FOGYATÉKOSSÁG ÉS TÁRSADALOM

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SUPPORT MECHANISMS AND INDEPENDENT LIVING DURING AND AFTER THE COVID-19 PANDEMIC

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EDITORIAL PREFACE

Introduction to the Special Issue of the periodical Hungarian Journal of Disability Studies & Special Education: Support mechanisms and independent living during and after the COVID-19 pandemic

> *'The COVID-19 experience may offer contextual experience of the prepandemic lives of persons with disabilities and in doing so foster greater social responsibility and opportunities for change and a more inclusive society'. (Ebuenyi et al., 2020, p. 1.)*

As Guest Editors of the Hungarian Journal of Disability Studies & Special Education, we are pleased to share the last Special Issue of 2022: Support mechanisms and independent living during and after the COVID-19 pandemic.

The COVID-19 experience has shaken our society and presented us with many challenges. However, as the authors (Ebuenyi et al., 2020) cited above point out, it is precisely the experience of this crisis that has brought us all much closer to the sense of isolation, loneliness, and vulnerability that people with disabilities often experience. Due to the COVID-19 pandemic, heavy pressure has been put on people, families, communities, and service systems. Among others, the everyday lives of children, adults, elderly persons with disabilities, and their support network has changed considerably. As social distancing and the closure of social institutions were considered primary forms of protecting people from infection, several elements of formal and informal relationships and mechanisms of support have been challenged. The usual social activities built on personal contacts needed – and still need – to be reorganized.

Underlying the human rights mediated by the UNCRPD are the barriers that pervaded the daily lives of people with disabilities before the COVID-19 pandemic. Unfortunately, the situations that many people are experiencing in the difficult days of the pandemic are very similar: quarantine, curfews, and reduced, impeded or non-existent social interactions have all evoked the institutional conditions that have been fought for decades in the process of deinstitutionalization around the world. Nevertheless, the COVID-19 experience has created a new perspective in many people, contributing to a broader understanding and appreciation of the social and human rights model of disability (Armitage & Nellums, 2020; Ebuenyi et al., 2020).

This special issue of the Hungarian Journal of Disability Studies & Special Education brings us closer to understanding what characterized the everyday lives

of people with disabilities during the pandemic. The issue presents Hungarian and international empirical research articles and case studies on good practices on support mechanisms and independent living for people with disabilities during the COVID-19 pandemic.

The first two studies of the Special Issue deal with the COVID-19 challenges in the field of education. *Ryan O. Kellems, Alex W. Wheatley, Doug Petersen,* and *Elizabeth A. Cutrer-Párraga* examine how the provision of special education services for students with disabilities was implemented in the context of remote learning in the USA. This study is based on the perceptions of teachers and parents, similar to the article by *Katalin Mező* who aimed to present the impact of the pandemic on teaching students with learning disabilities. In this article, not only challenges but alternative support mechanisms are addressed that special educators used, in order to deal with the challenges of distance education.

Viktória Pázmány, Ágota Barabás, and Renáta J. Erdei introduce an online pilot program for young athletes – with and without intellectual disabilities – to compensate for the lack of face-to-face sports activities during the pandemic. Their preliminary focus groups highlighted the need for continuing training so that young people could maintain their physical fitness and, at the same time, reduce their sense of isolation.

Sára Csillag, Jácint Farkas, Zsófia Fekete-Frojimovics, Adrienne Nagy, and *Csilla Petykó* interviewed restaurant owners who employ persons with disabilities. While the hospitality sector was severely affected by the pandemic, the authors found that disability is a "controversial issue" in the owners' narratives. The challenges in supported decision-making of persons with intellectual disabilities are represented in the Special Issue in an article by *Rita Farkasné Gönczi.* The author describes how professionals and NGOs published easy-to-understand content on COVID-related information.

There are two articles in the Special Issue based on surveys with larger sample sizes. *Barbara Czeizel, Boróka Fehér, Krisztina Hajtó, Gabriella Safcsák,* and *Réka Vályi* conducted an online survey among families on access to early intervention services. In their article, the Early Intervention Centre Budapest operation is described as a good practice. On a sample of 1500 persons, *Julianna Boros, Edmond Girasek, Bence Döbrössy, Anna Susánszky,* and *Zsuzsa Győrffy* analyzed whether there is a difference in the use of digital health solutions between persons with and without disabilities.

We highly recommend all of the articles to our Readers.

Budapest, November 2022.

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Borbála Bányai PhD, Lucia Csabai PhD and Nóra Menich PhD
Guest Editors of the Special Issue

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ABSTRACTS

Ryan O. Kellems, Alex W. Wheatley, Doug Petersen,
Elizabeth A. Cutrer-Párraga

Perceptions of Special Education Services Delivered Through Online Learning Environments During COVID-19

Elementary and secondary schools saw a major shift in how instruction was delivered during the COVID-19 pandemic. Schools across the United States shut down or participated in online learning. This shift to online learning led many to question how special education services should be delivered to students with disabilities. The purpose of this study was to gauge perceptions of special education services delivered in a remote learning environment during a public health crisis. Teachers, related service providers, and parents of students with disabilities (n = 108) from across the United States were surveyed. Results showed synchronous online learning to be the most prevalent form of providing special education services. However, participants largely viewed online instruction as ineffective at providing quality services for students with disabilities. Implications for improving online services for students with disabilities could include identifying specific reasons for participants' negative views which may lead to more actionable steps in improving online learning moving forward. In addition, examining actions taken by schools that have led to positive impressions of online learning among parents and educators could also be used to improve perceptions of online instruction for students with disabilities. Directions for future research are also discussed.

Keywords: COVID, disability, online learning, distance learning, special education, pandemic

Katalin Mező

Peculiarities in Teaching Students with Learning Disabilities and the Learning Support Mechanism of Educators during the COVID-19 Pandemic

Background and objective: One of the most decisive pedagogical consequences of the COVID-19 pandemic is the imposed distance education, which made it especially difficult to educate and care for students with learning disabilities. The goal of the present study is to examine the impact of the epidemiological situation on teaching students with learning disabilities and to illustrate the alternative methods and support mechanisms used by the special educators during the pandemic. Sample and method: n = 134 special education teachers were interviewed by questionnaire. Their answers were analysed with the SPSS statistical program. In remote teaching special education teachers used multiple ways of communication in different types of settlements. According to the educators asked, there are quantitative and qualitative differences in the learning of students with learning disabilities during distance education, compared to attendance education. Educators reported various difficulties during distance education (eg. lack of info-communication tools, inability/difficulty of their usage, loss of motivation, impersonality, contact difficulties, isolation, etc.), and we also collected alternative solutions that special education teachers used to overcome learning/teaching difficulties.

Keywords: COVID-19, learning and teaching difficulties, students with learning disabilities, support methods

Viktória Pázmány, Ágota Barabás, Renáta Jávorné Erdei

A Health Promotion Programme for Young People with Intellectual Disabilities during the Pandemic

Several dimensions of health were affected by the segregated lifestyle associated with the pandemic, such as emotional health, physical activity, and reduced social relationships, which became more pronounced in these isolated populations. In adolescence, the importance of peer relationships gradually grows, also for people with disabilities, and sustaining these bonds became increasingly problematic during quarantine. The difficulties caused by the use of infocommunication tools among young people with intellectual disabilities made it even more challenging to maintain contact.

In this study we present a good practise convenient for this purpose. The target group was adolescents in the Northern Great Plain region who were athletes with intellectual disabilities. Our goal was to continue the sports activities

of young people with intellectual disabilities within the framework of the pandemic, and at the same time we wanted to maintain peer relationships in addition to physical fitness. We conducted focus group interviews among the target group, three times, with parental presence online, engaging a total of 15 young people with intellectual disabilities. The results showed that young people suffered from isolation, based on which a pilot program was launched. The project consisted of online trainings, which enabled, as an extra benefit, young volunteers studying at the Faculty of Health of the University of Debrecen to participate along with young people with disabilities. Increased social interactions emerged from online training. After six months, we repeated the focus group interviews among the research participants.

The results showed that the pandemic affected the pre-existing tight agenda for the target population, influencing all dimensions of health. In addition to maintaining physical fitness, participants improved their general well-being and adapted more easily to the difficulties caused by the epidemic.

Keywords: intellectual disability, sport, inclusion, COVID-19 epidemic, health

Sára Csillag, Jácint Farkas, Zsófia Fekete-Frojimovics, Adrienne Nagy, Csilla Petykó

Hospitality Sector and the (Non-)employment of People with Disabilities. Hungarian Restaurant Owners' Experiences after the COVID Outbreak

The hospitality sector in Hungary has experienced a dramatic downturn in the last three years. After the shock of COVID, the industry faces further difficulties due to labour shortages and the war in the region. In our research we asked restaurant owners about their opinion of employing people with disabilities and how COVID has shaped their approach. Our results show that the level of employment of people with disabilities is very low in this sector, showing problems of social accessibility. Still, during and after COVID, restaurant owners tried to support and retain their workers with disabilities (along with other workers).

Keywords: people with disabilities, COVID-19, hospitality sector, social accessibility

Rita Farkasné Gönczi

Easy-to-understand Communication during COVID in Hungary

The legal institution of supported decision-making was introduced by the Civil Code in force on 15 March 2014, in addition to the CLV of 2013 on supported decision-making. The Act regulates the provisions on the appointment of a support worker, the duties of a support worker or a professional support worker and the records keeping. The supported decision-making system helps to make decisions based on individual needs without restricting the capacity to act.
In the new COVID epidemic situation, the supported decision-making for people with intellectual disabilities is temporarily difficult. The National Public Health Center issued a leaflet on March 10, 2020. The information changed rapidly, the rules were constantly expanding. In the current situation, equal access to the necessary information for supported decision-making was not available in a uniform format.

The examples show that professionals and NGOs dealing with easy-to-understand communication responded almost immediately to the situation and provided information about the health emergency. In 2020, more practices developed in the civil and institutional sectors, the impact of which is still being felt today. In addition to easy-to-understand content translations and self-contained information materials, communication-friendly content has also been developed for healthcare professionals.

In this study, I present the COVID information published in easy-to-understand communication in chronological order. An overview of these can support the development of unified strategic steps in a subsequent emergency situation.

Keywords: easy-to-understand communication, COVID

Barbara Czeizel, Boróka Fehér, Krisztina Hajtó, Gabriella Kemény, Réka Vályi

Is Security Above All? Questions of Equal Access to Early Childhood Intervention during COVID-19 Pandemic

There are several reasons for examining the access to early childhood intervention at the earliest possible age during the COVID-19 pandemic. The consequences of the lack of early and widespread access to quality services are well documented, delays might cause irreparable damage, which could lead to challenges in long-term social integration. The article introduces the findings of an online survey exploring how the COVID-19 pandemic affected expectant women and those giving birth, as well as their experiences of the health care system and early intervention services in Hungary. To illustrate how measures in focus access to early intervention can be introduced under such circumstances, we describe a good practice in the field of services.

Our data shows that even though less medical examinations were cancelled or postponed than expected, these as well as early intervention mostly took place in the private sector. The majority of mothers faced a high level of stress and anxiety – especially during the restrictions. While depression among mothers did not rise significantly, the feeling of loneliness doubled. 27% turned to a specialist for support – mostly to a psychologist, and an unexpectedly high rate of parents contacted a specialist on parent-infant relationships.

Keywords: early childhood intervention, access to services, COVID-19, COVID-19 pandemic, mental health of mothers, innovation

Julianna Boros, Edmond Girasek, Bence Döbrössy, Zsuzsa Győrffy

Use of Digital Healthcare among People Living with Disabilities

The COVID-19 pandemic highlighted the importance of digital healthcare solutions that can offer many benefits to all sections of the population, but for some key target groups, such as those with disabilities, there is significant potential for its use in making everyday life easier.
In our survey, we examined whether there is a difference in the use of digital health solutions between disabled and the non-disabled people.

Using a telephone survey, we inquired about the use of digital health solutions in a nationally representative sample of the Hungarian adult population (n = 1500). As part of the sample, we also obtained information of the characteristics of people with severe disabilities (n = 74) and those with mild disabilities (n = 198).

Severely disabled people use the internet half as much as non-disabled people (41.9% vs. 86.6%). However, severely disabled Internet users are more likely to use it on a daily basis for health purposes. Disabled people use websites, blogs, podcasts, social media, and scientific literature search sites to a lesser extent than non-disabled people, but are more likely to connect to online communities and use medical and healthcare professional interfaces. Digital technologies (such as emailing, electronic sharing of findings, online appointments) are less common in interactions with physicians, although they find physicians more positive about patients' use of the Internet.

Although the spread of digital technologies would undoubtedly be useful for people with disabilities, they are still significantly lagging behind those without disabilities, so it would be worthwhile to focus on this target group for both health policy makers and technology developers.

Keywords: disabled people, digital health care, Internet use, e-patients

Ryan O. Kellems, Alex W. Wheatley,
Doug Petersen, Elizabeth A. Cutrer-Párraga

Perceptions of Special Education Services Delivered Through Online Learning Environments During COVID-19

Elementary and secondary schools saw a major shift in how instruction was delivered during the COVID-19 pandemic. Schools across the United States shut down or participated in online learning. This shift to online learning led many to question how special education services should be delivered to students with disabilities. The purpose of this study was to gauge perceptions of special education services delivered in a remote learning environment during a public health crisis. Teachers and parents of students with disabilities (*n* = 108) from across the United States were surveyed. Results showed synchronous online learning to be the most prevalent form of providing special education services. However, participants largely viewed online instruction as ineffective at providing quality services for students with disabilities. Implications for improving online services for students with disabilities could include identifying specific reasons for participants' negative views which may lead to more actionable steps in improving online learning moving forward. In addition, examining actions taken by schools that have led to positive impressions of online learning among parents and educators could also be used to improve perceptions of online instruction for students with disabilities. Directions for future research are also discussed.

Introduction

The COVID-19 pandemic caused governments worldwide to shift students' formal education to online or remote learning environments during the 2020 school year. This sudden change in student learning impacted all education parties (e.g., parents, teachers, students, and administrators). Online instruction is delivered in two main ways: (a) synchronous online instruction delivered in real-time through video teleconferencing platforms, or (b) asynchronous online instruction delivered through recorded material that can be watched at a later time (Coy et al., 2014). Parents and teachers have reported being in favor of online teaching but feeling ill-prepared to assist children with disabilities to succeed (Bicen et al., 2018; Marteney & Bernadowski, 2016; Smith et al., 2016).

The main interventions that Smith and Tyler (2010) used for students with disabilities are the pull-out model, the push-in model, and services at home. The pull-out model of instruction is where a student is removed from the general education classroom to receive specially designed instruction in another setting, like a support class or a resource area. The push-in model is where the student is kept in the classroom where they receive the same instructions as their peers and is the most effective of the models. But those two models are hard to replicate online, unlike

services at home, which are provided when a student cannot come to school for a variety of reasons and are taught through a personal visit or through online instruction (Smith & Tyler, 2010).

To accomplish the feat of providing a free and appropriate public education and to educate in the least restrictive environment; a law was created, titled the Individuals with Disabilities Education Act (IDEA), with the purpose to have guidelines for students with disabilities to receive appropriate special education services (IDEA, 2010). Even with IDEA accommodations, interpreting guidelines for students with disabilities in an online instructional context can be difficult (Burdette et al., 2013). Thus, the purpose of this study was to explore teachers and parents of students with disabilities' perceptions of delivering quality special education services in an online learning environment. This was done by gauging the quality of services for students with disabilities by those who provided special education services during the COVID-19 crisis in US public schools. This study will address the following research questions: 1) How are special education services provided in an online learning environment? 2) How does the quality of online instruction received by students with disabilities compare with face-to-face instruction?

There are many aspects of educational services that are listed in IDEA (2004), and we have consolidated them to 1) assessment of disability and need for services, 2) planning individualized goals and services, and 3) transition planning and services. IDEA (2004) requires schools to assess any students who may have an educational disability. Then an individualized educational plan (IEP) is developed for each student eligible for special education services by a team of education specialists. The IEP includes the student's academic progress, how the disability affects education, and academic and functional life goals through specially designed instruction. After planning the IEP, transition services are meant to improve the academic and functional capabilities of the student, including, community experiences, employment, and daily living skills. These are best taught through authentic learning experiences led by student interests and goals (Kohler & Field, 2003).

METHOD

Participants

Participants included special education teachers, paraprofessionals, and parents of students with disabilities. Individuals must have worked in a US public school or had a child with an active IEP enrolled in a school during the 2019–2020 school year in order to be eligible to participate. Participants were recruited electronically through Facebook and email groups using snowball sampling. A message explaining the purpose of and a link to the survey was posted in 15 relevant online groups. Other potential participants were sent an email one time without any follow-up.

A total of 108 participants completed at least half of the survey. The majority of participants were female (*n*=106) and of white ethnicity (*n*=94). Teachers (i.e., licensed special education teachers, paraprofessionals, and transition coordinators) made up the majority of participants (*n*=81). The level of a child's disability was mostly moderate (*n*=12), mild level of disability (*n*=3), and severe level of disability

reported (*n*=4). However, the exact disability and type were not asked in this study. We assume that the disabilities are all-inclusive and there are a variety that you would encounter in schools. Teachers answered questions about their training, school site, and work experience. The majority of teachers workers in elementary schools, grades K-5 (*n*=44). Fifty-four teachers (66.7%) reported they received their initial training in special education.

Data Collection & Analysis

A survey was used to collect the data, it included demographic information and Likert scale items were used where appropriate. The survey was piloted by six individuals (teachers, parents, etc.) before the final version was made available to participants. Pilot study participants were able to indicate problems with how the survey was delivered and questions that were unclear or confusing; and this feedback was applied by the researchers to improve the final survey. Pilot study data were not included in the official survey results.

The survey was distributed online through Qualtrics during school closures at the end of the 2019–2020 school year. A link to the survey was provided during the recruitment process. Once an individual was connected to the survey, they were presented with a consent form. Individuals were able to discontinue their participation in the survey at any time. Data were imported into SPSS (Version 26) to be cleaned. Participants who did not answer at least 50% of the survey questions were excluded. First, descriptive analyses were run to summarize participant demographic information. Then, responses from each individual group (i.e., parents and teachers) were analyzed to compute basic descriptive statistics and the frequency of response choices for each item.

Results

In the first question, participants were asked what services were delivered during online learning. For parents, results showed synchronous online to be the most common (*n*=9; 47.4%). With other types of learning as follows: asynchronous learning (*n*=4; 21.1%), educational games (*n*= 5; 26.3%), whole class teacher-created modules (*n*=4; 21.1%), individualized teacher-created modules (*n*=2; 10.5%), consultation with a teacher (*n*=4; 21.1%), programs from third-party vendors (*n*=1; 5.3%) and some said that no services were provided (*n*= 5; 26.3%). Teacher results also showed synchronous online learning to be the most common (*n*=57; 70.4%), and one participant (1.2%) stated that services were not provided. Other methods for included asynchronous online learning (*n*=43; 53.1%), whole class self-created modules (*n*=31; 38.3%), individualized self-created modules (*n*=46; 56.8%), educational games (*n*=29; 35.8%), consultation with a general education teacher (*n*=27; 33.3%), programs by third-party vendors (*n*=25; 30.9%), and other (*n*=6; 7.4%).

