



# The Consequences of COVID-19 Pandemic on Occupational Therapy Practice: A Systematic Review

Špela Mihevc, Zorana Sicherl, Katarina Galof\*

Department of Occupational Therapy, Faculty of Health Sciences, University of Ljubljana, Slovenia

\*Corresponding author: Katarina Galof, Department of Occupational Therapy, Faculty of Health Sciences, University of Ljubljana, Zdravstvena pot 5, 1000 Ljubljana, Slovenia

Citation: Mihevc S, Sicherl Z, Galof K (2022) The Consequences of COVID-19 Pandemic on Occupational Therapy Practice: A Systematic Review. J Family Med Prim Care Open Acc 6: 182. DOI: 10.29011/2688-7460.100082

Received Date: 26 April, 2022; Accepted Date: 06 May, 2022; Published Date: 10 May, 2022

## Abstract

**Introduction:** COVID-19 circumstances and related restrictions affected health care service delivery. Health care service delivery, including occupational therapy, transitioned from usual face-to-face therapy to telehealth. Purpose of the systematic review was to examine the experiences using telehealth in occupational therapy. **Methods:** PubMed, Science Direct, CINAHL, Cochrane, OT seeker, Web of Science, and the Sage journal databases was searched. The PRISMA protocol was followed and applied to the review. Articles not including occupational therapy, letters to editor and editorials were excluded from the review. Evidence levels for the articles were determined based on the ranking system by OCEBM Levels. **Results:** Articles describing the use of telehealth in occupational therapy services were included. Eleven studies rated levels V, IV, and II reached the review criteria and five themes were identified. The emerged themes were: (a) development of new skills, (b) therapist attitudes toward telehealth, (c) user satisfaction with telehealth services, (d) need for interprofessional collaboration, (e) positive and negative factors in service delivery. **Conclusions:** There is limited evidence on occupational therapists' perceptions in using telehealth during the COVID-19 pandemic. Not only occupational therapists but also other health professionals should be more encouraged and supported by teams, management, and policies to be part of telehealth services in times of pandemics. Innovative strategies should be developed in occupational therapy to provide continuous service delivery aimed in maintaining occupational therapy goal, engagement, and participation for occupational therapy users. Providing telehealth services, not just in occupational therapy, should be administered and supported through legislation.

**Keywords:** Telehealth; Telemedicine; Occupational therapy; Covid 19

## Introduction

On December 31, 2019, the WHO China Country Office was notified of cases of pneumonia of unknown aetiology (unknown cause) detected in Wuhan City, Hubei Province. From December 31, 2019, to January 3, 2020, a total of 44 cases with pneumonia of unknown aetiology were reported by national authorities in China to WHO. During this reporting period, the causative pathogen was not identified [1]. In comparison, in Slovenia with a population of two million, as one of the smallest European countries, infection with coronavirus was detected on March 4, 2020. The government declared the pandemic from 19 October 2020 until 15 June 2020 [2].

Everyday life suddenly changed and occupational therapists work related habits, routines, or roles had to be reorganized. Occupational therapists had to face change and consequences due to pandemic.

The importance of Occupational therapy profession that enables people across the lifespan to do the things they want and need to do through various occupations became even more important. Occupational therapy practitioners tried to enable people of all ages to cope with everyday life during the COVID-19 pandemics in order not to lose daily routines of roles and habits.

Occupational therapy services typically include: an individualized evaluation, during which the client/family and occupational therapist determine the person's goals; customized intervention to improve the person's ability to perform daily

activities and reach the goals, and an outcomes evaluation to ensure that the goals are being met and/or make changes to the intervention plan [3]. Consequently, the occupational therapy process had to be modified due to COVID-19 circumstances and the COVID-19 pandemic lockdown measures caused a great impact on occupational therapy service delivery. Rehabilitation and other services delivering occupational therapy had to quickly change the way occupational therapy services has been delivered so far. Telehealth has been a known possible medium in providing service, but it hasn't been implemented as much in a period before the worldwide COVID-19 pandemic [4,5].

