was used to analyses the results for the gender. For all other variables ANOVA was used.

\*  $P < 0.05$ .

the period of time over which the survey was conducted. The survey used an online platform in order to enable people with specific characteristics to be able to consider participation. The snowball sampling method has meant that participants need to have access to social media platforms such as Facebook, Telegram, and WhatsApp. Having access to and being able to use devices such as mobiles, tablets, and computers has been essential for participation in the survey. As the survey did not provide any feedback, committing time to go through it required some enthusiasm in participants. The enthusiasm could have been based on several factors, such as curiosity about the views on the topic or/and valuing research. These characteristics might limit the range of people from whom data is collected. On the other hand, it is expected that for this same reason participants provided more genuine responses. Therefore, the findings of this study could only provide some insights into a similar population. The findings suggest that the participants' perception of the impact of the pandemic is not necessarily or wholly negative. Therefore, the significance of the findings within the early stages of the COVID-19 pandemic is that a group of people whose socio-economic status allows them to take time to slow down and reflect has perceived the situation as an opportunity. As the findings indicated, the majority of the participants have felt an overall sense of coherence that was higher than the time before the pandemic. This may be the tentative impact of the isolation measures, yet it has been valuable as it shows that people valued a break from the ongoing situations in their life.

In this study, participants were invited to reflect and compare their current situation within the pandemic isolation measures with the pre-pandemic situation; taking into consideration their own status before exposure to the event. Participants perceived the COVID-19 pandemic measures as an opportunity for satisfying a sense of Being, Belonging, Becoming, their sense of overall Wholeness and their sense of wellbeing as explained by Sieger in Chatterjee.<sup>25</sup> They stated well-being is a relative concept as people may compare their own condition with that of others. The findings of a study conducted by Kowalczyk et al presented a similar conclusion about the impact of the COVID-19 pandemic on people in Polish society concerning the opportunity for reflection or as they put it 'spiritual renewal'.<sup>26</sup>

It is necessary to be careful in comparing the findings of this study with those of other studies which indicate the presence of confusion, anger, frustration, and impatience, or financial loss as an impact of COVID-19.<sup>8</sup> It is important to draw a line between the psychological symptoms and a sense of satisfaction with self/life. People may present mental health symptoms but not necessarily perceive them as negatively impacting their sense of Being, Belonging, and Becoming. This may be linked to the level of resilience and response to difficulties in individuals despite their mental health symptoms. This is an issue that needs further investigation.<sup>27,28</sup>

On the other hand, in their review of the literature, Brooke et al indicated that only one study had followed participants over time and compared the finding during the COVID-19 measures to the time before.<sup>3</sup> This means these studies did

not pick up on the pre-existing psychosocial issues that people may have had prior to the pandemic. It is important to consider how vulnerable people were affected by the situation, and this is a limitation of the current study, as well.

To develop this argument further, reviewing the items of the questionnaire may allow for further understanding of the findings. It is also important to pay attention to the period of time in which the data were collected. Therefore, responses to individual items are discussed in light of the questionnaire having been conducted at the early stage of the COVID-19 pandemic. This was the period in which the first isolation measures were put into place in the countries where the data were collected. Items used to explore the sense of Being were the items 2, 3, 8, 9, 10, 11, 15, 16, 18, 19, 21. These refer to the time and space people had during the isolation measures to take care of themselves, as well as reflect on the meaning of their health and life. Furthermore, these items refer to participants doing activities that they had previously enjoyed or activities they needed to do but had not had time for before. Similar to other studies, perceived time pressure for doing what one needs/wants to do is associated with lower life satisfaction.<sup>29,30</sup> For the majority of the participants in this study, finding some spare time, whether mental or physical, during the early stages of the COVID-19 pandemic was perceived as an opportunity to meet needs that they did not have time for before. The findings of this study, however, should not be generalised to the longer-term impact perceived by participants. This sheds light on the lack of time and space they had previously. Items related to Belonging were 1, 6, 13, 14, 20, 23, 25, 27. These were enquiring about the participants' satisfaction with the time they spend with loved ones, changes in family relationships, learning new ways to connect, and being helpful/useful to others during the pandemic compared to the prior time. Similar to not having time for meeting their Being needs, the findings shed light on how the participants may not have had time to meet their Belonging needs prior to the isolation measures of the pandemic. Participants valued the significance of others and rated the isolation measure restrictions as an opportunity to learn new ways of connection, having more time for and with loved ones.

In relation to the Becoming (items: 4, 5, 7, 12, 17, 22, 24, 26) that is related to learning opportunities, spiritual growth, hope, and worries for the future, the overall figure showed a positive experience compared to the time prior to COVID-19. However, it is important to pay attention to the two dimensions of growth and future prospects that come under this component. Although similar to other items, participants responded more positively to the impact of the COVID-19 measures in relation to their personal and spiritual growth and development by allocating time and space for them, their response to the future was negative and associated with worries.

