FUNDAMENTS AND RECOMMENDATIONS FOR THE PRACTICE OF TELEHEALTH IN OCCUPATIONAL THERAPY

INTRODUCTION

In Chile as in the world, the COVID-19 Pandemic has impacted not only in the public health sphere but also in economic and social aspects, altering the development of our occupations and our lives. At a productive level, two actions were taken; (a) maintain critical jobs for society (health, supply, and other critical services) and (b) teleworking modality. Within the latter area, many colleagues have started to use Telehealth as a supporting tool to keep in touch with their users, with the hope of maintain certain stability in times that are changing continuously. Considering that this format is less common among our usual intervention modalities, Telehealth was unknown for many, so we started a search of experiences and evidence that would validate a framework for this practice.

The World Federation for Occupational Therapy (WFOT) refers to Telehealth as "the use of Information and Communication Technologies, also known as ICT, for the health service provider to remotely provide the services required by the user when they are physically in distant locations, improving the services in each community, as well as strengthening and expanding comprehensive habilitation and rehabilitation services".

Telehealth challenges our professional skills of being, knowing and doing as Occupational Therapists, and how people are constituted as such and as part of a society through the performance of occupations. We understand that these occupations can impact positively or negatively the well-being and health of the people, depending on several factors. One these factors is the meaning ascribed to these occupations and their performance. In this sense, a positive impact provides satisfaction, allows social participation and leads to human fulfillment. Finally, occupations shape everyday life in a defined time and space (Álvarez et al., 2007; Ikiugu and Pollard, 2015).

Hence, we understand that occupations correspond to units of activity that are classified and named by the culture according to the purposes they fulfill, and which allow people to successfully meet environmental challenges (Yerxa et al., 1989). These are reflected in every activity that individuals carry out daily either personally, in company with their families and/or with the community, using their time and giving meaning to their lives.

In addition, we consider that these occupations require guarantees to be executed, as a fulfillment of the right of every person to participate in them and as part of the needs for survival. As part of our professional understanding, we think that occupations should be considered significant since they contribute positively to the well-being of individuals and their communities. Therefore, they should take place within the framework of occupational justice (Townsend and Wilcock, 2004). This means that every person must be respected in their right to act in those occupations that have a

positive personal sense, which include those necessary to survive, to relate to other people and to find satisfaction in life within communities.

The COVID-19 Pandemic has changed the environmental and daily context in which we were developing in our country. We are carrying out mandatory and voluntary quarantines that affect our occupations. In this sense, millions of people have had to generate new ways to perform and organize their occupations in routines that are different from the usual, in a search that is not always successful in encounter a satisfactory occupational balance and sense.

The WFOT, in its "Position Statement: Occupational Therapy and Human Rights" (2014), makes a direct assertion for promoting fair occupational practice based on individuals and their occupational "rights". The fight for occupational justice in the current context of quarantine during a pandemic is becoming an important challenge for Occupational Therapists, who seek to restore an acceptable balance, which has been altered in the current pandemic, collaborating with individuals and communities to modify or build new occupational forms that make sense and promote participation routines and activities satisfactory to a person's well-being.

Hence, in the current context of quarantine during a pandemic, one of the actions that takes special relevance is validate and provide continuity to therapeutic processes that have already started with current users, as well as new users who will require Occupational Therapy services. In this way, it is necessary to integrate Telehealth as a resource into our practice.

TELEHEALTH AND OCCUPATIONAL THERAPY

Particularly, for Occupational Therapy, "Telehealth" is a term that embrace the entire practice of the profession including evaluation, intervention, monitoring, supervision and consultation, as approved by the WFOT Council Meeting (Position Statement - TELEHEALTH, June 2014). These practices must be regulated according to the jurisdictional, institutional and professional policies that govern each locality. As a resource, Telehealth may be appropriately used for the provision and improvement of access to Occupational Therapy services. Currently, it can be considered within a hybrid model, where part of the services can be performed in person and others can be approached from a distance by using Telehealth. It should also be noted that in terms of "Telehealth", the WFOT declares, in the same document, that is possible to refer to synchronous interactions with the users, which are executed in real time through videoconferences, remote monitoring, virtual interactions, applications or virtual games, and asynchronous interactions, such as data transmission (photos -videos – emails). Both can be developed either by the user or by the therapist.

