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How can telemental health help reduce the loneliness and isolation of the elderly?

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Abstract

In the study, based on a literature review, the author explains the concept of telemental health and how it can contribute to reducing the loneliness and isolation of the elderly. It covers the experiences of using ICT in the care of the elderly in Hungary, and also briefly presents how the use of digital technology has contributed to the social and mental health care of the elderly during the coronavirus epidemic, and what changes have taken place. The study concludes with recommendations for the use of ICT by social workers and the development of telemental health services for the elderly.

Hogyan segítheti az idősek magányosságának és izolációjának csökkentését a telementálhigiéné?

Kulcsszavak: telementálhigiéné, e-terápia, idősgondozás, szociális munka, IKT, COVID-19

Absztrakt

A tanulmányban a szakirodalom áttekintése alapján ismerteti a szerző a telementálhigiéné fogalmát, illetve azt, hogy a telementálhigiéné hogyan járulhat hozzá az idősök magányosságának és izolációjának csökkentéséhez. Kitér a magyarországi idősellátásban az IKT használatának tapasztalataira, illetve röviden bemutatja azt is, hogy a koronavírus járványhelyzetben hogyan járult hozzá a digitális technológia alkalmazása az idősök szociális és mentálhigiéné ellátásához, milyen változások történtek. A tanulmány a szociális munkások IKT használatára és az idősöknek szóló telementálhigiéné szolgáltatások fejlesztésére vonatkozó ajánlások megfogalmazásával zárul.

Introduction

Telemental health is a special field of telemedicine, this includes mental health services provided remotely with the help of technology, and programs for the protection of mental health. Telemental health programs and services go back almost six decades, online consultation and telepsychological and telepsychiatry treatments have undergone huge changes and development (Tóth, 2017a). Today, they are proven effective in the treatment of anxiety disorders and various phobias, in the treatment of eating and body image disorders, but their use is also promising in the treatment of depression, addictions, and obsessive-compulsive disorder (Aboujaoude, Salame & Naim, 2015). Social media is particularly suitable for reaching young people and carrying out prevention activities. It can help overcome loneliness in old age, maintain mental freshness, and care for dementia patients. In this study I focus on the latter area, on mental health services for the elderly.

The topic is well-researched internationally, but in our country, in Hungary, there is still little to hear or read about these possibilities. More than 15 years ago, I started researching telemental health and the use of ICT by social professionals. Of course, there were already some good practices, examples, pioneering helpers, and services in Hungary. With the appearance of smartphones and the rise of social media, a big change took place, and more and more people began to use the solutions offered by ICT. Clients also began to request online services, and of course, this demand first appeared among young people and young adults, as they also preferred to use online interfaces and social media for other purposes. The caregivers of the elderly were averse to using ICT for several reasons, on the one hand, because of the older generation's lack of access to devices, and on the other hand, the low level of skills

required to use the technology, the digital literacy of the elderly lagged behind that of the Hungarian population. This is understandable, since for example in 2012, according to Eurostat data (Eurostat, 2022a), the proportion of internet users aged 65-74 in Hungary was only 22%, so only a small part of the elderly was available online. Since then, this has changed significantly, by 2021 this had already increased to 62% (Eurostat, 2022a).

