



HAL
open science

Long-term impact of COVID-19-related health restrictions on occupational competence and values

Nicolas Biard, Aline Doussin, Samuel Pouplin

► To cite this version:

Nicolas Biard, Aline Doussin, Samuel Pouplin. Long-term impact of COVID-19-related health restrictions on occupational competence and values. Irish Journal of Occupational Therapy, 2024, 10.1108/IJOT-06-2024-0028 . hal-04846266

HAL Id: hal-04846266

<https://hal.science/hal-04846266v1>

Submitted on 23 Jan 2025

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

Long-term impact of COVID-19-related health restrictions on occupational competence and values

Nicolas Biard

Research Unit ERPHAN, University of Versailles Saint-Quentin-en-Yvelines, Garches, France

Aline Doussin

Centre Intégré de Santé et de Services Sociaux de Chaudière-Appalaches (CISSS-CA), Lévis, Canada, and

Samuel Pouplin

Research Unit ERPHAN, University of Versailles Saint-Quentin-en-Yvelines, Garches, France and New Technologies Platform, Hospital Raymond-Poincaré, Garches, France

Abstract

Purpose – This paper aims to determine the long-term effect (at 15 months) of lockdown on occupational competence and values.

Design/methodology/approach – In total, 391 participants who participated in the first phase of the study (i.e. a previous study conducted during lockdown) were included. They completed an online version of the Occupational Self-Assessment. The results were compared with Phase 1 scores.

Findings – Occupational competence scores reduced during lockdown and increased 15 months later, but they did not return to pre-lockdown levels. The value score was lower 15 months after lockdown than pre-lockdown. The personal value system, which began to change during lockdown, was further changed at 15 months.

Originality/value – This study confirms that the spring 2020 lockdown had a long-term impact on occupational competence and values.

Keywords Occupational competence, Values, Occupational disruption, Lockdown, Model of human occupation

Paper type Research paper

Introduction

The spring 2020 lockdown imposed in many countries during the COVID-19 pandemic caused a sudden occupational disruption that had large repercussions on occupational patterns and routines. Occupational disruption can occur in a variety of circumstances: after the discovery of a medical diagnosis, or following a change in the environment, such as migration. Although there is no consensus on the definition of occupational disruption in the occupational sciences literature, the authors agree that it has a negative impact on identity, socialisation and emotions. A common feature of the different definitions is the inability of the person to participate, or participate fully, in chosen occupations (Nizzero *et al.*, 2017).

During lockdown, the job security, housing and/or financial stability of many people was impacted (Al Gharaibeh and Gibson, 2022; European Parliament. Directorate General for Internal Policies of the Union, 2023; L'Angiocola and Monti, 2020; Prati and Mancini, 2021; Fox *et al.*, 2023), which had deleterious effects on mental health, particularly causing stress and anxiety (López-Bueno *et al.*, 2020; Moreno *et al.*, 2020; Dogaš *et al.*, 2020).

Sedentary behaviour, weight gain and health-endangering behaviours such as smoking, alcohol consumption and fast food or comfort food consumption increased (Romero-Blanco *et al.*, 2020; Alomari *et al.*, 2020; Barbouzas *et al.*, 2022; Rogers *et al.*, 2021; Pujia *et al.*, 2021; López-Bueno *et al.*, 2020; Azrak *et al.*, 2023).

Long-term cohort studies showed that some behaviors returned to pre-pandemic levels at the end of the restrictions. However, other behaviours persisted, such as worrying about the future (Salfi *et al.*, 2022).

A study involving the Canadian Model of Occupational Performance and Engagement highlighted occupational disruptions mainly in the field of leisure (particularly those including social activities) and productivity during the spring 2020 lockdown (Engels *et al.*, 2022). From the perspective of the Model of Human Occupation (MOHO), the drastic changes in the immediate physical and social environments (González-Bernal *et al.*, 2020; Lin and Fischer, 2020) caused

© Nicolas Biard, Aline Doussin and Samuel Pouplin. Published in *Irish Journal of Occupational Therapy*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

The current issue and full text archive of this journal is available on Emerald Insight at: <https://www.emerald.com/insight/2398-8819.htm>



Irish Journal of Occupational Therapy
52/2 (2024) 74–80
Emerald Publishing Limited [ISSN 2398-8819]
[DOI 10.1108/IJOT-06-2024-0028]

Received 12 June 2024
Revised 11 September 2024
Accepted 19 September 2024

by the spring 2020 lockdown affected all components of the person (volition, habituation and performance capacity) and environments (Lin and Fisher, 2020). This in turn affected occupational competence. Occupational competence is described as:

[...] the degree to which one sustains a successful pattern of occupational participation that reflects one's occupational identity. Thus, while identity has to do with the subjective meaning of one's occupational life, competence has to do with putting that identity into action in an ongoing way (De Las Heras de Pablo *et al.*, 2017).