In Chile, the Ministry of Health implemented the National Telehealth Program (2018), which:

- "Favors an effective and timely communication between health teams and communities served". This is necessary to solve occupational challenges that have arisen by varying demands of the environment, redefine occupational roles and activities during quarantine, and to promote active listening spaces and containment.
- "Has a robust telecommunications system (connectivity) suitable to the geographical characteristics of the country". Occupational Therapy joins the advances in technology and uses new and innovative resources for its implementation.
- "It is developed at all levels of health care, improving communication between different clinical teams". This improves decision making within clinical criteria, based on practical evidence from other teams.
- "Allows the contact and care of people who are geographically distant and who face different access barriers to solve their health needs".
- “Incorporates the regional macro perspective, for its implementation and operation, without losing sight of the intrinsic social requirements and local needs in each territory”.
- "Is a contribution for the delivery of decisive care".
- "Is a strategy of permanent support in the development, maintenance and strengthening of skills in the team". This allows the continuity of treatment, team communication and the continuity of care in follow-up cases. It also enables mutual communication spaces between the team to reduce burnout stress generated by adapting to new ways of working.

Considering this framework of recommended applied action, and given quarantine requirements due to the COVID-19 Pandemic, as College of Occupational Therapists of Chile it becomes relevant and necessary to develop this document, which outlines and validates a Framework of Work in the use of Telehealth for Occupational Therapists. This because the more information we can gather to develop and generate a knowledge base, a better position and understanding we will have to provide to our users more effective and efficient intervention options. Therefore, this document seeks to be a guide and foundation for professional Occupational Therapists working in various fields, both in the public and private sectors.

The following tables provide examples of evidence that is available for the practice of Telehealth in Occupational Therapy (Table 1), Professional competencies from our role of practice in this modality (Table 2), and main intervention proposals associated with life cycle (Table 3).

Table 1: Evidence

Evidence for good practice using the telehealth modality (Promotion / Prevention / Habilitation / Rehabilitation / Maintenance)			
LIFE CYCLE	**HEALTHY CONDITIONS**	**TYPES OF INTERVENTIONS**	**FOUNDATIONS**
General public	**Population with challenges in mental health**	Telepsychiatry (Garay, J; Gómez-Restrepo, C. 2011): Mental Health consultations by video call or telephone, as appropriate for the following actions: evaluation, confirmation of diagnosis, monitoring and follow-up, treatment review, negotiate objectives, some psychiatric emergencies. Individual, family, psychoeducation therapy. Mental Health Tele consultancies through Videoconference.	The reviewed bibliography details telepsychiatry experiences that have comparable success to the objectives of face-to-face consultations. Positive results in terms of access, cost of transportation in contingent times and user satisfaction specifically in young population.
	The use of Telerehabilitation in Occupational Therapy	Effects of Telerehabilitation in the Occupational Therapy Practice: A Systematic Review (Goris, KN. Kenneth, NK. 2019): Through a systematic review of the studies carried out between 2008 and 2017, the Occupational Therapy interventions were studied in their various fields of action, pathologies and in different age ranges.	The results of this review indicate that most of the studies carried out show positive effects in subjects undergoing remote Occupational Therapy systems in comparison with "face-to-face" interventions. These have been evaluated using standardized guidelines and in some cases within control groups. This study considers that the remote intervention has similar results to "face-to-face".