Telehealth, a broad term that encompasses both telemedicine and telerehabilitation, refers to the use of electronic information and telecommunications technologies to provide health-related services at a distance [6].

Occupational therapy practitioners have a holistic perspective, in which the focus is on adapting the environment

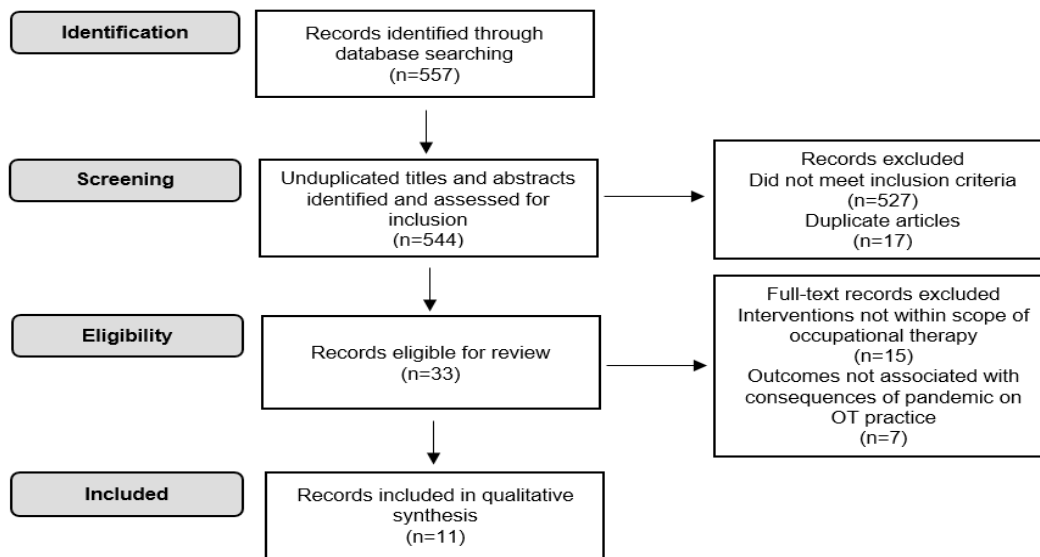
and/or task to fit the person, and the person is an integral part of the therapy team. It is an evidence-based practice deeply rooted in science [3] that hasn't changed during COVID-19 pandemic.

We decided to review what happened with occupational therapy services one year after the start of pandemics due to reorganisation of the health system. Also, we were interested how COVID-19 pandemics effected occupational therapy interventions.

The main research question was: What is the experience of using telehealth in occupational therapy during COVID-19 pandemic?

### Methods

The literature review followed recommendations of Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines [7,8] is displayed in the PRISMA, as shown in Figure 1.



**Figure 1:** Flowchart of search strategy and literature selection process-PRISMA diagram.

The data was collected in March 2021. Articles published between March 2020 and February 2021 have been reviewed. Key search terms were developed by authors and were selected from a proposal of key words that was prepared by the occupational therapy practitioners focusing on occupational therapy services delivery during pandemic. The literature search was conducted using the following databases: PubMed, Science Direct, CINAHL, Cochrane, OTSeeker, Web of Science and SAGE journals database.

Several combinations of selected search words in the English language were prepared and used with Boolean operators AND: "telehealth", "telemedicine", "occupational therapy", "Covid 19".

The inclusion criteria were based on articles published in English that described interventions within occupational therapy practice during the COVID-19 pandemic. Articles not including occupational therapy, letters to editor, editorials and articles with no access to full text were not included in the study. The total number of all search results was 577. In the first review, first author removed all articles not relevant to the research question. The initial review of the titles by the first two authors resulted in the exclusion of 544 articles and the removal of 17 duplicate articles. The authors reviewed abstracts and full text of the remaining 33 articles using the inclusion and exclusion criteria. The 11 articles were included in the final selected review and 5 (46%) articles provide Level II studies, 2 (18%) articles provide Level IV studies, and 4 (36%) articles provide Level V studies. Evidence levels for the articles were determined based on the ranking system by OCEBM Levels of Evidence Working group [9].