It is a dynamic concept that evolves over time and when environmental demands or constraints increase.

Values are defined and approached in different ways depending on the field of study. Some therapies, based on cognitive and behavioural sciences, focus on re-appropriating values and ensuring consistency between personal values and behaviour. In acceptance and commitment therapy, values are "chosen concepts linked with patterns of action that provide a sense of meaning and that can coordinate our behaviour over long time frames" (Dahl, 2015). From the occupational science perspective, and particularly from the MOHO perspective, values are an integrated set of personal beliefs that are strongly influenced by the person's culture and define what matters and which aspirations are desirable. They create a "sense of obligation to perform in ways consistent with those values" (Lee and Kielhofner, 2017a). Values shape the way in which individuals engage in occupations and are sensitive to changes in people's lives (Lee and Kielhofner, 2017a).

The concepts of occupational competence and values are measured by the occupational self-assessment (OSA), a tool derived from MOHO (Baron *et al.*, 2006). The OSA items refer to specific MOHO concepts. Volition includes thoughts and feelings about personal capacity and effectiveness, and how people view the importance of what they do as well as what brings them enjoyment and satisfaction (Lee and Kielhofner, 2017a). Habituation includes habits, routines and life/social roles (Lee and Kielhofner, 2017b). Occupational performance corresponds to the tasks that must be performed within an occupation. These tasks require skills that can be classed into three categories: motor skills, process skills, and communication and interaction skills (De Las Heras de Pablo *et al.*, 2017).

Research on the OSA has led to another classification of items into a hierarchy of three areas of occupation: basic tasks of living, managing life and responsibilities, and satisfaction, enjoyment and actualization. According to the authors:

[...] items related to basic tasks of living are easier to perform well, and are easier to assign a higher level of importance. Similarly, items related to satisfaction, enjoyment, and actualization are more difficult to perform in a competent manner, and are also less likely to be assigned a higher level of importance (Baron *et al.*, 2006, p. 39).

The lockdown situation had different impacts on this hierarchy. Thus, although reports showed an increase in the consumption of fast food and deleterious effects on sleep, positive impacts on nutrition were also noted, such as an increase in time spent on food preparation (Lombardo *et al.*, 2021) and a greater consumption of fresh fruits and vegetables (Pujia *et al.*, 2021). Also, the high levels of anxiety and depression reported at the beginning of the pandemic tended to decrease as health restrictions were lifted (Rogers *et al.*, 2021).

We conducted a two-phase study of the impact of lockdown on occupational competence and values. In the first phase, conducted in April 2020 on 1,769 people living in French-speaking countries, we found that occupational competence reduced significantly during lockdown, with no change in values (Biard *et al.*, 2023). Nevertheless, the value attributed to occupations relating to managing life and responsibilities was less strong than pre-lockdown whereas the value attributed to occupations relating to satisfaction, enjoyment, and actualization was stronger than pre-lockdown. This finding suggests that the personal value system was reshaped during the lockdown period (Biard *et al.*, 2023).

Although the immediate effects of the COVID-19 pandemic on the population have been amply documented, the study of long-term effects is only just beginning. Pandemics and their associated restrictions, such as lockdown, are a sudden event in the environment that could have both immediate and longer-term consequences for occupational competence and the internal value system.

Aims of the study

We pursued the study of occupational competence and values in June 2021 when certain health restrictions to limit the spread of the virus were still in place. Our aim was to test the hypothesis that 15 months after the start of the spring 2020 lockdown occupational competence would have returned to pre-lockdown levels; pre-lockdown values would remain unchanged for basic tasks of living; values related to managing life and responsibilities would have returned to pre-lockdown levels; and values established during lockdown for occupations relating to satisfaction, enjoyment and actualization would remain the same.

Method

Design and participants

The study reported here is the second phase of the study of the impact of the spring 2020 lockdown on occupational competence and values. The first phase (Biard *et al.*, 2023) focused on the change between pre-lockdown and during-lockdown whereas the second phase extended the analysis to 15 months after the start of lockdown.

The study design was reported previously (Biard *et al.*, 2023). Briefly, we conducted a descriptive, observational study involving a survey. We included people who were (1) French-speaking; (2) aged 18 and over; (3) living in northern hemisphere French-speaking countries (France, Belgium, Switzerland and Canada). Participants in the second part of the study were recruited among respondents to the first phase. The online survey was sent to participants by e-mail. Data for the present study were collected between June 22, 2021 and July 6, 2021. By June 2021, the health restrictions in the four countries studied were almost identical: gradual reopening of borders, wearing of masks, more flexible gauges in public places (sports, culture and leisure), return to the office for employees.

The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by our local ethics committee (CER-Paris-Saclay-2021-008). Participants consented to the use of their data for this study. No data relating to the identity of participants were collected.

