

## The impact of Covid-19 for occupational therapy: Findings and recommendations of a global survey

Viktorija Hoel , Claudia von Zweck , Ritchard Ledgerd & World Federation of Occupational Therapists

To cite this article: Viktorija Hoel , Claudia von Zweck , Ritchard Ledgerd & World Federation of Occupational Therapists (2021): The impact of Covid-19 for occupational therapy: Findings and recommendations of a global survey, World Federation of Occupational Therapists Bulletin, DOI: [10.1080/14473828.2020.1855044](https://doi.org/10.1080/14473828.2020.1855044)

To link to this article: <https://doi.org/10.1080/14473828.2020.1855044>



Published online: 18 Jan 2021.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

---



## The impact of Covid-19 for occupational therapy: Findings and recommendations of a global survey

Viktoria Hoel<sup>a</sup>, Claudia von Zweck<sup>b</sup>, Ritchard Ledgerd<sup>c</sup> and World Federation of Occupational Therapists<sup>d</sup>

<sup>a</sup>Institute for Public Health and Nursing Science, University of Bremen, Bremen, Germany; <sup>b</sup>World Federation of Occupational Therapists, Ottawa, Canada; <sup>c</sup>World Federation of Occupational Therapists, London, UK; <sup>d</sup>World Federation of Occupational Therapists, Geneva, Switzerland

### ABSTRACT

A global survey of individuals involved in the delivery of occupational therapy was conducted by the World Federation of Occupational Therapists (WFOT) to determine the impact of the COVID-19 pandemic and identify needs and recommendations for future resources and support. The online survey was circulated in five languages through member organisations and other WFOT communications networks. The 30-item survey collected primarily quantitative data, although some comments and recommendations were requested. A total of 2750 individual responses were received from 100 countries. Findings indicated that the Covid-19 pandemic had a wide-ranging impact on occupational therapy as a result of several factors, including a lack of preparedness, restrictions in service access, new demands during redeployment, frequently changing work conditions, use of new technology and limitations in resources such as additional space for physical distancing and personal protective equipment. Working during the pandemic also had a personal impact on the health of most respondents, with some reporting reduced morale and concerns for their safety. Access to Covid-19 specific training and living in a high-income country were found to have a significant positive impact on a number of outcomes, including the respondent's sense of competence, effectiveness and safety. Those working in a clinical role were less likely to report higher levels of safety, effectiveness and positive impacts associated with the pandemic. Important recommendations emerged from the findings to inform the future work of WFOT and other professional organisations, including the need for: collaborative efforts to provide information and training resources; development of standards and supports to promote quality service provision; and advocacy to promote access to occupational therapy and address occupational injustice.

### KEYWORDS

pandemic; work environment; health service access; quality; safety

### Introduction

The advent of the Covid-19 pandemic led to widespread public health restrictions and implementation of guidelines to contain spread of the virus, with the result that the *status quo* in occupational therapy was no longer possible. Disruptive changes in community access, resource availability and individual health and well-being deeply affected how people were able to engage in their daily activities and occupations. The pandemic had a profound impact on the lives, health and wellbeing of individuals, families and communities worldwide and the way occupational therapy services could be provided to them.

Occupational therapy is a health discipline that offers a broad variety of services to people of all ages, groups and communities to enable their full inclusion in occupations in the home, education, work and leisure environment. Occupational therapists enable people to be active and productive in their community by using evidence-informed individual and population approach interventions, including

skills training, education, group work and self-management strategies. Interventions reduce barriers impacting the mental, physical and cognitive health of people, their occupations and the environment in which they operate (WFOT, 2020a).

During the pandemic, the continued provision of occupational therapy for existing service users had heightened importance to enable engagement in activities that provide meaning in life, at a time when participation in regular routines and activities was particularly challenged. In addition, new demand for occupational therapy rehabilitation services was created by the pandemic.

