

## Children with Hearing Disabilities during the Pandemic: Challenges and Perspectives of Inclusion<sup>°</sup>

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### Abstract

The COVID-19 has dramatically increased the inequalities of the opportunities to education and health services of the children with disabilities. The data collected from international agencies between 2020 and 2021 demonstrate the danger of further rising the risk of exclusion of children with disabilities especially in developing countries. The marginalization of people with sensory disabilities during the Pandemic have further expanded compared to the pre-COVID situation. The article aims to investigate the barriers that children with hearing disabilities have encountered in accessing socio-educational and rehabilitation services and reflect on the importance of social support flexibly from different local actors. In this perspective, the Center of Attention for Communication, Hearing and Language of the Central American University José Simeón Cañas of El Salvador provides educational and rehabilitation service aimed to children with hearing disabilities transforming their methodologies and practices. Based on this analysis, perspectives of action and research will be envisaged to plan the future starting from the lessons learned.

**Key-words:** Hearing Disabilities, Inclusive Education and Therapy, Pandemic

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## 1. Introduction

The crisis caused by the COVID-19 Pandemic has dramatically increased the inequalities that differentiate the quality of access to education and health services of the children with disabilities between rich countries and with those with poor economic resources. Since the start of the crisis, governments have fought to respond to the unprecedented needs and emergency situations. Unfortunately, the effects of the pandemic have led to the interruption of several services – from child educational services to child protection services, these interruptions have enormously aggravated the living conditions of the most vulnerable families and children<sup>1</sup> (Aishworiya and Kang, 2020; UN, 2020). Measures have been implemented to combat the pandemic sometimes seen by high creativity, but unfortunately have not proved sufficient in the poorest contexts to ensure the psychophysical well-being of childhood<sup>2</sup>. During this last year, institutional and socio-educational actors have engaged in the defense of childhood rights and have learned a great deal about the impact of the pandemic, but it remains to be designed to prevent the gap of inequality and marginalization from continuing to expand in crisis and post-crisis situations. Unfortunately, children with disabilities are likely to remain invisible under the dark cloud of the pandemic unless concrete efforts are made to implement measures dedicated to their inclusion, irrespective of emergency situations<sup>3</sup>. As noted by international data, even in the absence of global threat, children and adults with disabilities tend to be under-identified, under-represented or even excluded from official statistics and monitoring processes. The evidence-based data that international agencies collected between 2020 and 2021 (UN, 2020; UNICEF, 2020; Caarls *et al.*, 2021; UNESCO, 2021) demonstrate the imminent danger of further rising the risk of exclusion of children with disabilities. Understanding of these risks and the assessment of the socioeconomic impact of the pandemic are essential for developing responses that take account of all children. Some questions UNICEF proposes within its report (2020) are extremely relevant to guide political choices today regarding the barriers that need to be broken down, in order to guarantee intervention measures in favor of social and educational inclusion in the imminent future of children with disabilities:

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<sup>1</sup> «An estimated 40 per cent of the poorest countries failed to support learners at risk during the COVID-19 crisis, and past experiences show that both education and gender inequalities tend to be neglected in responses to disease outbreaks» (UN, 2020, p.8).

<sup>2</sup> <https://www.covideducationrecovery.global/maps/>, <https://www.worldbank.org/en/data/interactive/2020/03/24/world-bank-education-and-covid-19>.

<sup>3</sup> «Children with disabilities who were already marginalized before the outbreak are not always included in strategies of distance learning» (UN, 2020, p.8).

- *How are children with disabilities faring during the COVID-19 pandemic?*
- *What added challenges are children with disabilities facing in the current crisis?*
- *Are children with disabilities accessing online learning?*
- *How are families of children with disabilities coping with the socioeconomic fallout?*

However, many of these questions are still awaiting answers that can be expected to develop inclusive future scenarios.