Measure

The online survey used was a French version of the OSA version 2.2 (Baron et al., 2006). The OSA is a self-report instrument that measures occupational competence, values and environmental characteristics. The OSA was developed by an international group to ensure it would be relevant across cultures (Baron et al., 2006). It consists of 21 items relating to 21 occupations, and respondents self-rate how well they consider that they perform on each. Two domains are rated. The first is perceived occupational competence and the second is the level of importance attributed to each of the 21 occupations (value). The tool provides a weighted score for occupational competence and value (rated from 0 to 100).

The gap or match between competence and value scores provides information about the person’s satisfaction with occupational participation (Baron et al., 2006).

A series of studies demonstrate that the OSA has good internal validity and is a valid, sensitive, and reliable measure of occupational competence and value for occupational participation across cultural contexts (Kielhofner et al., 2009). The OSA has also been found to detect changes over time (Kielhofner et al., 2010).

In the first phase, participants were asked to complete the OSA twice, at the same time. As there are no normative data for the OSA, we asked participants to recall their pre-pandemic situation when completing the first OSA (OSA1) and to consider the current lockdown situation when completing the second OSA (OSA2). In the second phase, participants completed the OSA 15 months after lockdown (OSA3).

The OSA was formatted in an online form to which we added demographic questions relating to age, gender, family situation, country of residence and private outdoor access (garden, balcony or terrace).

Statistical analysis

We report descriptive statistics as mean and standard deviation (SD) for continuous variables and frequencies for categorical variables. The statistical analyses include only the respondents from the second phase of the study. The data followed a normal distribution (Shapiro–Wilks’s test) and therefore parametric tests were used. For all data, repeated measures ANOVA was used to determine the effect of time on the OSA competence total score and the OSA value total score (OSA1, OSA2 and OSA3) as the first factor and participant characteristics (country of residence, family situation, gender and private outdoor access) as the second factor. Repeated measures ANOVA was used to test the effect of any change in environment (type of housing, private outdoor access and locality type – urban, peri urban or rural) experienced by the person (i.e. moving house) between Phase 1 and Phase 2 on occupational competence and value. A Fisher *post hoc* test was conducted to identify where significant differences between time and participant characteristics lay. Only for respondents who completed all parts of the OSA, *t*-tests were used to analyse differences between the MOHO concept scores in the OSA at each time point and between OSA hierarchy item scores at each time point (OSA1, OSA2 and OSA3).

The level of significance was fixed at $p < 0.05$. SPSS Version 21, IBM, NY, USA, was used for all analyses.

Results

Participants

Of the 1,033 people who agreed to participate in Phase 2, only 391 participants responded to the online survey (Table 1). This represents 37.85% of the original sample. 642 people contacted did not respond to the survey. Most respondents were women ($n = 343, 87.72\%$) and mean age was 37.8 (SD 13.7) years (range 20–84 years). Most lived in France ($n = 312, 79.79\%$), with a partner ($n = 266, 68.03\%$) and had private outdoor access ($n = 284, 72.63\%$).

Occupational self-assessment

Table 2 shows the occupational competence and value scores for OSA1, OSA2 and OSA3.

Occupational competence

Mean occupational competence score decreased significantly from OSA1 to OSA2. The score increased from OSA2 to OSA3 but remained lower than at OSA1.

Table 3 shows the occupational competence and value scores for OSA1, OSA2 and OSA3 for each MOHO concept and hierarchy items.

Table 1 Demographic characteristics of the participants in the study

Characteristics	Participants ($n = 391$)
Age, mean (SD)	37.8 (13.7)
Gender	
Female, n (%)	343 (87.72)
Male, n (%)	48 (12.27)
Family situation	
Single, n (%)	121 (30.94)
Couple, n (%)	266 (68.03)
Widowed, n (%)	4 (1.02)
Country of residence	
France, n (%)	312 (79.79)
Belgium, n (%)	23 (5.88)
Canada, n (%)	31 (7.92)
Switzerland, n (%)	25 (6.39)
Private outdoor access	
Yes, n (%)	284 (72.63)
No, n (%)	107 (27.36)

Source: Authors’ own work

Table 2 Occupational competence and value scores for OSA1, OSA2 and OSA3

	OSA1	OSA2	OSA3
Occupational competence	64.9 (11.9)*	53.9 (10.1)*	58.3 (11.8)*
Value	62.0 (11.4)**	61.8 (12.6)	60.7 (10.4)**

Notes: Data are mean (SD). The range of possible scores was 0–100; *: OSA1 ≠ OSA2; OSA2 ≠ OSA3; OSA1 ≠ OSA3; $p < 0.001$; **: OSA 1 ≠ OSA3; OSA1 = OSA2; OSA2 = OSA3; $p = 0.014$

Source: Authors’ own work

Table 3 Occupational competence and value scores for OSA1, OSA2 and OSA3 for the MOHO concepts and hierarchy items