Research emerging from the COVID-19 pandemic demonstrates a high need for occupational therapy rehabilitation intervention for people affected by COVID-19. Such individuals include those recovering from COVID-19 illness, particularly people with advanced age, multiple chronic diseases or organ failure (Brugliera et al., 2020). People who require intensive care management of their symptoms face high risks of long-term physical, cognitive and emotional

complications (British Psychological Association, 2020; Simpson & Robinson, 2020). Rehabilitation is beneficial in the initial acute stage of COVID-19 management (Li, 2020; Yu et al., 2020), as well in the long-term recovery phase for improving respiratory function, exercise endurance, performance of daily living activities and managing the psychological and cognitive sequelae of illness (Smith et al., 2020). Rehabilitation has also been identified as crucial for individuals affected by physical distancing stemming from the COVID-19 pandemic, including persons experiencing an exacerbation of mental health conditions as a result of social isolation; individuals becoming deconditioned because of prolonged immobilisation and musculoskeletal deterioration; and people at risk of functional regression due to pandemic restrictions in rehabilitation services (Cervolo et al., 2020). Given the need for rehabilitation from such broad-based populations, researchers are calling for action to prepare for an expected surge in demand for services (Stam et al., 2020).

As a professional organisation representing 101 national occupational therapy associations with over 580,000 occupational therapists around the world, the World Federation of Occupational Therapists (WFOT) sought to understand the impact of the Covid-19 pandemic for the provision of occupational therapy as the profession struggles to meet the growing demands for service. WFOT conducted a global survey of individuals involved in the delivery of services to obtain input regarding:

- The impact of the COVID-19 pandemic for the quality and delivery of occupational therapy education, research and practice; and
- The needs and recommendations of the occupational therapy community for future resources and support.

## Method

### Data Collection

The survey was conducted between April and July 2020 using SurveyMonkey software. A link to the survey was distributed within the global occupational therapy community by email to WFOT member organisations, through the WFOT e-newsletter, website and social media.

The survey was available in five languages including English, German, Spanish, French and Traditional Chinese. The 30-item survey collected primarily quantitative data using closed-ended questions, although respondents could supplement their responses with short comments in several areas. Open-ended questions also asked respondents to provide recommendations, based on their experiences during the

COVID-19 pandemic for their workplace, national association and WFOT.

### Analysis framework

The Quality Evaluation Strategy Tool (QUEST) was developed by WFOT to provide a systematic approach to the evaluation of quality in occupational therapy (WFOT, 2020b). As this survey addressed the impact of Covid-19 for the quality and delivery of practice, research and education within occupational therapy during the global pandemic, QUEST served as an appropriate framework to analyse and group quantitative and qualitative data.

QUEST is designed for use in all areas of occupational therapy practice, regardless of setting, types of service provided, and populations served (WFOT, 2020b). Seven dimensions of quality are addressed in the framework: accessibility; sustainability; appropriateness; efficiency; effectiveness; person-centredness; and safety.

### Data analysis

The quantitative results were analysed using Excel version 16 and Stata version 15. The findings were stratified using characteristics of respondents in three areas: work roles; provision of Covid-19 specific training; and country income class, as categorised by the World Bank. The influence of the independent variables was analysed in relation to several Covid-19 related outcomes, rated by respondents using a four-point Likert scale: competency; effectiveness; employer expectations; safety; impact on health; and impact on work.

When estimating the relationship between the predictors and outcomes, an ordered logistic (ologit) regression model was first utilised. However, it became evident that the proportional odds (PO) assumption was violated in some instances, as the coefficient indicating odds of ending in a specific category of the dependent variable (e.g. low impact to very high impact), was not equal for all outcomes. In these instances, a *partial* proportional odds (PPO) model was fitted following the generalised ordered logit (gologit) approach. The gologit model relaxes the assumptions for the predictors that do not meet the PO assumption, to allow their effect to be estimated freely across different categories of the dependent variable (Liu & Koirala, 2012; Williams, 2006a, 2006b, 2016). The resulting coefficients for each of predictors were expressed as odds ratios (ORs), that for every one-unit increase in a predictor, estimate the odds of being in the highest category of the dependent variable versus the combined lower categories, when all other variables in the model are held constant.