The population of children with disabilities has both greater health care needs and significant dependence on community-based services. Both of these elements often appear absent from the Pandemic response plans. Where these services have been interrupted, social inequalities, in the case of people with disabilities, have imploded uncontrollably. They have often been victims of discrimination in the dynamics of triage by suffering a serious deterioration in their psycho-physical conditions. The widespread situation of lockdown has, in turn, created states of anxiety and depression and deterioration of mental health conditions, not only of children with disabilities, but also of their families who have been suddenly “abandoned” in social solitude and lack of support for community networks. The data collected show significant gaps of accessibility to services between children with and without disabilities, both socio-health and educational, taking into account that most countries have replaced school activities in the presence with distance learning. Statistics show that children with disabilities are 57% less likely to be able to benefit from books within the family, 23% less likely to be involved in early stimulation activities, 32% less likely to participate in direct or assisted reading activities. There is therefore a significant reduction in access to resources and opportunities from an educational point of view. Overall, it was estimated that in at least half of the investigated countries (UNICEF, 2020) during the pandemic no measures were taken to facilitate learning for children with disabilities. Worst situations are found in West and Central Asia (67%), South Asia (63%) Middle East and North Africa (67%). In most countries involved in the research, organizations for people with disabilities have not been consulted in the formulation of action plans relating to their needs and rights. From an educational point of view, the main barriers encountered by children with disabilities during distance teaching consist of:

- lack of personalized educational plans;
- inaccessibility of resources available at school (such as specialized educational figures and structured educational environments);
- lack of assistive technologies at home.

What has happened and is still happening requires intersectoral responses interdisciplinary cooperation of the different sectors of society. The pandemic has “pushed” institutions to exercise their social function flexibly and according to actual priorities. In this perspective, presented below will be the service that the Central American University José Simeón Cañas (UCA) of El Salvador guaranteed during the pandemic throughout the Center of Attention for Communication, Hearing and Language. In fact, the Centre has not only continued to provide its assistance to children with hearing disabilities and cochlear implant, but it has succeeded through the team of professionals which it relies on to redesign educational and rehabilitation intervention trying to accommodate their support strategies according to the different phases of the pandemic itself, taking into account the needs of families of children coming from the most vulnerable contexts of El Salvador, where schools have been closed for 49 weeks since the start of the pandemic<sup>4</sup>.

## 2. Students with Hearing Disabilities at Risk of Exclusion: Pedagogical Foundations for Planning the Future

The conditions for the marginalization of people with sensory disabilities during the Pandemic have further expanded compared to the pre-COVID situation. Unquestionably the social distance caused by preventive measures to spread contagion has helped to isolate and increase the discomfort of people with sensory disabilities for whom physical proximity and body use are essential elements of communication, socialization and learning processes.

Children with disabilities today in many countries are at risk of exclusion because of the lack of structural accessibility and infrastructure of school environments and adequate skills by teachers (Mantzicos, Lappa, 2020). In fact, hearing disability is likely to be underestimated because it is mostly invisible (Leigh, 2009). Special Education Studies provided strategic indications for the inclusion of students with hearing disabilities, taking into account the complexity of this specific impairment (Conti and Cappellini, 2016; Conti *et al.*, 2019). It is known how important the lighting of the rooms and the organization of the school setting are with the arrangement of the desks in a semicircle where the child with hearing disabilities can follow the activities carried out. Strategic positioning of teachers or educators who must always be visible, and never turn their back on the class or the deaf child during play or rehabilitation activities. The environments should also be as quiet as possible,

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<sup>4</sup> <https://en.unesco.org/covid19/educationresponse#schoolclosures>. The highest average number of days when classroom instruction was disrupted was seen in the Latin America and the Caribbean Region.

so that listening to the speaker is facilitated, who in turn should communicate at a regular pace, rephrasing messages if unclear or ambiguous and explaining everything that is happening in the classroom.

The teacher or educator also plays an important role in enforcing conversational shifts, always pointing out who is talking to promote visual contact, and summarizing or translating whenever necessary. Other major tasks of the teaching body are to program and design lessons, which indicates the need for intensive cooperation between curricular teachers and support and communication assistants or other people within the context. It is, for example, useful to anticipate, where possible, the topics that will be dealt with in class.

It is of fundamental importance to take into account the specific situation of the child with hearing disabilities, in relation to cognitive, cultural and linguistic skills (Marschark and Hauser, 2008; Marschark *et al.*, 2014). To encourage the feasibility of lessons, from the educational point of view it is functional to integrate explanations using vision and touch (real objects, maps, photos, images, etc.), by adapting texts to the understanding capabilities of the pupil, by supplementing them with images and schematic information and using multimedia, hypertextual and hypermedia technologies to adapt teaching units to support the potential of each student and use subtitles when available (Toofaninejad *et al.*, 2017; Sciarretta and Greco, 2020). With regard to the social dimension of the lives of children with hearing disabilities, to combat the risk of isolation and to invest in the development of metacognitive skills, it is strategic to promote a cooperative approach to promote activities in small groups and involvement of all of the class with specific projects on sign language if the student is a signer.