The second set of questions measured the quality of instruction received by students with disabilities via online learning compared to face-to-face instruction. The first of these questions examined student work and IEP goal progress, and parent responses had an overall mean of 2.3 (*SD*=1.4), with a range of 1–5 on the first

three questions and 1–4 on the fourth. Parents were also asked two questions about teacher support and reported an overall mean of 2.3 (*SD*=1.5) with a range of 1–5. Parents were asked about the quality of transition planning and services for their child with a mean of 2.2 (*SD*=1.4) and a range of 1–5. Finally, parents were asked about their child needing remediation of instruction with a mean of 3.7 (*SD*=1.6) with a range of 1–5. The questions for teachers examined IEP goal progress, accommodations, and individualized instruction with a mean of 2.0 (*SD*=1.2) and a range of 1–4 on the first question and 1–5 on the other two questions. Three questions examined student work progress with a mean of 1.7 (*SD*=0.9) and a range of 1–4. Teachers were also asked similar questions, shown in Table 1.

Table 1 Results of teacher responses about quality instruction

	Severely disabled		Mildly disabled		Non disabled	
	already used	would like to use	already used	would like to use	already used	would like to use
Communicate with the doctor by email** (n=1491)	8,1	35,1	20,7	32,3	25,6	41,9
Sharing pictures with the doctor through digital channels** (n=1492)	1,4	28,4	9,6	29,3	8,4	43,5
Having a teleconsultation with your doctor (Skype or video consultation)* (n=1490)	0	39,7	4,5	38,4	4,6	51,1
Share health documentation electronically with the doctor** (n=1493)	10,8	40,5	18,6	33,7	19,6	51,3
Monitoring changes in health status with a smartphone* (n=1491)	2,7	43,8	4,5	32,3	1,7	43,1
Using health sensors at home* (n=1492)	14,9	36,5	18,7	38,4	12,5	48,9
Browse websites for authentic medical information* (n=1492)	10,8	36,5	16,6	39,7	16,2	49,5
Making appointments with the doctor online** (n=1491)	19,2	34,2	25,3	33,3	31,1	48,6
Having the doctor recommend an application, sensor, etc.* (n=1491)	1,4	39,7	4	45,5	2,8	55,3

Participants were also asked to rate how difficult it was for students to learn various skills and subject matter, from common academic areas (e.g., reading, writing, math) to specialized skills (e.g., motor skills, speech, behavior/emotional learning). A Likert-type scale was used ranging from 1 (*extremely difficult*) to 5 (*extremely easier*). Parents rated social skills (*n*= 9; 50.0%), writing (*n*=10; 58.8%), reading (*n*=9; 50.0%), and behavior/emotional learning (*n*= 13; 72.2%) as extremely difficult. Teachers rated social skills (*n*=49; 63.6%), writing (*n*=45; 58.4%), and behavior/emotional learning (*n*=51; 67.1%) as extremely difficult. Only six responses across four items (i.e., assistive technology, social studies, social skills, and behavior/emotional learning) received a single rating as either slightly or extremely easier. The third set of questions was measuring the validity of online instruction for special education services among parents and teachers using the same 5-point Likert scale. The first question said,

"my child seemed to enjoy school more through online instruction," had a mean of 2.6 (SD=1.6), with a range of 1–5. The second question, which read "my child frequently complained to me about doing school (i.e., learning and/or completing assignments) online," had a mean of 3.6 (SD=1.6) and a range of 1–5. The third question, which stated "I prefer online instruction over face-to-face instruction," had a mean of 2.3 (SD =1.5) and a range of 1–5.

Likewise, teachers answered three related questions. The first was about student engagement had a mean of 1.8 (SD=0.9), with a range of 1–5. The second question was "approximately 50% or more of my students complained to me about learning and/or completing assignments online," had a mean of 3.4 (SD =1.3) and a range of 1–5. The third question stated, "I prefer online instruction over face-to-face instruction," and had a mean of 1.7 (SD=1.0) and a range of 1–5. Teachers were asked how online instruction has impacted job satisfaction and it ranged from significantly worse (1) to significantly better (5). The next question stated, "how would you rate overall job satisfaction during online instruction compared to face-to-face instruction?" with a mean of 1.9 (SD=1.0), and a range of 1–5. Participants were then asked, "if schools moved to online instruction (either 100% or blended) in the future, would you keep teaching?" This was a "yes" or "no" question. Teachers responded with a mean of 1.3 (SD=0.5), with 54 responding "yes" and 26 "no."

DISCUSSION

Our first finding was that teachers prefer delivering instruction in real time over presenting pre-recorded material to their students. This may reflect their perceptions of educational design efficacy or their level of preparedness for using online technology to teach special education (Bicen et al., 2018; Smith et al., 2016). Perhaps the most surprising result from the first research question was that five parents (22.7%) reported that services were not provided at all during school closures. Answers to the second research question spanned from strongly disagree to strongly agree. Most parents strongly disagreed with all questions except they strongly agreed that their child would need remediation following online instruction. The final part of the second research question sheds light on the impact that the job role plays in views of quality instruction through online learning by asking participants to rate the level of difficulty to teach or for students to learn various skills. The majority of participants said difficult for most subjects.

LIMITATIONS

The first limitation of this study was that the overall sample size was 108 participants that come from multiple states across the US but did not have much diversity which makes it hard to generalize to other groups. Second, barriers to delivering services were not addressed; therefore, the study does not build upon previous research that may guide professionals to specific courses of action. Third, this study only used results from descriptive analyses, therefore, relationships between demographic data and survey responses were not analyzed. Finally, this survey did not go through

a validation process. There may have been questions that participants felt were confusion after reading. This could have led participants to answer questions in a way that was different than intended. One example of this is that disabilities were not defined and were left to the participants interpretation because the focus was more on remote services and not on the specific disabilities, but this is an area that can be researched further.

IMPLICATIONS FOR FUTURE RESEARCH

A few areas warrant further research. First, it would be valuable for researchers to target a larger representative sample in order to learn about more groups and compare data. Another area of research could be identifying specific reasons for parents and teachers not agreeing with online instruction views would add to the body of literature and could lead to more actionable steps. Future studies should consolidate and unify questions across all participant groups to make responses easier to interpret. This would make it possible to run inferential statistical analyses to examine relationships among participant groups. A shorter and more concise survey may also lead to more participant responses, as this survey saw nearly 100 potential participants start the survey but ultimately not finish.

CONCLUSION

The COVID-19 pandemic made schools utilize different methods for providing quality instruction to students with disabilities. The shift to online learning left many to question the quality of special education services through such an instructional medium. This study evaluated how special education services were delivered online during a public health crisis and the extent to which online instruction has impacted the quality of instruction. Results showed synchronous online learning was the popular form of providing special education services. The majority of all participant groups viewed online instruction to be ineffective at providing quality instruction for students with disabilities. More research needs to be done to explore barriers that make online instruction ineffective at providing quality instruction and to explore whether the perceptions in this survey persist across diverse populations.

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Katalin Mező

Peculiarities in Teaching Students with Learning Disabilities and the Learning Support Mechanism of Educators during the COVID-19 Pandemic

Background and objective: One of the most decisive pedagogical consequences of the COVID-19 pandemic is the imposed distance education, which made it especially difficult to educate and care for students with learning disabilities. The goal of the present study is to examine the impact of the epidemiological situation on teaching students with learning disabilities and to illustrate the alternative methods and support mechanisms used by the special educators during the pandemic. Sample and method: n = 134 special education teachers were interviewed by questionnaire. Their answers were analysed with the SPSS statistical program. In remote teaching special education teachers used multiple ways of communication in different types of settlements. According to the educators asked, there are quantitative and qualitative differences in the learning of students with learning disabilities during distance education, compared to attendance education. Educators reported various difficulties during distance education (eg. lack of info-communication tools, inability/difficulty of their usage, loss of motivation, impersonality, contact difficulties, isolation, etc.), and we also collected alternative solutions that special education teachers used to overcome learning/teaching difficulties.

Keywords: COVID-19, learning and teaching difficulties, students with learning disabilities, support methods

INTRODUCTION

Appearing in December 2019, the new type coronavirus caused by SARS-coV-2 swept through as a pandemic. Owing to the slow-onset and intense spreading of the disease, the WHO deemed it a world-class health emergency and named it COVID-19 (https://www.who.int/europe/emergencies/situations/covid-19). One of the most characteristic pedagogical consequences of COVID-19 is the imposed distance education, which made it particularly difficult to educate and care for pupils with learning disabilities. The first (and at the same time very drastic) step towards the educational system's change in our country as a result of the pandemic was the passing of Hungarian government decrees with a remarkably quick reaction time, which required all educational institutions to switch to a digital work schedule or digital transformation. In order to intensively support this switch, the Coronavirus Education Action Group was established (Government Resolution 1102/2020 (III. 14; MK No. 42, 14.III.2020), and curfews were introduced from March 27, 2020 (Government Decree No. 71/2020 (III. 27.) – MK No. 56 2020.III.27).

During the curfew, the population was prohibited to leave their place of residence except for specified, justified reasons. At the same time, the government decided on the transition to digital-distance education in public education, based on the Government Decision 1102/2020. (III. 14.) decree on the introduction of a new work schedule in public education and vocational training institutions due to the coronavirus. Consequently, the possibility of attendance education for children essentially ceased. The majority of schools were unprepared for the unexpected transition to distance education, especially the special education institutions. Numerous publications (King et al. 2001; Hercz, 2003; Mező, 2011) were published in recent decades, which advocated for the renewal of the schooling with the introduction of distance education, blended learning, e-learning or new learning methodologies, etc. but they have not been put into everyday practice. Thus, from one day to the next, teachers had to deal with the difficulties of the variously named (distance education, digital work schedule, digital transition, digital transformation etc.) and completely new ways of organizing education.

STUDENTS WITH LEARNING DISABILITIES IN DISTANCE EDUCATION

Children and students with learning disabilities belong to a group that has been studied to a lesser extent regarding the aspect of distance learning but they experienced equally significant disadvantages as a result of the pandemic. Many researchers have drawn attention to the fact that the lag of education of disadvantaged children for social or for any other reason during the pandemic is much more significant than that of their peers (Doyle 2020; Masonbrink & Hurley 2020), so the increase in inequality of opportunities can be guaranteed in this situation (Nahalka, 2021).

The learning-disabled group includes children who, on one hand, suffer from weaker functional capabilities of the nervous system that can be traced back to biological and/or genetic causes, and on the other hand, those who, show permanent comprehensive learning difficulties due to adverse environmental effects (Mesterházi, 1998). A learning disability causes a comprehensive problem covering several areas of learning, so in their case the most effective environment for development is within attendance education.

The learning difficulty/disorder can be associated with the different or slowed development of basic skills, and it most often occurs in school learning situations (Papp, 2010). The particular characteristics of students with learning disabilities include difficulty in concentrating, slow task performance, frequent mistakes while performing tasks, lack of interest, loss of motivation, difficulty in learning and applying cultural techniques, etc. Their thinking is more specific (object-related or image-level). The concrete thinking affects the understanding of the task, both in the learning and feedback phases. In addition, communication and social skills are often hindered or show differences in development, too (Hauser-Cram & Shonkoff, 1995; Westendorp et al., 2011; Mesterházi & Szekeres, 2019).

In the case of teaching children with learning disabilities, results only appear in long-term, regular, intensive special pedagogic development and therapy, with the application of learning methods adapted to individual abilities, and with constant,

direct motivation. Distance education eliminated all of this or at least made them very difficult to provide. The concept of distance education can most simply be interpreted as a form of education where the teacher and the student are not in the same place in space (and often in time), and the student learns autonomously for a significant part of the teaching time, independently, with the indirect help and guidance of the teacher. The digital transition is essentially the process-based realisation of this mode of organising education (Racsko, 2017). However, it is important to note that the ability level of children/students with learning disabilities is different, not homogeneous, even in the student groups of approximately the same age. They cannot (or only with great difficulty) learn independently, they need the constant presence and guidance of the teacher for learning.

The requirements for the success of distance education are: at least a satisfactory level of digital competencies; motivation; the ability to independently choose appropriate learning techniques; and appropriate time management. In many cases, students with learning disabilities do not or only partly have these competencies and abilities (Köböl &Vidákovich, 2015).

In case of the children with learning disabilities, besides the weakness of cognitive and executive functions, the absence or lack of technological background, and the absence or not adequate standard of an environment that supports learning (the parental background) could significantly influence the effectiveness of teaching and learning, too (Schuck & Lambert, 2020; Asbury et al., 2021). In their study, Schuck and Lambert (2020) analysed the experiences of special education teachers in connection with particular challenges with students. The special education teachers reported that it was difficult to end the inequity in resources among their students, and they needed to rely on at-home support while teaching their students. In addition, Houtrow et al. (2020) also highlighted that the "unmet need for educational assistance has been staggering and challenging for families to navigate" (Houtrow et al. 2020, p. 417.).

In Hungary, prior to the pandemic situation, there was essentially no experience available in this group regarding digital education (since there was no prior example of this), so it is worth examining what impact the pandemic situation had on the teaching of students with learning disabilities. It is also important to explore what alternative methods and support mechanisms were used by the special education teachers associated with them during the pandemic in order to increase the effectiveness of education.

RESEARCH

The investigation aimed to find out:
- Whether there were any difficulties during distance education that affected the quality of teaching students with learning disabilities and, if so, what these were; as well as a demonstration of what alternative methods and support mechanisms were used by the special education teachers associated with them during the pandemic

- What the opinion of the special education teachers is who teach and educate students with special educational needs regarding the effectiveness of distance education implemented in the year 2020/2021
- What effect of the distance education implemented in the year 2020/2021 has on attendance education in the year 2021/2022

SAMPLE AND METHOD

The study was carried out among the special education teachers who participated in the practical training of the students of the Faculty of Education for Children and Special Education of the University of Debrecen, using a self-completed questionnaire (n=134). (Note: number of sent-out questionnaires was: 150. The return rate was: 89.33%). The special education teachers participating in the study have significant professional experience. Almost half of the respondents, 62 people, have been practicing special education for 21 years or more. Only 8 of the people (who spent the least amount of time as a special education teacher) answered that they had been teaching for 1-5 years. Although, this number may be influenced by the fact that the practice leader in the special education teacher training can only be someone who has at least the 'Pedagogist I.' qualification based on the teacher's career model.

The questionnaire was designed to acquire knowledge on the relationship between students with learning disabilities and special education teachers during the pandemic. The questionnaire contained twenty questions. Five questions collected demographic data. Twelve statements collected the opinions of special education teachers regarding the effectiveness and efficiency of distance education, the difficulties experienced during distance education, and the teachers' opinions about the attitude of students towards distance education (the distribution of values on a 5-point Likert scale are: 1 = I do not agree at all; 2 = I rather disagree; 3 = I partially agree; 4 = I agree; 5 = I strongly agree). Two statements related to the way of maintaining contact, and in one explanatory question, the teachers provided information about the support methods used during teaching. The questionnaire was filled out voluntarily in December of the 2021/2022 school year. The data were interpreted using SPSS, descriptive statistics, and Sperman's rank correlation.

DATA ANALYSIS AND DISCUSSION

According to the special education teachers, the effectiveness of distance education was significantly influenced by the type of contact the special education teacher and the student with learning disabilities had the opportunity to maintain (*Figure 1*). The special education teachers reported that during the pandemic period, in addition to online education, they were forced to use other alternative solutions, because a significant number of their students did not have the tools necessary for the digital transition and the knowledge necessary to use them (*Figure 2*).
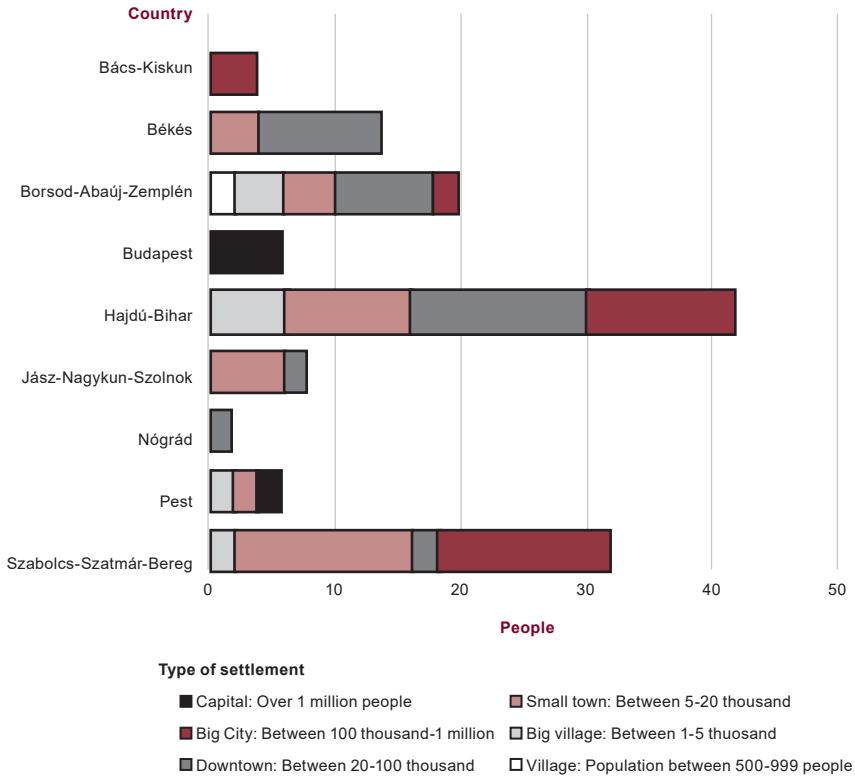
FIGURE 1 THE METHOD OF CONTACT BETWEEN THE SPECIAL EDUCATION TEACHER AND THE STUDENT WITH LEARNING DISABILITIES DURING DISTANCE EDUCATION, BASED ON TYPE OF SETTLEMENT. (SOURCE: AUTHOR)

The special education teachers related that even those students who had access to the digital environment had to face several difficulties that they had not encountered before. These included, for example, the deficiencies in subjects and teaching tools; the lack of ICT devices available in the home environment; limited internet access. However, one of the biggest problems was caused by the lack of parental and family background with adequate teaching competencies and experience, so the children hardly received help at home.

Almost half of the teachers (49.25%) reported that during distance education they had a student who was not able to perform at all in the teaching-learning situation, which meant that the given student during the pandemic dropped out of education completely. In addition, impersonality, lack of relationships, and loneliness carried a significant burden for students with learning disabilities, which is a problem that is constantly on the surface in the case of people with disabilities anyway (*Figure 3*). Similar experiences were reported by Portal et al. (2020), who analyze the phenomenon of increased neglect and discrimination in the case of people with intellectual disabilities and their families during the pandemic. In addition, Asbury et al. (2021) also reported in the study of parents of children with Special Educational

Needs and Disabilities (n = 241), that both parents and children are experiencing loss, worry, and changes in mood and behavior, which is a consequence of the rapid social changes that have occurred. It is interesting to experience that a significant number of special education teachers used a number of alternative support mechanisms in order to persuade their students to study even in the often hardly sustainable situation. In the case of such other alternative support methods, it can be observed that the smaller the settlement where the teacher teaches, the more personal solutions emerged:

- The teachers teaching in the village reported that since the majority of the students did not have ICT devices or could not use them independently, the teacher prepared a package of playful tasks for his students every morning and took the package to the children by bicycle at eight o'clock in the morning and hung it on their fence. From there, the children took the study material into their house and hung the solved package on the fence the next morning (the only problem was that there was a student who had the study material hanging on the fence for weeks).
- Elsewhere, every morning, teachers handed out study packets through a downstairs library window without contact, so that when the student arrived, they signaled through the window by knocking.
- All teachers reported that it was not possible to teach practical and skill-building subjects (music literacy, sports or development sessions) in the same quantity and quality during distance education. This coincides with the similar opinion of Kende et al. (2021) and Herman et al. (2022), who also drew attention to this earlier. Although many attempts were made, e.g. the use of youtube videos, short films, and music clips, however, it was noticeable that in the absence of attendance, the student's motivation for these activities decreased significantly, and the tasks were not completed.
- The teachers also tried to create small groups and pairs of students on the various digital interfaces, but these either partly worked or did not work at all for students with learning disabilities, because in the absence of control, the student's awareness of tasks, task adherence and ability to concentrate decreased in direct proportion over time.