Analysis of qualitative results began with translating comments that were not submitted in English. The online DeepL translation tool was used, and any uncertainties with translations were reviewed with a native speaker. The data was then analysed with NVivo version 12 using a two-step process. First question-specific analysis was undertaken, followed by overarching analysis of all themes that emerged through the questions. An inductive content analysis approach was adopted, letting each theme emerge through the data using inductive reasoning and constant comparison. Open codes were used to describe all aspects of the content, and codes referring to the same phenomenon were grouped into themes. These themes with related sub-themes were combined into general statements, which thereafter were grouped together to identify overarching themes.

## Results

### Demographic information

A total of 2750 individual responses were received from 100 countries, with most surveys completed in English (72%) or Spanish (18%). The majority of respondents lived in high-income countries (57%), with many working as practitioners in clinical roles (67%) or as educators or researchers (33%). Respondents most frequently worked in a facility (55%) such as a hospital, rehabilitation centre or nursing home.

### Accessibility

Results indicated accessing occupational therapy during the Covid-19 pandemic was challenging as the virus spread, resulting in heavy restrictions and mass-lockdowns. At the height of the pandemic, half of the respondents experienced full lock-down (52%), with all non-essential services closed, with an additional 30% experiencing many service restrictions. Only one percent experienced no restrictions. At the time of survey completion, 20% were under full lock-down and 41% experienced many service restrictions.

Given service restrictions reported by respondents, many were able to carry out little of their normal pre-pandemic work, if any at all. As a result, 54% indicated that their usual service population faced many restrictions in accessing their services, with an additional 23% stating that no access was possible. Redeployment to new tasks was experienced by many respondents, with 75% reporting *some* or *many* changes in their service population, and 10% having a *complete* change.

We were authorised to treat 'urgent cases only' – this means that many paediatric and geriatric cases are going unseen. This causes some stress as we're

worried about the degree of backlog when things open up. (id\_1132)

Changes were also made in how services were accessed during the pandemic, with in-person interaction reduced by an average of 54% of time spent at work, often replaced by remote interactions. The highest increase in remote interactions was via video conferences, with an average rise of 39% in the amount of work time spent using this technology. Telehealth became a major component of service delivery; many comments and recommendations revolved around using the required technology.

Service restrictions and deployment had ripple effects for cancellation of occupational therapy student placements. Some commented on the importance of maintaining placements during the pandemic as the changed practice circumstances offered good learning experiences. Education programmes were encouraged to minimise disruptions to student learning by using remote practice supervision.

### Sustainability

The provision of high-quality occupational therapy is dependent upon availability and sustainability of resources required to support service delivery (WFOT, 2020b). During the pandemic, providing service within pandemic restrictions required new or additional resources. These were, however, often undersupplied, and many commented they did not have access to resources at the same level as other health care professionals.

Average scores indicate the hardest resource to obtain during the pandemic was additional space and facilities needed for physical distancing, rated as only as *sometimes accessible*. In addition, more than one third of respondents (36%) indicated that personal protective equipment (PPE) was *never* or only *sometimes available*. Not surprisingly, many concerns were voiced about obtaining PPE needed to carry out safe and adequate practice. Some had to halt services because of a lack of PPE.

We were exposed to positive patients before testing occurred. Denied the right to wear PPE even if we provided from our personal homes/money. Then after being exposed, we were laid off ... as they wanted to reduce PPE use and reduce possible spread. (id\_1943)

Sustainable delivery of services is also dependent on a stable workforce that provides job security for providers. Some respondents reported negative experiences with employers and funders that were slow to respond to rapidly shifting conditions. Several lost their jobs, were not paid for remote care or not compensated for the extra work and resources required to practise, leaving many with a sudden loss of income.

I have taken a significant amount of time for preparation; at times, those hours were not billable. (id\_83)

### Appropriateness

Appropriate service requires having the *right occupational therapy services delivered by the right person, at the right time, to the right person in the right place* (WFOT, 2020b). During a pandemic situation, knowing the right person, time and place is especially challenging when precautions are necessary to prevent virus spread. Only a slight majority of respondents working during the pandemic rated their competence to provide appropriate services as *high* or *very high* (54%), with nine percent stating their competence as *low*. Many commented they had little experience with infection containment and lacked confidence when working.