The didactic strategies described highlight how even in an ordinary situation it is complex to always ensure a favorable environment for the learning and socialization processes of children with hearing disabilities. It is evident that the educational challenges have become considerably more difficult during the pandemic, where the *physical distance* and the *social isolation* have become the main slogans. The consequences of the current pandemic crisis have assumed variable proportions depending on the country and context within the country itself on the basis of economic conditions and opportunities that individual governments have managed to guarantee (UN, 2020). From research carried out in Greece (Mantzicos, Lappa, 2020), India (Umashankar and Prabhu, 2020) and Malaysia (Krishnan *et al.*, 2020) on school access and rehabilitation services for students with hearing disabilities of different degrees, it was possible to identify in a cross-sectional way of these different contexts, following difficulties that take on progressively accentuated levels of severity based on the socio-economic condition of the country:

- the physical distance required between persons reduces the potential for listening and understanding of the minutes and non-verbal language;
- the use of masks may prevent the reading of lips and make the voices of speakers, including educators, professionals and/or family members, less clear for those using acoustic implants;
- the reduction and transformation of collegial work between teachers and other professional figures has made it more difficult to personalize materials of distance learning, inclusive educational methodologies;
- the increased relative distance between parents and educational figures and/or rehabilitation has increased the anxiety of many families experiencing their fragility in dealing with the day-to-day management of educational and rehabilitative activities;
- health facilities engaged to respond to the pandemic emergency have been forced to suspend other types of services: for example, audio visits and treatment were not considered a priority and therefore suspended. In this situation, the families concerned were unable to take prevention, early diagnosis and to purchase hearing apparatus, with the inevitable consequences on the worsening of the overall welfare of children. In particular, the lack of hearing inputs sent at the appropriate time in relation to the stage of evolution of the deficit and psychophysical development of the individual may cause hearing deprivations;
- the limited availability of remote rehabilitation services has led to a slowdown in education pathways to listen to children with auditory disabilities;
- during distance lessons, through videoconferencing, technical problems may arise, and, in most cases, there is no real-time transcript and subtitling of what the teacher is saying (Mantzicos and Lappa, 2020). This is an important obstacle for people who are not able to hear and who are suffering from serious hearing problems who have to rely on lip reading. In the circumstances described, loneliness and isolation feelings may increase even further. The same applies to educational programmes conducted by television that hardly consider the heterogeneity of students with different learning situations (Viner *et al*, 2020; Edmunds, 2020).

The pandemic is still holding many countries within its grips. As shown by UNESCO mapping, many South-World schools have not yet reopened and rehabilitation services are not active. Beyond the objective difficulties that vary from country to country, it is important in the light of the past year and the lessons learned to adopt a planning perspective to find possible solutions. International scientific literature on the subject of inclusive education provides theoretical and methodological guidelines also useful in this crisis situation in order to formulate sustainable actions, generated from a thorough analysis of

reality, to be effective in the psychophysical well-being of people with disabilities.

The ICF-Bio-Psycho-Social Model (WHO, 2001), the intersectional and the Rights-Based Approach of persons with disabilities represent fundamental compasses. In fact, the ICF allows the assessment of the level of psychophysical well-being of the person through the identification of barriers in the social context and which restrict the participation of the entity by stimulating the search for facilitators who can guarantee inclusion depending on circumstances. This analysis also includes the ability to recognize the resources in its context and to activate them for the purpose of the bio-psycho-social welfare of individuals. Of course during the pandemic, as we will see below in the case proposed by the UCA, the domestic environment has been subject to functional revisitations for educational and remote rehabilitation in the case of children with cochlear implants. In this respect, the role of parents has changed, as well as the use of daily spaces that often assumed the pedagogical function of “home laboratories” capable of providing useful stimulus for educational and “enabling” processes<sup>5</sup>. From the point of view of personalized educational design, a high ability to read contexts is required and to avoid a standardized educational approach. Based on what has happened, the pandemic has helped to discover the most recent cracks of the educational and social systems, and highlighted how it is not useful to offer generalized, homologated and standardized strategic responses. The solutions that have proved to be more effective are those that arise within individual communities starting from the particulars of the specific context of life and that are assumed in solidarity by the network of different social actors.