Difficulties related to students with learning disabilities in distance education
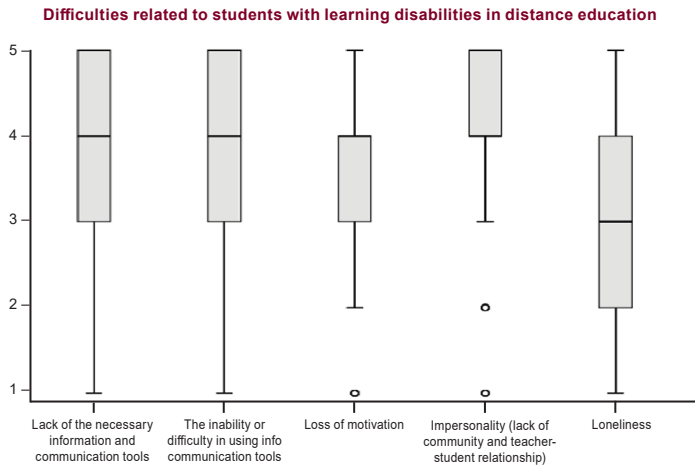
Figure 2. The opinion of special education teachers on the most significant difficulty during distance education (n=134) (the distribution of values on a 5-point Likert scale: 1 = I do not agree at all; 2 = I rather disagree; 3 = I partially agree; 4 = I agree; 5 = I strongly agree). (Source: Author)

According to the majority of teachers, distance education was not as effective as attendance education. However, opinions are divided as to whether the students acquired less knowledge than during attendance education. This can be explained for several reasons: on one hand, it may have happened that, at the time of the investigation, the teachers were not yet able to assess the academic deficiencies they were facing. On the other hand, the data can also draw attention to the ineffectiveness of attendance education in the case of students with learning disabilities. According to the majority of teachers, in the case of students with learning disabilities, the curriculum intended to be mastered during distance education must be repeated and supplemented in the first stage of attendance education (*Figure 3*).

In the case of students with learning disabilities
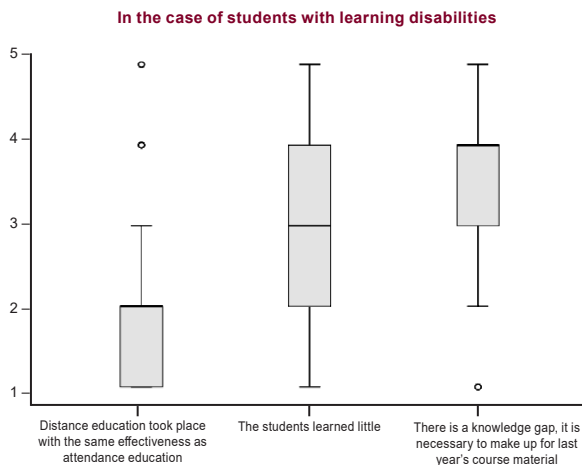
Figure 3. Special education teachers' opinion on the effectiveness of distance education (n=134). The distribution of values on a 5-point Likert scale: 1 = I do not agree at all; 2 = I rather disagree; 3 = I partially agree; 4 = I agree; 5 = I strongly agree. (Source: Author)

During the data analysis, we also tested with Sperman's rank correlation calculation what effect, according to the teachers, distance education will have on the following attendance education. Among the data, the most outstanding significant association was found in the case of motivation and comfort (r = 0.79, p≤0.01). Based on the opinion of the teachers, there is a significant, positive, strong correlation between the student's lack of motivation during distance learning and the over indolency and lack of interest in a school that develops after the end of the pandemic measures (in this case, the over-comfort and the over-indolency can be interpreted as a lack of motivation). After the pandemic, a significant number of teachers struggled with the fact that students did not even want to attend school again (*Table 1*).

TABLE 1 CORRELATION BETWEEN MOTIVATION AND INDOLENCE. (SOURCE: AUTHOR)

	Students are comfortable and don't want to go to school
I experience a significant lack of motivation, compared to what was before the pandemic situation	,797**

**p<0.01

SUMMARY

The present results also confirmed that the pandemic situation made it significantly more difficult to teach students with learning disabilities. At the same time, it drew attention to several aspects. After the relative retreat of the pandemic, efforts should no longer be made to restore the old methods again but rather to strengthen the competencies (especially digital competencies) that meet the expectations of the 21st century among students with learning disabilities, to develop teaching based on collaboration between teachers and students, and to teach and deepen the learning methods used outside the school's infrastructure. Increased attention should be paid to preparing students with learning disabilities to apply and use services available online, as well as to achieve the use of ICT tools for learning purposes. Teachers should strive to involve parents and families as partners in order to support learning. In addition, by intensively introducing new methods of learning organization and learning development, it is necessary to strive for the acquisition of increasingly independent, creative ways of learning (more: OxIPO-based learning, Mező & Mező 2014, 2019, 2020).

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A health promotion programme for young people with intellectual disabilities during the pandemic

Several dimensions of health were affected by the segregated lifestyle associated with the pandemic, such as emotional health, physical activity, and reduced social relationships, which became more pronounced in these isolated populations. In adolescence, the importance of peer relationships gradually grows, also for people with disabilities, and sustaining these bonds became increasingly problematic during quarantine. The difficulties caused by the use of infocommunication tools among young people with intellectual disabilities made it even more challenging to maintain contact.

In this study we present a good practise convenient for this purpose. The target group was adolescents in the Northern Great Plain region who were athletes with intellectual disabilities. Our goal was to continue the sports activities of young people with intellectual disabilities within the framework of the pandemic, and at the same time we wanted to maintain peer relationships in addition to physical fitness. We conducted focus group interviews among the target group, three times, with parental presence online, engaging a total of 15 young people with intellectual disabilities. The results showed that young people suffered from isolation, based on which a pilot program was launched. The project consisted of online trainings, which enabled, as an extra benefit, young volunteers studying at the Faculty of Health of the University of Debrecen to participate along with young people with disabilities. Increased social interactions emerged from online training. After six months, we repeated the focus group interviews among the research participants.

The results showed that the pandemic affected the pre-existing tight agenda for the target population, influencing all dimensions of health. In addition to maintaining physical fitness, participants improved their general well-being and adapted more easily to the difficulties caused by the epidemic.

Keywords: intellectual disability, sport, inclusion, COVID-19 epidemic, health

Introduction

The World Health Organisation (WHO) defined health in 1948 as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity".

The definition has been criticised for being too idealistic and unrealistic to expect to be in a state of perfect well-being, and for not being a constant state of health, but rather a constantly moving and changing process. Health is a complex concept that cannot be objectively defined, as people have different perceptions of their own health (Ewles & Simnett 2003).

There are several dimensions of health. Physical health is probably the most trivial dimension, it is the physical functioning of the body, which is the state of being free from disease, and to maintain a healthy physical state it is essential to display health protective behaviour. By psychological health we mean harmony with one's self, as well as general well-being, the ability to think clearly. The social dimension of health includes adequate interpersonal contact, meaningful human relationships and intimacy, a strong social safety net in stressful situations, which is closely correlated

with socio-cultural factors; education, social position, gender, ethnicity and religion (Kopp & Skrabski 2009).

The issue of different health status of individuals belonging to different groups is becoming increasingly significant (Ewles & Simnett 2003). Socio-economic status, age, gender, disability all have an impact on the health of individuals and their access to health care (European Union Agency for Fundamental Rights 2013).

Several dimensions of health have been affected by the isolated life as a result of the pandemic. Physical health has been affected by reduced physical activity, and mental health by limited social contact. For populations already living in more isolated conditions, the change in living conditions posed a heightened threat. During adolescence, the importance of peer relationships gradually becomes more pronounced, and this is also true for people with disabilities. In their case, the maintenance of social contacts during quarantine was under increased strain, as the restrictions of institutional and all personal encounters made social life impossible for them. For young people with intellectual disabilities, the difficulties of using info-communication tools made it even more difficult to maintain relationships. The development of the "Unified Sport Online" good practice presented in this paper was primarily based on and motivated by this background. Launched during the pandemic period caused by the COVID-19 virus, the good practice was developed to support the health promotion of adolescents and young adults with intellectual disabilities.

According to the Meikirch model, health can be understood as a dynamic state of well-being, enabled by a balance between an individual's needs, performance and social and economic determinants (Bircher & Kuruvilla 2014). The model states that an individual is healthy if he or she finds a balance between life challenges and capabilities and social and environmental factors. The challenges may be physiological, environmental or psychosocial, depending on the circumstances and situation of the individual. An imbalance leads to a deterioration of health (Csizmadia 2018) We can only meet the expectations of a changing economic and social environments if we are able to innovate. The effect of the pandemic on people with disabilities, especially adolescents and young adults, often remains latent, so it is a serious professional task to fathom it and develop innovation programmes to support this social group.

Background

In 2019, the Faculty of Health Sciences of the University of Debrecen signed a cooperation agreement with the Hungarian Program of Special Olympics International (hereinafter referred to as SO HU). The aim of the cooperation was to support the development of positive attitudes towards people with disabilities among the students of the Faculty, to gain professional experience with the members of the population concerned and to establish a commitment to social responsibility and volunteering. For special athletes [athletes with intellectual disabilities], cooperation provides an opportunity to reduce social and societal disadvantages and increase opportunities. Participants can learn from each other and from working together in an integrated environment, which fosters social inclusion and integration. To achieve all these goals, an active professional initiative has been launched in the Faculty

in autumn 2019. One of the priority activities is the regular joint sports activities between students and special athletes.

There are often implications beyond the improvement of physical health when young people with disabilities are regularly involved in sport in the community. Sport has a positive impact on the development of skills, the socialisation process, and a meaningful use of leisure time (Barabás & Jávorné 2021).

A series of observations in special sports work and in special education suggest that, in addition to providing the disabled athlete with sporting skills, each sport has an additional developmental effect. Gyöngyvér Herczog (2002) summarises the community-building power of sport and concludes that it "can prevent the development of deviant behaviours, give purpose and meaning to the everyday lives of athletes."

The pandemic that peaked in Hungary in the spring of 2020 and the quarantine imposed as a consequence, also put a stop to the above-mentioned activities, but the social experiences and events that had been organised so far had forged a community among the participants. This enabled professionals to identify a serious problem: the isolation of special athletes.

RESEARCH METHODS

We worked with qualitative methods. Focus group interviews were carried out on three occasions with a total of 15 young people with intellectual disabilities and their parents to explore the problem. The interviews were conducted online. The target group was not only special athletes participating in university events, but also a broader group of adolescent youth with intellectual disabilities playing sport in organised settings in the Northern part of the Great Plain region. Recruitment of young people beyond special athletes was carried out with the involvement of civil organizations. In terms of gender, boys were over-represented. In terms of age group, the largest number of participants were in the 11-13 age group (*Table 1*). Of the participants, 11 are certified athletes of the SO HU and 4 play sport in a club setting. Special athletes are involved in swimming, judo, athletics and skiing. The interviews were conducted online under the guidance of a special needs teacher and a special needs teacher specialising in the pedagogy of learning disabilities. An accessible communication methodology was used during the interviews. Data processing was done using the content analysis method.

TABLE 1 PRESENTATION OF THE FOCUS GROUP SAMPLE

Presentation of the focus group sample (main) N=15			
Age	Boy	Girl	Total
8-10 years	2	1	3
11-13 years	4	2	6
14-16 years	2	2	4
17-19 years	1	1	2
Total	9	6	15

Results

The focus group results showed that isolation is a burden for both young people and their families in many areas of life. The interviews revealed that the primary problems are changes or irregularities in daily routines, lack of exercise, lack of social contact, but a deeper exploration of the context exposed that these underlying problems cause a number of other difficulties or negative changes in the lives of the young people concerned, which may even affect their personal development and their mental and social health. The changes in daily life have had an impact on leisure activities, which have shifted from active to passive activities for young people who were previously active in sport. After only a week or two, the reduced social contacts led to a noticeable reduction in communication skills, talkativeness and the need for social contact. At the same time, the interviewees reported feelings of loneliness and monotony of days spent at home.

Presentation of the "Unified Sport Online" program as a good practice

The results of the focus group interview highlighted the need for the programme, which led to the launch of a pilot programme to continue the sporting activities of young people with intellectual disabilities. The pandemic curfew did not allow for the continuation of the previous face-to-face training sessions, so the common sport activity was planned in an online setting. The "Unified Sport Online" good practice was intended to respond to the problems identified during the interviews, so in addition to physical fitness, there was a strong emphasis on facilitating peer relationships, transfering social experiences into an online space, maintaining the social and communication skills of the young people concerned, and offering useful leisure activities.

To organise the online training, we mapped the information and communications technology (hereinafter referred to as ICT) skills and equipment of the participants. Thanks to the supportive background, all participants had the appropriate equipment to access the programme, but not all young people with disabilities were able to participate in the training sessions independently. We enabled them to do so with the help of mentors. The mentors were university students who had previously been involved in training with the special athletes, so they had experience of working together and had acquired knowledge of the principles of effective communication with people with disabilities. In order to ensure effective communication, the basic principles of easy-to-understand communication, i.e. the use of the language level designed for the target group, the involvement of intellectually disabled people in the planning process, and the simple and understandable transfer of information were given an emphasis. The mentors' task was to increase the ICT skills of the special athletes they mentored, in order to engage them and to make them use ICT to participate in events created online.

Implementation phase of the program

The online training sessions were conducted in a closed group on the Facebook community site on a weekly basis for 5 months (20 sessions in total). The average duration of training sessions was 60-90 minutes. The professionals who conducted the training sessions were qualified special educators and movement therapists. The technical background was provided by the continuous support of mentor students who also helped the participants to check in. The training sessions focused on exercises that could be done with the participants' own body weight and with equipment available in their homes, as well as on skill and joyful exercises, while also emphasising the other objectives of the programme in addition to physical fitness.

In order to strengthen communication and social relationships, each session included a warm-up or warm-down session led by a pair of youngsters with and without intellectual disabilities. Feedback was considered important, so reflection on the training or on themselves, their life situations and their feelings was part of the programme after the training sessions.

In addition to the trainings, the participants also had the opportunity to take part in online competitions launched by the SO HU. These opportunities allowed participants to try their hand at sports in which they had no previous experience and helped young people to learn new sports and disciplines. This initiative also functioned as a virtual sport selection event. Participants were also invited to take part in online dance classes supported by Special Olympics Austria.

The usefulness of the good practice

The average number of participants in the 20 online training sessions was 14.05. The training with the lowest number of participants was attended by 8 people, and the training with the highest number of participants by 17 people (*Figure 1*)
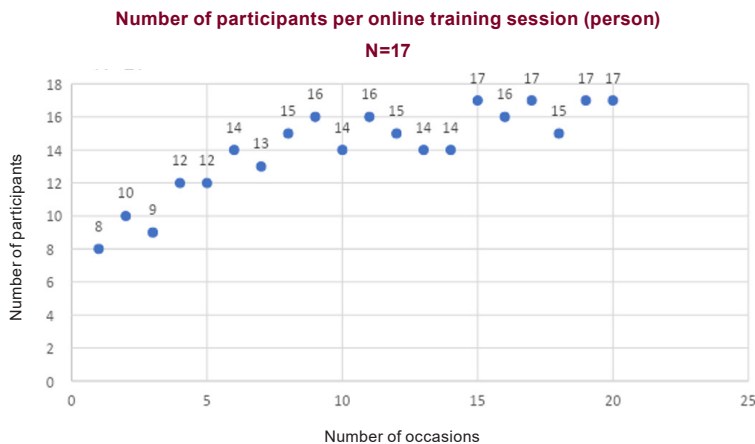

Figure 1 Number of participants per online training session (own editing)

The age range of young people participating in the online training courses was 8-19 years. The young people who participated in the focus group interview were joined by two others, a 9-year-old girl and an 18-year-old boy, who also played sport in an association setting. When looking at the participants who successfully completed the programme, i.e participated in at least 70% of the programme series (20/14), this indicator is 82.35%.

At the end of the five-month online training series, we once again interviewed the special athletes and their parents in a focus group. The same people participated in the focus group interviews before and after the project. The usefulness of the training series was confirmed and evaluated positively by all. The reports indicated that all the objectives set by the programme had been achieved.

The changes in daily life caused by this confinement caused serious frustration for young people with disabilities, which neither they nor their families had the means to overcome. The disjointed, previously tight daily routine, loss of familiar routines, lack of friends, lack of physical activity had a cumulative effect on all dimensions of health, and in more than one case, parents also experienced a decline in individual abilities. The good practice described above was an appropriate response to these difficulties.

The benefits of the training were evident, of course, in terms of physical fitness and activity, but participants also reported a number of other positive impacts, suggesting that all dimensions of health were affected.

The regularity has brought routine back into everyday life, creating a sense of order in the lives of the participants. At the same time, the parents reported that, while maintaining their physical condition, the participants' general well-being improved and they were able to adapt more easily to the difficulties caused by the epidemic situation. The new activities offered by the programme increased the young people's resilience in the face of unknown or unpredictable events. Interviewees reported that the opportunity to try new sports and to be part of an international programme was a special sense of achievement for them. They all react with anxiety to new situations and challenges. The dance lessons in the online space increased the participants' confidence and sense of competence.

Peer support can be interpreted as a protective factor in the management of the difficult living conditions created by the pandemic (ed. Horn & Bartal 2022). The peer support provided in the good practice presented in the study counteracted the frustration caused by isolation as a threatening factor and served as a protective factor.

An additional benefit of the project was that the online training sessions led to new social interactions. The ability to use ICT tools has improved among special athletes, and online forms of communication, such as texting, have been mastered or developed.

Conclusion

Overall, we found that the programme enabled the development of community links despite the isolation caused by the pandemic. New participants, young people with and without intellectual disabilities joined the programme.

The project's implementation in an online space enabled participants to maintain the exercise habits they had started, thus supporting and improving their health habits. Social contacts were not limited to the time spent online, and the young people used online communication to keep in touch with each other outside the training sessions.

The focus group interviews conducted before and after the programme showed that parents and young people demand useful time with peers. The negative effects of isolation were magnified for people with intellectual disabilities, as their tight daily schedules were disrupted and they found it harder to navigate the online space, making their daily lives even more isolated than their peers without disabilities.

The series of programmes has been evaluated as a success and will serve as a starting point for the development of further programmes, and an online programme for other areas of health literacy is being developed.