MOHO concepts	Occupational competence score			OSA1 vs OSA2	P value	
	OSA1	OSA2	OSA3		OSA1 vs OSA3	OSA2 vs OSA3
Skills/occupational performance	3.3 (0.3)	2.9 (0.4)	3.0 (0.4)	0.001*	0.001*	0.001*
Habituation	3.2 (0.4)	2.7 (0.5)	2.8 (0.5)	0.001*	0.001*	0.001*
Volition	3.0 (0.5)	2.5 (0.6)	2.8 (0.6)	0.001*	0.001*	0.001*
OSA hierarchy						
Basic tasks of living	3.4 (0.4)	2.8 (0.5)	3.1 (0.5)	0.001*	0.001*	0.001*
Managing life & relationships	3.2 (0.4)	2.9 (0.4)	2.9 (0.4)	0.001*	0.001*	0.114
Satisfaction, enjoyment, & actualization	3.1 (0.5)	2.4 (0.6)	2.7 (0.5)	0.001*	0.001*	0.001*
MOHO concepts	Value score			OSA1 vs OSA2	P value	
	OSA1	OSA2	OSA3		OSA1 vs OSA3	OSA2 vs OSA3
Skills/occupational performance	2.9 (0.5)	2.9 (0.5)	2.9 (0.4)	0.888	0.109	0.112
Habituation	3.2 (0.5)	3.1 (0.6)	3.1 (0.5)	0.253	0.014*	0.211
Volition	3.1 (0.6)	3.0 (0.6)	3.0 (0.6)	0.130	0.023*	0.528
OSA hierarchy						
Basic tasks of living	3.1 (0.5)	3.0 (0.5)	3.0 (0.5)	0.260	0.006*	0.107
Managing life & relationships	3.0 (0.5)	3.0 (0.5)	3.0 (0.5)	0.002*	0.009*	0.744
Satisfaction, enjoyment, & actualization	3.0 (0.5)	3.1 (0.5)	2.9 (0.5)	0.002*	0.284	0.001*

Notes: Data are mean (SD); *significant differences

Source: Authors' own work

OSA scores were lower at OSA2 than OSA1 for all three components of MOHO personal factors ($p < 0.001$). At OSA3 all scores had increased again but remained lower than at OSA1 ($p < 0.001$).

Scores for the three areas of hierarchy decreased between OSA 1 and OSA2 ($p < 0.001$). At OSA3 scores had increased again; the occupational competence score increased for basic tasks of living and satisfaction, enjoyment and actualization but remained lower than at OSA1 ($p < 0.001$). Occupational competence score for managing life and relationships did not change between OSA1 and OSA2 ($p = 0.114$).

No effect of age, gender, family situation, country of residence or private outdoor access was found on occupational competence at any time point. No effect of a change in the environment (type of housing, private outdoor access or locality type) was found on occupational competence at any time point.

Value (occupational identity). Value scores were significantly lower at OSA3 than OSA1 ($p = 0.014$).

The value scores for habituation, volition or skills/occupational performance did not change between OSA1 and OSA2. However, the volition and the habituation scores were significantly lower at OSA3 than OSA1 (Table 3).

Regarding the three levels of the value hierarchy, basic task of living score did not change ($p = 0.260$) between OSA1 and OSA2 but was lower at OSA3 than OSA1 ($p = 0.006$). Managing life and relationships score decreased between OSA1 and OSA2 ($p = 0.002$) and did not change further at OSA3 ($p = 0.744$). Satisfaction, enjoyment and actualization score increased from OSA1 to OSA2 ($p = 0.002$) (Table 3) and reduced at OSA3 ($p < 0.001$) to its initial level.

No effect of age, gender, family situation, country of residence and private outdoor access was found for value between OSA1, OSA2 and OSA3.

No effect of the environment change (type of housing, private outdoor access or residence area) was found for value at OSA2 or OSA3 compared to OSA1.

Discussion

This study showed that after reducing drastically during lockdown, occupational competence increased again 15 months later, although it remained lower than pre-lockdown. The negative influence of lockdown on the competence score and the increase after the end of the lockdown were expected. The fact that occupational competence did not return to pre-lockdown levels can be explained by the persistence, 15 months after the start of the pandemic, of certain restrictions, hindering full occupational participation.

The value attributed to each of the 21 occupations described in the OSA appeared to change gradually over time. Changes in the value system take longer to occur than changes in occupational competence (Taylor, 2017) explaining the stability of value scores at the start of the pandemic (no difference between OSA 1 and OSA 2 scores). The decline in value scores 15 months later suggests a reorganization of what is important occurred over the longer term.

Indeed, in the intrinsic dynamics of the MOHO, a change in the environment, such as that caused by the COVID pandemic, leads to changes in the constituent elements of the person that contribute to occupational adaptation, including occupational competence. However, studies carried out in the context of disability have shown that the effects of these changes are initially observed at the level of occupational competence, before the other components of occupational adaptation, such as occupational identity (De Las Heras de Pablo *et al.*, 2017).