The first two authors independently reviewed the articles for

inclusion based on specified criteria, discussing any discrepancies until they reached agreement. The third author was the leader of the research. Full-text articles were evaluated for inclusion independently by all three authors.

A risk-of-bias analysis was completed for each article to determine whether the study presented a low, moderate, or high risk of selection, performance, detection, attrition, and reporting bias. The evidence table and risk-of bias analyses were reviewed by third author.

Ratings related to the strength of evidence were based on the guidelines of the U.S. Preventive Services Task Force [10], as follows:

- Strong evidence - Consistent results from rigorous studies, usually at least two RCTs.
- Moderate-strength evidence - 1 RCT, 2 or more studies with lower levels of evidence, or some inconsistency in findings across otherwise rigorous studies.
- Low-strength evidence - Few studies, a group of studies that do not include an RCT, or studies with methodological flaws.

## Results

Included articles were summarized in an evidence. Table 1 that included the year of publication, author, brief descriptions of, study design, level of evidence, risk of bias, participants, inclusion criteria, study setting, intervention group, control group, outcome measures and results.

Author/Year	Level of evidence, study design, risk of bias	Participants Inclusion, criteria, study setting	Intervention and control groups	Outcome measures	Results
Abbatemarco et al. [11]	Level 5 Retrospective study Risk of bias: high	N=1637 Inclusion criteria: MS patients Study setting: clinic-centre for MS	Intervention group: person centred multidisciplinary care Control group: /	Patient satisfaction survey on service satisfactory	Patient's appreciation for flexibility and access to service.

<p>Abbot-Gaffney and Jacobs [12]</p>	<p>Level 2B Systematic mixed method, quasi experimental, participatory research  Risk of bias: moderate</p>	<p>N=43, OT unfamiliar either telehealth N=22, OT familiar with telehealth  Inclusion criteria: OTs unfamiliar and familiar with telehealth  Study setting: school based OT</p>	<p>Intervention group: Online educational program about telehealth  Control group: OT already familiar with telehealth</p>	<p>Exploring benefits and barriers using telehealth-open and closed questions</p>	<p>Benefits of telehealth: service access, collaboration with team members, efficient themes, user's engagement and comfort.  Barriers: unreliable internet, lack of hands on opportunity and e-helpers.  No difference pre-post intention to use telehealth (<math>\chi^2=2.54</math>, <math>p=0.53</math>).</p>
<p>Camden and Silva [13]</p>	<p>Level 5 Perspective paper  Risk of bias: moderate</p>	<p>N=72 (OT&amp;PT)  Inclusion criteria:/  Study setting: virtual e conference</p>	<p>Intervention group:/  Control group:/</p>	<p>Reflections from therapists using telehealth</p>	<p>Telehealth increased the accessibility, cost-effectiveness and support to families and children with disabilities.</p>
<p>Hoel et al. [14]</p>	<p>Level 2B Quantitative survey research  Risk of bias: moderate</p>	<p>N=2750 (Ots from 100 countries)  Inclusion criteria OT-global inclusion  Study setting: Web</p>	<p>Intervention:/  Control group:/</p>	<p>30 item survey on quality and delivery of practice, research and education within OT practice</p>	<p>Restrictions in accessing OT (54%) Redeployment to new tasks Changes in service population (75%) In person interaction reduced (54%) Rise in telehealth (39%) Limited access to resources Lack of personal protective equipment (36%) No payment for extra work, loss of income Lack of work related confidence Positive affect of COVID-19 specific training on competence (<math>\beta=0.374</math>, <math>p&lt;0.001</math>, high income countries <math>\beta=0.263</math>, <math>p&lt;0.001</math>) Unpreparedness to work in pandemic (65%) COVID-19 specific training less impact on work (OR=0.82, <math>\beta=-0.199</math>, <math>p&lt;0.05</math>) Decrease in work effectiveness (58%)  High income countries &amp; COVID specific training higher level of effectiveness (<math>\beta=0.261</math>, <math>p&lt;0.001</math> respectively <math>\beta=0.305</math>, <math>p&lt;0.001</math>) Educational needs not met Higher income countries (67%) and COVID-19 specific training feeling safer. Impact on health (89%)</p>