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Hospitality sector and the (non-)employment of people with disabilities. Hungarian restaurant owners' experiences after the COVID outbreak

The hospitality sector in Hungary has experienced a dramatic downturn in the last three years. After the shock of COVID, the industry faces further difficulties due to labour shortages and the war in the region. In our research we asked restaurant owners about their opinion of employing people with disabilities and how COVID has shaped their approach. Our results show that the level of employment of people with disabilities is very low in this sector, showing problems of social accessibility. Still, during and after COVID, restaurant owners tried to support and retain their workers with disabilities (along with other workers).

Keywords: people with disabilities, COVID-19, hospitality sector, social accessibility

INTRODUCTION

According to ILO, 15% of the world population has a disability, and 80% of individuals with disabilities are of working age (ILO, 2019). People with disabilities (PWD) and chronic health conditions have exceptionally low employment rates in all industrialized countries (Kalargyrou et al., 2018; Kamp & Scanlon, 2020). In our paper we use the word 'disability' as an umbrella term, covering impairments, activity limitations and participation restrictions (WHO, 2021). Research suggests that the COVID-19 pandemic (COVID), which has drastically changed employment situations for workers everywhere and increased economic insecurity, has further worsened the employment situation of marginalized groups such as PWD (Maroto et al., 2021; Rumrill et al., 2021; Schur et al., 2020). As COVID had an especially hard impact on the tourism and hospitality sector, we decided to examine the employment situation of PWD in this sector.

We believe that mainstream science's disability and accessibility paradigms need to be rethought due to the dynamics of change in our world (Han, 2015) and the need to adapt to these changes in a responsive and resilient way (Szántó, 2021). Therefore, we applied a philosophy-centred theoretical framework: the idea is to complement the technical approach to accessibility with the spirit of accessibility (Farkas et al., 2022). In this way, we have a better chance of making fundamental steps toward achieving social integration (Farkas & Nagy, 2020). In our view, higher

quality employment (more inclusive, more meaningful) of PWD is one of the starting points of this goal.

In our exploratory paper we would like to look at the hospitality industry and understand the perceptions and experiences of Hungarian restaurant owners regarding employment (or the non-employment) of PWD. The reasoning for our choice is threefold: on the one hand, there is surprisingly little research on the employment of PWD in the tourism and hospitality sector, so we would like to contribute to filling this gap (Gröschl, 2013; Kuo & Kalargyrou, 2014; Meacham et al., 2019). On the other hand, COVID has hit this sector hard, so it is vital to explore how this may have affected disadvantaged groups, among them, PWD. Finally, we would like to contribute to the concept of social accessibility. In our exploratory qualitative research project, we interviewed seven restaurant owners who have employed or are employing PWD and were willing to talk about their experiences.

DISABILITY AND EMPLOYMENT

The first empirical work on the employment of PWD was carried out in the 1950s in the USA (mostly related to war veterans) and in the 1960s in the Nordic countries. It then multiplied and became more focused from the 1990s onwards (Csillag et al., 2018). Research shows that in addition to the slow pace of change in the social and labour market context and the lack of economic incentives, practical and mental barriers still make it difficult to engage PWD (Csillag & Hidegh, 2011). Practical barriers were originally identified by Keszi et al. (2002), but have since been confirmed by several authors (Dajnoki, 2011; Pulay, 2009), include (1) lack of a suitable position or job title, (2) problems with physical accessibility of workplaces, (3) lack of mobility of people with disabilities, (4) additional organisational tasks associated with employing people with disabilities, and (5) lack of appropriate skills of applicants.

These are indeed significant barriers, but perhaps even more critical in terms of employment are what Bánfalvy (2005) calls mental barriers, such as (1) general lack of information/inadequate information, (2) assumptions that PWD perform worse, (3) the assumption that employing PWD requires heavy investments, and (4) the assumption that PWD cause more accidents and take sick leave more often (Cseh, 2014; Dajnoki, 2014; Kálmán & Könczei, 2002; Nelissen et al., 2016). These mental barriers reflect the individualised and often stigmatising, exclusionary perspective of the medical view of disability (Oliver, 1996).

Employment of PWD and the hospitality sector

In the tourism and hospitality sector, PWD are increasingly appearing in various job roles and levels of responsibility (Meacham et al., 2019; Mooney & Baum, 2019), but experts still speak of *"untapped potential"* for the employment of PWD (Doan et al., 2021). Despite the entry discrimination, the more significant presence of PWD in the workforce could bring the sector multiple and complex benefits in human resource management, marketing, innovation or inclusive organisational culture (Kalargyrou et al., 2018).

Going beyond the economic interest and logic, the sector could also play a significant role in shaping social attitudes: if we accept that companies have a responsibility to move towards sustainable economic and social operations and that inclusion of disadvantaged and marginalised minorities and equal opportunities are fundamental values, then hospitality, in constant and active contact with guests, could have a crucial role to play in effectively creating equal opportunities, leading by example, and becoming an inclusive employer.

In relation to employment, this sector also identifies the general labour market barriers that have already been discussed: a general lack of information on the part of employers and employees, communication difficulties, stereotypes, a lack of employment support systems, competency gaps (also) resulting from the training system, and the perceived or real costs of accessibility (Houtenville & Kalargyrou, 2012). However, Doan et al., (2021) also identify sector-specific factors such as stigma associated with disability and possible consumer perceptions related to service quality (Doan et al. 2021). Gröschl (2007) suggests that the tourism and hospitality segment basically seek young and attractive workers who are able to multitask, are flexible, able to work long hours and in any position. The image of this ideal worker may contrast with the image of a person with a disability, whose appearance may show the disability and whose disability or lifestyle may make them less flexible (Gröschl, 2007).

Hospitality sector and COVID

Due to the specificities of the hospitality sector, it is very difficult to find loyal employees with the right qualifications, who can adapt to the difficulty and rapid change of the job (Thi Kim Phuong & Trung Vinh, 2020). This has been made much more difficult in recent years by a series of closures, restrictions and re-openings due to COVID, as evidenced by the decline in the performance of the commercial hospitality sector. In Hungary, the sector has shrunk by 30% compared to 2019, to HUF 950 billion, according to KSH (2021). With the number and proportion of vacancies returning to near pre-pandemic levels following the reopening of restaurants, the sector continues to face significant labour shortages (Zerényi, 2022). Reaching and exceeding pre-COVID performance levels is likely to take years. During this time, however, market operators will have to adapt to changing guest demands and operating conditions, and will likely have to contend with the ongoing threat from COVID (Debreceni & Fekete-Frojimovics, 2021).

Impact of COVID to the employment of PWD

While COVID has affected everyone, its impacts on PWD have been particularly harsh. PWD face the same issues experienced by the general public, such as social isolation, health concerns, and heightened stressors, but are also at greater risk of experiencing economic inequities and job losses due to the restrictions in place to slow the spread of the virus (Okyere et al., 2021).

Several international studies focus on PWD's employment situation during the pandemic. Based on the analysis of (Maroto et al., 2021) in Canada, 36% of

respondents with disabilities experienced temporary or permanent job loss because of the pandemic; more than half of the participants reported difficulties meeting financial obligations. Maroto et al. (2021) emphasised that those PWD who worked in retail, food and hospitality sectors heavily affected by the pandemic have come to face a great deal of uncertainty in the labour market and have to rely on other sources of income to get by. They found clear evidence that occupation matters: PWD in 'good' jobs (e.g., qualified, white collar) were less likely to see income disruptions and also expressed a greater sense of financial security.

Okyere et al. (2021) conducted their research on a global sample of PWD. The vast majority of respondents (more than two-thirds) reported adverse experiences in their employment. In addition to the widespread negative impacts, they were affected by the limited social contacts with support professionals, such as job coaches and a reduction in public transportation in many communities. 22.6% of the respondents reported being laid off or dismissed, and 19.5% chose not to work due to personal or health reasons. In addition, a quarter of the respondents experienced a reduction in work hours and income.

OF TECHNICAL ACCESSIBILITY AND FUNDAMENTAL ACCESSIBILITY

In our research we briefly present what we believe is the necessary paradigm shifting in technical accessibility and fundamental accessibility, to create social accessibility, the essence of which, we believe, is that the perception and application of (fundamental) accessibility is one of the foundations of the human character. As we know, in philosophical and sociological readings, several important thinkers consider the social organisation of human beings as the focal point of their development and, more importantly, of their survival (Adler, 1998; Fromm, 2002; Gehlen, 1976; Han, 2021; Jaspers, 1996). Thus, the individual himself, in our interpretation, has recognised the indispensability of community existence as a key to his survival, which derives from both his own handicaps and his existential disability (Farkas & Nagy, 2020). It follows directly from this basic premise that the technical accessibility (barrier-removal) as a technological activity, which is nowadays linked to the conditions and modes of manifestation of disability, does not have a direct and clear relationship with existence in hermeneutical, existential philosophical, or, we would even dare to say, sociological terms. In other words, it has been reduced to a category of concepts denoting material activity which has become isolated from the original source of the human spirit. We can say that fundamental accessibility in a conceptual and practical sense is interdependent with the existential character of humanity which carries aspects of disability, such as a significantly weaker and more fallible body structure than the majority of animals.

In other words, we cannot speak of a substantial mode of existence of healthiness and disability in this respect either, i.e., man, community, disability, technical accessibility and fundamental accessibility are interdependent modes of existence with emptiness. If this anti-substantial and non-hierarchical approach is accepted as a philosophical starting point, it follows directly that our research aims at focusing on the exploration of barriers to employment arising from classical disability conditions.

However, a change of perspective also confirms that the fundamental aim must be a shift towards a societal structure that has a focus on fundamental accessibility.

Mainstream approaches in disability studies have made small but relevant references to this, but to the best of our knowledge, no mapping of the connections and interrelationships in a holistic way has been done so far (Csillag, 2021). We believe that these steps cannot and should not be spared, as the local and global events of life around us (e.g. COVID-19, escalating international conflicts) highlight the need to develop a completely new type of human consciousness and social structure (Harari, 2019; Szántó et al., 2019). In other words, there is a need to understand, embrace, and implement human, and closely related to this, social resilience. In short, in our reading this means that, on the one hand, the context of the past-present-future needs to be a process in consciousness, , and on the other hand, that the experiential patterns of existential events should not simply be stored as memories but become organic repositories of interpretations. In other words, beyond everyday flexibility, we humans should be able to understand the nature of the obstacles that arise, in addition to being able to withstand the pressures on us, and then, in most cases, to overcome or even circumvent them through common intentions and actions. This practice of barrier understanding can enable us not only to bring either individuals or group members to the condition before the original obstacle, but also to integrate patterns of action in human consciousness in a proactive way for the future (Gonda, 2016; Kołakowski, 2012).

To sum up, the need to achieve social accessibility is indispensable, since we can see that however much the human community has advanced in the technological and scientific dimensions in just over a century, at the same time the community spirit is moving away, with almost the same momentum, from the spiritual source of origin mentioned by Heidegger (Heidegger, 2007). The fundamental accessibility approach that we propose can also be called organic in that it recognises not only the strengths but also the weaknesses of the community, and therefore breaks with the traditional image of disabled vs. healthy or individual vs. community man, for the sake of a quality life. Since the original source has not disappeared in the past but is merely covered by a myriad layers that we humans ourselves have created on its "surface", our primary task is to move closer, among others, by promoting employment.

Methodology

The current study employs a qualitative research method to explore the barriers and supporting factors of the employment of PWD in the hospitality sector. The qualitative methodology has proved effective for investigating complex and multifaceted social phenomena, such as issues connected to disability (Cooper et al., 1995). At the early stage of the research, it became clear that we do not have precise data on the number of restaurants and cafés in Hungary employing PWD, and there was little empirical research focusing on this area.

Due to the lack of information, we used a snowball sampling procedure (Silverman, 2008). Starting from a list of accessible restaurants and cafés (access4you: European certified list of certified restaurants with the access4you certification mark: https://access4you.io/places) we first contacted the businesses on this list to ask if they

had employed or were currently employing disabled workers and if they would like to talk about their experiences. We also contacted professional organisations and hospitality businesses that have a strategic partnership with our university and we looked for information online about potential employers. Overall, we did not aim for representativeness, but used a convenience sample for our exploratory study.

TABLE 1 CHARACTERISTICS OF THE COMPANIES

Owner	Companies			
Pseudo-nym	Activity	Age (years)	Location	No of employees
Kira	Restaurant	29	Budapest	15
Richárd	Event organising, catering and restaurant	18	Budapest	350
András	Cafe	9	Budapest	9
Zoé	Cafe	6	Budapest	38
Karolin	Event organising and restaurant	7	Country	14
Ágota	Restaurant	3	Budapest	20
Tibor	Restaurant	25	Budapest	7

Altogether we managed to identify seven restaurants and coffee houses, which used to employ or are employing PWDs (See *Table 1* for the details). We felt it was important to talk to the manager or owner and to explore their experiences, thoughts, attitudes, opinions and backgrounds to their decisions. We collected the data over sessions of semi-structured interviews lasting between one and one-and-a-half hours (Kvale, 2007) in various locations, depending on the demands of the interviewees, between May and July 2022. The list of open-ended questions was developed to explore all the owners' perceptions, experiences, aims, and attitudes.

We recorded the interviews and transcribed them word-for-word. We used thematic coding: we coded interview texts by experiences with disability or with PWD, supporting factors and barriers of employment of PWD in restaurants, COVID impact on the restaurant, and COVID effect on the work of PWD. We followed a double coding protocol; that is, each interview was coded by at least two persons from the research group to support the validity of the coding process. It was very important to conduct the study in accordance with ethical standards of research. Informed consent was collected before the interview, and respondents were acquainted with the purpose of the research, what the data would be used for and the potential risks of participation (Kvale 2007). Concerning potential risks, the confidential treatment of data (Kvale 2007) plays a crucial role: therefore, pseudonyms were used to protect participants.

The employment of people with disabilities in the hospitality industry

"We are a rather unique sector"

When talking about employment difficulties, interviewees often mention the specific characteristics of the hospitality industry. They typically refer to the physical demands of the job (speed, stress, long shifts, multi-tasking, etc.), the dangerous nature of kitchen operations, and the regulated nature of the processes, which can make integration problematic or difficult. *"We can say, for the disabled, catering is a bit difficult, it's not the ideal profession for the disabled. We have employed people with intellectual disabilities, and we still employ people with intellectual disabilities, well, right now only one. But possibilities are relatively limited because the kitchen is a dangerous place." (Tibor)*

Although there are many diverse types of jobs within the hospitality industry (besides the classic kitchen and waitressing positions, there are also administrative and clerical jobs, and as a counterpoint, unskilled jobs), the image of the "dangerous kitchen" is usually presented as an argument against the employment of PWD.

Those presenting this argument are aware of the fact that the above-mentioned difficulties could be alleviated, for example, by job sharing or shorter shifts, or by reorganising and rearranging jobs. However, this would require extra energy and time, and might not be cost-effective: *"It requires extra energy because, if I were to say okay, let's have someone like that. Then you have to create the conditions. To integrate them, I have to think about the kind of workflow based on the options available... I have to think about it and a lot of times it creates a difficulty for others. So extra energy is needed." (Karolin).* On the one hand, it would be important to review existing expectations, and rigid work organisation frameworks (e.g., only long shifts are conceivable), which do not only exist in the hospitality sector. On the other hand, solutions should be searched for (e.g., mentoring) which have proved effective in other sectors even though it also requires resources. *"… you need a mentor. This is a fundamental problem for us in this respect. When there is a training process going on, the trainer is also damn tired." (Richárd).*

Another obstacle to employment is related to the fact that restaurant owners and managers do not have the necessary knowledge regarding the subject. They do not know where to find information concerning the opportunities they have (accreditation, tenders, etc.) and do not necessarily have enough time and energy to deal with the issue. The lack of information mentioned in the gastronomy literature is a strong barrier for these restaurants.

"No one is a charity organisation. We're talking about business organizations."

The argument against the employment of people with disabilities was repeatedly put forward on economic grounds. *"And there is one person who is less able to do that [task], but he/she is taking up the position because there is a hiring freeze, and so it is very important whether I can take on another person or not. Two make up for one (of them) and two can bring the results. Just an example of the fact that nobody is a charity organization. We are talking about business organizations here. If we don't have the necessary revenue, we can't employ people..." (Karolin)* This is inextricably linked to the argument that PWD are not efficient enough, have difficulty coping with stress, and cannot keep up the pace. *"These are the main problems here, that restaurants are very busy, and they [disabled people] can't cope with these stressful situations quickly. Neither can the employees or their colleagues..." (Richárd)*

"But it's the law of the jungle, the pack will sooner or later reject the weaker one..."

It is a perception of restaurant owners that an inefficient disabled employee is detrimental to profitability on the one hand, and on the other may put the understanding and acceptance of the employees to test, as the poorer performance of an employee may also affect the performance (or perception thereof) of the group. The harmonious working of the organisation is important, but they do not want to expose the disabled persons to such potential conflicts, they want to protect them. *"… A big part of the pay comes from the tips and tips are given when the customer is served as they should be. And if you're a disabled person or just slower, say, a slower colleague can't serve tables properly and you have to help out because [tips] go to the till and it's distributed from there. At least that's how it is in our company. I think it's normal because if everyone were to pocket their own tips someone who is handicapped or slower, the poor thing would starve. But it's the law of the jungle, that the pack will eventually reject the weaker ones. And that's probably why it's a bit of a more difficult course for someone with a disability. ... In a healthy market environment, it's hard to throw someone like that in with the piranhas." (Tibor)* A workplace environment operates according to the laws of the jungle, the strong subdues the weak, the less quick, the less 'able' are rejected by the pack, and that's only natural.

"Let's stick to what the owner believes because he/she moves in the direction of least resistance..."

According to the restaurant owners, some customers might not be happy with disabled service staff, but overall, they felt that a considerable proportion of Hungarian customers would not necessarily object to a disabled employee. That said, restaurant owners still have fears about what customers might say (Doan et al., 2021). *"This phenomenon exists. But not in such large numbers. When we did a survey, and it was just chocolate making, the questionnaire had a question about what customers*

thought about having their chocolate made by a disabled person. 15% of respondents said that they would be decidedly discouraged. It's, you know, a disabled person and then they think wheelchair, sorry to say, but they think of drooling, I don't know why they think. But basically, all our colleagues with disabilities are tidy, clean, and their work is tidy. So, it's a deeply-rooted stereotype. Obviously, there are disabled people who are as neglected as some of our able-bodied compatriots we see on public transport who haven't seen soap for a very long time. But we should not generalise." (András)

"Basically, I don't even know where to turn if I want to employ someone like that..."

Several interviewees mentioned that they do not meet PWD they could hire. It is a little easier for those who have some contact with a disability or NGO organization, or who have managed to build up a disability-friendly image over the years. But there is a general lack of clarity about where to find disabled people who are looking for work, and how to recruit them. *"I don't know, maybe there should be a forum through which employers – it sounds silly to use the expression – but could pick and choose. We could have some kind of forum where disabled people are looking for jobs, jobs are suggested to them and there's a common page where you can communicate, and you say you're looking for a dishwasher and on the other page the disabled person says they're looking for a job like dishwashing. …" (Tibor)*

THE IMPACT OF COVID ON BUSINESSES AND THE EMPLOYMENT OF PEOPLE WITH DISABILITIES

"The pandemic has turned everything upside down..."