It appears the issue around time and space, a common factor in all items of the survey questions is the key factor to explain the relativity of the perceived positive experiences in all of the above issues. Wajcman states that freedom and control of our

own time are significant for our sense of satisfaction with our lives and it is something which we do not always have access to in contemporary life.<sup>31</sup>

Another interesting finding of this study is the significant difference in the perceived level of increase in the sense of Being and Becoming in participants with four children and more. Although this group only consists of 23 out of 1206 participants, they displayed a higher attribution of positive experience in the senses of Being, and Becoming. However, a higher perceived sense of Belonging compared to the period prior to the COVID-19 measures was not statistically significant. This figure echoes Schwarze and Winkelmann's study that showed people find interdependent and collective happiness in living in larger family groups.<sup>32</sup> Their study also indicates the importance of interdependent family happiness through their relationships even when children move away from their homes.

Overall, the findings of this study demonstrate the value of time and space that people require in order to meet their needs for living, pursuing their interests and values, as well as spending time, sharing space with others, and planning for their life. Even though the isolation period had its own negative impact on people's mental health due to restrictions and in particular financial strains on families, the results of this study raise questions as to whether the lifestyle prior to the pandemic has been satisfying and healthy. This time of crisis could be taken as an opportunity to review priorities and opportunities for Being, Belonging, and Becoming in order to make changes towards a better life style and not necessarily the life style prior to the Covid- 19 pandemic.

### Limitations

Similar to many online survey studies, this study only recruited a particular group of the public with access to devices that allow access to the internet and social platforms. This may, for example, exclude some people from lower socioeconomic backgrounds. The lack of a longitudinal follow-up element in this study may also be considered as a limitation, as no comparison was possible for the perceptions of the same group of participants between the time before the COVID-19 measures were taken, and the months after, when people might have started suffering from the financial impact related to the restrictions.

### Conclusion

There are negative impacts of the COVID-19 measures on people's health as reported in the literature. However, this study shows that for some members of the public, the situation was perceived as an opportunity to satisfy their Being, Belonging, and Becoming needs. In other words, these needs were perceived as higher compared to the time before the COVID-19 isolation measures. The significance of the freedom in having time and space to do some activities that meet their Being, Belonging, Becoming needs seems to be the key. The findings of the study can add to the knowledge of occupational sciences and potentially help strengthen the role of occupational therapy in a critical situation.

## Research Highlights

### What Is Already Known?

The COVID-19 pandemic has affected people and their lives in different aspects, including, but not limited to psychological and financial problems.

### What Does This Study Add?

COVID-19 measures have imposed restrictions on the public's life. However, it has provided a greater perception of freedom around time and space for participants and this underpins the positive impact of the COVID-19 isolation measures. The key message of this is that the social isolation period has provided an opportunity for individuals to reflect on their lifestyles, and how they could be changed to achieve greater satisfaction with themselves and their lives.

### Authors' Contributions

FY contributed to conception, design, data collection, and writing up the manuscript. MRe contributed to the conception and writing of the manuscript. MRa contributed to the design, analysis, and writing of the manuscript. DR, WA, and MA contributed to the vision and critically reviewed the manuscript before the final submission.

### Conflict of Interest Disclosures

The authors declare that they have no conflicts of interest.

### Ethical Approval

The ethics approval was granted by the Oxford Brookes University Ethics committee in the UK; No: L20206.

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### References

1. Wang B, Li R, Lu Z, Huang Y. Does comorbidity increase the risk of patients with COVID-19: evidence from meta-analysis. *Aging (Albany NY)*. 2020;12(7):6049-6057. doi:10.18632/aging.103000.
2. Bonsaksen T, Leung J, Schoultz M, et al. Cross-national study of worrying, loneliness, and mental health during the COVID-19 pandemic: a comparison between individuals with and without infection in the family. *Healthcare (Basel)*. 2021;9(7):903. doi:10.3390/healthcare9070903.
3. Brooke J, Jackson D. Older people and COVID-19: isolation, risk and ageism. *J Clin Nurs*. 2020;29(13-14):2044-2046. doi:10.1111/jocn.15274.
4. Singh J, Singh J. COVID-19 and its impact on society. *Electronic Research Journal of Social Sciences and Humanities*. 2020;2(1):168-172.
5. Tanskanen J, Anttila T. A prospective study of social isolation, loneliness, and mortality in Finland. *Am J Public Health*. 2016;106(11):2042-2048. doi:10.2105/ajph.2016.303431.

6. Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styr R. SARS control and psychological effects of quarantine, Toronto, Canada. *Emerg Infect Dis.* 2004;10(7):1206-1212. doi:10.3201/eid1007.030703.
7. Jeong H, Yim HW, Song YJ, et al. Mental health status of people isolated due to Middle East respiratory syndrome. *Epidemiol Health.* 2016;38:e2016048. doi:10.4178/epih.e2016048.
8. Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet.* 2020;395(10227):912-920. doi:10.1016/s0140-6736(20)30460-8.
9. Xiong J, Lipsitz O, Nasri F, et al. Impact of COVID-19 pandemic on mental health in the general population: a systematic review. *J Affect Disord.* 2020;277:55-64. doi:10.1016/j.jad.2020.08.001.
10. Pfefferbaum B, North CS. Mental health and the COVID-19 pandemic. *N Engl J Med.* 2020;383(6):510-512. doi:10.1056/NEJMp2008017.
11. Rushford N, Thomas K. *Disaster and Development: An Occupational Perspective.* London: Elsevier Health Sciences; 2015.
12. Haleem A, Javaid M, Vaishya R. Effects of COVID-19 pandemic in daily life. *Curr Med Res Pract.* 2020;10(2):78-79. doi:10.1016/j.cmrp.2020.03.011.
13. Kamalakannan S, Chakraborty S. Occupational therapy: the key to unlocking locked-up occupations during the COVID-19 pandemic. *Wellcome Open Res.* 2020;5:153. doi:10.12688/wellcomeopenres.16089.1.
14. Yazdani F, Bonsaksen T. Introduction to the model of occupational wholeness. *ErgoScience.* 2017;12(1):32-36. doi:10.2443/skv-s-2017-54020170104.
15. Alhurani AS, Dekker R, Ahmad M, et al. Stress, cognitive appraisal, coping, and event free survival in patients with heart failure. *Heart Lung.* 2018;47(3):205-210. doi:10.1016/j.hrtlng.2018.03.008.
16. Taylor SE, Armor DA. Positive illusions and coping with adversity. *J Pers.* 1996;64(4):873-898. doi:10.1111/j.1467-6494.1996.tb00947.x.
17. Check J, Schutt R. *Research Methods in Education.* London: SAGE Publications; 2012. doi:10.4135/9781544307725.
18. Costanzo ES, Stawski RS, Ryff CD, Coe CL, Almeida DM. Cancer survivors' responses to daily stressors: implications for quality of life. *Health Psychol.* 2012;31(3):360-370. doi:10.1037/a0027018.
19. DuBenske LL, Gustafson DH, Namkoong K, et al. CHES improves cancer caregivers' burden and mood: results of an eHealth RCT. *Health Psychol.* 2014;33(10):1261-1272. doi:10.1037/a0034216.
20. Ponto J. Understanding and evaluating survey research. *J Adv Pract Oncol.* 2015;6(2):168-171.
21. Bonsaksen T, Yazdani F. The Norwegian occupational wholeness questionnaire (N-OWQ): scale development and psychometric properties. *Scand J Occup Ther.* 2020;27(1):4-13. doi:10.1080/11038128.2018.1426783.
22. Artino AR Jr, Durning SJ, Sklar DP. Guidelines for reporting survey-based research submitted to academic medicine. *Acad Med.* 2018;93(3):337-340. doi:10.1097/acm.0000000000002094.
23. Taherdoost H. Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *International Journal of Academic Research in Management.* 2016;5(3):28-36.
24. George D, Mallery P. *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference.* 4th ed. Allyn & Bacon; 2019.
25. Chatterjee DK. *Encyclopedia of Global Justice: A-I. Vol 2.* London: Springer Science & Business Media; 2011.
26. Kowalczyk O, Roszkowski K, Montane X, Pawlitzak W, Tylkowski B, Bajek A. Religion and faith perception in a pandemic of COVID-19. *J Relig Health.* 2020;59(6):2671-2677. doi:10.1007/s10943-020-01088-3.
27. Hu T, Zhang D, Wang J. A meta-analysis of the trait resilience and mental health. *Pers Individ Dif.* 2015;76:18-27. doi:10.1016/j.paid.2014.11.039.
28. Wells M, Avers D, Brooks G. Resilience, physical performance measures, and self-perceived physical and mental health in older Catholic nuns. *J Geriatr Phys Ther.* 2012;35(3):126-131. doi:10.1519/JPT.0b013e318237103f.
29. Eriksson L, Rice JM, Goodin RE. Temporal aspects of life satisfaction. *Soc Indic Res.* 2007;80(3):511-533. doi:10.1007/s11205-006-0005-z.
30. Zuzanek J. Time Use, Time pressure, personal stress, mental health, and life satisfaction from a life cycle perspective. *J Occup Sci.* 1998;5(1):26-39. doi:10.1080/14427591.1998.9686432.
31. Wajcman J. *Pressed for Time.* University of Chicago Press; 2014.
32. Schwarze J, Winkelmann R. Happiness and altruism within the extended family. *J Popul Econ.* 2011;24(3):1033-1051. doi:10.1007/s00148-010-0326-8.