Lai et al. [15]	<p>Level 2B</p> <p>Pre-test-post-test design</p> <p>Risk of bias: moderate</p>	<p>N=60 (30 patients, 30 caregivers; M age-care recipient 72,73 years; M age-caregiver 71,8 years)</p> <p>Inclusion criteria: community dwelling people with cognitive impairment</p> <p>Study setting: community dwelling people</p>	<p>Intervention group: weekly care service via telephone (30 min) and video communication (30 min)/4 weeks</p> <p>Control group: weekly care service via telephone (30 min)-4 weeks</p>	<p>MoCa (care recipients)</p> <p>RMBPC (caregiver)</p> <p>QoL-AD (caregiver)</p> <p>SF-36v2 (caregivers)</p> <p>ZBI (caregiver)</p> <p>RCSFS (caregiver)</p>	<p>The intervention group scores on MoCa superior to control.</p> <p>Intervention group: higher quality of life, positive impact on caregivers and improved resilience.</p> <p>Control group: reduction in cognitive functioning.</p>
Jesus et al. [16]	<p>Level 5</p> <p>Authors perspective on the base of 'system thinking lens'</p> <p>Risk of bias: moderate</p>	<p>Participants: /</p> <p>Peer reviewing qualitative papers regarding disability and rehabilitation related consequences to COVID-19</p>	<p>Intervention group: /</p> <p>Control group: /</p>	<p>No outcome measures</p>	<p>New challenges and opportunities related to COVID-19 rehabilitation for people with disabilities and for rehabilitation professionals.</p>
Langlois, et al. [17]	<p>Level 5</p> <p>Expert opinion</p> <p>Risk of bias: high</p>	<p>Participants: /</p> <p>Inclusion criteria: /</p> <p>Study setting: /</p>	<p>Intervention group: /</p> <p>Control group: /</p>	<p>/</p>	<p>COVID-19 pandemic offers unique opportunity for educators, practitioners, researches and consumers of interprofessional learning and healthcare.</p>
Rettinger et al. [18]	<p>Level 2B</p> <p>Retrospective study</p> <p>Cross-sectional survey</p> <p>Risk of bias: moderate</p>	<p>N=325 (199 PT, 82 OT, 44 SLT)</p> <p>Inclusion criteria PT, OT, SLT working in Austria</p> <p>Study setting: online survey</p>	<p>Intervention group: /</p> <p>Control group: /</p>	<p>Online survey, demographics data, attitude towards tele therapy, vision for the future for tele therapy</p>	<p>Attitude change towards teletherapy: interest (<math>r=0.57</math>, <math>p&gt;0.01</math>).</p> <p>Perceived skills in teletherapy (<math>r=0.32</math>, <math>p&gt;0.01</math>).</p> <p>Perceived need for physical contact (<math>r=0.35</math>, <math>p&gt;0.01</math>).</p> <p>Competent in implementation of telehealth.</p> <p>Patient's satisfaction with tele therapy.</p> <p>Missing reimbursement.</p>