It is also important to remember that the obstacles that people with disabilities encounter are not only architectural, but often are represented by attitudes, policies, dysfunctional intervention systems (Taddei, 2020).

Recognizing the specific needs of students and students with disabilities means that we must identify the barriers in the social context of the school but also those outside the school at the same time. In turn, facilitators do not consist exclusively of special devices, such as compensatory and/or dispensatory aids and instruments, but are represented by people, such as curricular and support teachers, extra-school teachers, classmates, siblings, and parents who can support learning (Ainscow, 2005; Barton and Armstrong, 2007; Barnes and Sheldon, 2010). The co-responsibility of the various figures mentioned in

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<sup>5</sup> Griffo states that with the term “rehabilitation” we recover a lost function of the body, but when “enable” we develop new skills, starting from the psychophysical conditions of the person. Griffo adds that “functional diversity is one of the characteristics of a person, which together with all the other characteristics contribute to define the set of their abilities, opportunities and potential» (Griffo, 2018, p.34).

implementing inclusive processes implies recognition of the affective, cognitive and social needs which have been particularly complex during the pandemic because of social isolation.

The Bio-Psycho-Social approach responds to an intersectional interpretation (Crenshaw, 1991; Garland Thomson, 2002) of the condition of discomfort that children and people with disabilities generally live. The intersectional approach strongly highlights the concept of social justice in the process of developing inclusive education based on respect for differences and the right to diversity.

The intertwining *pandemic, disability, identity, poverty* – in relation not only to the countries of the southern world but also to all the suburbs impoverished by the relentless effect of the crisis – strongly affects the quality of people's well-being and the educational and social opportunities they can access. It is therefore necessary to interconnect the social, cultural, identity factors to understand all of the dynamics of marginalization and at the same time the opportunities for emancipation in specific contexts (Taddei, 2017; Bernardini, 2018). This requires an analysis logic which tends to take separately the different identity conditions of people with disabilities (Dainese, 2020). In order to ensure effective matching between the identification of real needs and the design of interventions, an analysis and design approach should be adopted which can interpret overall the various conditions under which people and children live with disabilities for a fair distribution of resources and support.

Surely, the child population of low-income households has been more disadvantaged than those with more favorable economic conditions. The complexity of the general framework requires every country's political and social actors to play a decisive role in creating exit strategies effectively. Not finding or creating solutions that can remove barriers to inclusion and self-determination of people with disabilities from childhood means in fact violating the rights of at least 15% of the world's population (UN, 2006, 2015).

### 3. Speech Therapy to Children with Hearing Disabilities at CCAL-UCA during the COVID-19 Pandemic

The Center of Attention for Communication, Hearing and Language, (CCAL-UCA, hereinafter) is a dependency of the Department of Education Sciences of the Central American University José Simeón Cañas (UCA), El Salvador. Since 2007 to date, it has provided speech therapy to children with hearing disabilities, this being a child with a cochlear implant, with hearing aid or without technical aids. The CCAL-UCA works in the speech therapy area for different levels of hearing disability, developing intervention programs



according to the needs of children, as well as establishing short-term goals that allow the acquisition of language skills.

During the face-to-face therapeutic process, game-based learning methods are used, based on theories of auditory-verbal therapy. In addition, all the components of language are worked on by developing recreational and educational activities with various logopedic methodologies. This combination of practices favors a comprehensive development in the acquisition of oral language, which can be generalized in different contexts.

To achieve this process, the participation of the family and the teachers is also required, this to guarantee that the agents commit to favoring the acquisition and learning of language in this population (Cruz *et al.*, 2013; Vanormelingen, De Maeyer and Gillis, 2015). For this, the CCAL-UCA therapists offer follow-up and guidance to parents and caregivers of childhood in order to promote their learning.