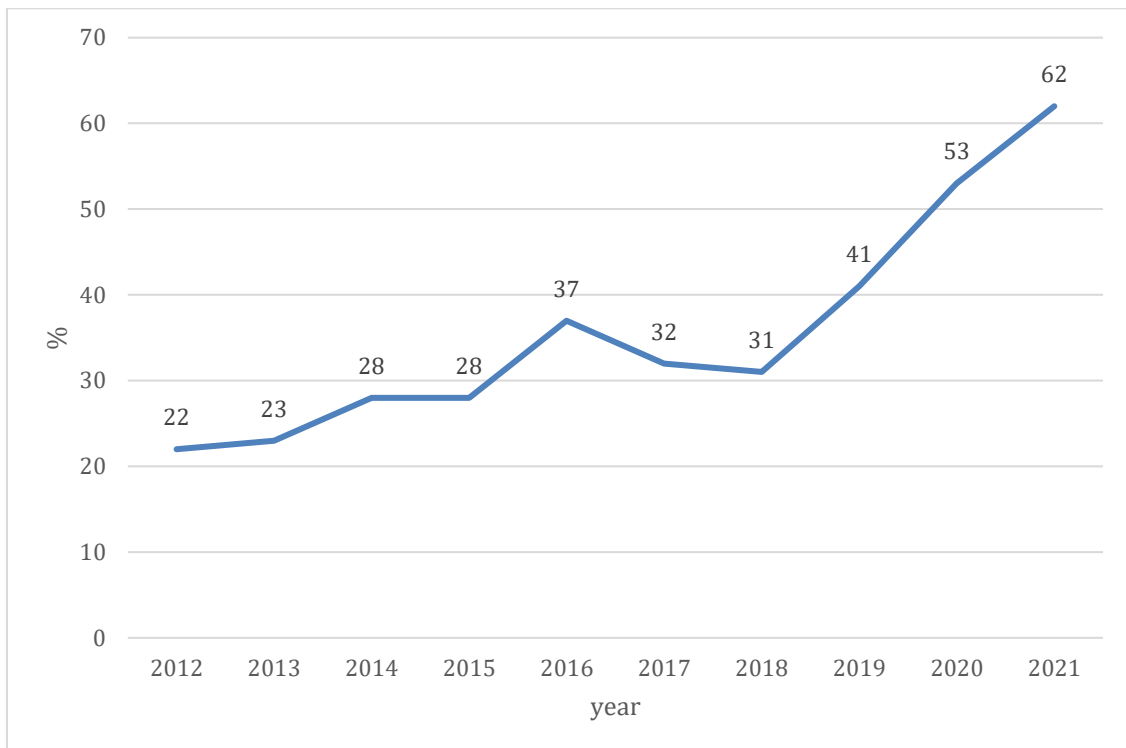


Figure 1. The proportion of Internet users among the Hungarian population aged 65-74 (Source: own editing based on Eurostat data (Eurostat 2022a))

In addition, in the COVID-19 epidemic situation, contact with relatives and caregivers was in many cases only possible with the help of ICT, and those who were previously averse to this started using digital technology, both the clients and the helpers.

In my study, I specifically examine new possibilities for preserving and improving the mental well-being of adults over 60 years of age. Let's review what we know about the mental health and condition of the elderly! Of course, as a start, it is important to note that this age group is very heterogeneous, with a completely different life situation and typical problems of a person who is just getting old and a person who is over 90 years of age. According to WHO data (WHO, 2017), it can be said that "more than 20% of people over the age of 60 suffer from some kind of mental and neurological disorder, of which dementia (5%) and depression (7%) occur

most often in the elderly among persons. The frequency of anxiety disorders is 3.8%, while the frequency of addiction disorders is around 1%, which are often ignored or misdiagnosed during treatment. And the stigmas associated with mental disorders can hinder the individual from seeking appropriate help." (Pukánszky, Szabó & Lantos, 2021: 4) In general, we can say that the health and mental state of the Hungarian population is very bad. Hungarian people are unhappier and more dissatisfied with their lives than the European average, they get nervous a lot, they feel exhausted, and they worry about their job security and the respect of their work (European Commission, 2010). The number of addicts is high, and the proportion of drug users, alcohol consumers, and smokers is also high among young people (EMCDDA, 2016). "Mild depressive symptoms were reported by one-fifth of Hungarians, 1.5% suffered from a moderately severe/severe condition." (KSH, 2019:1) Among those over 65, the proportion of those suffering from at least mild depression was 31% (KSH, 2019). This is in line with the results of international research, as they also showed that the proportion of depressed people is higher among the elderly, and it was established that loneliness is the main risk factor for depression in old age (Kabátová et al., 2016). There is therefore a clear connection between loneliness and depression. Although the number of suicides has shown a slow improvement for decades in Hungary (KSH, n.d.), globally and within the European Union, we are one of the countries with an exceptionally high number of suicides (Eurostat, n.d.; <http4>). It is a serious problem that although an outstanding number of people struggle with mental problems, few ask for help from professionals, which has several reasons, the shortcomings of the care system and cultural reasons also play a role.

In addition to the poor mental health of the population, demographic trends and the aging of society also pose a serious challenge. "The increase in average life expectancy at birth and the low number of children have naturally triggered the emergence of declining, aging societies. All this has led to a number of tasks for policy makers, domestic and international organizations, primarily to promote active, healthy aging." (Fedor et al., 2021: 86). Based on Andrea Gyarmati's study (Gyarmati, 2019), it can be said that the number of people over the age of 65 is 1.8 million (based on the 2016 microcensus). Among them, 1.3 million people live with some form of physical limitation, the neediest are those over 80, and their number was 412,000 in 2016. 250,000 elderly people are affected by dementia, 6% of them end up in nursing homes (where 23% of the residents are demented). Aging results in many challenges: nursing and caring tasks place an increasing burden on families and the care system. The sustainability of care costs and the pension system is more difficult, but at the same time, the