The COVID period put the businesses we interviewed in an exceedingly demanding situation in many ways. Several of the interviewees mentioned the change in the restaurant-going habits of consumers as a result of the closure regulations, which could even lead to a rise in the long term. *"What we found was that COVID, by the way, gave a boost to the habit of going to restaurants. So, what we experienced was that they weren't going to restaurants before and you know, they didn't think they were missing out. But when they passed a law stating that you couldn't go out, people realized that they could miss out on something." (Richárd).* Besides the changing consumer habits, restaurants were also faced with closure, unpredictability, and severe financial difficulties. *"The pandemic has turned everything upside down. Mostly it was a consequence of the fact that the workshops we created were in financial difficulties. A lot of people dropped out, and we had to find new ones, etc. The catering part of it was affected to the extent that in the beginning we couldn't*

open the café." (Kira) Several restaurants took out loans and made improvements just before COVID, and the epidemic prevented their taking off.

In addition to all the above difficulties, restaurant owners were overwhelmed by the fact that as managers they felt responsible for their workers. *"As far as we're concerned, it was a very difficult time, and it hurts a little bit to talk about it because I was so enthusiastic about this. When you have a nice upward arc in a business like this, it is very difficult to experience such a downturn. Both humanly, psychologically, and even as a manager, keeping people and not letting them go and protecting them, that's the employee side." (Karolin)* Most restaurant managers found this period exceedingly difficult psychologically, often going above and beyond to help the workers they had, including PWD. *"I'm sure our small community experienced it as an Armageddon. The first thing was that no one was allowed on the streets, only able-bodied people came to work. We didn't let the handicapped come in. So, they couldn't come in. We have quite a lot of people who grew up in foster care or live alone without any family. In the first few weeks we were just making sure they had food, medicine, medical care, so that they wouldn't be out on the streets. We started to deal with the business only after that." (Ágota).*

"It was definitely a great achievement that no one had to be laid off…"

Restaurants tried to adapt to the changing regulations, health, and economic conditions where possible, while maintaining the staff that has been together for years. However, this meant coming up with innovations and new survival techniques. One such technique was to reduce the wages of employees. *"We certainly didn't have enough income to cover all expenses, so we either had to lay off [some of the staff] or cut everyone's wages. We had one colleague who said we shouldn't cut his. All the others said let's cut the wages and stay together." (Ágota).* Others came up with solutions that might not have been central to the restaurant's operations before, but which allowed them to generate income during the pandemic. *"In December, we were hit by the bejgli* [Special Hungarian Christmas cake] *season. We made 2,400 handmade bejglis in two weeks. Everyone was dead tired. … So, we did what we had to." (Karolin).* Interviewees in senior positions tried to keep all their employees and looked for flexible arrangements that allowed for it. *"It was definitely a big achievement that no one had to be laid off. Everyone was reemployed. Full time for 6 hours/day, 6 to 4 hours/day, 4 to 2 hours/day. But everybody kept their job." (Zoé).* In case of solutions where the whole team could be involved in the joint work, managers did not differentiate among employees, everyone found the thing they were able to perform according to their skills, so the main focus was on keeping the established team.

"In the case of the able-bodied employees 50% was the cut, in the case of the disabled, it depended on their original wages, there were some who had only a 10% cut, the most I think was a 25% cut."

The central theme of our research is the employment of people with disabilities in the hospitality sector. Retaining disabled staff was a challenging task for the interviewed employers, as in many cases the survival of the business was at stake. *"And the same applies, I think, to people with disabilities, while of course you're happy to take them on, but there are numbers to meet. And, at that moment, if he/she's not doing anything, it is a payroll burden, and therefore a cost." (Karolin)* Still, managers tried to spare disabled workers the hardship, to treat them somewhat differently than their able-bodied peers. *"For all the others, the cut was 50% for the able-bodied, for the disabled, it depended on their original wages, some received only a 10% cut, the most I think was a 25% cut, that's how much we cut back on wages. So, we tried to survive somehow." (Ágota)* Of course, for a market-based enterprise this was difficult, but it is clear that in addition to economic considerations, they also tried to consider social aspects as well.

DISCUSSION AND CONCLUSION

In the post-COVID environment, the employment of PWD is a controversial issue in the minds of restaurant owners. On the one hand, as described in the literature, in the minds of restaurant owners and managers who are not accredited employers, the perception that profit and profitability are paramount is still persistent. Moreover in the current economic climate, with COVID still lurking around and with rising energy prices, profitability is becoming increasingly important (Shapoval et al., 2021). It is difficult to fit the employment of PWD in this "razor's edge" situation, since the idea that PWD, as a "homogenous group", are not efficient enough and are less able to perform their job is firmly held (Nelissen et al., 2016). The symbol of exclusion from employment is the image of the "dangerous kitchen" from which PWD must be saved – it is a somewhat paternalistic stereotype that PWD are to be protected (Hidegh & Csillag, 2013).

On the other hand, in the current situation of a labour shortage, there is intense pressure to exploit all recruitment opportunities, so PWD appear as a potential source for employment. Besides the psychological barriers, employment is also hampered by objective barriers: employers do not know where to find potential workers, there is a lack of a widespread support system for workplace integration, and often employers lack the necessary knowledge and skills in the field (Schur et al., 2014), in line with the original barriers identified by Bánfalvy (2005).

The dichotomous, bipolar interpretation of (physical, mental, intellectual) integrity and (physical, mental, intellectual) disability is very much evident in the interviews. Either people are disabled and so less "able" and thus less employable, or they are able-bodied and so they can work efficiently. This ableist distinction (Csillag, 2021) makes it difficult to interpret individual human abilities and situations and thus the

creation of inclusive restaurants. In this context, the notion of existential disability may indeed be a good analytical framework, especially given its anthropological paradigm that humans – and all forms of existence as we know them – are as far from the ideal of able-bodiedness as the existence of the disabled versus able-bodied dichotomy is from our much-emphasized humanity.

In the course of the interviews, we had the recurring impression that restaurant owners find it difficult to talk about the issue, they are uncertain about the meaning, usage and "correctness" of certain terms and words (such as disability, reduction in functional capacity, wheelchair, rehabilitation contribution, accredited workplace). There is little knowledge and experience concerning the subject, and it seems that the issue itself is a taboo, with little relevant knowledge sharing in professional discourse. Referring back to the problematic nature of our understanding of existential disability vs humanity, we can see that the "veil" of so-called political correctness and the constraints of "correct" terminology – which are mostly intended to provoke emotional reactions – are in themselves taking us further away from the deep exploration of this social problem and set of challenges, which is now once again on the increase, or the development of adequate solutions to address them: in our case, the employment of people with (functional) disabilities in the hospitality industry.

Acknowledgement

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Rita Farkasné Gönczi

Easy to understand communication during COVID in Hungary

The legal institution of supported decision-making was introduced by the Civil Code in force on 15 March 2014, in addition to the CLV of 2013 on supported decision-making. The Act regulates the provisions on the appointment of a support worker, the duties of a support worker or a professional support worker and the records keeping. The supported decision-making system helps to make decisions based on individual needs without restricting the capacity to act.

In the new COVID epidemic situation, the supported decision-making for people with intellectual disabilities is temporarily difficult. The National Public Health Center issued a leaflet on March 10, 2020. The information changed rapidly, the rules were constantly expanding. In the current situation, equal access to the necessary information for supported decision-making was not available in a uniform format.

The examples show that professionals and NGOs dealing with easy-to-understand communication responded almost immediately to the situation and provided information about the health emergency. In 2020, more practices developed in the civil and institutional sectors, the impact of which is still being felt today. In addition to easy-to-understand content translations and self-contained information materials, communication-friendly content has also been developed for healthcare professionals.

In this study, I present the COVID information published in easy-to-understand communication in chronological order. An overview of these can support the development of unified strategic steps in a subsequent emergency situation.

Keywords: easy-to-understand communication, COVID

Introduction

The period of the COVID health emergency fundamentally changed people's way of life and their habits. The changes took place within days and had to be adapted to quickly. One of the pillars of successful adaptation was information that made it easy to understand the situation, the rules that had to be adapted and the conditions that had to be met. The information was made available through a variety of communication channels, which were presented in different language versions. The main source of information is the legislation governing the management of health emergencies, although for the majority of society this content is difficult to understand due to technical terminology. For this reason, news channels have provided the general public with a clear overview of the basic regulations, and have also taken over from each other the information translated into the vernacular. The centralised information source was created on 1 March 2020 (https://koronavirus. gov.hu/cikkek/magyarorszagon-nincs-korlatozas-0) and the associated community site was created on 27 February 2020 and launched on 4 March 2020 (https://m. facebook.com/photo/?fbid=102334918043405&set=a.189344896716631&_rdr) where all interested parties could find uniform information in a transparent format. In addition, the Government has provided information to the public with a unified image, identifiable media faces and a single news portal. For poster campaigns and media appearances, a simple level of language close to or equivalent to easy-to-

understand communication was often used to reach a wider audience, but not for longer information content.

TECHNICAL LANGUAGE AND COMMON LANGUAGE IN THE REGULATION OF HEALTH EMERGENCIES

The first piece of legislation was the Government Decree 40/2020 (11 March) on the Declaration of a State of Emergency, which was published in the Hungarian Gazette, Issue 39 of 11 March 2020. The Government Decree declared a state of emergency for the entire territory of Hungary. In addition, as a basic measure to safeguard the health and lives of Hungarian citizens, it conferred decision-making powers on the Prime Minister and established the Operational Group Responsible for Protection Against the Coronavirus Epidemic. Extraordinary measures to deal with the state of emergency were laid down in separate government decrees. As of 16 March 2020, the decrees regulated the organisation of education in schools in a digital work schedule outside the classroom (Hungarian Gazette, Issue 42, 1382, 1388), banned events and allowed restaurants and cafés to stay open until 15:00.

All of these regulations, drafted in the above-mentioned technical language to prepare service providers or institutions, have also affected the daily lives of different groups of people with intellectual disabilities. The up-to-date information extracted from the legislation on health emergencies and their management was presented to the public in a concentrated way on the central news portal (www.koronavirus.gov.hu) and in various media outlets.

The majority of Hungarian citizens interpreted the rules, assessed them and respected them, taking into account the consequences. However, the health emergency brought important changes for everyone, which went beyond the comfort zone of the individuals. Accordingly, persons with intellectual disabilities perceived the change with different decision-making capacities in different institutional settings. The people in their lives informed them of the rules to be followed according to their communication needs. However, with the development of *plain language information for society, there was no uniformly communicated information content to support equal access to information.*

LEGAL INSTITUTIONAL SYSTEMS FOR DECISION-MAKING AND THEIR RELATION TO HEALTH EMERGENCIES

Different legal institutions for decision-making have played various roles in understanding the rules in relation to health emergencies. This study reviews successful information from the perspective of people with intellectual disabilities. In the field of decision-making, two different situations could arise. In the system of substitute decision-making, the priority was to understand the change that occurred,

to accept the rules and to comply with them, while for some groups of cases of limited capacity and in cases assigned to the system of supported decision-making, the priority was to make life decisions related to the new situation, for which there had not been any previous opportunity for practice and learning during the state of emergency. A more detailed overview of the two types of decision situations justifies the need to use easy-to-understand communication.

1) An adult person with discernment can make an independent decision about whether to follow a rule in a health emergency. In addition, in the legal institution of limited capacity in respect of a group of cases, they can make an autonomous decision concerning the epidemic control regulations. In the legal institution of supported decision-making, introduced by the Civil Code in force on 15 March 2014, it facilitates decision-making on the basis of individual needs without limiting capacity. The operation of the legal system is governed by Act CLV of 2013 on Supported Decision-Making. For example, it sets out the conditions for the appointment of a support worker, the tasks of the support worker or professional support worker, and the keeping of records. In the case of supported decision-making, a person who supports the person's autonomous decision-making provides the necessary information through a channel of communication appropriate to the person.

2) The person cannot make an autonomous decision regarding compliance with the rules relating to the health emergency in the absence of capacity pursuant to Act XV of 2001 on the Amendment of Certain Acts Regarding Legal Capacity and Guardianship. In the case of an adult person without capacity to decide, the legal institution of substitute decision-making comes into force when the decision is taken over by a guardian.

The various decision-making instruments *require both an understanding of the rules that apply to the person concerned, acceptance of the rules and non-compliance with a rule that significantly hinders their life situation* (e.g. abolition of the compulsory wearing of a mask for people with intellectual disabilities). In addition to accepting the rules, supported decision making, limited capacity and incapacity also require making decisions about the changes to their own lives that they affect.

THE STATUS OF EASY-TO-UNDERSTAND COMMUNICATION IN STATES OF EMERGENCY IN HUNGARY

The first publication on easy-to-understand communication was published in 2002 under the title "Simply, Understandably", translated by Zsuzsa Csató and published by the National Association for People Living with Intellectual Disabilities and their Helpers, then known as the Hungarian Association for Persons with Intellectual Disability (Hungarian abbreviation: 'ÉFOÉSZ') (Farkasné Gönczi & Gráf-Jaksa, 2009). The brochure emphasises to whom and for what purpose the easy-to-understand communication should be used and gives guidance on how to use it. ÉFOÉSZ participated in the Pathways 2 project between 2011-13, where they translated the guide "Information for all", developed in 2009 within the framework of the Pathways 1 project "Pathways in adult education for people with intellectual

disabilities", published in 2012 [The publication date is not included in the publication. The year of publication was determined by the online interface of the National Bibliography of Hungary (https://www.oszk.hu/mnbwww/K/1707/S.HTML#3233).], into Hungarian anddisseminated it in Hungary (Farkasné Gönczi, 2018). ÉFOÉSZ has continuously applied and still applies the easy-to-understand communication. Thanks to theirwork, both their website and their social networking platform have a continuous high readership number.

Following ÉFOÉSZ, several organisations and institutions dealing with people with intellectual disabilities have been involved in the field of easy-to-understand communication, recognising its importance and applicability. The range of content produced with easy-to-understand communication has been steadily expanding. The Down Foundation has produced downloadable guides with easy to understand communication marked EUC (Hungarian abbreviation: 'KÉR') (https://www.downalapitvany.hu/node/337).

On 20 July 2011, Farkasné Rita Gönczi launched the online blog "Easy-to-Understand Kitchen", which features recipes for cooking with easy-to-understand communication. In 2017, she moved the blog platform to a complex website platform called "Easy-to-Understand Communication – Easy-to-Understand Life" and expanded it with professional content on easy-to-understand communication. The concept and language levels of easy-to-understand communication, developed together with experts in the field, were first published here and have been available in English since 2018 (https://konnyenertheto.gonczirita.hu/english/definition-easy-to-understand/). The online format has made it possible to integrate the constantly updated information in the field in one place, making it a source of courses and professional products. On 4 June 2021, at the initiative of Farkasné dr. Rita Gönczi, the website community organised the first international professional conference in Hungary, together with the ELTE Bárczi Gusztáv Faculty of Special Needs Education. In the conference's collection of papers titled "Easy-to-understand communication, equal access", a professional definition is now available, enriched with linguistic knowledge. [Access link for the volume: https://edit.eltel.hu/Könnyen_érthető kommunikáció_egyenlő_esélyű_hozzáférés_Nemzetközi_szakmai_konferencia 2021_tanulmánykötete]

"Easy-to-understand communication is the display of *information content elements* in the common language or at a more complex linguistic level, or the development of *independent information content* in a *simple and clear form* that aides the understanding of the information (Farkasné Rita Gönczi here on the website, 2017, id. 2018, modified 2021/a). Easy-to-understand communication is *communication* that uses *linguistic* and *non-linguistic symbols* in many cases *according to specific rules*. Easy-to-understand communication uses each language's own linguistic and non-linguistic symbols in the elaboration and delivery of the message. Specific application means that the degree of understanding of the text by the participants in the communication determines the level of easy-to-understand communication used, and adapts the range of grammar and other rules that can be applied accordingly. Participants in easy-to-understand communication consciously or spontaneously apply the rules of message formation in a communication situation" (Farkasné Gönczi, 2021/b). The publications prepared with easy-to-understand communication show that the grammatical rules of the language used are adapted to the linguistic

and non-linguistic rules of easy-to-understand communication and are also adopted with minor changes according to their target group. For example, the frequency of use of pronouns varies in the publications of organizations dealing with intellectually disabled persons representing different language levels. In her 2021 study, Borbála Keszey found the fewest pronouns (3.5% and 3.9%) in the publications of the FSZK, and the most in ÉFOÉSZ publications (6.5% and 9.8%) (Keszey, 2021).

In addition to the formulation of the definition, the emergence of research exploring the applicability of linguistic and non-linguistic symbols is significant. For example, based on a small sample survey published for the first time in 2019 in Hungary, the use of rules related to font size and shape, and background in easy-to-understand communication is not necessary in the sample studied (Farkasné Gönczi et al., 2019). According to research from Zita Vecseri published in the professional-scientific journal Disability and Society in 2021, the majority of written content follows the rules for the application of easy-to-understand communication. For instance, a study assessing the sentence length rule shows that in 4 publications, 1,041 sentences were found to be short, while 276 sentences were long (Vecseri, 2021). Based on the research presented above, it can be said that the rules of written or oral application of easy-to-understand communication can be framed, determined in each case by the linguistic competence, passive and active vocabulary of the target person or group.

The online platforms of professionals and organisations already involved in the use of easy-to-understand communication, as well as the national research (for example Farkasné Gönczi et al., 2019; Keszey, 2021; Vecseri, 2021) published from 2019 onwards, have made it possible to use easy-to-understand communication as a relevant tool for equal access to information on centralised health emergencies, and to use the already known communication channels to reach the target group.

The emergence of easy to understand communication during the health emergency

At the beginning of the health emergency, there was no unified form of equal access to information for people with low language competence who were able to act or had limited capacity to act, or to information for supported decision-making, within the decision-making legal system. The public sector was not yet prepared to apply solutions that respond to different communication needs. Their role was taken over by professionals, NGOs and institutions involved in easy-to-understand communication, responding almost immediately to the situation and providing information on the health emergency.

Online appearance of easy-to-understand communication in the case of 5 NGOs and 1 expert

I looked at the timing, spread and topics of the online presence of easy-to-understand communication during the health emergency for 4 national organisations working with people with intellectual disabilities, 1 national organisation working with people with autism spectrum disorders and a community platform linked to my own professional website. I compared and analysed the presentation of information in easy-to-understand communication, the primary topics and the number of shares.

During the communication of the state of emergency, the first easy-to-understand communication information was published on 15 March 2020 on http://konnyenertheto.gonczirita.hu/2020/03/15/koronavirusrol-konnyen-ertheto-kommunikacioval/, which was visited by 2,123 people on that day, and by 5,020 in total. The first set of information included a short introduction of the coronavirus, its effects, how it spreads, how to prevent it and what to do in case of infection. At the end of the post, important contact details and authoritative sources of information were provided. The post, which was redirected to social media, was shared by 169 individuals and organisations. Two days later, on 17 March 2020, the http://konnyenertheto.gonczirita.hu/2020/03/17/szabalyok-a-koronavirus-fertozes-megelozesehez-konnyen-ertheto-kommunikacioval/ post was updated to include information on stay-at-home rules and alternative ways to contact people, which represents 1,615 visits to my website and 55 shares on the social platform. The post also included downloadable information, which could be printed and read offline. The focus of my second set of information was to present the possibilities of communication, because for people who use easy-to-understand communication, the usual channels of communication quickly closed. Developing new analogies to communicate with familiar contacts may have been problematic because of the potential difficulty of thinking in new ways.