More than half of the respondents (56%) were able to access Covid-19 specific training to work during the pandemic. The vast majority accessed training through online modules or websites (72%), but video conferences (42%) and social media (34%) were also utilised. Almost 30% of training was acquired in-person. Frequently used information sources included governments and international agencies (76%) or professional associations (71%).

Covid-19 specific training was noted to have a significant positive impact on competence ratings. Respondents who received training were 1.4 times more likely to report a higher level of competence ( $\beta=0.374$ ,  $p<0.001$ ). Respondents from high-income countries were also 1.3 times more likely to report a higher level of competence ( $\beta = 0.263$ ;  $p<0.001$ ).

Many identified a lack of leadership and management that led to organisational inconsistencies during the pandemic. Frequently changing and conflicting information was reported to deter informed and competent service provision, causing stress and confusion. Clear and timely communication was recognised as imperative to guide practice.

Clearer guidance around contact tracing and exposure. It seemed to vary depending on which person you spoke to in occupational health and safety. Too many guidelines were open to interpretation so different areas of the hospital were doing different things. (id\_217)

### Efficiency

Efficient services make optimal use of economic, human and material resources to provide quality occupational therapy (WFOT, 2020b). The majority of respondents (65%) reported feeling *highly* or *mostly unprepared* to work in a pandemic prior to Covid-19. Only 5% reported feeling *highly prepared*. As a result,

the pandemic affected efficiency of service delivery, with most respondents rating Covid-19 as having *high impact* on their work. Only seven percent reported the pandemic had less than a *medium impact*. Those respondents who received Covid-19 specific training were less likely to report their work as highly impacted (OR=0.82;  $\beta=-0.199$ ;  $p<0.05$ ).

To be efficient while working during the pandemic, respondents indicated that preparedness for ever-changing circumstances and needs was paramount. Respondents had to adapt to a *new normal*, many using telehealth strategies to address changed realities, as relying on *how things were* was no longer possible. Several recommended pre-planning for alternate work arrangements to promote service continuity when normal in-person contact was no longer viable. Others noted the importance of post-pandemic planning given the consequences of Covid-19 for changing practice methods and service demand.

I think preparing for a pandemic should be addressed in the same way that fire safety and manual handling are addressed. We should be provided with adequate training on induction to a service for how they respond to a pandemic and be given refresher training on it regularly. (id\_2295)

An important strategy for using human resources optimally in times of crisis is to ensure strong networking opportunities. Respondents recommended networking and experience sharing to allow occupational therapists from all over the world to connect and learn from one another. Many urged for the development of virtual interactions such as online forums, webinars, workshops and conferences for sharing experiences with others having the same difficulties and challenges.

Establish a virtual space on the website to share experiences and create a database of treatment programmes or suggestions for telerehabilitation to share with partners, and they in turn to their patients and communities in need. (id\_446)

### Effectiveness

Effectiveness in occupational therapy is dependent on the use of evidence-informed practices to attain desired or expected outcomes (WFOT, 2020b). Unfamiliar experiences during the pandemic were reported to generate uncertainty, particularly during service disruptions and redeployment; in addition, keeping track of developments and requirements necessary to provide effective service often became overwhelming and confusing. Fifty-eight percent of respondents indicated they had a *medium* or *low* level of effectiveness in meeting the immediate needs of service users during Covid-19. Only 38% stated they were *highly* or *very highly* effective.

Individuals from high-income countries were 1.3 times more likely to report higher levels of

effectiveness ( $\beta = 0.261$ ;  $p < 0.001$ ). Conversely, the OR of reporting a *very high* level of effectiveness decreased by a factor of 0.69 for respondents with a clinical role ( $\beta = -0.365$ ;  $p < 0.001$ ).