<p>Tenforde et al. [19]</p>	<p>Level 4 Survey study Risk of bias: moderate</p>	<p>N=211 (patient &amp; patient care advocate) Inclusion criteria adult and paediatric clients included in PT,OT&amp;SLP Study setting: hospital</p>	<p>Intervention group: tele rehabilitation OT;PT&amp;SLP Control group: /</p>	<p>On line survey with 16 items</p>	<p>Patient satisfaction with tele rehabilitation across age (higher rates by woman, p=0.02). Parent satisfaction with pediatric telehealth therapy (higher rates by woman, p=0.03).</p>
<p>Winship et al. [20]</p>	<p>Level 4 A case study Risk of bias: moderate</p>	<p>N=111 (older adults) + students of OT, nursing &amp; pharmacy Inclusion criteria older adults (over 65), with chronic illness and low income Study setting community senior house buildings</p>	<p>Intervention group: telephone conference call to provide continuous support in management of chronic disease 1/week/average 20 minutes, for 2.5 months Control group: /</p>	<p>No outcome measures</p>	<p>Participants and students benefit from telephone conference.</p>
<p>Zahoransky and Lape [21]</p>	<p>Level 2B Quasi experimental pre-test-post-test pilot study Risk of bias: low</p>	<p>N=9 Inclusion criteria receiving homebound home health care services; 18 years of age and above, ability to see and hear, good motor dexterity for electronic devices operation, could make own decisions about medical care, preserved cognitive skills for using telehealth technology, ability to schedule appointment, a need for OT service, agreed to receive a combination of on site and virtual OT. Study setting: homebound clients</p>	<p>Intervention group: individualized OT home health intervention via a combination of on-site (range 45-75min) and telehealth (23-42min)/8 weeks Control group: /</p>	<p>COPM OASIS Post intervention survey</p>	<p>COPM mean score for change on: performance: +6.23 (Cohen's d=3.31) and Satisfaction: +6.4 (Cohen's d=3.78). Participants demonstrated highly statistically significant improvement (p&lt;0.001) in GG0130 (self-care) (Cohen's d=1.61) and GG0170 (functional mobility) (Cohen's d=1.51). Eight of nine participants were satisfied with technology use and the combination of telehealth and on-site visits. The use of telehealth for the traditional home care population with a combination of on-site and virtual visits may serve as a viable service delivery model for home care agencies and home care clients.</p>

N: Number of participants; OT: Occupational Therapy; PT: Physiotherapy; SLP: Speech Therapy; Ots: Occupational Therapists; MoCa: Montreal Cognitive Assessment; RMBPC: Revised Memory and Behavioural Problem Checklist; QoL-AD: Quality of life in Alzheimer's Disease; SF-36: The Short Form 36 version 2; ZBI: The Zarit Burden Interview scale; RCSES: The Revised Caregiving Self-Efficacy Scale; COPM: Canadian Occupational Performance Measure; OASIS: Outcome and Assessment Information set; GG0130: participants self-care safety and quality of performance; GG0170: participants performance in mobility.

**Table 1:** Main characteristics and results of the consequences of COVID-19 pandemic on occupational therapy.

## Discussion

The articles were classified into five categories using content analysis based on evidence of perceived benefits, needs, and barriers in using telehealth services in occupational therapy. The emerged themes were: (a) development of new skills, (b) therapist attitudes toward teletherapy, (c) user satisfaction with telehealth services, (d) need for interprofessional collaboration, (e) positive and negative factors in service delivery.

### Development of new skills

Moderately strong evidence from 4 studies supports new skill development (Level 2B [14,18]; Level 4 [20], Level 5 [16]). Jesus and colleagues [16] use systems thinking to identify and support the development of new capabilities. In their view, opportunities should include developing an inclusive public health system, enabling employment and telework, addressing new demands in rehabilitation service delivery, adopting additional emphasis on capacity, and developing distance learning and greater resilience.

Telehealth played an important role in facilitating continuity of occupational therapy services during the pandemic, although the resources of many occupational therapy professional associations were not available at the beginning of COVID-19. The transition to telehealth services and limitations in the community was very new to many occupational therapists [14]. On the other hand, for the integration of telehealth, guidelines and evidence supporting the use of the technology are crucial together with appropriate guidelines to support the transition to virtual models [14].