expectation is to ensure a better quality of life, and issues of solidarity and fairness appear more prominently, between and within generations. The aging of the population in Europe is predicted to increase. “A shortage of up to two million jobs in care and health is projected by 2020 if no action is taken, which would result in 15% of necessary work in the general healthcare sector not being covered. The ratio of people over 65 to working-age people (aged 15 to 64) will drop from approximately 1:4 in 2008 to 1:3 in 2020 and 1:2 in 2050, straining intergenerational solidarity. The rising cost of ageing will have a significant impact on public finances, but also on private wealth.” (European Commission, 2013: 2-3). The situation in Hungary is already dramatic, there is a big shortage of care. The data show us that there will be a much greater need for the care of the elderly, but also for the services provided to the still active and healthy elderly. We have to note when analysing the demographic situation that according to forecasts, the number of people over 80 is expected to increase by more than two and a half times by 2100 and reach 14.6% of the total population (Eurostat, 2022b). This is obviously important because the majority of people over 80 already need care and nursing. All of this presents a significant challenge to the health and social care systems, which are already operating with a significant shortage of human resources and waiting lists. For example, in Hungary the average waiting time to be placed in a nursing home is 2 years, there are currently 45 people waiting for 100 beds (Gyarmati, 2019). During the waiting period, nursing and care must be provided by the family, which obviously means a great financial, mental, and physical burden for the family, especially for women, since typically they carry out these activities.

The application of ICT offers good solutions for dealing with the challenges above, in this study I will only focus on the presentation of those that support the preservation and improvement of the mental health of the elderly, by reducing isolation and loneliness.

What do we know about the mental state of the elderly in general, in the context of loneliness and isolation? “The process of aging includes not only the constant decline of the general health condition and daily functioning, but also includes the decrease of the mental and cognitive performance, which further impairs the everyday life of the older adults” (Mile et al., 2019: 163). It is important to note that in modern societies socioeconomic and biopsychosocial factors are more likely to cause death than biological factors (Jóna, 2021). The mental health of the elderly is influenced by several factors, such as life satisfaction, the sense of meaning in life, psychological well-being, psychosomatic symptoms, the presence or absence of social relationships and loneliness (Pukánszky, Szabó & Lantos 2021). According to research results, there is a relationship between loneliness and physical and mental well-being (Golden et al.

2009), the lonelier elderly is more likely to have a negative psychological well-being and have more psychosomatic symptoms (Pukánszky, Szabó & Lantos, 2021). Loneliness is associated with lower physical performance (Philip et al. 2020), is often associated with anxiety and depression (Yu, Choe & Kang, 2020) and may be a risk factor for early mortality (Luo et al., 2012). Loneliness and isolation therefore pose a serious health risk, which is why we need to find solutions that help overcome them.

Discussion

In my study, I focus on a special field of telemedicine, the use of technologies for the protection and improvement of mental health, and mental health services provided remotely. In the international literature, the term telemental health or E-mental health is used for this, the prefix tele refers to the distance in space and time (or even to the shift between time zones) (ATA, 2009). The range of telemental health care and services includes condition assessment, diagnosis and treatment plan, symptom monitoring and treatment, individual and group psychotherapy, psychoeducation, psychiatric treatments, and prevention (Morland et al; Aboujaoude, Salame & Naim, 2015). They operate the services and provide the programs using technology, usually with the help of information communication technology. They can also use computer programs, the Internet, teleconferencing, and smartphone applications to provide mental health services remotely. As can be seen from the list, not only Internet-based technologies can be used for this purpose, but also mobile technology (mobile health services, mHealth), and there are even experiments regarding the use of robot technology, for example in the prevention and treatment of mental problems in old age - loneliness, dementia.

The four main areas of telemental health are: " computerized CBT (cCBT), Internet-mediated CBT (iCBT), virtual reality exposure therapy (VRET), and mobile therapy (mTherapy)" (Aboujaoude, Salame & Naim, 2015: 223). The cCBT means standardized, automated psychotherapy provided using software. Its use enables users to self-diagnose, define personalized treatment goals, monitor symptoms with standardized therapeutic tools, and prevent relapse. There are three types of internet behavioral therapy programs (iCBT) according to the degree of involvement of the helper: there are programs that do not require the direct participation of a helper to operate, there are programs with minimal involvement of the therapist, with the exchange of e-mail or text messages, and the third type is carried out by the therapist real-time online treatment, e-therapy, during which the therapist, consultant and client

communicate (almost) in real time, usually via video conference (Aboujaoude, Salame & Naim, 2015). VRET (Virtual Reality Exposure Therapy) uses virtual reality in therapy, imitating and simulating real situations. The popularity of smartphone applications is growing rapidly, these apps not only help the interaction with the therapist, but can often almost replace the therapist. They help establish a diagnosis, self-monitor the condition, track, and document symptoms in connection with traditional therapy and remind you of the next appointment and therapeutic homework (Aboujaoude, Salame & Naim, 2015). Mobile health applications have flooded the market, according to the OECD, more than 165,000 health applications were available in 2015, which doubles compared to 2013 (OECD, 2017). In January 2014, thousands of mental health apps were already available among health apps (Chan et al., 2014). If we interpret telemental health more broadly, then we can also include websites containing information about mental health, blogs, mental health content available on social media, online psychological tests, telephone counselling, various message boards, mailing lists, and self-help groups operating on the Internet and on social networking sites.