Pediatrics	**Infants at higher risk of alterations in the trajectories of their development (premature babies or with a particular health situation) and also the general population.**	A home-video method to assess infant gross motor development: parent perspectives on feasibility (Boonzaaijer, M., van Wesel, F., Nuysink, J., Volman, MJM, & Jongmans, MJ, 2019): Use of videos made at home through smartphones to monitor or evaluate psychomotor development. This modality could be used both to evaluate and to carry out remote interventions. Ethical precautions must be taken with how these videos will be stored. It is suggested to record only the evaluation sessions. This article contains complementary material for this practice.	The article shows a protocol of how to make videos to assess psychomotor development. The protocol suggests the use of the camera horizontally and comes with indications regarding: -video length -environmental conditions -positions the baby should be in -how parents should interact with their baby. It can be done through video calls by skype, facetime or WhatsApp. One option to record the video is to connect the evaluator's cell phone to your computer screen, and from there make the recording. Suggestions: Assessor should be in a quiet environment and mute notifications from their cell phone.
	Autism Spectrum Disorders	Feasibility of a telehealth coaching intervention for families of children with autism (Little, L., Dunn, W., Pope, E., & Wallisch, A.,2016): Parent training programs.	In the current contingency, and also as part of a hybrid intervention modality, there are studies that demonstrate the efficacy of psychoeducational intervention and strategy training for caregivers of children with ASD, even with better results than just performing clinical therapy, face-to-face, achieving empowerment and self-efficacy in parents. It is considered a population of special interest, not only due to the characteristics of an ASD, but also due to the variability in the present co-morbidities that also require management with respect to basic occupations (self-care, play, functional routines, rest and sleep).

Pediatrics	**Motor skills assessment in school settings**	Parent-Mediated Intervention Training Delivered Remotely for Children With Autism Spectrum Disorder Living Outside of Urban Areas: Systematic Review (Parsons, D., Cordier, R., Vaz, S., & Lee, H. C., 2017; Wilkes-Gillan, S., & Lincoln, M., 2018): There is preliminary evidence that parent-mediated intervention training delivered remotely may improve parent knowledge, increase parent intervention fidelity, and improve the social behavior and communication skills for children with ASD.	Complementary studies emphasize the need to reach more distant or rural populations. Caregivers identify goals, while therapists ask thoughtful comment questions, giving caregivers the opportunity to gain a deeper understanding of their own current knowledge and the impact of their strategies on their children's adaptive behavior. Therefore, families generate their own solutions and are responsible for carrying out the intervention and evaluating its effectiveness.
	School-based Practice	The feasibility and concurrent validity of performing the Movement Assessment Battery for Children–2nd Edition via telerehabilitation technology (Nicola, K., Waugh, J., Charles, E., & Russell, T., 2018): This study establishes the feasibility and concurrent validity of the administration of the Movement Assessment Battery for Children – 2nd Edition via Telerehabilitation technology. Overall, participants perceived their experience with Telerehabilitation positively.	Children were tested in their school environment on both occasions, through an in-person assessment or remotely (TR mediated assessment). When compared to the traditional in- person method, concurrent validity of the TR mediated assessment was demonstrated since the limits of agreement were within the clinically acceptable margin and no statistical difference was found between the assessments. The assessment delivered via TR technology was also shown to be accurate in identifying significant motor difficulties. Hence, the use of the MABC-2 as an assessment tool for motor difficulties via TR technology has the potential to narrow the gap in service delivery while reducing the burden to both children and their families living remotely. Overall, participants in this study perceived their TR experience to be positive.

Adults	**Approach to users with Cerebrovascular Accidents (CVA)**	Effectiveness of telerehabilitation in the management of adults with stroke: A systematic review (Appleby, E. Taylor, S. Kate, L. Lauren, T. Walsh, M. Kumar, S., 2019): The findings of this study suggest that telerehabilitation of people suffering from stroke may be effective in improving motor function, performance in Activities of Daily Living (ADL), independence and satisfaction / quality of life. The strategies studied are diverse, as well as the evaluation methods, making it difficult to establish unique approach protocols.	Some strategies used: -Exercise sessions using videos and neuromuscular stimulation. -Functional mobility therapy at home using monitoring messaging system plus usual care if possible and required. -Educational sessions aimed at self-care, mobility and posture delivered through video calls. -Uses of various software for home work in balance, manual mobility, global mobility of the body oriented to tasks, among others.
	Gait and movement disorders.	Telemedicine for Hyperkinetic Movement Disorders (Srinivasa, R., Ben-Pazi, H., Dekker, M., Cubo, E., Bloem, B., Moukheiber, E., ... Guttman, M., 2020): Main finding is the benefit that quality videos can now be produced and transmitted for telehealth purposes.	Guidelines are made to film the user's progress during the performance of their daily activities. This article presents a list of problems and the possible solutions by using Telemedicine. The problems included tremor, tic disorder, dystonia, Huntington's disease, Parkinson's disease-related dyskinesias, Pediatric hyperkinetic movement disorders and Myoclonus.
	Huntington's disease (HD)	Bull et al. in Srinivasa, R., Ben-Pazi, H., Dekker, M., ... Guttman, M. (2020), comparing in-person and virtual visits to users with HD, demonstrated high reliability between in-person and remote motor evaluations, as in reevaluations.	Virtual visits to the home to carry out motor evaluations and assess the infrastructure that surrounds the user. Reliability for both initial evaluation and reevaluation.