The value that individuals assign to the items in the OSA is presumed to reflect a part of their occupational identity:

The OSA gives two measures related to the MOHO concepts of Competence (extent to which performance and participation are done well) and Value as an aspect of identity (importance attached to the areas of performance and participation) (Baron *et al.*, 2006).

The importance attributed to occupations concerning the management of life and relationships during lockdown reduced over time, whereas the importance attributed to occupations that allow satisfaction and pleasure returned to pre-pandemic levels by 15 months. This suggests that during the first few weeks of the lockdown, as people lost control over what they could do, particularly socially, they naturally gravitated towards performing pleasurable or comforting activities. This trend was reversed 15 months after the start of the pandemic, with a return to a more diversified and normal level of occupational participation. Therefore, the pandemic situation seemed to have a long-lasting influence on some aspects of the value system. Qualitative studies are now required to increase understanding of this phenomenon, for example, using interviews focusing on the components of occupational adaptation (competence and occupational identity) in relation to environmental impact, as proposed by the OPHI-II tool developed according to the MOHO concepts (Kielhofner *et al.*, 2004).

From a MOHO perspective, the significant decrease in habituation and volition scores at 15 months compared with pre-lockdown and during-lockdown scores suggests a long-term disruption of these aspects of occupational competence because of the lockdown. The maintenance of some restrictions at 15 months continued to disrupt (some) routines and habits. Studies in the field of occupational science have shown that, despite the immediate impact of lockdown on roles and routines (Malkawi *et al.*, 2022), people implemented strategies to develop a new occupational balance, particularly by using technologies to maintain social connections or performing outdoor activities such as walking (Tse *et al.*, 2022).

Similarly, the anxiety generated by the pandemic and uncertainty about the future likely influenced volition, i.e. the desire to carry out certain occupations or the sense of personal capacity. In fact, non-pathological anxiety is a powerful driving force for coping with unexpected changes (Steimer, 2002). This raises the question of whether the pandemic situation had a long-term effect on occupational identity.

Regarding the person's living environment, having private outdoor access was found to be a positive contributor to occupational balance during the pandemic (González-Bernal *et al.*, 2020; Biard *et al.*, 2023). The influence of having private outdoor access on the OSA scores during lockdown was no longer present at 15 months. This is likely because almost all restrictions had been lifted by this time, even if access to some public places was still disrupted. We found that age, gender and family status had no impact on occupational competence and values at any time point. This contradicts reports that younger adults and women were the most psychologically affected by this pandemic (Blendermann *et al.*, 2023). This may be explained by a lower representation of young people in our sample.

The occupations of the entire population were impacted by the restrictions associated with the pandemic. This pandemic context has thus been a life-size field of exploration for addressing occupational adaptation outside the context of disability or impairment. The role of occupational therapists is

to facilitate occupation at an individual level (Polatajko *et al.*, 2015). These professionals understand the intimate link between maintaining health and engaging in meaningful occupations (Balsler *et al.*, 2020; Lin and Fisher, 2020; Townsend and Polatajko, 2013). The deprivation of typical activities during the lockdown underscored their importance to individuals. What was once regarded as a leisure activity transformed into a necessity, as evidenced by the heightened popularity of specific outdoor activities, such as walking or running, during the lockdown.

The role of occupational therapists in community prevention is growing rapidly thanks, among other things, to initiatives carried out during the lockdown which have highlighted the added value of our profession in supporting people towards recovery of their disrupted occupations (Brown, 2021). The development of telerehabilitation has made it possible to offer services to communities far from major urban centres. Occupational therapists' experience of working with marginalised populations (indigenous peoples, refugees) highlighted the benefits of creative activities, centring, connecting with others and contributing to the common good which have been applied to the general population during the pandemic by encouraging individuals to engage specifically in meaningful occupations that specifically foster resilience, spirituality, hope and belonging in challenging situations to prevent health troubles (Zafran, 2020).

Also, voices are being raised to allow everyone equitable access to the expertise of occupational therapists (Galvaan, 2021). Occupational therapists' understanding of what can affect the population following a major event, such as that experienced collectively during the COVID-19 pandemic, will be an asset in coping with future major events.

Limitations

This study has several limitations. First, asking participants to self-rate their occupational competence and values before the lockdown required them to recall their previous situation as they had already been in the lockdown situation for two weeks. Second, we lost many people, with only a third of those who took part in Phase 1 responding to the Phase 2 questionnaire. Third, the sample did not accurately represent the population of French-speaking countries as the participants were not equally distributed across the countries included. Furthermore, we only focused on Western countries; the results cannot be generalised to developing countries with poor or unequal access to medical services where the population's adaptation to the pandemic and lockdown situations is likely to differ. Finally, we may have had a recruitment bias, as only people who still felt disturbed in their occupations were more likely to participate in the survey.