A cross-sectional survey in Austria [18] highlights the importance of knowledge, affinity for technology, individual perceptions of technical skills in relation to telehealth implementation and experiences of technical difficulties in telehealth interventions not only for occupational therapists but also for other health professionals in developing new skills.

Innovative interprofessional care coordination program can be used for independent living and training of future professionals that displays a good practice example when describing the rapid transition and adaptation of the program that served as an interprofessional training site but has been changed to a hybrid telephone-based program, due to COVID-19 [20].

We can summarise, that important to the new category of skill development are technical knowledge [14,18], political support [14,16,18], association resources [18], and adaptation of interprofessional education [20].

### Attitudes of therapists towards teletherapy

Moderately strong evidence from three studies [13,14,18] supports therapist attitudes toward teletherapy (Level 5 [13], Level 2B [14,18]).

Rettinger, et al. [18] reported participants attitude change towards telehealth, due to pandemics. Differences between the studied professions, lack of reimbursement by health insurance companies, uncertain legal situation, and lack of competence, information and training, lack of technical skills are some of the reasons for not offering telehealth. In all three studies [13,14,18] we found common reasons influencing therapists' attitudes towards telehealth. On the other hand, these studies also have some limitations, such as demographic characteristics of the respondents or income levels in these countries.

### User satisfaction with telehealth services

Low level evidence from one study [11] displays user satisfaction with telehealth services (Level 5). Medium-level evidence from three studies [18,19,21] supports user satisfaction with telehealth services (Level 2B [18,21]; Level 4 [20]) and low-quality evidence from one study [21] indicates user satisfaction with telehealth (Level 2B [21]). Virtual management using existing infrastructure that can be widely used to care for patients with chronic conditions showed to be useful because therapeutic treatments could be tailored remotely to each patient's unique clinical picture. Also, despite the barriers, patient satisfaction was stable during these challenging times [11]. Next, user satisfaction is sometimes a reason why the patient has taken on more responsibility in the new setting [18]. Satisfaction with telehealth is related to participant's gender, with female participants being more motivated to use telehealth and their perceptions are significantly higher. In addition, women also face barriers to accessing traditional care when managing responsibilities, balancing work, household, childcare, and caregiving tasks [19]. Further, limiting service delivery to address quality of care and client satisfaction has been recognized by COVID-19 as a

possible model of service delivery for health care. Stakeholders used the Canadian Occupational Performance Measure (COPM) to measure participants' perceptions of occupational performance and satisfaction from the start to completion of the occupational therapy intervention. Client satisfaction and perception change in scores were statistically significant, when comparing the intervention with in-person or telehealth [21]. Finally, when we tailor treatment to the needs of the individual, user satisfaction may be the same regardless of the method of delivery in-person or online.

### **Need for interprofessional cooperation**

Need for interprofessional collaboration was supported by one study [17], with high strength of evidence (Level 5) and one study [20] with moderate strength of evidence (Level 4). Current pandemic is a unique opportunity for educators, practitioner researchers to retain what has served for interprofessional education and practice in the past, in comparison what has not worked, to predict the new. It is important to clarify, that team structure includes interprofessional teamwork, interprofessional collaboration, interprofessional coordination, and interprofessional networks. Interprofessional teamwork has a shared team identity, clear tasks, independence, integration, and shared responsibilities [17]. COVID-19 pandemic also provides experimental opportunities for students to practice team collaboration skills [20]. Regardless of the situation, it is necessary to develop and follow the rules of interprofessional collaboration in the holistic treatment of the patient to treat the patient in an interdisciplinary manner.