Respondents who received Covid-19 specific training were 1.36 times more likely to have higher ratings of effectiveness ( $\beta = 0.305$ ;  $p < 0.001$ ). Comments endorsed the value of such training, although many respondents also stated their education needs were fully not met, often because information provided was not specific for occupational therapy or their service setting. The need for national/international standards and guidelines was identified to promote best practice knowledge and benchmarks.

[...] issue general protocols at national level as we are at a disadvantage compared to other professions. No provincial laws in some places, no schools. No framework for private care. (id\_1689)

As respondents reported they received an overload of information related to Covid-19, it was recommended that the most vital information for occupational therapy be presented in user-friendly summaries. National and international organisations were identified as having an important role to provide easily accessible and reliable information, needed to reduce dependence on rumours and false information, as well as improve confidence in practice.

There was a lot of information, a lot of information without scientific criteria and a lot of information that was modified along the way. (id\_840)

### Person-centredness

Person-centredness in the provision of occupational therapy is dependent upon meeting legitimate expectations for service throughout the delivery process (WFOT, 2020b). Quality of service relating to person-centredness is measured by the degree to which the needs of all people are met during the course of occupational therapy, including both service users and service providers.

Many respondents stated they were unable to meet the needs and expectations of service users during the pandemic. Satisfaction was impacted by changes to service provision, particularly with partial or complete discontinuation of services.

Almost one-third of respondents (32%) described the impact of the pandemic for their morale as *somewhat positive* as they rallied together to provide services in difficult times; most frequently, however, the experience was seen as *negative* (55%). Working in a clinical role decreased the likelihood of reporting a positive impact of the pandemic by a factor of 0.75 ( $\beta = -0.290$ ;  $p < 0.05$ ). Conversely, respondents who received Covid-19 specific training were 1.33 times

more likely to report the virus having a positive impact on their work morale.

The majority of respondents (69%) described the expectations of their employer as *usually or always reasonable*. Those who received Covid-19 specific training were 1.35 times more likely to find their employer's expectations to be reasonable ( $\beta = 0.303$ ;  $p < 0.001$ ). Respondents working in lower income countries were also 1.22 times more likely to report their employer's expectations to be reasonable ( $\beta = 0.202$ ;  $p < 0.001$ ).

Comments indicated concern regarding an under-recognition of the work and importance of occupational therapy, leading to self-doubt among some respondents. A strong need for advocacy was identified to increase awareness and understanding of the role of the profession.

I kept on questioning myself as regards to: do the authorities realise what is the role of an occupational therapist? Does my employer not value at least some follow up online? (id\_98)

Experiences with redeployment also impacted respondents' sense of purpose and motivation, resulting in calls for guidance and support for managing new and unfamiliar roles. Concerns with morale were particularly acute among new graduates and laid off workers who found themselves in a difficult labour market. Respondents called for professional organisations to lobby for financial aid, employment opportunities and job security by advocating for insurance coverage of occupational therapy or inclusion in national healthcare systems' reimbursement schemes.

I have experienced job loss, safety concerns in hospital, and mental health challenges with a loss/confusion in identity (non-essential to government, essential in hospital) which has highly impacted my feelings of value. (id\_540)

### Safety

Improving safety through the reduction of risk was of paramount concern to respondents given the dangerous consequences of the Covid-19 virus. Using a four-point scale to rate safety while working during Covid-19, most respondents stated they felt *usually or always safe* (67%), although seven percent reported *never feeling safe*. A significant OR for working in a clinical role and feeling less safe was found when comparing the higher categories (*usually or always safe*) with the lowest category (*never feeling safe*) by a factor of 0.71 and 0.67, respectively ( $p < 0.05$ ).

Respondents from higher income countries were more likely to *always* feeling safe across all categories, with each result significant by  $p$ -value of 0.003 or less. Individuals who had received Covid-19 specific training were also at least 1.27 times more likely to score a higher sense of safety across all cutpoints ( $p < 0.05$ ).