Conclusion

This study demonstrated that the lockdown situation had a long-term impact on occupational competence and values. People had to reshape their occupations to cope with the drastic changes that occurred at different levels of their environment. Some aspects appear rather negative, such as people's own perception of their occupational competence, but other elements are more positive, such as the importance given to

certain occupations over others. These occupational choices promote well-being in the face of the unexpected.

A better understanding of the complex links between the meaning of occupations and overall health and well-being during collective challenges will help to maintain health in the future.

Key message

- The lockdown had a long-term impact on occupational competence and values.
- A solution to prevent such a decline if occupations are restricted in the future is for occupational therapists to work with communities to promote better long-term occupational participation.

References

- Al Gharaibeh, F. and Gibson, L. (2022), "The impact of COVID-19 quarantine measures on the mental health of families", *Journal of Social Work (London, England)*, Vol. 22 No. 3, pp. 655-673, doi: [10.1177/14680173211011705](https://doi.org/10.1177/14680173211011705).
- Alomari, M.A., Khabour, O.F. and Alzoubi, K.H. (2020), "Changes in physical activity and sedentary behavior amid confinement: the BKSQ-COVID-19 project", *Risk Management and Healthcare Policy*, Vol. 13, pp. 1757-1764, doi: [10.2147/RMHP.S268320](https://doi.org/10.2147/RMHP.S268320).
- Azrak, M.Á., Fasano, M.V., Avico, A.J., Sala, M., Casado, C., Padula, M., Kruger, A.L., et al. (2023), "Prolonged body weight gain, lifestyle changes and health-related quality of life in children during the COVID-19 pandemic lockdown: a follow-up study", *European Journal of Clinical Nutrition*, Vol. 77 No. 4, pp. 460-467, doi: [10.1038/s41430-022-01252-w](https://doi.org/10.1038/s41430-022-01252-w).
- Balser, A., O'Brien, S.P. and Wittman, P. (2020), "Doing it right: OT meeting population needs with COVID-19", *The Open Journal of Occupational Therapy*, Vol. 8 No. 4, pp. 1-6, doi: [10.15453/2168-6408.1753](https://doi.org/10.15453/2168-6408.1753).
- Barbouzas, A.E., Malli, F., Daniil, Z. and Gourgoulianis, K. (2022), "Long-Term impact of COVID-19 pandemic in sleep quality and lifestyle in young adults", *International Journal of Environmental Research and Public Health*, Vol. 19 No. 19, p. 12333, doi: [10.3390/ijerph191912333](https://doi.org/10.3390/ijerph191912333).
- Baron, K., Kielhofner, G., Ivenger, A., Goldhammer, V. and Wolenski, J. (2006), *A User's Manual for the Occupational Self Assessment (OSA) (Version 2.2)*, The Model of Human Occupation Clearinghouse Dept. of Occupational Therapy College of Applied Health Sciences University of IL at Chicago, [Chicago Ill].
- Biard, N., Doussin, A. and Pouplin, S. (2023), "Impact of lockdown on occupational competence and values regarding the environment", *French Journal of Occupational Therapy*, Vol. 1 No. 1.
- Blendermann, M., Ebalu, T.I., Obisie-Orlu, I.C., Fried, E.I. and Hallion, L.S. (2023), "A narrative systematic review of changes in mental health symptoms from before to during the COVID-19 pandemic", *Psychological Medicine*, Vol. 54 No. 1, pp. 1-24, doi: [10.1017/S0033291723002295](https://doi.org/10.1017/S0033291723002295).
- Brown, T. (2021), "The response to COVID-19: occupational resilience and the resilience of daily occupations in action", *Australian Occupational Therapy Journal*, Vol. 68 No. 2, pp. 103-105, doi: [10.1111/1440-1630.12721](https://doi.org/10.1111/1440-1630.12721).
- Dahl, J. (2015), "Valuing in ACT", *Current Opinion in Psychology*, Vol. 2, pp. 43-46, doi: [10.1016/j.copsyc.2015.03.001](https://doi.org/10.1016/j.copsyc.2015.03.001).
- De Las Heras de Pablo, C.G., Fan, C.-W. and Kielhofner, G. (2017), "Dimensions of doing", *Taylor, R. Kielhofner's Model of Human Occupation*, Fifth edition. Lippincott Williams and Wilkins, Philadelphia, pp. 107-122.
- Dogaš, Z., Lušić Kalcina, L., Pavlinac Dodig, I., Demirović, S., Madirazza, K., Valić, M. and Pecotić, R. (2020), "The effect of COVID-19 lockdown on lifestyle and mood in Croatian general population: a cross-sectional study", *Croatian Medical Journal*, Vol. 61 No. 4, pp. 309-318, doi: [10.3325/cmj.2020.61.309](https://doi.org/10.3325/cmj.2020.61.309).
- Engels, C., Segaux, L. and Canouï-Poitrine, F. (2022), "Occupational disruptions during lockdown, by generation: a European descriptive cross-sectional survey", *British Journal of Occupational Therapy*, Vol. 85 No. 8, pp. 603-616, doi: [10.1177/03080226211057842](https://doi.org/10.1177/03080226211057842).
- European Parliament. Directorate General for Internal Policies of the Union (2023), *Social and Economic Consequences of COVID-19: Study*, Publications Office, LU.
- Fox, A.B., Baier, A.L., Alpert, E., Nillni, Y.I. and Galovski, T.E. (2023), "Psychosocial and economic impacts of the COVID-19 pandemic on the mental health of veteran men and women", *Journal of Women's Health*, doi: [10.1089/jwh.2023.0078](https://doi.org/10.1089/jwh.2023.0078), Mary Ann Liebert.
- Galvaan, R. (2021), "Re-orienting occupational therapy: embracing generative disruption and revisiting a posture that acknowledges human dignity", *South African Journal of Occupational Therapy*, Vol. 51 No. 2, doi: [10.17159/2310-3833/2021/vol51n2a13](https://doi.org/10.17159/2310-3833/2021/vol51n2a13).
- González-Bernal, J.J., Santamaría-Peláez, M., González-Santos, J., Rodríguez-Fernández, P., León Del Barco, B. and Soto-Cámara, R. (2020), "Relationship of forced social distancing and home confinement derived from the COVID-19 pandemic with the occupational balance of the Spanish population", *Journal of Clinical Medicine*, Vol. 9 No. 11, p. 3606, doi: [10.3390/jcm9113606](https://doi.org/10.3390/jcm9113606).
- Kielhofner, G., Dobria, L., Forsyth, K. and Kramer, J. (2010), "The occupational self assessment: stability and the ability to detect change over time", *OTJR: Occupational Therapy Journal of Research*, Vol. 30 No. 1, pp. 11-19, doi: [10.3928/15394492-20091214-03](https://doi.org/10.3928/15394492-20091214-03).
- Kielhofner, G., Forsyth, K., Kramer, J. and Ivenger, A. (2009), "Developing the occupational self assessment: the use of Rasch analysis to assure internal validity, sensitivity and reliability", *British Journal of Occupational Therapy*, Vol. 72 No. 3, pp. 94-104, doi: [10.1177/030802260907200302](https://doi.org/10.1177/030802260907200302).
- Kielhofner, G., Mallinson, T., Crawford, C., Nowak, M., Rigby, M., Henry, A. and Walens, D. (2004), *Occupational Performance History Interview (OPHI-2) (Version 2.1)*, The Model of Human Occupation Clearinghouse Dept. of Occupational Therapy College of Applied Health Sciences University of IL at Chicago.
- L'Angiocola, P.D. and Monti, M. (2020), "COVID-19: the critical balance between appropriate governmental restrictions and expected economic, psychological and social consequences in Italy. Are we going in the right direction?",