From the presentation of the areas of telemental health, it can be seen that in a significant part of the services and programs, there is no need for the direct participation or involvement of a therapist, there are many automated, standardized software solutions, with the help of which the therapy takes place "autonomously". In this case mental health professionals have tasks in designing the software and developing the programs, measuring, and monitoring their effectiveness. The full cooperation and involvement of the therapist is most necessary for telepsychiatry treatments, e-therapy carried out using video conferencing technology, psychological support programs based on synchronous or asynchronous communication, and prevention programs. These telemental health programs can be operated by health and social care professionals such as doctors, nurses, psychologists, psychiatrists, social workers, addiction specialists, counselors, therapists, and other mental health professionals. In the literature, these professional helpers are typically listed when it comes to psychological, psychiatric treatments, and mental health care within telemedicine care, but trained volunteers, peer helpers, and fellows can also play an important role in the operation of mental health programs and the provision of services.

The effectiveness of telepsychiatry treatments is usually measured with controlled randomized trials, comparing the effectiveness of the treatments with traditional therapy. Telepsychiatry treatments and telemental health services can promote, for example, the treatment of anxiety, depression, post-traumatic stress syndrome, the protection of mental health, the cessation of

addictions, coping with grief and loss, and prevention. Its spread and increasing role can also be expected in elderly care; there are already online mental health services for the elderly, communities in the social media, applications, and online trainings against loneliness (Tóth, 2017a; Tóth, 2017b). The effectiveness of telemental health programs and services has been proven in the treatment of children and young people, and their use is also promising, for example, in the care of the elderly, in the social services for the members of linguistic and cultural minorities and for those using sign language and in the care of people suffering from attention-deficit hyperactivity disorder (Hilty et al., 2013). The effectiveness of VRET has been confirmed by numerous clinical studies in several areas, in addition to PTSD, for example in the prevention of psychiatric diseases, in the treatment of anxiety disorders and various phobias - agoraphobia, claustrophobia, social anxiety disorder - in the case of eating and body image disorders, in the treatment of addicts, its use in the treatment of obsessive-compulsive disorder is also promising (Aboujaoude, Salame & Naim, 2015). Among the advantages of telemental health is that it promotes clients' access to mental health services, makes geographical distances easily bridgeable, and enables clients to ask for help even anonymously, which reduces stigmatization. With the help of technology, we can reach and provide assistance to groups whose members were previously unable to access traditional health and social services due to the lack of development of the care system, due to their physical disability or even the fear of shame, contempt, discrimination or retaliation. Hilty and his co-authors draw attention to the fact that the measurement of effectiveness should cover several aspects, it should also be examined from the perspective of patients, providers, programs, communities, and society as a whole. A system of criteria was developed that can help measure the effectiveness of telemental health programs. Thus, for example, the financing of telemental health programs and telepsychiatry treatments can and should be investigated (is it cost-effective, can it be used to prevent problems that would cost even more to treat, what are the hidden costs of operation, etc.), whether it is suitable for reaching certain special target groups and treating special problems, whether it increases clients' and patients' access to care and services, whether it improves the quality of services, whether it takes into account individual needs, what effect the spread of telepsychiatry has on care systems, what risks it poses (Hilty et al., 2013).

It is important to state that telemental health cannot be used for all types of problems, situations, and target groups. When planning ICT-based mental health care and services, the facilitator must assess the potential advantages and disadvantages of ICT use for the clients and whether remote assistance is a suitable solution for the treatment of the given problem for the target

group. For this, it is necessary to know the needs, situation, cultural characteristics, and habits of clients. It is necessary to think about whether the conditions are in place to provide care and services at an appropriate level, safely, in accordance with professional protocols, ethical codes and legal rules. By considering all of this, an adequate decision can be made about starting the service or choosing another solution or form. Helpers working with ICT must also have digital literacy and information and communication technology literacy. Components of ICT literacy: ability to access, manage, integrate, evaluate and create information (Boutin & Chinien, 2003). They must also be aware of the communication characteristics of the given medium, the "psychology of the Internet", as this affects the counseling and the effectiveness of the interventions. This knowledge is necessary to be able to handle and interpret situations, to understand the client's reactions and their own behavior. The guidelines, standards and recommendations issued by professional organizations help to ensure that the helpers' work is professional and ethical. The professional organizations of psychologists, psychiatrists, therapists, consultants, social workers and telemental health professionals formulated statements, guidelines and code of ethics for the provision of telemental health services, which I have presented and analysed in my previous publications (Tóth, 2017b; Tóth 2017c; Tóth 2020a, Tóth 2021).