Almost all respondents (89%) reported that working during the pandemic impacted their health. Only country income class was found to have a significant on this result, with respondents from high-income countries less likely to report a highly negative impact on their health, by a factor of 0.80 ( $\beta=-0.22$ ;  $p<0.001$ ).

Many respondents commented on their fears of contracting Covid-19 and passing the virus to others within their family or workplace. Work conditions challenged the ability of respondents to safely provide services, often due to limited PPE. Physical distancing was frequently reported as a struggle, either due to the close-contact nature of occupational therapy services or as a result of a lack of space and facilities needed to maintain appropriate distance.

We live under a lot of stress because we are in contact with large numbers of people who do not follow preventive measures and because as workers, we do not have the necessary means of protection to safeguard our health (id\_350)

Many of those who continued to work during the pandemic reported stress and fatigue resulting from increased workloads. Rapidly changing situations and the acute need to re-invent interventions often resulted in more work, without a corresponding increase in resources. Such stress, combined with isolation and fear also influenced mental wellbeing. Constant safety risks, financial worries and prevailing uncertainty led to anxiety among many. Isolation from family, friends and colleagues also took a toll.

I feel generally drained of energy, stressed out and scared. Tasks which were once easy and efficient and timely and require extra effort [...] I don't sleep well because I am rather stressed about spreading disease, catching it, or both. (id\_1776)

The health and wellbeing of service users was also of concern to respondents, particularly with respect to isolation and occupational deprivation. Respondents reported that vulnerable populations faced increased risks of social and occupational marginalisation. Calls were made for advocacy to promote occupational rights and public awareness of occupational justice.

Encourage the presence of occupational therapists in services to reduce the impact of occupational deprivation among vulnerable patients and prevent a major disruption of functioning. (id\_117)

## Discussion

### Covid-19 specific training

In this survey, the most prominent form of support to promote quality in occupational therapy service delivery was access to Covid-19 specific training. The value of such training was evident not only in the volume of

comments of respondents, but also from the significant positive influence of training noted in the analysis for several important outcomes, including competence, effectiveness and safety.

Many respondents had recommendations to improve Covid-19 specific training and preparedness for pandemic situations, including the need for protocols and procedures specific to occupational therapy to provide consistent and evidence-based guidance and support. Infection control procedures were identified as crucial, but also protocols for shifting practice delivery when face-to-face contact is not possible. Respondents recognised the need for training for greater preparedness for unexpected events and recommended better planning and workplace flexibility to promote continuity of service for all users. In education settings, this included students enrolled in entry level occupational therapy programmes.

Professional organisations were identified as serving as a trusted source of relevant and accessible pandemic related information and support. The need for collaboration with other organisations for such resources was emphasised to ensure alignment of information and adaptation to local needs and requirements. The importance of peer interaction was highlighted to inform occupational therapy practices and procedures, with respondents looking to professional organisations to provide resources for information-sharing such as online forums and webinar presentations.

### Country income

Respondents from high income countries in this survey were found to feel more competent, effective and safe while working during the pandemic. These findings may be linked to a significant positive relationship between country income and access to additional resources such as PPE and technology ( $p<0.001$ ). Given the infection control restrictions associated with the pandemic, such resources were a necessity for the safe delivery of occupational therapy services. Such respondents from higher income countries were, however, less likely to state their employer expectations were reasonable during the pandemic. While the reasons are not clear, these findings may reflect discontent regarding the higher levels of service disruptions for occupational therapy experienced in these countries associated with redeployment or service restrictions. Respondents from higher income countries were more likely to experience a complete change in their service population during the pandemic ( $p<0.05$ ). Findings also indicated stricter limitations during the height of the pandemic in higher income countries when comparing the higher categories of restrictions (*some* restrictions up to *full lock-down*) to the lowest category (*no* restrictions) ( $p<0.05$ ).