Adults / Seniors	**Parkinson's disease (PD)**	Abdolahi et al. in Srinivasa, R., Ben-Pazi, H., Dekker, M., ... Guttman, M. (2020), they found the UPDRS modified and reliable to lay the foundations for remote evaluation.	Validation of a modified version of the Unified Parkinson's Disease Rating Scale (UPDRS), without evaluating stiffness and retropulsion traction test remotely.
		Van Uem et al. in Srinivasa, R., Ben-Pazi, H., Dekker, M., ... Guttman, M. (2020): Users with PD for 12 weeks were given daily remote feedback on the characteristics of tremors, dyskinesia, hypokinesia, and gait. It is evaluated at the beginning, then at the 4th, 12th and 14th weeks with the Health-Related Quality of Life Questionnaire that the user perceives together with the Questionnaire on Parkinson's disease-39.	They conclude that the quality of life does not deteriorate during the period of continuous measurement of PD symptoms, remotely during 12 weeks at home. And in turn, there is a tendency to improve significantly in the mobility domain of the Health-related Quality of Life Questionnaire.
Support for caregivers	**Across settings**	Telehealth for Persons with Severe Functional Disabilities and Their Caregivers Facilitating Self-Care Management in the Home Setting" (Forducey, Glueckauf, Bergquist, Maheu, & Yutsis, 2012): Analysis of different approaches in telehealth of people with severe functional alterations to them and their family / caregivers is performed.	Among the interventions is the approach for caregivers with Cognitive-Behavioral strategies through trained "counselors". They carry out analyzes and approaches through telephone calls, identifying possible symptoms of depression or overload for subsequent approach with satisfactory results. It sstablishes the need to embrace caregivers and family in the process of rehabilitation in telehealth. Signs of overload can be identified, and a team approach can be carried out together with a psychologist if human resources are available.

Table 2: Professional competences

COMPETENCES OF OCCUPATIONAL THERAPISTS TO GIVE SERVICES BASED ON TELEHEALTH.
Understand and recognize the relationship between the concepts of well-being, health, meaningful occupation, dignity and participation.
Recognize the determinants of population health, multi-professional resources and teams, and actions for the prevention, maintenance, and promotion of health, both at the individual and community levels.
Know and understand the pathophysiological process at all times of the life cycle, preventing and identifying problems and clinical aspects of the person, both in health and disease.
Promote health and prevent disability, acquire or recover the necessary occupational performance at each stage of the life cycle to achieve independence and autonomy of people who suffer situations of risk, organic deficits, limitations in activity and participation and/or social marginalization.
Know, evaluate, analyze, elaborate and participate in education and health promotion programs to prevent subsequent dysfunction to medical, surgical and psychiatric conditions and social maladjustment.
Work collaboratively with individuals and groups, in order to actively participate in the occupation, through health promotion, prevention, rehabilitation, and treatment.
Carry out the evaluation and adaptation of the environment to promote participation in significant occupations and activities in the different facets of daily life, personal autonomy and quality of life.
Know, understand and apply the foundations of personal autonomy in daily life activities with and without adaptations and / or technical aids in daily life.
Application of Occupational Therapy treatments in different situations and in social groups in order to prevent and treat situations of maladjustment and social reaction.
Know and understand the legal and administrative framework in force to perform the functions and responsibilities of the Occupational Therapy professional, appropriately using socio-sanitary and economic resources.