However, the national and global context has been a challenge for the development of CCAL-UCA activities. The global COVID-19 pandemic caused changes in the modality of the therapeutic work, since everything had to be moved to the remote or virtual modality. This became a major challenge for the users of the Center due to the existing digital gap that is associated with the difficulties of connection, accessibility and the use of technological resources, added to the barriers that digitization imposes on people with hearing disabilities, therefore, access to education in general is violated, including access to therapeutic processes (CEPAL and UNESCO, 2020).

Achieving virtual learning in people with hearing disabilities emerges as a significant challenge in times of COVID-19. Therefore, the new strategy consisted of planning an intervention proposal which could be implemented with the pedagogical mediation of families, taking into account that the majority of children with hearing disabilities are of limited economic resources who live in vulnerable and social risk areas (López *et al.*, 2020).

The pedagogical mediation from the family during the lockdown period had several achievements, including the use of verbal communication modalities based on intervention plans and activities proposed from everyday life, an increase in the use of everyday vocabulary and greater understanding of instructions and verbal fluency, specifically in childhood with a cochlear implant (López *et al.*, 2020). However, the families have expressed the need to return to the face-to-face modality in order to promote speech therapy work from the direct intervention of the professionals.

### *3.1. Return to the Face-to-face Modality*

After the time of mandatory confinement, the university endorsed the

progressive attention to the users of the CCAL-UCA, in order to resume face-to-face therapeutic processes. For this to happen, it was important to have resources and protection measures to avoid contracting the COVID-19 virus.

In the CCAL-UCA, a health security protocol was created to establish an orderly and safe process for patients, families and the center's staff. The protocol was divided into three stages: the first stage was focused on identifying the epidemiological profile of relatives and users of therapeutic services prior to presenting themselves at the facilities, for which an online survey or family consultations via telephone was formed; the second stage was based on the entrance guidelines to the campus established by the university, which explain the control and registration of visitors (name of the person, body temperature measurement and length of stay inside the Center).

In addition, considering that the CCAL-UCA serves children with hearing disabilities at different levels and with different technical aids, it was necessary to have transparent masks to facilitate lipreading and visual cues, referring to gestures and signs. The center's protocol was put to the test in October 2020 when face-to-face activities were resumed, which allowed to assess its functionality. At the beginning, difficulties were observed in users to respect the indications and safety protocols. However, by January 2021, both patients and families have been aware of the risks that still exist in regards to the COVID-19 pandemic, which prompts them to respect health instructions to a greater extent.

### *3.2. Process, Resources and Methodology of Face-to-face Speech Therapy*

For the teaching of oral language in children with hearing disabilities, the use of different learning resources is important, including material with high visual content, descriptive pictures, manipulative material, stories, sound games and sensory material. On the other hand, the acquisition of language can be from monolingualism, that is from the use of sign language; or bilingualism, using sign and oral language. Both options imply the incorporation of supports related to auditory stimulation, technical aids (hearing implants or hearing aids), lipreading and complementary communication systems.

The therapeutic processes used in the CCAL-UCA includes the technique of lipreading, which is a rehabilitation method where visual communication is established through lip movements. This technique is used from the first therapy sessions with childhood. In addition, bilingualism is used to lower the barrier understanding oral language in children with sensory hearing disabilities.

In the case of children who use technical aids, auditory training is carried out (López and Guillen, 2008). This takes up to five important steps: detection

(distinguishing the moment when a sound is produced); discrimination (distinguishing if two sounds are the same or different); identification (identifying noises, sounds, syllables and words); recognition (recognizing, memorizing and ordering sounds presented sequentially; and comprehension (oral comprehension through different communicative situations). As a result of the confinement due to the pandemic, it was necessary to retake these five steps in face-to-face speech therapy work, thus making it possible to identify those areas in which it was necessary to work urgently so that the verbal development of childhood continued optimally.

Although it is true that the CCAL-UCA as a therapeutic center from its beginnings took into account a variety of measures when working with children with hearing disabilities, due to the health security protocol, these measures were taken up with greater emphasis with changes in certain aspects; among them, work on the table has been limited by a dividing screen and work on the auditory part was affected by the use of masks. One solution that the CCAL-UCA therapists implemented was the use of transparent masks during therapy sessions with children with hearing disabilities, in order to reduce the communication barrier with this population. Also, speaking from the front and not neglecting the way of vocalizing has helped childhood to maintain the understanding of language.