On 18 March 2020, ÉFOÉSZ published on their website (https://efoesz.hu/aktualis-esemenyek/koronavirus-konnyen-ertheto-tajekoztato/) and on their social media platform, in the form of a poster with 7 shares, key information on the coronavirus, infection and prevention, which could be easily downloaded and displayed. From the next day onwards, several posts per week were produced on the topic until 30 June 2020, making it a safe source of information to monitor and communicate the changing rules.

On 18 April 2020, the Down Foundation added informative content on their website about the coronavirus, how to test for symptoms, prevention and the necessary actions to take (https://www.downalapitvany.hu/sites/default/files/K%C3%89R%20T%C3%A1j%C3%A9koztat%C3%B3%20a%20Covid%2019%20v%C3%ADrusr%C3%B3l.pdf). It later opened a dedicated section titled "COVID-19" to publish their own content on the subject. The uniqueness of Down Foundation's online communication is that it runs a news-like video series, which has already been able to reach more people with information about health emergencies because of its visibility.

The Hungarian Autistic Society (Hungarian abbreviation: 'AOSZ') informed their members about the activities of their professional network related to the

coronavirus in the early days of the coronavirus on 12 March 2020, and announced their downloadable easy-to-understand content on 21 March 2020 (Kővári, 2020). A specially-created website interface (www.aosz.hu/koronavirus) offers a collection of information sheets, visual aids and AAC tables for download. The website is colour-coded to provide an easy-to-read information base, compiled by the AOSZ professional network. A similar collection portal was developed by the Hand in Hand Foundation on 24 March 2020. Prior to this, they had already been regularly sharing the easy-to-understand content presented above on their social platform since 16 March 2020. The Equal Opportunities of Persons with Disabilities Non-profit Ltd. (Hungarian abbreviation: 'NFSZK') was the first public administration to launch an equal access database on the coronavirus on their website on 16 April 2020.

Table 1 Availability of easy-to-understand information on the coronavirus on the Facebook pages of 5 national NGOs and 1 professional website

Date of publication	Author	Shares	Feedback (emoji)	Main content elements	Availability
15.03.2020	Farkansé dr. Rita Gönczi (FGR)	169	25	Communicating about the coronavirus in an easy-to-understand way: definition, impact, spread, prevention	https://tinyurl.hu/k8cd
15.03.2020	ÉTA	3	4	FGR sharing content about the coronavirus through easy-to-understand communication	https://tinyurl.hu/1sBI
16.03.2020	Hand in Hand Foundation	19	16	FGR sharing content about the coronavirus through easy-to-understand communication	https://tinyurl.hu/92Yq
17.03.2020	FGR	55	14	Staying at home, method of contact, rules, downloadable information	https://tinyurl.hu/el0g
18.03.2020	ÉFOÉSZ	35	30	Poster: concept, prevention	https://tinyurl.hu/JkKQ
18.03.2020	FGR	1	1	ÉFOÉSZ poster	www.facebook.com/konynyenertheto.gonczirita.hu/posts/2954722787899703
19.03.2020	ÉFOÉSZ	30	25	Concept, symptoms, rules, protection, loan moratorium	https://tinyurl.hu/EQoy
19.03.2020	FGR	44	6	Guide at the request of parents: ideas for maintaining contact in residential institutions	https://tinyurl.hu/5vwN
20.03.2020	ÉFOÉSZ	17	16	Concept, symptoms, quarantine, protection, pollution reduction	https://tinyurl.hu/BD6g
21.03.2020	FGR	20	10	Downloadable guide	www.facebook.com/konynyenertheto.gonczirita.hu/posts/2961026050602710
21.03.2020	AOSZ	314	107	Information from the uniform communication site	https://tinyurl.hu/4tTf
22.03.2020	FGR	4	6	Sharing of handwashing video	www.facebook.com/konynyenertheto.gonczirita.hu/posts/2964263816945600
23.03.2020	ÉFOÉSZ	14	6	Concept, symptoms, spread, protection, staying at home, protecting the elderly, curfew	https://tinyurl.hu/LWDm
23.03.2020	FGR	15	7	Sharing of ÉFOÉSZ symptom information	https://tinyurl.hu/gOo1
24.03.2020	ÉFOÉSZ	7	11	Soncept, staying at home, eviction ban, loan moratorium, international information, cancellation of events, protection	https://tinyurl.hu/L5Th

24.03.2020	ÉFOÉSZ	8	11	Psychological counselling service	https://tinyurl.hu/zMOr
25.03.2020	ÉFOÉSZ	5	11	Concept, spread, cancellation of olympics, medical care, ventilators, prevention	https://tinyurl.hu/Qbva
25.03.2020	FGR	12	6	Healthy lifestyle advisor	https://tinyurl.hu/gFrz
26.03.2020	ÉFOÉSZ	9	18	Hungarian translation of Inclusion Europe's information	https://tinyurl.hu/GyCH
26.03.2020	ÉFOÉSZ	2	5	Official coronavirus website, intensive care units, disinfectant production at MOL, new patient beds, use of face masks	https://tinyurl.hu/DmN2
27.03.2020	ÉFOÉSZ	4	36	Online advocacy group	https://tinyurl.hu/u3dn
27.03.2020	ÉFOÉSZ	24	18	Regulation, curfew, maintaining distance	https://tinyurl.hu/kg5S
27.03.2020	FGR	48	6	Curfew and shopping restrictions, information links so far	https://tinyurl.hu/Iqf6
27.03.2020	ÉTA	2	1	Website collection portal	https://tinyurl.hu/NJEh
30.03.2020	ÉFOÉSZ	14	15	Contact details, symptoms, number of infected patients and deaths, curfew, maintaining distance, research results	https://tinyurl.hu/DL33
30.03.2020	FGR	7	2	Sharing of the AOSZ information collection page	https://tinyurl.hu/67fD
31.03.2020	ÉFOÉSZ	11	15	Concept, symptoms, number of infected patients and dead, legislation, shopping, staying at home, maintaining distance	https://tinyurl.hu/iY9e

Table 1 shows that *professionals and organisations actively involved in easy-to-understand communication produced content immediately. Professionals and organisations less active in the field of easy-to-access communication*, recognising the importance of the situation, *shared the sources of the content already developed*.

In reviewing the social content that appeared during the first phase of the health emergency, the number of shares increased when new content related to the state of emergency appeared alongside the original content:

- services available online (e.g. ÉFOÉSZ psychological counselling on 24.03.2020, ÉFOÉSZ distribution of 100 free masks on 06.05.2020),
- translations of information from abroad (e.g. translation of Inclusion Europe's material 26.03.2020),
- online advocacy activities (e.g. ÉFOÉSZ advocacy meeting 27.03.2020),
- films about activities you can do at home (e.g. ÉFOÉSZ advocacy home exercise – 09.04.2020, sharing of handwashing video by Farkasné dr. Rita Gönczi – 22.03.2020)
- guides for professionals working with people with intellectual disabilities (e.g. ÉFOÉSZ-01.04.2020, AOSZ-21.03.2020)
- descriptions of events and national holidays that fall during the period (e.g. description of the Easter holiday and related restrictions by Farkasné dr. Rita Gönczi – 10.04.2020, ham recipe – 11.04.2020)

Lessons learned from using easy-to-understand communication in a state of emergency

In 2020, several practices were developed in the civil and institutional sector which still have an impact today. In addition to easy-to-understand content translations and stand-alone information materials, communication-friendly content for health professionals was developed.

As a professional, I was able to react the fastest to the imminent state of emergency based on the suggestion of Zsuzsanna Kovács, a special needs teacher, because I could directly publish the easy-to-understand information content I had developed without going through the organisational route. Individuals, organisations and institutions interested in easy-to-understand communication read it, so that they could immediately disseminate the initial information with a 'virus-like' speed. Individual speed also implied individual responsibility for the clarity and credibility of the information content. Single-person delivery also implies a strain on human resources, which in the long run allows for less frequent communication. Its effectiveness in the short term is in responding quickly and producing content at the request of readers, such as informing people living in the institution about communication opportunities. The national organisation for people with intellectual disabilities was the second to produce a poster, followed by a regular summary. Going down the organisational route was also a way to harness collaboration within the organisation, enabling the development of a user-friendly and understandable information platform. The process is slow but ensures sustainable communication over the long term.

The first period was devoted to content production, which was later taken over by the translation of international sources and the sharing of existing content with other organisations. Organisations, institutions and individuals who could not produce easy-to-understand content quickly, soon realised the value of increasing their impact through sharing. After the initial content was published, content producers distributed their own collections, while those involved in sharing created link collections based on uniform criteria. The reader's access to information was made more difficult by the need to monitor different channels. A good example of the development of a concentrated information base was the unified creation of a professional community coordinated by AOSZ, and the development of a jointly defined publication interface.

Based on the lessons learned, the following aspects should be considered for the use of easy to understand communication in the event of a future state of emergency:

- *Providing information* quickly, *simultaneously with the publication of common-language information*.
- The development of content that answers the questions raised increases the flow of information.
- The flow of information should be on a *transparent schedule and communication channel*. It is advisable to publish it on the *central information platform known* to the person with intellectual disability and their environment, or to compile a *collection of links* there.

- By *bringing together* professionals, organisations and institutions working in the field of easy to understand communication, and by *sharing tasks, coherent content* can be created.
- The information content prepared with easy to understand communication should have a *uniform structure* and layout so that the reader can navigate the content with confidence.
- It is advisable to include general information at all times, thus reinforcing repetition and memory retention.
- The dissemination and sharing of information on social media has been enhanced by the inclusion, alongside written information, of films, volunteer activities, descriptions of events and celebrations, etc. It is worthwhile increasing reading and sharing activity by sharing *alternative information* related to current topics in the periods between briefings.
- A *less frequent news release* following an initial dense information flow, such as one briefing per week, increases willingness to share. The almost daily briefing did not increase content dissemination, but rather kept the number of shares low.

Based on the experience of providing information through easy to understand communication during the recent health emergency, this series of recommendations aims to help ensure rapid and consistent access to information in a uniform and equal way in the event of another health emergency.

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Is Security Above All? Questions of Equal Access to Early Childhood Intervention during COVID-19 Pandemic

There are several reasons for examining the access to early childhood intervention at the earliest possible age during the COVID-19 pandemic. The consequences of the lack of early and widespread access to quality services are well documented, delays might cause irreparable damage, which could lead to challenges in long-term social integration. The article introduces the findings of an online survey exploring how the COVID-19 pandemic affected expectant women and those giving birth, as well as their experiences of the health care system and early intervention services in Hungary. To illustrate how measures in focus access to early intervention can be introduced under such circumstances, we describe a good practice in the field of services.

Our data shows that even though less medical examinations were cancelled or postponed than expected, these as well as early intervention mostly took place in the private sector. The majority of mothers faced a high level of stress and anxiety – especially during the restrictions. While depression among mothers did not rise significantly, the feeling of loneliness doubled. 27% turned to a specialist for support – mostly to a psychologist, and an unexpectedly high rate of parents contacted a specialist on parent-infant relationships.

Keywords: early childhood intervention, access to services, COVID-19, COVID-19 pandemic, mental health of mothers, innovation

Introduction

There are several reasons for examining the access to early childhood intervention at the earliest possible age during the COVID-19 pandemic. The consequences of the lack of early and widespread access to quality services are well documented, delays might cause irreparable damage, which could lead to challenges in long-term social integration (Soriano, 2005). Furthermore, some services for children already enrolled in early childhood intervention were also suspended during the lockdowns, reaction and adaptation to the sudden crisis depended on how services modified their operation (Ramos, 2021). In our article, we wish to add knowledge to what already has been observed internationally (Liu et al. 2022, Perez et al., 2022, Venta et al., 2021) by being the first to examine the changes, processes in early childhood intervention and their short-term effects in Hungary. We consider these issues highly relevant as children and their families were in increased need of adequate services.

This paper introduces the findings of an online national survey exploring the effects of COVID on the lives of families expecting or giving birth. To illustrate how adequate measures that hold the child's right to access to early intervention in focus can be introduced, we describe a good practice in the field of services in the second part of the paper.

Research methodology

Our research aimed to examine how the COVID-19 pandemic affected expectant women and those giving birth. In our research, we collected data about the sociodemographic situation of the family, about the mother's social relationships, mood and experiences/concerns related to the coronavirus, and about the experiences of the health care system through an online survey. [The detailed presentation of the research is available Czeizel et al. 2022.]

The online survey ended with an open question about any experiences the mothers wished to share. We advertised the survey through our social media channels of the Institute of Psychology of the University of Pécs and the Early Intervention Centre Budapest in July 2022.

The sample

We received 496 responses to the survey from all over Hungary, 99% from mothers – thus we shall formulate our observation about the mothers. The youngest respondent was 22, the oldest 48, their average age was 33. Most respondents were married (93.3%) and all of them had a partner (only one person said that they did not live in the same household). Most of the respondents live in Budapest or smaller towns, every fifth person in larger cities, and every fifth in villages.

Two thirds of the respondents have a higher degree of education, another 23% have passed A-levels. Only 12 people do not have at least the A-level exam. This means the respondents have a higher level of education than average Hungarian women. Most of the mothers do not work but are taking care of their small child. 15% are employed, while 3 respondents are actively looking for employment. The majority of respondents have more than one child (56.9%) – 30% have two, 10% have three, and 13 women have four or five children.

The average age of the children involved in the research is 18 months, so the pregnancies took place during the lockdown of the first and second wave of the COVID pandemic. The youngest baby is two months old, the oldest is 44 months at the time of research.

In 213 cases, the respondents (or a professional) noticed some form of a delay in the early development of the child, that needed early intervention in 84 cases: in 79 cases the children received the intervention, in 5 cases they did not.

Research Questions

Due to the measures introduced during the pandemic, several public and health services became temporarily unavailable, resulting in high risk to expectant mothers and those with small children as they could not meet their doctor, nurse or those working in early intervention in person. We were curious to see whether due to restrictions, certain medical checkups had been postponed or canceled, and whether giving birth had been different to the prior expectations of the mothers – for example, because their partner or doula had not been allowed to accompany them. To examine this, we asked questions about their visits and contact with various

stakeholders of the health sector. We were also curious to see if the recognition of differences in development, subsequent reactions, diagnosis, and access to early intervention had also been delayed. We used the definition of the European Agency for Development in Special Needs Education (2005), where Early Childhood Intervention is a "composite of services/provision for very young children and their families, provided at their request at a certain time in a child's life, covering any action undertaken when a child needs special support to:

- ensure and enhance her/his personal development,
- strengthen the family's own competences, and
- promote the social inclusion of the family and the child." (p.18)

The mental health of the mothers is an obvious risk factor in the early child development philosophy. Social interaction decreased both within the family and their wider social network, possibly resulting in further problems, isolation, and anxiety. We asked questions related to the anxiety the mothers experienced during their pregnancy, giving birth, puerperal period and then about the development of the child, their mental problems and supportive factors during the COVID-19 pandemic. We wanted to know if people in their informal network as well as professional helpers were available, or the mothers had to face their problems on their own. We investigated the unmet expectations about giving birth, as the exclusion of the partners or doulas during the birthgiving due to restrictions can affect the mental health of the mother in a negative way. We also analyzed whether the child had contact with extended family or other children (for example in the playground, play room or other activities in the community).

In the pandemic situation, organizations could speedily re-organize their services for the children and families by moving most activities to the online space. We describe the innovative measures introduced in a case study in a later chapter.

FINDINGS
EARLY CHILDHOOD INTERVENTION DURING THE COVID-19 PANDEMIC

Prenatal care

Most compulsory examinations did take place, only 2% reported missing a blood test, 4% an ultrasound. The highest rate was those having missed the mandatory dental checkup (25%). In contrast with our expectations, 80% of the fathers could be present at giving birth. Only 4% of the mothers had planned to give birth with a chosen doula, but only one third could really benefit from their assistance. A bit more than a quarter of mothers (27%) claimed that their experience in giving birth was adequate, even though not completely according to their expectations.

Screening and problem detection

The mandatory and timely meetings with the family health nurse and family pediatrician, required by law, are vital in recognizing the need for early intervention. We explored how these meetings took place during the lockdowns. Responses show that it was only in a few cases that these meetings did not take place at all – only 1-5% of respondents said that they did not meet their family health nurse or pediatrician ever. The examinations during the first six weeks after birth and those in the 12th month almost all materialized, examinations of the 9th and 15th month were the ones that were missed by some – but even this remained under 5%. The meetings with the family health nurse were more likely to be held online, while meetings with the pediatrician mostly took place in person.

Access to early intervention services

In almost half of the cases the pediatrician or another health professional identified some health problem or signs of developmental delay. In these cases we explored the 'child's pathway' in the system of early intervention.

In most cases, parents noticed the problem first (64%), followed by their pediatrician (24%). The rate of family members and other professionals, presumably due to limited contact, is very low (1-2%).

Parents usually contacted their pediatrician (34%) or a specialized doctor (32%) first. The private sector scores unexpectedly high – 20%. 5% of the respondents first accessed early intervention in NICU, 4% in an early development support service.

At last, most families received help from the health sector: 20% from their pediatrician, 37% from a specialized doctor. Early development service in the private sector was sought in a fifth of the cases, in early development support centers 7% and the public educational sector further 3%.

At the time of the survey, one third (35%) of these children were receiving some form of intervention, almost two thirds did no longer need it, and only five respondents said that they did not access early intervention although their child would have needed it.

In about half of these cases parents pay for early intervention services or specialists in the private sector. Only one third of the children receive intervention completely funded by the state, and another third use both sectors.