### **Positive and negative factors in service delivery**

Moderately strong evidence from three studies [11,14,15] supports both, positive and negative factors in service delivery (Level 2B). Positive factors or benefits of telehealth use include access to services, team member collaboration, productivity, efficiency, schedule flexibility, student engagement, internet reliability, familiarity with technology, and inability to perform hands-on interventions during a telehealth session [12]. Furthermore, interventions that provided telehealth through videoconferencing were cited as an example of positive effects for community-dwelling older adults with neurodegenerative impairments and their caregivers, where positive effects were observed across all measures [15].

On the contrary, negative factors are also very important, where practitioners and patients need more technical knowledge, flexible policy support and rapid response to new situations [14].

### **Summary of Evidence**

The purpose of this literature review was to find out how the occupational therapy service delivery has change and what was the impact of COVID-19 pandemic on occupational therapy

interventions. Until this literature review, no systematic review was found. Few individual studies were published on occupational therapy services including occupational therapy professions and interventions during the COVID-19 pandemic. The articles analysed in this review were classified into five categories that are explained in the results, and point out the direction of focus in occupational therapy during pandemic time.

Moreover, evidence from this review provides additional support for adjustment of occupational therapy service delivery during pandemics time. Participating in telehealth is complex occupation and we agree with Pereira [22] that this is totally new situation within unknown circumstances and must be taken into account where we need to consider the user experience, the knowledge, skills, abilities, technology, connectivity and funding on both sides, as it relates to practitioners and users. Additionally, occupational therapists can help formulate strategies for lockdown. We can develop innovative strategies and therapeutic interventions to facilitate individual's engagement in occupations [4], despite of feeling less competent and the need for new skills development [14,16,18].

To conclude, findings suggests that management at various institutions and education system should be more supportive, flexible and enable occupational therapy practitioners' maintenance of intervention in outpatient settings using telehealth [23].

### **Limitations**

The findings of this literature review are limited by the limitations of the individual studies. First of all, we found no studies Level I. All studies included in final analysis were level II or less, with mostly moderate or low strength of evidence. Secondly, most of the studies analysed had moderate or high risk of bias, lack of random sampling and lack of control group. Also, some of the studies included had small sample size. Therefore, this may decrease the validity of our results.

### **Conclusion**

This literature review has the following implications for occupational therapy practice, education, and research:

- Telehealth has an important role in facilitating continuity of occupational therapy services during the pandemic.
- Guidelines and evidence supporting the use of the telehealth are crucial for development of occupational therapy practice.
- Public health system should enable employment in telework, addressing new demands in occupational therapy service delivery.
- Telehealth highlights the importance of knowledge and new category of skill development and technical knowledge for implementation occupational therapy services.



- Current pandemic is a unique opportunity for building interprofessional teamwork, interprofessional collaboration, interprofessional coordination, and interprofessional networks.

The evidence of this literature review could support the change in occupational therapy service delivery, although the level of evidence is not high. The change is particularly influenced by occupational therapist's individual readiness to change, although policy and management still represent an important factor in change. Occupational therapy is the health profession that can use the advantage of pandemic situation for professional development to satisfy the needs of the client who cannot attend face to face intervention. Thus, this is an important opportunity for further development of telehealth which has already been implemented in the past but has not been systematically planned for the pandemic. The level of its effectiveness in this review is not high, however now is the opportunity to systematically collect the data on the effectiveness and satisfaction with occupational therapy service delivery through telehealth, with an emphasis on specific types of interventions.

Further research in this area is recommended since new research is emerging all the time. Innovative strategies should be developed in occupational therapy to continuously provide service delivery to maintain occupational therapy goals, engagement, and participation. Telehealth should be applicable when appropriate and supported by policy.