On the other hand, adaptation has been carried out in the implementation of some methodologies, in order to respect health security measures. In this sense, physical contact has been withdrawn, which has been a challenge in therapeutic development since many activities, especially those related to phonetic and prosodic work, required such an approach. However, the family has been given greater prominence; thus, some techniques have been explained to be implemented at home. In this way, the stimulation of both language components continues (Wang *et al.*, 2008).

### *3.3. Virtual Therapy Process, Resources and Methodology*

The therapeutic processes in virtual modality have been offered to families who wish to receive the sessions from home and who have access to the required digital tools. In order to implement speech therapy in this modality, it was necessary to do some research and create virtual activities, prioritizing all that visually attractive material. In addition, suitable materials have been developed for the therapeutic goals, which are functional in stimulating oral language and easy to use for children and families.

Digital teaching materials are a fundamental resource for the learning process of childhood, which must be used in a timely manner according to the context. During the virtual sessions offered by the CCAL-UCA, the family and

the speech therapists use various interactive materials that have contributed to the therapeutic process. The impact produced by the images, the interactivity, the possibility of developing activities tailored to the needs and the particular attractiveness of all these elements, become complementary instruments that enrich and favor the processes of appropriation of the language of children with hearing disabilities.

During the virtual sessions the therapist makes use of PowerPoint presentations, interactive whiteboards, visual digital games and subtitles, among others. These materials are attractive and motivate the oral participation of children with hearing disabilities. Some activities have the objective of working on the image-word relationship, the recognition of word meanings and the creation of descriptive comics for the identification of vocabulary and syntactic structuring. The variety of resources and short activities favor the optimal development of therapy sessions.

On some occasions, when implementing the therapy sessions through digital means, the attention of children tends to be dispersed, especially when the child is alone receiving the therapy. In this sense, constant family support is requested and activities are suggested where parents or caregivers are active agents during therapy. In this way, the family is involved in the language development processes (Blanco and Montañez-Torres, 2017).

#### *3.4. Motivation of Children with Hearing Disabilities and Care for Families*

During the confinement experience, the families expressed the need to return to the face-to-face modality, assessing the importance of speech therapy directly with the therapist, since they perceive greater advances in the development of the language of children with hearing disabilities. In this sense, the families recognized the quality of therapeutic work and the limitations that they may have at home. Although the professionals have provided guidance to develop activities in the household, the families identified that it is necessary to combine work in both environments.

In addition, families have expressed the importance of the bond on the part of childhood with the therapist, emphasizing the socio-affective element of the speech therapy process. It is in this aspect that childhood manifested longing for the return to the face-to-face modality, considering the time without seeing the therapist and the execution of game-based activities throughout the therapy sessions. In addition to the above, the confinement process has also impacted children in the social area (CEPAL and UNESCO, 2020). Therefore, attending face-to-face therapies allows them to get out of the home routine and maintain contact with other people outside their family circle.

The socio-affective links in the therapeutic processes are fundamental, especially when the implementation of the different activities allows children to have fun and promote self-confidence and autonomy. In this sense, upon returning to the face-to-face modality, children have been motivated to resume the therapeutic processes, expressing joy when returning to the CCAL-UCA and maintaining contact with their therapist, despite the physical distancing implemented as a result of the health crisis. This aspect has favored the development of therapy sessions, since childhood shows willingness to work in the speech therapy, influencing the motivation of families to make the effort to attend face-to-face sessions, despite the current health and social circumstances.

In regards to family orientation, the CCAL-UCA has required greater monitoring of the processes of care for children with hearing disabilities. In turn, families are more willing to make inquiries. The families have been able to identify the need to resolve doubts about the rehabilitation processes, work-at-home strategies and difficulties with hearing aids. From this point on, a constant follow-up is being offered, assigning more activities to implement at home, in order to enhance family involvement in childhood language learning processes.