Reducing loneliness and isolation in the elderly with telemental health

Innovative solutions and information communication technologies can help the care and social integration of the elderly, for example in the following areas: mobility, transport, safety, health monitoring, nutrition, support of mental health, entertainment, recreation, maintenance of family and social relationships, long-term care, rehabilitation, prevention, training, lifelong learning, development, self-actualization ([http1](#)). The use of ICT in the care of the elderly can have many positive benefits. It enables a better quality of life for the elderly and their caregivers. It can contribute to a longer independent, active and fuller life instead of institutional care, and can reduce the number of days spent in the hospital. Its advantage is the increase in the autonomy of the elderly, the support of social involvement and participation, and improving access to services. It can play a big role in prevention; it can help prevent deterioration of the patient's condition. It helps to relieve the burden on nurses, caregivers, and to reduce their physical strain and stress. It makes it possible to provide more complex services in a cost-effective manner, thereby it can be a solution for managing the care crisis and making care sustainable. A further increase in the role of technology in the provision of mental health services is expected.

Regarding telemental health programs for the elderly in the context of the treatment of loneliness and isolation, we already have many experiences and research results available, which I would like to briefly summarize. Based on a review of the literature, Farrell Bohan reports that "the utilization of telehealth visits has a potential psychological benefit by dramatically increasing the quality of life for seniors. Additionally, it can decrease the financial burden of emergency department visits or missed appointments with their primary care provider." (Farrell, 2020: 3). Elderly people using telehealth services feel less lonely, their sense of security and well-being increases during the telehealth treatment. Based on the literature, it can be said that the proportion of depressed people due to loneliness decreases among the elderly who use the video conferencing service (Farrell, 2020). Telehealth and online group interventions can help to connect lonely and isolated older adults (Zubatsky et al., 2020). Zubatsky and his colleagues examined telehealth groups in which separate calls and scheduled Zoom meetings were used to help check in or follow up on topics discussed at sessions. In the telehealth intervention of Circle of Friends the participants experienced independence in participating in activities - for example therapeutic narrative writing, creative arts and inspiring activities, strength training/exercises - in the comfort of their residence. In addition to convenience, this solution has the advantage that the participants could play back recordings of sessions to remember group tips and feedback (Zubatsky et al., 2020). With the assistance of technology, even the elderly living in different care homes can build new friendships and get to know each other, which can significantly reduce their loneliness and isolation, so video calls are able to improve socialization among older people and their peers (Zamir et al., 2020). Based on a literature review, Zsuzsa Széman showed in her study that video communication can help reduce loneliness and isolation and improve the quality of life, satisfaction, and self-esteem of the elderly (Széman, 2013). Particularly interesting is the research of Milliken and his co-authors (Milliken et al., 2012), who examined the video communication of Canadians between the ages of 55 and 77 and disproved the stereotype about the elderly that they are fundamentally dismissive and uninterested in technology use. They described the phenomenon of how video communication reduces feelings of loneliness. "Participants recognize the intrinsic value of video to improve a sense of connection, or increase the social presence that comes from seeing the person with whom they are communicating. ... Participants who have regular contact with family and friends used video calls because the technology increased the social presence or the sense of being together in real time... Seeing the other person in the conversation allows engagement with a deeper connection, even after a long time had passed

since they had met in person. The social presence enabled by video increased their engagement in the activity. The ability for the person to make him or herself seen on video has value, since social presence is not just about seeing other people; it is also about being seen, and presumably, heard.” (Milliken et al., 2012).

According to a review by Gorenko and her co-authors, several studies have shown that there are effective interventions against social isolation and loneliness that connect the elderly with others, such as by phone, online video chat or social media (Gorenko et al., 2021). At the same time, it is important to note that in terms of efficiency, it is of great importance in what way, what kind of device is used, and whether the elderly have been prepared to use the technology. Also, it seems that the elderly still demands the retention of traditional forms of communication in addition to online options (Gorenko et al., 2021).

In a 2014 Australian research (Banbury et al., 2017), services provided to elderly people living in their own homes and the effect of weekly video conference groups was examined, in which the participants were trained and had the opportunity to discuss health-related topics and get to know others. According to the results, although the participants' most important social supporters remained the same, after the interventions the participants saw that friends and family members played a more important role in the treatment of their illnesses than before. The social support of the participants increased thanks to the regular video conference meetings. It seems that participation in videoconference education groups increases the social support of the participants, expands their network of relationships and enables the chronically ill elderly participating in the program to better self-manage (Banbury et al., 2017).