- Acta Bio-Medica: Atenei Parmensis*, Vol. 91 No. 2, pp. 35-38, doi: [10.23750/abm.v91i2.9575](https://doi.org/10.23750/abm.v91i2.9575).
- Lee, S. and Kielhofner, G. (2017a), "Volition", *Taylor, R. Kielhofner's Model of Human Occupation*, Fifth edition. Lippincott Williams and Wilkins, Philadelphia, pp. 38-56.
- Lee, S. and Kielhofner, G. (2017b), "Habituation: patterns of daily occupation", *Taylor, R. Kielhofner's Model of Human Occupation*, Fifth edition, Lippincott Williams and Wilkins, Philadelphia, pp. 57-73.
- Lin, T.T. and Fischer, G. (2020), "Applying the model of human occupation during the pandemic stay-at-home order", *The Open Journal of Occupational Therapy*, Vol. 8 No. 4, pp. 1-7, doi: [10.15453/2168-6408.1770](https://doi.org/10.15453/2168-6408.1770).
- Lombardo, M., Guseva, E., Perrone, M.A., Müller, A., Rizzo, G. and Storz, M.A. (2021), "Changes in eating habits and physical activity after COVID-19 pandemic lockdowns in Italy", *Nutrients*, Vol. 13 No. 12, p. 4522, doi: [10.3390/nu13124522](https://doi.org/10.3390/nu13124522).
- López-Bueno, R., Calatayud, J., Ezzatvar, Y., Casajús, J.A., Smith, L., Andersen, L.L. and López-Sánchez, G.F. (2020), "Association between current physical activity and current perceived anxiety and mood in the initial phase of COVID-19 confinement", *Frontiers in Psychiatry*, Vol. 11, p. 729, doi: [10.3389/fpsy.2020.00729](https://doi.org/10.3389/fpsy.2020.00729).
- Malkawi, S.H., Alqatarnah, N.S., Malkawi, A.H., Amro, A.F. S. and Crowe, T.K. (2022), "Occupational changes during the COVID-19 lockdown in Jordan", *Scandinavian Journal of Occupational Therapy*, Vol. 29 No. 5, pp. 430-440, doi: [10.1080/11038128.2021.1983017](https://doi.org/10.1080/11038128.2021.1983017).
- Moreno, C., Wykes, T., Galderisi, S., Nordentoft, M., Crossley, N., Jones, N., Cannon, M., et al. (2020), "How mental health care should change as a consequence of the COVID-19 pandemic", *The Lancet Psychiatry*, Vol. 7 No. 9, pp. 813-824, doi: [10.1016/S2215-0366\(20\)30307-2](https://doi.org/10.1016/S2215-0366(20)30307-2).
- Nizzero, A., Cote, P. and Cramm, H. (2017), "Occupational disruption: a scoping review", *Journal of Occupational Science*, Vol. 24 No. 2, pp. 114-127, doi: [10.1080/14427591.2017.1306791](https://doi.org/10.1080/14427591.2017.1306791).
- Polatajko, H.J., Njelesani, J.E. and Davis, J.A. (2015), "Expliciter notre compétence première et fondamentale: un appel à une recherche mondiale sur l'habilitation à l'occupation", *Canadian Journal of Occupational Therapy*, Vol. 82 No. 4, pp. 210-211, doi: [10.1177/0008417415603716a](https://doi.org/10.1177/0008417415603716a).
- Prati, G. and Mancini, A.D. (2021), "The psychological impact of COVID-19 pandemic lockdowns: a review and meta-analysis of longitudinal studies and natural experiments",