COVID-19 TRAUMAS, MENTAL HEALTH OF MOTHERS

COVID in the family

We asked respondents about serious COVID infections and death due to COVID within their family. These traumas can have an obvious effect on the mental health of the mother and the whole family. 13% reported the death of a loved one, one fifth

hospitalization due to COVID. In five cases the mother herself, in seven cases the small child needed hospital care.
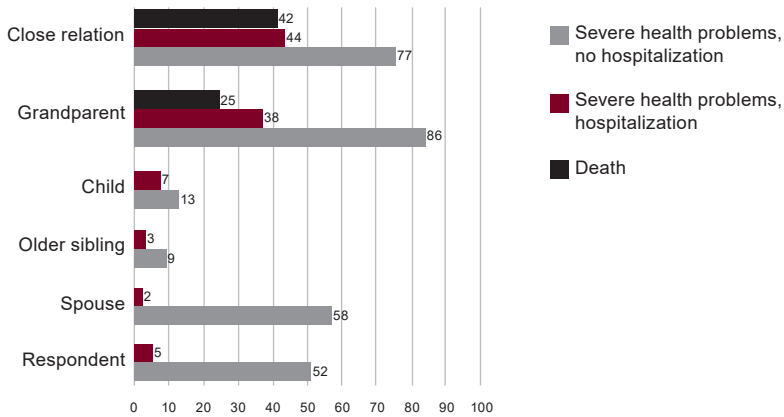

Close relation: Death 42, Severe health problems, hospitalization 44, Severe health problems, no hospitalization 77

Grandparent: Death 25, Severe health problems, hospitalization 38, Severe health problems, no hospitalization 86

Child: Severe health problems, hospitalization 7, Severe health problems, no hospitalization 13

Older sibling: Severe health problems, hospitalization 3, Severe health problems, no hospitalization 9

Spouse: Severe health problems, hospitalization 2, Severe health problems, no hospitalization 58

Respondent: Severe health problems, hospitalization 5, Severe health problems, no hospitalization 52

Legend:
- Severe health problems, no hospitalization
- Severe health problems, hospitalization
- Death

Figure 1 Severe COVID condition in the family (people)

Mental health

At the time of the survey, so in the relatively safe era after the pandemic, when most restrictions had been lifted, the mental health of mothers was satisfactory: they were much less anxious, nervous or tense and were less likely to lose control of their anxiety.
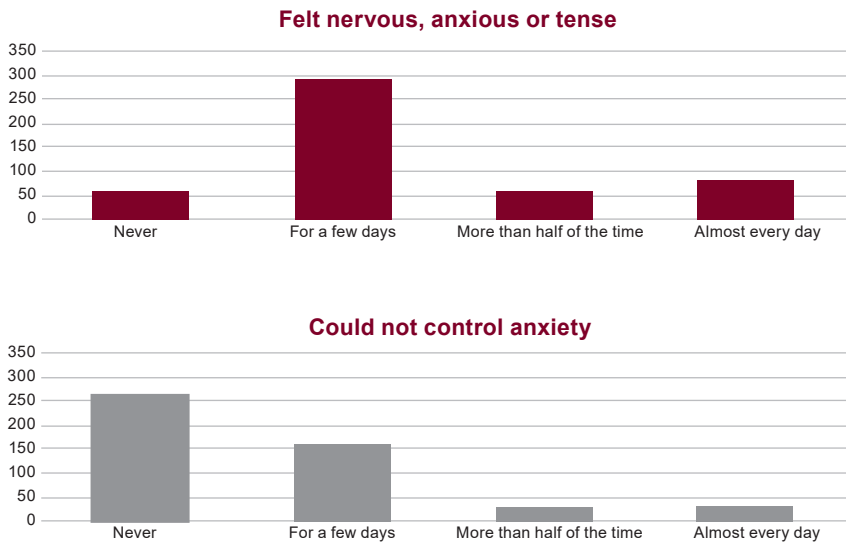

Felt nervous, anxious or tense

Could not control anxiety

Figure 2 How often have you felt the following in the past two weeks…? (person)

Felt nervous, anxious or tense
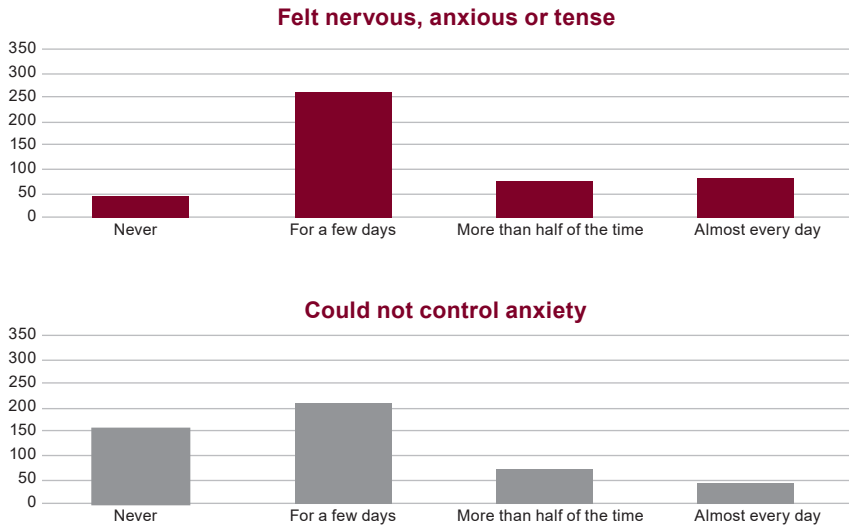

Could not control anxiety

Figure 3 Thinking back to the time of restrictions during the COVID-19 pandemic, how often did you feel the following? (person)

Naturally, mothers felt anxious about the pandemic and its direct health consequences: 75% feared that their family member, 70% that their child would get infected. 60% feared that their child would not get adequate health care. 54% expressed fear due to separation, 37% to the lack of support. 32% reported fears about the financial situation of the family.

At the time of the survey, 4.8% reported feeling depressed all the time or most of the time, while 6.8% reported being just lonely. During the lockdown a bit more of the women experienced depression (6.4%), while the rate of those feeling lonely all the time or most of the time doubled (12%).

27% sought help from a specialist, most of them from a psychologist or psychiatrist, but many turned to a breastfeeding consultant, an integrated parent-infant consultant or a perinatal consultant.

The experiences of the mothers

To our surprise, almost a third of all respondents (31%) shared experiences connected to their pregnancy or birthgiving during the COVID-19 pandemic, in many cases at quite some length. Some of the respondents were obviously in a very emotional state when sharing their stories, intensely re-living the difficulties, traumas of the COVID era.

About one third of the responses (54 cases) talked about anxiety or stress in a general way, others retold specific difficulties that led to anxiety and stress.

"My first child was born in the same public hospital, under the supervision of excellent professionals (obstetrician and immunologist) two years before my second child, under the COVID pandemic. There was a huge difference between the two

pregnancies and birthgivings. My first birth experience, even though it ended with an emergency caesarian, brought great joy to me and I felt very fit afterwards. I found out I was pregnant with my second child just when the COVID pandemic hit Hungary. I was anxious from the very beginning. Are services going to be like they were before, what if I catch the virus? We did not visit any of our family or friends in person. My older child stopped going to the nursery. I did not feel at ease while giving birth, and now, one year later I still cannot look back on it as a positive experience. It was a very difficult time.”

Most respondents reported loneliness, isolation (34 people), for example not being able to receive visitors in the hospital or being placed in single rooms. The former was especially difficult for those who had to stay in hospital for several weeks, even months due to a risk in the pregnancy or premature birth, and could only keep in touch with their loved ones through the phone or the hospital window. The latter was mostly mentioned by mothers with their first child, who would have welcomed advice from a more experienced woman while in the hospital.

“I did not enjoy being pregnant from the 26th week on, when we found out that something was wrong, but no one knew exactly what. I had to stay in the hospital for a month, where no one was allowed to visit me, I could not go anywhere, I had to wear a mask all day, even in the hospital room. After my son was born, it gradually became better as I started to get good news and it turned out that he was all right.”

23 women complained about feeling isolated in the puerperal weeks following their stay in the hospital, and 21 women about the lack of help. 8 women spoke about their baby being easily scared when seeing a stranger, which they connected to isolation.

“The first few weeks, even months, were really difficult after my daughter was born. I was always worried that someone would bring the virus home. We had to wear masks when seeing our family. My daughter only met our extended family much later. At first we only allowed the grandparents to visit. Let alone our friends. For a long time, we did not even take her to the playground or the grocery store. Only my husband went to such places. I only took the baby for walks outdoors. Before giving birth, I was afraid what would happen if I tested positive, which hospital would be open, what would happen to us, how we would be treated. Before my due date, we did not meet anyone for a month, my husband did not even work for two weeks. Fortunately, he could be with me when giving birth, but the possibility of having to give birth on my own terrified me.”

“I felt completely abandoned, I did not receive support from the family health nurse, even though I would have needed it. My child even today does not accept strangers, we struggle with getting him in a group setting. I am afraid to sign him up to the creche. I am afraid of how I will be able to finance all the basic things he needs. He needs early intervention, which is an emotional as well as a financial burden on us. We lost most of our relatives during the pandemic.”

Several respondents wrote about not meeting family members for months for fear of infecting the baby. 16 mothers mentioned sadness over having to miss out on community activities, playgroups for the children.

"It was much easier to be at home by myself during the restrictions before and during the pregnancy than with the baby. I struggled with postnatal depression, but that was not connected to the pandemic. I was more anxious about the infection when I was pregnant, after giving birth less so. Then it was my husband who became more afraid. I was feeling really low when he asked me not to go anywhere (to baby clubs, activities, visit friends) with the baby, while there were many people infected. I was afraid of losing my mind, and also that the social skills of my baby would suffer if she does not see anyone but her depressed mother the whole day."

Regarding prenatal care and early intervention, 23 mothers reported on having difficulty accessing the necessary medical examinations or not being able to access them all, or having to turn to the private sector instead of the public health care system.

"The absence of a family health nurse caused a lot of difficulties during my pregnancy."

"Prenatal care really sucked: there were no doctors, I did not get referrals, there were no examinations. Only those things worked that we paid for on the private market."

"We were worried. The health care system was in ruins. I was told to wait for five weeks with the first ultrasound in two different hospitals. So we went for all the checkups in the private sector, which was quite difficult financially. Because of the uncertainty about which hospitals, which wards would be open as well as the ban on visitors, we decided to give birth at home. It was the best decision!"

Several people wrote that even though they were able to get in contact with the family health nurse and their pediatrician, this took place through the phone or email, and they did not feel that the other person could assess the state of their child accurately this way.

"Doctors were uncertain, nurses sometimes acted horribly with mothers, saying they could get infected. The rules in the hospitals were changing all the time, everything was unstable. The checkups after I gave birth did not take place when they were supposed to (the examination of the baby's hip etc). Our pediatrician did not see the baby for a long time, and I do not think diagnosing such a small child through the phone can be accurate, as parents might not recognize all relevant symptoms."

18 mothers talked about the general state of the health care system as a source of worry, 12 about the constantly changing COVID protocols (which hospital is going to be open? are partners allowed to be there when giving birth? will they have to wear a mask?). 11 women spoke about the difficulty of having to wear a mask throughout their lengthy stay in the hospital or during giving birth. 8 wrote about the hardship of not being allowed to give birth with their partner, while seven missed their partner at

the medical examinations while pregnant. 11 women told stories of being forced into the private sector to access adequate services for prenatal care as well as for giving birth, which often caused further financial difficulties.

*"It is horrible that my own doctor cannot be present when I give birth, even more so during COVID! … **Giving birth in a mask is torture!**"*

"I missed having a chosen doctor or midwife. It was disturbing to receive contradictory information about being vaccinated during pregnancy, as well as the constantly changing protocols regarding the presence of the father at birth or the rules regarding visitors. Often my family health nurse and gynecologist did not know what applied at that moment. I got COVID when I was seven-weeks pregnant, nobody had any information or experience about the possible consequences to the pregnancy or the development of the baby. Hospital staff were clearly overworked, there were not enough of them. I gave birth at the same time with two other women, and there was only one doctor and one midwife on duty. I did not feel safe, I did not see how they could manage all three of us should there be a complication somewhere."

"I went with private doctors throughout my pregnancy, all the examinations and tests were done on the private market, and I gave birth in a private hospital. We are fortunate as we can afford this. I was terrified that if one of us (me or my partner) tested positive when the time came, I would be forced to give birth in a public hospital, alone. Fortunately, we both tested negative, and the father of my baby could stay with us for the three days that we had to stay in the hospital."

INNOVATIVE SOLUTIONS ON THE FIELD

To illustrate how adequate measures can hold the child's right to access to early intervention in focus, we describe the good practice introduced by the Early Intervention Centre Budapest. The organization speedily re-organized its services for the children and families already enrolled, moving most of these to the online space.

The Early Intervention Centre Budapest operated with its "normal schedule" until March 16th, 2020, when, following the 3/2020. (III.14.) EMMI decree of the Ministry, switched to "online teaching". Its staff developed new, innovative methods to enable the smooth continuation of their work with creativity and great speed.

As a result, therapy and intervention could continue online for the 210 families already enrolled in the daily intervention activities – 80% of the families agreed to work online. Families of the children attending the special education kindergarten for children with severe and multiple disability received social and medical counselling on top of educational activities. Complex diagnostic evaluation of the children, carried out via online questionnaires and home-made videos (recorded using specific guidelines), was done after several consultations with the family, based on the cooperation of several experts, resulting in families receiving immediate intervention despite the lockdown. The Centre continued to work online until the end of May

2020, and then went back to normal operation, with some restrictive measures while keeping some of the new practices developed.

Professionals supporting the families were in constant communication with them even during the lockdown. Not all types of intervention could be held online – group activities as well as individual manual therapy were canceled. Instead, families received individual counseling. During regular times, intervention usually takes place once or twice a week. With online teaching intervention took various forms, often exceeding the formerly 45-minute-long classes.

The following solutions were used online:

- The parent records videos about the child using the guidelines provided, shares these with the professional, who analyzes what is seen and then, in a previously agreed time, calls the family, offers intervention tips and writes a memo for the parent;
- The child is to be observed during the online counseling, while the professional discusses with the parent, they can also give instructions. This way the family can try various positions, physical exercises, developmental tasks, games and communication situations. They can observe the child together and interpret together what they are doing;
- Older children can recognize their teacher during the online video call, can pay attention to the games introduced, follow instruction, so can be taught online;
- Professionals assemble personalized tasks to be used at home by parents, for example tips for games and intervention, gymnastic exercises, everyday items to be used as a training field, tales, personalized rhymes, daily and weekly schedule cards;
- Professionals provide tips on how the child can play alone, discuss the creation of space, about what toys to use and how to place them, which household items can be used as tools of development;
- In case of a chaotic daily routine: counseling, analysis of sleeping and eating diary, reacting to it;
- Eating therapy: suggesting positions, tips on sensitizing, possibilities of play, collecting specific eating experiences and advice;
- Support in getting a place in the right creche or kindergarten;
- Supporting the mental wellbeing of parents – "how are they? how do they cope?". Availability of more consultation for parents. Involvement of psychologist, psychiatrist if needed;
- If the child has already used alternative or augmentative communication, supporting them to take further steps;
- Regular individual counseling regarding the use of medical aids;
- Lending of equipment to be used at home: specialized games, communicators, equipment to help develop mobility, medical aids;
- For autistic children: support with setting up of a daily routine in their home, sending pictures or producing printable pictures of the photos sent by parents, discussing or writing down their use, reacting to parents' observation;
- Discussing about behavioral challenges at home, preparation of the report using the STAR-modell, analyzing the report, reacting to it;

- Discussing specific events thoroughly, for example learning of the independent use of a spoon, the steps of potty training, the use of flow charts;
- Continuous and intense collection, development of online training materials, sending these to families, writing down tips of games; assembling of images to be used in intervention; digitalization of already existing collections of exercises; recording of videos; assembling of thematic photo collections; analysis of tales; collecting of verified and useful links and articles.

Most tools developed for online use are sustainable and have been in use ever since. Materials for intervention that have been collected, produced and neatly arranged are still available for all staff on an internal platform, and can be used to supplement personal meetings. Online consultations are still available, parents can often find the time easier in this setting. If staff or a child is quarantined but otherwise well, lessons are not missed but rather held online. This allows for the continuity of service, which has become more stable than earlier.

CONCLUSIONS

Our data of the national survey shows that less medical examinations were cancelled or postponed than could be expected. The rate of these happening during the pandemic corresponds to the result experienced in the Hungarian representative sample. The data on the basic conditions of childbirth do not differ significantly from the data measured in the Kohorsz'18 birth cohort study (Veroszta et al. 2021,Veroszta et al. 2022). However, medical care and early intervention mostly took place in the private sector. This corresponds to the data measured by KSH (Lengyel 2022), according to which the number of private medical care increased dynamically, and in 2021 private births increased by 46%.

Overall, the results of the survey suggest that early childhood intervention was more or less working during the pandemic, less examinations were canceled than could be expected. However, these responses are somewhat different when the mothers freely share their experiences, telling of many of these checkups taking place in the private sector, as well as the increased stress caused by the uncertainty of the public health care system. The quantitative data already reflected the growing use of the private sector in early intervention. This was reinforced by the final comments, where parents could also share their concern about having to consult with medical experts through the phone or via email only, and how they did not find this satisfactory.

The majority of mothers faced a high level of stress and anxiety – especially during the restrictions. On top of their health-related problems, many experienced isolation, lack of help and the fear of financial difficulties. While depression among mothers did not rise significantly, the feeling of loneliness doubled. 27% turned to a specialist for support – mostly to a psychologist, and an unexpectedly high rate of parents contacted a specialist on parent-infant relationships (- this could also be explained by the high level of education of respondents). The comments reflected on the causes of anxiety in detail: isolation, being locked inside, missing the support of friends and family.

We can conclude that the various stakeholders of early intervention made significant effort to facilitate access to their services. More research involving national data from services would be needed to be able to state this with assurance. It would be very useful for the various actors to share their innovative ways of working and protocols in order to allow others to learn from these. In the last chapter of our study, we shared the experiences of the Early Intervention Centre Budapest – as a first step in the dialogue sharing good practice.

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3/2020. (III.14.) EMMI határozat a tantermen kívüli digitális munkarend bevezetéséről a köznevelési intézményekben

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Use of digital healthcare among people living with disabilities

The COVID-19 pandemic highlighted the importance of digital healthcare solutions that can offer many benefits to all sections of the population, but for some key target groups, such as those with disabilities, there is significant potential for its use in making everyday life easier.

In our survey, we examined whether there is a difference in the use of digital health solutions between disabled and the non-disabled people.

Using a telephone survey, we inquired about the use of digital health solutions in a nationally representative sample of the Hungarian adult population (n = 1500). As part of the sample, we also obtained information of the characteristics of people with severe disabilities (n = 74) and those with mild disabilities (n = 198).

Severely disabled people use the internet half as much as non-disabled people (41.9% vs. 86.6%). However, severely disabled Internet users are more likely to use it on a daily basis for health purposes. Disabled people use websites and scientific literature search sites to a lesser extent than non-disabled people, but are more likely to use medical and healthcare professional interfaces. Digital technologies (such as emailing, electronic sharing of findings, online appointments) are less common in interactions with physicians, although they find physicians more positive about patients' use of the Internet.

Although the spread of digital technologies would undoubtedly be useful for people with disabilities, they are still significantly lagging behind those without disabilities, so it would be worthwhile to focus on this target group for both health policy makers and technology developers.

Keywords: disabled people, digital health care, Internet use, e-patients

The digitization of healthcare is one of the key challenges faced today. The need for a digital transformation of the healthcare sector has become an important issue, since the increase in life expectancy and at the same time, the large-scale increase in chronic diseases, together with the rising healthcare expenditure and labour shortage in the healthcare sector worldwide, posed a huge challenge to the world's healthcare systems. The effects of digitalization on medicine have been substantial: more and more patients are turning to the online world in order to be informed, find a remedy for their health problems, contact practitioners, monitor their health with wearable sensors and mobile applications, and manage their chronic diseases. This transformation prompts numerous technical, cultural, ethical, psychological and social questions.

According to the WHO, eHealth "extends the scope, transparency and accessibility of health services and health information, widening the population base capable of accessing the available health services and offering innovation and efficiency gains in the provision of health care" (WHO, 2016 p. 1) and in that way digitalisation can contribute to achieving universal health coverage.

However, the phenomenon of the digital paradox highlights that despite the fact that digital health innovations could be very useful for people who lack the adequate access to healthcare services, "these groups are most likely to be excluded from the

digital world through their sociodemographic characteristics" (van Kessel et al., 2022 p.2). Several studies confirm that people with disabilities are underrepresented in the growth of digital health (Jones et al., 2018; Valdez et al., 2021). Even the design phase of the new digital health solutions often fails to pay attention to the special needs of disabled people (Henni et al., 2022).

The importance and the speed of permeation of digital technologies were raised remarkably by the COVID-19 pandemic. The use of technologies became more widespread among clinicians and in health care systems as well. The first experiences showed that digital health technology can facilitate pandemic strategy and response in ways that are difficult to achieve manually, and some countries, such as South Korea who have integrated digital technology into government-coordinated containment and mitigation processes, were able to tackle the pandemic more successfully (Whitelaw et al., 2020). COVID-19 outbreak contributed significantly also in Hungary to the widespread use of some digital solutions, like ePrescriptions or the Electronic Healthcare Service Space (Győrffy et al., 2020).