With the help of ICT, the elderly and their caregivers can more easily communicate and stay in touch with each other. CareTV used in elderly care in the Netherlands is one such solution, which allows elderly people living at home to communicate with carers, family and friends via their TV. Among CareTV users, "feelings of loneliness significantly decreased within one year. As loneliness is a problem in an estimated 30–40% of the elderly, CareTV seems to be a suitable instrument for the elderly, to live longer at home with less feelings of loneliness” (Van der Heide et al., 2012: 2).

Digital technology can not only make the lives of the elderly easier and better, but also make the work of their caregivers easier, for example by providing guidance, professional and mental support (Marziali, 2005). In a Canadian research (Chiu et al., 2009), internet-based caregiver support for Chinese Canadians, who are taking care of a family member with Alzheimer disease

and related dementia, was studied. The researchers conclude that "Internet-mediated support is a viable solution for family caregivers ... caregivers can benefit from receiving professional support via asynchronous e-mails and a dedicated information Web site." (Chiu et al., 2009: 323) The special advantage of the program was that the service offered in it can meet the ethno-cultural-linguistic needs of the immigrant caregivers (Chiu et al., 2009). The use of digital technology can also help the care of people with disabilities and barrier-free communication, for example, clients with hearing impairment can communicate in writing.

The mental health of the elderly can be supported not only by the possibility of building relationships with peers and friends, but also by reducing loneliness. Psychologists, social workers and other helpers offer many services on the Internet, including online therapies and individual consultations. These can be very important, for example, coping with grief and losses, and solving social and family problems. There are online mental health programs and applications specifically for the elderly, such as Virtual Coach Reaches Out To Me, which is a virtual coach against loneliness in old age. In the program, a middle-aged male figure gives advice in 12 lessons on how to take care of their relationships and build new ones. The program developed by psychologists can be customized, reminding, for example, which acquaintance to organize a meeting with and when (Tóth, 2017a).

In the diagram below, I have summarized in a word cloud how the use of digital technology can help the elderly.



Figure 2. How can the use of digital technology help the elderly? (Author)

Many ethical questions and dilemmas can arise during the use of technology, just think of smart homes, cameras, sensors, 24-hour elderly monitoring systems, which can help security, but at the same time, their use can violate human dignity and the right to privacy. It is important that social and healthcare professionals use ICT professionally and ethically, for example, they use social media consciously. It is important to study these issues further, to take legal and ethical issues into account when developing the systems, and to support social workers use technology consciously with training and guidelines.

Supporting the safety of the elderly and ensuring the possibility of asking for help is a very important area. In Hungary, the use of alarm system in home care is widespread. In this system, if the elderly person pushes the emergency call button, the system alerts the caregiver/on-duty person, who must go to the elderly person's home within a short time. In her dissertation, former ministerial commissioner Dr. Rubovszky showed, based on research results, that a new kind of device, a condition monitoring and emergency call bracelet could be a big help to both formal and informal caregivers, and recommended that the state provide it as a service for all elderly people, as she sees it as helping to prevent deterioration and also serving the safety of the elderly (Rubovszky, 2017). Some state programs have been launched to provide such devices, tools, in 2017, within the framework of the National Information Communication Program for

the Elderly, 5,000 elderly people over the age of 65 who were unable to leave their homes were provided with ICT use, and the participants also received personalized help in their own homes to learn how to use the devices. Using the tools, they were able to communicate with the program's dispatcher. "One of the main goals of the program was to alleviate loneliness, prevent the two biggest health risks associated with aging, dementia and stroke, and optimize the time for professional assistance" (Századvég School of Politics Foundation, 2019: 7). According to the program's impact assessment, the program was successful in that, for example, participants' feelings of loneliness decreased, their well-being improved, they became calmer, and they saw their everyday life as more interesting (Századvég School of Politics Foundation, 2019). In 2022, the "Gondosóra"/CareWatch program was also launched, with the help of a simple device, with a watch in the event of a problem the elderly people living in their own homes can communicate with the contact person they have appointed in advance, or the dispatcher will alert them. The device is connected to a nationwide remote monitoring and dispatch service, communication takes place through a dispatcher, and the project's goal is to protect human life and guarantee safety. The service and the signaling device are free of charge and are available in every settlement in Hungary, every day and every hour of the week ([http2](#)). The Gondosóra/CareWatch system is just being introduced, its reception was mixed on the part of social professionals, some think it is a good option that will increase the sense of security of the elderly, while others sharply criticized it, they see that it is very expensive to build the system, and - at least according to the first minimal information - it does not provide real, immediate help to the patient, since the system notifies a dispatcher and does not alert a local caregiver or nurse who can be mobilized immediately, but instead informs a contact person, a relative, who maybe does not resident in that place, doesn't live nearby ([http8](#)).