Know the professional, ethical and legal context of the Occupational Therapist, recognizing and responding to ethical dilemmas and issues in daily practice.
Teamwork skills as a unit in which professionals and other personnel related to diagnostic evaluation and treatment are structured in a single or multidisciplinary and interdisciplinary way.
Carry out an adequate treatment, respecting the different phases and basic principles, through therapeutic occupations and based on related knowledge such as the science of occupation, in the different areas of occupational performance, analyzing the performance components and the different existing environments and contexts.
Know, design and apply the different modalities and general procedures of intervention in Occupational Therapy in their frames of reference, evaluating their effectiveness in a cooperative work environment.
Promote the participation of the user and family in their recovery process.

Table 3: Proposals for intervention by life cycle

Proposals for interventions through Telehealth	
LIFE CYCLE	**INTERVENTION**
Adult / Geriatrics	Evaluate the occupational performance within guidelines according to each center, in order to identify the progress of the users after the interventions. Make individualized therapeutic activity plans, executable at home by family / caregivers, with everyday items found at home. Carry out an Occupational Therapy intervention focused on improving occupational performance in ADLs through the use of ICTs, with the support of family/caregivers. Foresees and maintain cognitive skills at a functional and daily level. Maintain or improve motor/functional skills in occupational performance. Suggest energy conservation techniques/Joint Protection Techniques. Manage environmental factors for the prevention of cognitive or motor skill complications. Prevent, promote and support the health, education, emotional containment and ergonomics aspects of caregivers, including strategies for the prevention of overload.
Mental health	For the evaluation or assessment of Occupational Therapy in mental health we suggest: execute individual session, to apply guidelines, to define the reasons for consultation and to prioritize objectives to work. We also suggest promoting well-being and satisfactory performance of people. For therapeutic support at a distance we suggest: support the organization of satisfactory routines, adequate time management, and administration to give structure for day to day. Explore and include meaningful activities to generate occupations that are satisfactory. For counseling and psychoeducation for the families we recommend support and containment for effective communication, introduce daily management strategies that favor conflict resolution, and orientate in the development of activities that are significant for the family group. Promote independence in ADLs and IADLs
Pediatrics	Management of environmental stressors Motor rehabilitation Sensorimotor strategies for home. Early and timely stimulation Counseling and psychoeducation to families.

RECOMMENDATIONS

The College of Occupational Therapists recommends making reasonable use of Telehealth methodology, based both on evidence from literature and on experiences of the professional and the team.

We also recommend studying the available platforms that allow to interact with users in order to choose the best option for each case. An additional consideration is that Occupational Therapists must be able to recognize if it is possible for users to access to those platforms, taking into account that it may constitute a form of exclusion with those who do not have training or access in the use of Information and Communication Technologies (ICT).

In the case of institutional practice, it is essential to adhere to the regulations in force in each establishment and ensure that the practice being carried out is known by the institution. In particular, it seems important to ensure that Telehealth practices in Occupational Therapy are recognized as valid work and, therefore, recognized as production.

Regarding private practice, it is important to ensure that the user or the user's family are aware of the benefits and limitations of Telehealth, and rates have been previously agreed.

Because Telehealth practice is an urgent response to an extraordinary situation, in particular the Covid-19 pandemic, caution must be exercised when practicing it with users. One of these cautions is to be aware of this document and its bibliographic references when they exist and are pertinent.

Another aspect that should be considered is the convenience of trying, whenever possible, to collectivize the experience. This can be done by establishing frequent meetings with other colleagues or team members who are making similar approaches in their intervention, in a structured way, if possible. A reflective supervision system allows progress in knowledge and aims to achieve the widest and most complex view possible of particular interventions that are carried out (Three Building Blocks of Reflective Supervision, 2016). This reflective supervision considers reflection, collaboration and regularity over time.

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