Many concerns were reported by respondents from countries of all levels of income regarding the impact of discontinuation of occupational therapy for the needs of service users. Such occupational therapy service users are most frequently affected by noncommunicable diseases which are the primary source of global mortality and morbidity, collectively responsible for almost 70% of deaths worldwide (WHO, 2013). Advocacy was recommended to improve understanding of the value and contribution of occupational therapy and ensure needed services are available to assist people for participating in their vital daily living activities during uncertain times when usual routines and supports are disrupted. The importance of working with governments, insurers and other funders was stressed to promote occupational rights and justice for all populations vulnerable to the effects of the pandemic. The growing number of people affected by Covid-19 amplifies the need for such advocacy given recent evidence that demonstrates the value of rehabilitation for this population.

### Work roles

Analysis indicated work roles had a significant impact on three outcomes measured in this survey. Working in a clinical role was found to be negatively correlated with reporting a high level of effectiveness during the pandemic. Such respondents were most likely to experience disruptions in service continuity that impacted their opportunity to be effective in their role for service users. With service disruptions and difficulties with meeting service user needs, it is not unexpected that working in a clinical role decreased the likelihood of experiencing a positive impact during the pandemic. It is also not surprising that respondents in a clinical role reported reduced levels of safety while working given the personal contact associated with clinical occupational therapy services.

Many comments were received for employers from all respondents to facilitate work roles. Strong leadership was recommended by respondents for clear communication needed to navigate shifting practice restrictions and manage multiple, often conflicting sources of information. Practical support and reassurance were also seen as vital to reduce uncertainty, overwork, isolation and stress that threatened mental and physical health.

### Summary and recommendations

The Covid-19 pandemic has thrown modern society into unfamiliar territory, requiring the re-invention of established routines and interventions during rapidly changing conditions. This study advances understanding of the impact of Covid-19 in the field of occupational therapy, and what work is necessary

to promote quality of service delivery during such times of unexpected change. Despite an over-representation of respondents from high income countries, the responses from 2750 individuals in 100 different countries provide important insight for future practice and policy in the face of the current and future pandemic scenarios.

Findings of the survey indicate that the tumultuous effects of the Covid-19 pandemic had wide ranging impact on the quality of occupational therapy services in all seven dimensions measured by the QUEST quality framework. Lack of preparedness, restrictions in service access, new demands during redeployment, frequently changing work conditions, use of new technology and limitations in resources such as additional space for physical distancing and personal protective equipment impacted competency of service providers and their effectiveness for meeting the needs of service users. Working during the pandemic also had a personal impact on the health of most respondents, with some reporting reduced morale and concerns for their safety. A lack recognition of the importance occupational therapy was reported by many that undermined access to service, as well compensation for services and feelings of value and purpose. The subsequent impact of restrictions to occupational therapy has profound consequences for participation in valued occupations and marginalisation of the most vulnerable parts of the population.

The results endorse the importance of high-quality information, resources and training for preparing for unexpected events such as pandemics and guiding service delivery during uncertain times. Strong leadership is essential to provide clear communication and support to manage shifting expectations and working conditions. Professional organisations such as WFOT are recognised as key players in the provision of required leadership and resources, as well as for engaging in advocacy needed to ensure recognition of the importance of occupational justice and the role occupational therapy in facilitating access to needed and desired occupations.

Important recommendations were found to emerge from the findings of this survey for the future work of WFOT and other professional organisations. The findings may guide future initiatives in four primary areas:

1. Develop collaborative initiatives to provide information and training resources needed for occupational therapy service provision both during and after the Covid-19 pandemic;
2. Develop standards and supports that promote quality in the provision of occupational therapy practice, research and education;

3. Advocate for access to occupational therapy to facilitate full participation and inclusion of people in society as a human right; and
4. Advocate to address occupational injustice that increases vulnerability of people to the effect of the COVID-19 pandemic.