In summary, in Hungary, these are solutions suitable for calling for help and support to maintain contact with the caregiver, which are widespread in social services. The use of robots that help with nursing and care, smart homes, and solutions that support mental well-being is not yet typical at all. However, there are also several pioneering projects, good practices, and civil initiatives in Hungary. For example, Zsuzsa Széman presented the experiences of the intervention model program called Skype Care (Széman, 2012), in the program the elderly learned how to communicate with their family members on Skype. The program disproved the prejudice that elderly people in need of care are incapable of acquiring technical knowledge. It has been proven that old and chronically ill people are also able to learn to use new ICT, if they are sufficiently motivated and receive support and help in learning. The positive outcome of

the program was that this new activity filled the seniors' free time and everyday life and gave them a purpose in life. They also found that "over time, the 'learner' can become independent and will be able to discover new things on his own. His loneliness and depression disappear, and his interpersonal relationships expand. With the elimination of depression, many of his health problems also disappear. On a macro level, this will reduce the expenses of the health care system (not measured in this research) (medication with psychosomatic symptoms, the call of an ambulance, the use of a family doctor), and the burden on social care providers will also be smaller. Through the possibilities provided by info-communication, the elderly can reintegrate themselves into society" (Széman, 2012: 15). I would highlight another good example, the activity of the DéIUtán Foundation, who operates telephone helpline and counselling for elderly and middle-aged people via e-mail, chat and Skype. They also provide medical, legal, and social counselling and they have an online partner and community searching service. The elderly are also trained in the use of computers and smartphones in small groups as needed (Tóth, 2021).

Changes during the coronavirus pandemic

Online consultation and the use of technology by social workers has changed significantly during the COVID-19 epidemic. Online contact with clients and even consultation have become widespread, but the use of online tools has increased tremendously not only in social work with clients, but also in discussions with colleagues, holding team meetings, case discussions, training and supervision. They also began to use the opportunities offered by technology in those social services which they were previously averse to them. Although there has been little research on the topic and perhaps more time is needed to see exactly what changes took place during this period, we already have some knowledge about the effects of the epidemic situation from the news, from what professional meetings, forums, workshops and conferences organized by various professional organizations. I presented this in more detail in my dissertation (Tóth, 2021). Here, I would write about these changes only briefly and focusing on experiences related to the care of the elderly. In the pandemic situation, huge efforts have been made in many countries to ensure that social institutions do not have to be closed and that care can be operated and that the infection was not brought in, which is why social workers, caregivers, and nurses moved into residential care institutions in several places. This was a huge sacrifice on their part, since the majority of workers in the sector are women, who also have to take care of their own families, relatives, and children. Many were innovative, operating telephone hotlines, chatting with clients online, and started providing online

counseling. Developing the skills of social workers and clients has also become necessary to use technology and social media. Telephone and online consultation worked well with existing clients, but experiences with new clients were contradictory. In China, they quickly switched to social media contact and online consultation, in South Korea they called clients by phone, took out food for them, and offered face-to-face consultation to the most vulnerable (Truell & Crompton, 2020, Tóth, 2020b). In several residential care homes in Hungary, the caregivers agreed to move into the institution and heroically stood their ground. Many clients lost their jobs and livelihoods, many suffered from isolation and loneliness, and psychological problems intensified. The number of calls received by the National Crisis Management and Information Telephone Service (OKIT) and the Hungarian Mental First Aid Telephone Service Association (LESZ) was higher compared to the previous year. The proportion of victims of relationship violence and those with mental problems has increased (Farkas, 2020). Psychologists and psychiatrists were also recommended by their own professional organizations to use online tools during this period, to name just a few examples the Hungarian Group Analytic Training Organization (Csoportanalitikus Kiképző Társaság) published a recommendation on its website regarding the coronavirus situation, in which it was written: "We consider holding groups online as a realistic alternative. In this, the group leader's individual attitude towards this form and his technical possibilities must be considered; the personal possibilities of the group members (also technical), their current status, the group's attitude towards this." ([http3](#)) The Hungarian Psychiatric Association has published a collection entitled "Psychiatry during the epidemic: professional support materials", including articles on telepsychiatry, online community mental health services, online prevention in relation to suicide prevention, evidence-based online interventions and applications, studies were also shared ([http5](#)). Telephone counseling services have expanded their operational and ethical rules. During the epidemic situation, staffing and supervision were also done online at most support services.