## References

1. World Health Organization (2021) Coronavirus disease (COVID-19) pandemic.
2. Vlada Republike Slovenije (2021) Koronavirus (SARS-CoV-2).
3. (2021) American Occupational Therapy Association.
4. Kamalakannan S, Chakraborty S (2020) Occupational therapy: The key to unlocking locked-up occupations during the COVID-19 pandemic. *Wellcome Open Res* 5: 153.
5. Smith AC, Thomas E, Snoswell CL, Haydon H, Mehrotra A, et al. (2020) Telehealth for global emergencies: Implications for coronavirus disease 2019 (COVID-19). *J Telemed Telecare* 26: 309-313.
6. Cason J (2012) Telehealth opportunities in occupational therapy through the affordable care act. *Am J Occup Ther* 66: 131-136.
7. Moher D, Shamseer L, Clarke M, Ghersi D, Liberati A, et al. (2016) Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Revista espanola de nutricion humana y dietetica* 20: 148-160.
8. Tricco CA, Lillie E, Zarin W, O'Brien KK, Colquhoun H, et al. (2018) Preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews (PRISMA-ScR) checklist SECTION. *Ann Intern Med* 169: 11-12.
9. OCEMB Levels of evidence working Group (2021) The Oxford levels of evidence. Oxford centre for evidence-based medicine.
10. US Preventive Services Task Force (2021) Grade definitions 2018.
11. Abbatemarco JR, Hartman J, McGinley M, Bermel RA, Boissy A, et al. (2021) Providing person-centered care via telemedicine in the era of COVID-19 in multiple sclerosis. *J Patient Exp* 8: 237437352098147.
12. Abbott-Gaffney C, Jacobs K (2020) Telehealth in school-based practice: perceived viability to bridge global OT practitioner shortages prior to COVID-19 global health emergency. *Work* 67: 29-35.
13. Camden C, Silva M (2021) Pediatric telehealth: opportunities created by the COVID-19 and suggestions to sustain its use to support families of children with disabilities. *Phys Occup Ther Pediatr* 41: 1-17.
14. Hoel V, von Zweck C, Ledgerd R (2021) Was a global pandemic needed to adopt the use of telehealth in occupational therapy? *Work* 68: 13-20.
15. Lai FH, Yan EW, Yu KK, Tsui WS, Chan DT, et al. (2020) The protective impact of telemedicine on persons with dementia and their caregivers during the COVID-19 pandemic. *Am J Geriatr Psychiatry* 28: 1175-1184.
16. Jesus TS, Landry MD, Jacobs K (2020) A 'new normal' following COVID-19 and the economic crisis: Using systems thinking to identify challenges and opportunities in disability, telework, and rehabilitation. *Work* 67: 37-46.
17. Langlois S, Xyrichis A, Daulton BJ, Gilbert J, Lackie K, et al. (2020) The COVID-19 crisis silver lining: interprofessional education to guide future innovation. *J Interprof Care* 34: 587-592.
18. Rettinger L, Klupper C, Werner F, Putz P (2021) Changing attitudes towards teletherapy in Austrian therapists during the COVID-19 pandemic. *J Telemed Telecare*.
19. Tenforde AS, Borgstrom H, Polich G, Steere H, Davis IS, et al. (2020) Outpatient physical, occupational and speech therapy synchronous telemedicine. A survey study of patient satisfaction with virtual visits during the COVID-19 pandemic. *Am J Phys Med Rehabil* 99: 977-981.
20. Winship JM, Falls K, Gregory M, Peron EP, Donohoe KL, et al. (2020) A case study in rapid adaptation of interprofessional education and remote visits during COVID-19. *J Interprof Care* 34: 702-705.
21. Zahoransky MA, Lape JE (2020) Telehealth and home health occupational therapy: clients' perceived satisfaction with and perception of occupational performance. *Int J Telerehabil* 12: 105-124.
22. Pereira RB (2020) Participating in telehealth is a complex occupation. *Aust Occup Ther J* 67: 284.
23. Robinson MR, Koverman B, Becker C, Ciancio KE, Fisher G, et al. (2021) Lessons Learned From the COVID-19 Pandemic: Occupational Therapy on the Front Line. *Am J Occup Ther* 75: 1-7.