### *3.5. Lessons Learned based the CCAL-UCA Experience*

Based on the experiences in the educational and therapeutic work at the CCAL-UCA with children with hearing disabilities. during the COVID-19 pandemic, implementing the virtual, distance and face-to-face modality, it has been concluded that:

1. Despite the follow-up offered during the confinement period as a result of the COVID-19 pandemic, using pedagogical mediation from the families for the implementation of intervention plans from home, it is necessary to resume speech therapy sessions directly with children, recognizing the importance of articulating work in both environments in order to favor the process of language habilitation and rehabilitation of people with hearing disabilities.
2. Virtuality is a modality that can be used with people with hearing disabilities, however, it is necessary to adapt it, making it accessible to this population and allowing speech therapy work, reducing the communication barriers.
3. Although the virtual modality offers a variety of tools for speech therapy work, as long as the resources are adapted to the context and needs of children with hearing disabilities, it cannot replace the therapeutic process in face-to-face modality, since the former favors the implementation of

logopedic techniques such as auditory training, instructional follow-up and modeling. It also fosters the attention and socio-affective development of children.

4. Motivation and the socio-affective component are essential in the language rehabilitation and habilitation processes of children with hearing disabilities, since it influences the disposition for learning that enhances language development.
5. The role of families as mediators from home is fundamental. However, this mediation must be carried out in a guided way and from daily activities, since there are different factors that add to the responsibilities of family members. In this way, the combination of speech therapy with the support from home greatly favors the linguistic development of children with sensory hearing disabilities.
6. The use of a diversity of visual resources, auditory training and lipreading have been fundamental for the development of linguistic competences in children with hearing disabilities, taking into account that these elements can be used from different attention modalities and considering the characteristics of each case.
7. The didactic resources, especially those that are visually attractive, are tools that can be used in speech therapy work in both face-to-face and virtual modalities. This facilitates the learning of children with hearing disabilities, allowing the acquisition of new knowledge and development of language skills.

#### 4. Research and Action Perspectives

Looking critically at what happened during the pandemic crisis, it is undeniable that the difficulties have been and continue to prevail with respect to the strengths that this situation has presented. Nevertheless, as educators we cannot exempt from adopting a constructive gaze that allows us to also highlight the potential and positive learning that have been hidden among the fragile cracks of this humanitarian tragedy. In fact, the Pandemic required the creation and immediate introduction of innovations in welfare and socio-educational practices that “shook the torpor” into which many sectors had fallen by renouncing investment in terms of human resources and economic. The unpredictability and speed with which the crisis has undermined life contexts around the planet has forced the quick implementation of the solutions adopted.

The period that awaits us would require the systematization of positive and sustainable practices, adapting them to the post-pandemic context. The vulnerability that has affected school systems all over the world has highlighted

once again that the school, in addition to being the place par excellence dedicated to guaranteeing learning, is also the one that supports and promotes socialization processes and represents the context of central importance for all children, especially for those who come from the poorest families and who belong to more fragile categories such as boys and girls with disabilities in contexts poor of opportunities.

Social isolation weighed on the scales of social justice very differently from family to family and from country to country. As demonstrated by the experience of the UCA, the alliance between different actors of society has been revealed as a great resource that often has managed to compensate for the difficulties and shortcomings that have overwhelmed the formal education systems and institutional health services. In the specific case of the CCAL-UCA, the university, through the service offered, has assumed and exercised its social function by responding to the needs of the poorest families.

Looking towards the future, therefore trying to imagine a COVID-free world, from the pedagogical research point of view of in the field of inclusive education (Amor *et al.*, 2018) it will be useful and interesting to pursue some lines of research to avoid wasting the wealth of learning offered by what happened:

- study how the modalities of educational support and rehabilitation services aimed at the population with sensory disabilities have changed during the pandemic;
- investigate what difficulties and what practices the families of children with sensory disabilities have experienced, who in particular have suffered the deleterious effects of social isolation;
- identify which new forms of alliances to ensure social and educational inclusion have been experienced during the pandemic and which of these can be maintained;
- reflect on what new skills it is necessary to invest with regard to educational figures and educational and rehabilitation services in the light of the cracks in the system that the situation has brought out;
- Investigate and design didactic and educational strategies that can accompany the return to school, the transition from an emergency situation to an ordinary one, knowing that the post-pandemic will present new challenges in terms of teaching-learning, educational and rehabilitative processes.

If the world of formal and informal educational services does not prepare for the “reopening” with the necessary investments, once again the most vulnerable groups, including the people with disabilities, will risk being

forgotten and severely suffer the inequality gap in the face of rights that the pandemic has revealed and strengthened with extreme harshness.

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