However, the performance of digital healthcare technology, according to a systematic review (Gunasekeran et al., 2021), has not yet been properly investigated in population surveys.

The growing importance of digital health showed up on the patient side as well. As a result of the COVID-19 outbreak, during the closures and restrictions, the population was particularly forced to use digital devices both to collect information related to the epidemic and to communicate with doctors and health care. In some stages of the lockdown measures, they could practically limit themselves to this only.

The COVID-19 pandemic has affected all areas of life in the whole world, and Hungary was not an exemption. The first Covid infection in Hungary was detected on March 14, 2020, and the first death attributable to the coronavirus occurred on March 15, 2020. A relatively low number of cases, compared to Western European data, characterized the first wave of the pandemic. In the spring of 2020, the number of active cases rose until May, reaching 2,000, and then began to decrease until the second half of July, when the numbers began to increase again. The second wave started in August 2020 with an extremely rapid rise. In contrast to the first wave, in this phase, young people were also infected in a higher proportion. The second wave began to come to an end in December 2020, but it did not disappear completely, and the third wave began in February 2021, which was much more serious in terms of both the number of illnesses and deaths than the previous ones, reaching outstanding values even in international comparison. Our survey took place during the second wave of the pandemic. [The short summary of the COVID-19 outbreak in Hungary is based on the news of the official governmental website of the pandemic (www. koronavirus.gov.hu)]

This study aims to review the digital health usage habits and needs among people living with disability, compared to the general Hungarian adult population, during the second wave of COVID-19 outbreak.

METHOD

Sample

Within the framework of the "E-patients and e-physicians in Hungary: The role and opportunities of digital health solutions in the healthcare system" (OTKA-FK 134372.) research program, a nationally representative computer assisted telephone interview survey (CATI) was conducted, involving 1,723 interviewees. The sample was selected based on a stratified sampling procedure in terms of gender, age, type of settlement and educational level, and according to these criteria, it represents the adult population of Hungary. Data were collected between October 5 and 13, 2021 by Ipsos Zrt. (Budapest). The sampling frame was 12,000 people, randomly selected from an open telephone inquiry database, as well as a supplementary sample of 8,000 people. 11,733 respondents refused to fill in, and 1,293 people dropped out, but the majority of this happened because of the specificity of the sampling quota. Interviewees were accessed on mobile (80%) and landline calls (20%). Corrective weighting was performed on the data based on sex, age, educational attainment and size of settlement in order to improve representativeness. The number of respondents was 1,721, but the analysis was carried out with a correction weighting calculated for 1,500 people. The average of weights was 0.8716, the 25th percentile was 0.4886 and the 75th percentile 1.0796. As part of the sample, we also obtained information of the characteristics of people with severe disabilities (n = 74) and those with mild disabilities (n = 198), so altogether we have reached 272 people affected by disability.

The research has a TUKEB permit, number: IV-10927-1 TUKEB.

Measures

The self-developed questionnaire contained 25 questions (the average time limit of the interviews was 15 minutes). [The questionnaire is available at the following link: https://semmelweis.hu/digitalhealth/files/2022/02/Lakossagi-kerdoiv_final.pdf]. Beside the socio-demographic background and health status variables, we obtained information on several aspects of digital health: frequency of internet use for health purposes, knowledge and use of digital health technologies, positive and negative attitudes related to the use of digital health solutions.

As for measuring disability, we used the internationally accepted Global Activity Limitation Indicator (GALI). This is a one question instrument, which is part of the Minimum European Health Module (MEHM). MEHM is a set of three general questions characterizing three different concepts of health which was developed to be used in social surveys (e.g. European Health Interview Survey, Statistics on Income and Living Conditions or Labour Force Survey). GALI measures restriction in participation instead of functional limitations. The latter is the concept of the Washington Group who developed a set of questions a minimum of four or six variables (difficulties in seeing, hearing, walking, cognition, self-care and communication) and is therefore difficult to implement in nonspecialised surveys with limited space for disability-related variables. For non-specialised surveys, like our present survey, it is recommended to use GALI as a good proxy for measuring disability (Eurostat, 2015).

Based on a systematic review (Van Oyen et al., 2018), GALI as inclusive one question instrument fits all conceptual characteristics specified for a global measure on participation restriction and has a good and sufficient concurrent and predictive validity, and reliability.

We used the GALI from the Hungarian version of the European Health Interview Survey (KSH, 2021a). It is the following question: "For at least the past 6 months, to what extent have you been limited because of a health problem in activities people usually do? Would you say you have been …" with answer categories "severely limited / limited but not severely or / not limited at all?"

Analysis

In this article, we have set out to provide an overview of internet use for health purposes and the topics of digital health. The data was analysed using IBM Statistics (SPSS 27) statistical data analysis software. During the statistical data processing, distributions, cross-tabulations and chi-square tests were performed.

RESULTS

Demography

In our representative sample, 81.8% (*n*=1,220) of the Hungarian adult population stated that they had not been limited at all in everyday activities because of a health problem, whereas 13.3% (*n*=198) reported mild and 5.0% (*n*=74) reported severe limitation.

The proportion of those with disabilities was lower among men than among women (*Figure 1*), as well as those who belong to the higher age group have higher risk for a health-related limitation in everyday activities (*Figure 2*). While the proportion of severely disabled was only 1.8% among people aged 18-59 years, it was 8.9% among those who were 60 or more years old.
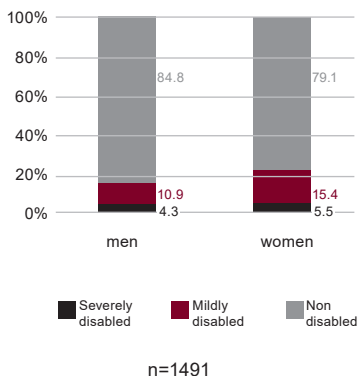

n=1491

Figure 1 Proportion of disabled by sex
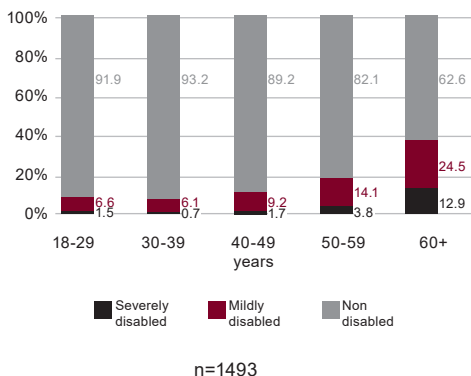

n=1493

Figure 2 Proportion of disabled by age

The educational attainment and the type of the settlement was also important in this regard. While the proportion of severely disabled was only 1.5% among those with higher education, this proportion was 11.2% among those with a maximum of eight primary school years. Similarly (although the difference is smaller), only 2.2% of people living in the capital reported severe limitation in everyday activities due to health reasons compared to 6.5% of people living in villages.

Internet use

According to our data, severely disabled people use the internet half as much as non-disabled people (41.9% vs. 86.6%). Mildly disabled people are in-between the above-mentioned two groups: 63.1% of them stated that they used the internet in general (*Table 1*).

Table 1 Internet usage (%)

		Severely disabled	Mildly disabled	Non disabled
Internet use	Yes	41.9% (n=31)	63.1% (n=125)	86.6% (n=1056)
	No	58.1% (n=43)	36.9% (n=73)	13.4% (n=163)

If we consider the different age distribution of the disabled and non-disabled groups, there is still a difference in internet use between the two groups: non-disabled people under 60 years of age use the internet 5 percentage points more than disabled people of the same age, while the difference is much larger for the 60+ age group: while more than half of the non-disabled (54.9%) and only one third of the disabled (33.5%) use the internet.

Nevertheless, among active internet users, the most frequent internet use for health purposes is higher in the disabled groups: 30.0% of severely and 22.4% of mildly disabled people use the it on a daily basis for searching for health information, whereas this percentage is only 11.6% in the non-disabled group (*Table 2*).

Table 2 Frequency of internet use (%)

		Severely disabled	Mildly disabled	Non disabled
Internet use	Daily	30.0% (n=9)	22.4% (n=28)	11.6% (n=123)
	Weekly	10.0% (n=3)	26.4% (n=33)	22.6% (n=239)
	Monthly	10.0% (n=3)	16.0% (n=20)	23.2% (n=245)
	Less frequently	30.0% (n=9)	24.8% (n=31)	30.0% (n=317)
	Never	20.0% (n=6)	10.4% (n=13)	12.5% (n=132)

Sources of information on the internet

Respondents use a variety of channels to get health related information. Altogether, the adult population use 2.75 sources on average to get information on health related topics. The most popular sources are webpages, 3 out of 4 persons use them to get to acquired knowledge on health and illnesses. Social media and Youtube are also among the most often used channels.

However, we can discover a slight difference of emphasis if we compare disabled and non-disabled groups. People living with disabilities tend to utilize professional sources, like professional journals significantly more frequently, whereas webpages are less favoured among them (*Figure 3*). Meanwhile, there is no significant difference in the usage of social media, blogs, podcasts, online patient groups or social video sharing networks like Youtube.
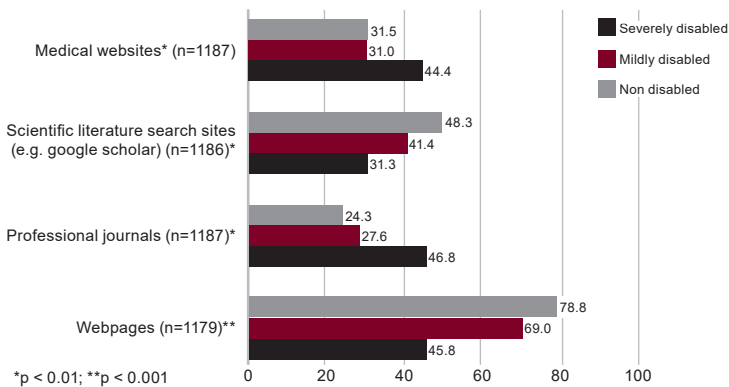
Figure 3 Health related information searching platforms usage (multiple answers were allowed)

Although, it should be added that these differences are no longer significant when age is taken into account. The older age structure of the disabled group therefore seems to influence the results.

Use of digital health technologies

In the survey, we asked about digital technologies patients have heard of and that used. Online appointment booking and ePrescription were widely known in the population, and also more than 80 per cent of the adult population have already heard about the different types of sensors like smart watches. However, less than half of the respondents were familiar with FB for health purposes (48.2%) and teleconsultations (38.2%). Of course, hearing of something does not mean that somebody uses a digital health technology as well, the proportion of usage of the different technologies and devices were lower than the before mentioned values. The most popular was ePrescription, almost 3 out of 4 people have already used it (72.5%), and we can not observe statistically significant differences between disabled and non-disabled

people in that sense, just as like in case of use of teleconsultations or social media for health purposes. All the other examined technologies (online appointment booking, using sensors, using healthcare apps, data, findings digital forwarding health data) were more favorited by non-disabled people (*Figure 4*).
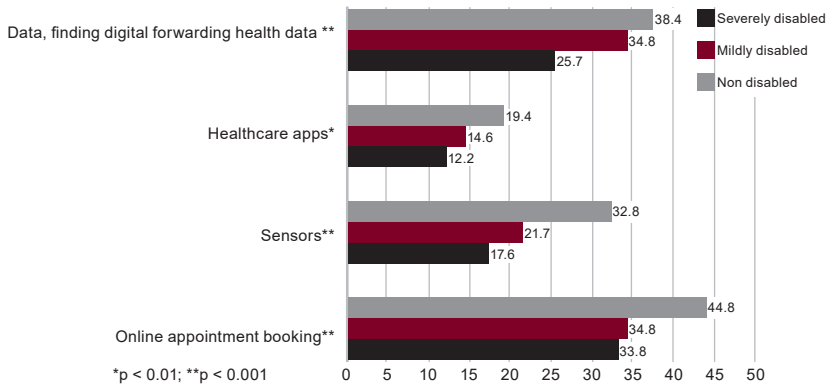

Figure 4 Use of digital health technologies

Nevertheless, there was a significant difference in the number of digital solutions heard about by the disabled and non-disabled groups (disabled: mean: 4.4, N=272, non- disabled: mean: 4.9, N=1220, p=0.01) and the number of digital solutions used (disabled: mean: 2.0, N=272, non- disabled: mean: 2.3, N=1220, p=0.005).

Interestingly, when we asked the respondents about digital technologies they would like to use from those they have not tried yet, the openness was smaller among people living with disability in case of all of the possibilities we asked about (*Table 3*).

Table 3 Desire for using different types of digital health technologies not used before

(%)	Severely disabled	Mildly disabled	Non disabled
e-Prescriptions (n=300)**	23.1	16.7	64.2
Online appointment booking (n=633)**	34.4	25.6	55.0
Sensors (n=280)**	40.5	33.3	41.6
Data, findings digital forwarding health data (n=420)**	16.7	34.8	65.4
Teleconsultations (n=477)**	43.8	42.2	47.1

*p < 0.01; **p < 0.001

Similarly, when we asked about the patients' needs in connection with digital communication and use of devices, disabled people are disadvantaged in all aspects, both in technologies already used and in options that the respondents had not tried before but they would like to use if they had the opportunity (*Table 4*).

Table 4 Use and desire for use of digital health technologies

	Severely disabled		Mildly disabled		Non disabled	
	already used	would like to use	already used	would like to use	already used	would like to use
Communicate with the doctor by email** (n=1491)	8.1	35.1	20.7	32.3	25.6	41.9
Sharing pictures with the doctor through digital channels** (n=1492)	1.4	28.4	9.6	29.3	8.4	43.5
Having a teleconsultation with your doctor (Skype or video consultation)* (n=1490)	0	39.7	4.5	38.4	4.6	51.1
Share health documentation electronically with the doctor** (n=1493)	10.8	40.5	18.6	33.7	19.6	51.3
Monitoring changes in health status with a smartphone* (n=1491)	2.7	43.8	4.5	32.3	1.7	43.1
Using health sensors at home* (n=1492)	14.9	36.5	18.7	38.4	12.5	48.9
Browse websites for authentic medical information* (n=1492)	10.8	36.5	16.6	39.7	16.2	49.5
Making appointments with the doctor online** (n=1491)	19.2	34.2	25.3	33.3	31.1	48.6
Having the doctor recommend an application, sensor, etc.* (n=1491)	1.4	39.7	4	45.5	2.8	55.3

ADVANTAGES AND DISADVANTAGES OF USING DIGITAL HEALTH TECHNOLOGIES

Using digital health solutions can have several benefits and weaknesses at the same time. Respondents considered the biggest advantage of digital health to be comfortable (90.2% thought so), time saving (88.8%), reducing the number of face-to-face doctor–patient encounters (83.3%), improving care efficiency (74.8%), and helping patients cooperate better in the healing process (73.1%). On the other hand, using digital health can mean that care becomes impersonal (76.1%), patients misinterpret their shared health data (72.3%), faulty technology can jeopardise patients' recovery (68.5%), makes patients /doctors frustrated/ patients dissatisfied (65.4%) and increases the administrative burden of doctors (62%).

If we try to compare the opinion of disabled and non-disabled respondents, their answers show differences to some degree: disabled people seem to be more pessimistic, they find less benefits and more limitation for digital technologies. There was a significant difference in the number of benefits of digital solutions mentioned by the disabled and non-disabled groups (disabled: mean: 7.4, N=272, non-disabled: mean: 7.7, N=1220, p=0.02) and the number of disadvantages as well (disabled: mean: 6.1, N=272, non-disabled: mean: 5.6, N=1220, p=0.005).

Discussion

The proportion of people living with disability in our survey is very similar to the results of the latest Hungarian Microcensus, which was done in 2016, with a special focus on disability (KSH, 2018). In the Microcensus, 84.2% of the population lived without disabilities, 9.5% experienced mild and 6.3% reported severe disability (KSH, 2018). However, The European Health Interview Survey conducted in 2019 showed somewhat higher rates for disability: 19.3% reported mild and 6.4% severe limitations in everyday life because of a health problem (KSH, 2021b). Nevertheless, we can interpret our data as representative to the Hungarian adult population, including people living with disability.

In our research, we focused on the knowledge about, the attitudes towards and the usage of digital health technologies and devices and we found some differences between disabled and non-disabled groups about the issue under consideration. Disabled people tend to find less advantage in digital technology, although potentially it could be more useful for them. Distrust is an important aspect, they seem to be less open to new technologies, but we must not forget about the possible lack of available opportunities they may have. Even though the first publication about the inverse care law is 50 years old (Tudor Hart 1971), the main concept is still relevant: disadvantaged populations need more health care than advantaged populations, but receive less. Digital health technologies could hold the possibility to tackle the inequalities, but in reality, it widens the gap. Our results are in line with the international literature and confirm that already existing health disparities are likely to increase with the uptake of digital health technologies (Valdez et al., 2021; Jones et al., 2018; Jones et al., 2020). Van Kessel calls this phenomenon the digital paradox: "the potential that digital health innovations hold can be transformational for delivering care to underserved population groups, but these groups are most likely to be excluded from the digital world through their sociodemographic characteristics" (van Kessel et al., 2022, p. 2.).

However, it is also worth mentioning that according to our result, people living with disability show a definite interest for digital health solutions: almost 40% of them would like to use various kinds of digital health technologies, like teleconsultation or sharing health documentation electronically.

As for the findings from this study, a number of limitations must be noted. First of all, the survey was designed for the general adult population, that's why the subsample of people living with disability is relatively low (*n*=272). The low number did not allow more complex analyses. In that sense we have to be cautious when interpreting the results because there may be some confounding factors (like age or educational attainment) behind them. We didn't aim to establish a causal link between disability and the use of digital health (this would be impossible in a cross-sectional study anyway), but to show the acceptance and use of digital technologies among people with disabilities.

When interpreting our results, it is important to keep in mind that living with a disability is most common among elderly people. Thus, the effects of age and living with disability are combined in the successful use of digital health. The different inequality factors interact, further limiting access. It is important to keep all these factors in mind when planning digital health ecosystems.

Secondly, as we had time limitations with the questionnaire (taking into account that phone surveys should be shorter in general than personal interviews), we had no possibility for using a detailed question set about the type of disability based on functional limitations, even though that based on other research results, there is some diversity among the different disabled groups. For example, people with mobility disabilities were 1.28 times more likely, while people with hearing disabilities were 1.22 times less likely to use telehealth during the pandemic than people with other disabilities (Friedman & Van Puymbrouck, 2021).

Finally, the COVID-19 pandemic has affected all areas of life, including our data collection. Unfortunately, we did not have information about access to telehealth prior to the pandemic, as the survey provides only cross-sectional data and we did not use retrospective questions.

CONCLUSION

The use of digital technologies is fundamentally transforming healthcare. E-health could create an opportunity to reduce health inequalities. However, during the COVID pandemic, it has been proven that the risk of digital exclusion is higher in certain groups. This risk can be higher in groups with multiple disadvantages, like elderly, less educated people living with disabilities. Equitable use of digital technologies must be ensured so that not only high-income countries or populations enjoy its benefits. People with disabilities and other vulnerable groups must be placed at the center of digital health development. The realization of equitable access to digital healthcare would significantly improve the health and well-being of the population.

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