## Acknowledgements

WFOT would like to thank survey participants, member organisations as well as volunteer translators, including Margarita Gonzalez, Herta Dangel, Andrew Freeman, Cynthia Engels and Athena Yijung Tsai. WFOT would also like to acknowledge the support of DISTINCT (Dementia: Intersectoral Strategy for Training and Innovation Network for Current Technology), including the input of Karin Wolf-Ostermann.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## References

- British Psychological Society. (2020). *Meeting the psychological needs of people recovering from severe coronavirus*. <https://www.bps.org.uk/sites/www.bps.org.uk/files/Policy/Policy%20-%20Files/Meeting%20the%20psychological%20needs%20of%20people%20recovering%20from%20severe%20coronavirus.pdf>.
- Brugliera, L., Spina, A., Castellazzi, P., Cimino, P., Tettamanti, A., Houdayer, E., Arcuri, P., Alemanno, F., Mortini, P., & Iannaccone, S. (2020). Rehabilitation of COVID-19 patients. *Journal of Rehabilitation Medicine*, 52(4), 1–3. <https://doi.org/10.2340/16501977-2678>
- Ceravolo, M. G., De Sire, A., Andrenelli, E., Negrini, F., & Negrini, S. (2020). Systematic rapid” living” review on rehabilitation needs due to Covid-19: Update to March 31st 2020. *European Journal of Physical and Rehabilitation Medicine*, 56(3), 354–360. <https://doi.org/10.23736/S1973-9087.20.06329-7>
- Li, J. (2020). Effect and enlightenment of rehabilitation medicine in COVID-19 management. *European Journal of Physical and Rehabilitation Medicine*, 56(3), 335–338. <https://doi.org/10.23736/S1973-9087.20.06292-9>
- Liu, X., & Koirala, H. (2012). Ordinal regression analysis: Using generalized ordinal logistic regression models to estimate educational data. *Journal of Modern Applied Statistical Methods*, 11(1), 242–254. <https://doi.org/10.22237/jmasm/1335846000>
- Simpson, R., & Robinson, L. (2020). Rehabilitation following critical illness in people with COVID-19 infection. *American Journal of Physical Medicine & Rehabilitation*, 99(6), 1–474. <https://doi.org/10.1097/PHM.0000000000001443>
- Smith, J., Lee, A., Zeleznik, H., Coffey Scott, J., Fatima, A., Needham, D., & Ohtake, P. (2020). Home and community-based physical therapist management of adults with post-intensive care syndrome. *Physical Therapy*, 100(7), 1062–1073. <https://doi.org/10.1093/ptj/pzaa059>
- Stam, H., Stucki, G., & Bickenbach, J. (2020). COVID-19 and post intensive care Syndrome: A Call for action. *Journal of Rehabilitation Medicine*, 52(4), 1–4. <https://doi.org/10.2340/16501977-2677>
- WHO. (2013). *Global action plan for the prevention and control of noncommunicable diseases 2013-2020*. (9241506237). [https://www.who.int/nmh/events/ncd\\_action\\_plan/en/](https://www.who.int/nmh/events/ncd_action_plan/en/).
- Williams, R. (2006a). Generalized ordered logit/partial proportional odds Models for Ordinal dependent variables. *Stata Journal*, 6(1), 58–82. <https://doi.org/10.1177/1536867X0600600104>
- Williams, R. (2006b, July 24–25). *Interpreting and using heterogeneous choice and generalized ordered logit models* [Paper presentation]. At the North American Stata users’ Group Meeting, Boston.
- Williams, R. (2016). Understanding and interpreting generalized ordered logit models. *The Journal of Mathematical Sociology*, 40(1), 7–20. <https://doi.org/10.1080/0022250X.2015.1112384>
- World Federation of Occupational Therapists. (2020a). *Public statement: Occupational therapy and rehabilitation of people affected by the Covid-19 pandemic*. <https://wfot.org/news/2020/wfot-public-statement-occupational-therapy-and-rehabilitation-of-people-affected-by-the-Covid-19-pandemic>.
- World Federation of Occupational Therapists. (2020b). *Quality evaluation strategy tool: An essential guide for using quality indicators in occupational therapy*.
- Yu, P., Wei, Q., & He, C. (2020). Early rehabilitation for critically ill patients with COVID-2019: More benefits than risks. *American Journal of Physical Medicine & Rehabilitation*, 99(6), 1–469. <https://doi.org/10.1097/PHM.0000000000001445>