- Psychological Medicine*, Vol. 51 No. 2, pp. 201-211, doi: [10.1017/S0033291721000015](https://doi.org/10.1017/S0033291721000015).
- Pujia, R., Ferro, Y., Maurotti, S., Khoory, J., Gazzaruso, C., Pujia, A., Montalcini, T., et al. (2021), "The effects of COVID-19 on the eating habits of children and adolescents in Italy: a pilot survey study", *Nutrients*, Vol. 13 No. 8, p. 2641, doi: [10.3390/nu13082641](https://doi.org/10.3390/nu13082641).
- Rogers, A.M., Lauren, B.N., Woo Baidal, J.A., Ozanne, E.M. and Hur, C. (2021), "Persistent effects of the COVID-19 pandemic on diet, exercise, risk for food insecurity, and quality of life: a longitudinal study among U.S. adults", *Appetite*, Vol. 167, p. 105639, doi: [10.1016/j.appet.2021.105639](https://doi.org/10.1016/j.appet.2021.105639).
- Romero-Blanco, C., Rodríguez-Almagro, J., Onieva-Zafra, M. D., Parra-Fernández, M.L., Prado-Laguna, M.D.C. and Hernández-Martínez, A. (2020), "Physical activity and sedentary lifestyle in university students: changes during confinement due to the COVID-19 pandemic", *International Journal of Environmental Research and Public Health*, Vol. 17 No. 18, p. 6567, doi: [10.3390/ijerph17186567](https://doi.org/10.3390/ijerph17186567).
- Salfi, F., Amicucci, G., Corigliano, D., Viselli, L., D'Atri, A., Tempesta, D., Gorgoni, M., et al. (2022), "Two years after lockdown: longitudinal trajectories of sleep disturbances and mental health over the COVID-19 pandemic, and the effects of age, gender and chronotype", *Journal of Sleep Research*, Vol. 32 No. 3, doi: [10.1111/jsr.13767](https://doi.org/10.1111/jsr.13767).
- Steimer, T. (2002), "The biology of fear- and anxiety-related behaviors", *Dialogues in Clinical Neuroscience*, Vol. 4 No. 3, pp. 231-249, doi: [10.31887/DCNS.2002.4.3/tsteimer](https://doi.org/10.31887/DCNS.2002.4.3/tsteimer).
- Taylor, R. (2017), *Kielhofner's Model of Human Occupation*, Edited by Lippincott Williams and Wilkins, Fifth edition, Philadelphia.
- Townsend, E.A. and Polatajko, H.J. (2013), *Habiliter à L'occupation. Faire Avancer La Perspective Ergothérapique de La Santé, Du Bien-Être et de La Justice Par L'occupation*, CA, Ottawa.
- Tse, T., Roberts, E., Garvie, J., Sutton, E. and Munro, A. (2022), "The impact of COVID-19 restrictions on occupational balance: a mixed method study of the experience of Australian occupational therapists", *Australian Occupational Therapy Journal*, Vol. 69 No. 1, pp. 89-97, doi: [10.1111/1440-1630.12772](https://doi.org/10.1111/1440-1630.12772).
- Zafran, H. (2020), *Occupational Gifts in the Time of a Pandemic*, Unpublished, doi: [10.13140/RG.2.2.16323.35364](https://doi.org/10.13140/RG.2.2.16323.35364).

Corresponding author

Nicolas Biard can be contacted at: nicolas.biard35@gmail.com