The Ministry of Human Resources (EMMI) and the national chief medical officer published several professional recommendations related to the prevention of the spread of the coronavirus, by type of care ([http6](#)). In these, it was recommended to those working in basic social services to primarily use electronic contact and administration. "The attention of the persons using the service should be drawn to the fact that during the time of the emergency, they should not leave their own home, if possible, minimize personal meetings with relatives and professionals assisting them in their care, and maintain contact with relatives and acquaintances primarily by telephone and electronic means. In the case of all basic services, it

is necessary to regularly contact clients by phone and inquire about their situation and condition, as well as offer the necessary assistance." (EMMI, 2020) So, in many areas, for example in basic social services and family and child welfare services, use of telephone, online communication and electronic administration became the basic protocol. The clients had to be informed about the methods of electronic contact and the contact details of the services (websites, Facebook groups, Skype addresses, telephone numbers, e-mail addresses). However, further details, professional, ethical, methodological, and technical recommendations regarding online contact and consultation were not included in the issued guidelines, so it was very varied who was able to ensure the operation of the services, how, using what tools and interfaces, and at what level. It is certain, however, that more social workers and other helpers than in the previous period used digital technology to maintain contact with clients and, beyond that, for counselling, case management, and consultation.

Most of the helpers started using various platforms and programs for online consultations, many also chose chats and e-mail. There were services and institutions where the helper could decide for himself which program to use, and there were those where they could only use one official platform. Whenever possible, the social workers and counsellors took into account the needs of the clients when choosing the platform. There were helpers who shied away from switching to "online" or even rejected it, while there were also those who, due to their health and living situation, were only able to work in this way during the coronavirus emergency and in the period between the waves. It also happened that, although there was openness on the part of the professional helpers, the necessary tools or technical knowledge were missing, and in some cases, this was bridged, even with the help of volunteers. According to the consultants, typical problems faced by clients during the epidemic were loneliness, isolation, anxiety, lack of motivation, housing problems, and family and relationship conflicts. For many, their daily routine was disrupted, and their drug use increased. Many foreigners also turned to counsellors (especially university students), as they too suffered from not being able to visit home, were isolated, anxious, and many were in a crisis situation. People's existing problems have also intensified. In the case of the elderly, the main difficulties were loneliness and isolation (Tóth, 2021). In the epidemic situation, in the health care the provision of the patient path was not always well resolved, it was difficult to get into psychotherapy, psychiatric care was also reorganized in several places, psychiatric wards were closed and covid patients were treated there as well. In this situation, the role of professional co-operations and contact systems has

become more valuable, so that there is a live connection between the various health and social services, and that the various actors have up-to-date information.

It was a challenge for the institutions and for the social professionals, that more attention had to be paid to reaching clients, to advertising and marketing the online option and new services. In several services, they tried to be creative, tried new things, for example, made videos, wrote, or shared content, wrote blog posts, made podcasts, broadcast on the radio, and offered several online contact options. Many social service providers used the most popular social media platforms to present their services and advertise their current online programs. Many people communicated and kept in touch with existing clients online individually and in private groups. Most of the consultants said that although they left the online option optional even when the emergency situation ended, the clients also had a great need for personal meetings and personal consultations, and the value of the personal relationship increased. However, it is also a common experience that there were also those who would never have gone to the first consultation in person, for such clients the online option was a great help. So, it seems that with the easing of the epidemic situation, it is worth keeping the hybrid form of counselling.

In addition to the difficulties arising from the epidemic situation, social workers and caregivers also experienced the differences between online and personal consultations. According to consultants (Tóth, 2021), online helpers more often gave tasks and "homework" to clients to reduce uncertainty and anxiety. Especially in the first wave of the pandemic, it was important to relieve panic, to ventilate, so that clients feel that they are in control. Small groups were held, these worked well, the opportunities provided by technology were utilized, and the small groups were divided into further mini-groups. Where possible and if the topic allowed, training was also held online, for which the material of the training had to be reworked. Sharing psychoeducational materials was easier, but several techniques and methods could not be used online. In the case of certain services, they also had to figure out how to solve it technically to guarantee anonymity. The organization of work has also become different online, with many service providers the distribution of messages was entrusted to dispatchers, and data sheets were filled out for consultations, which were stored in a common system or on a server. Several people experienced that online consultation is very tiring, more tiring than personal consultation. Online metacommunication is limited, attention, concentration, and memory completely change in the online space, several counselors said that they had to take notes, their attention wandered. There were several clarifying questions from the helper, the clients were asked to verbalize their emotions. Attention to verbal elements is stronger online, since the

helper sees less, so the helper has become more focused. In the consultation processes, the number of sessions typically increased, but with fewer clients.

Vajda Kinga drew attention to the fact that ICT knowledge and digital literacy are also very important for the elderly, thus those who can use digital technology at a skill level are less vulnerable in the global crisis situations that are becoming more and more common these days - such as the COVID-19 epidemic situation. By using this, they can reach not only professional helpers, but also their peers, volunteers, members of the local community, they can therefore ask for and receive help, they do not have to wait for/rely on help provided by the state (Vajda, 2020). I think that this is true, those elderly people who were able to use digital technology to stay in touch with their relatives, acquaintances, local volunteers, helpers, who could manage their affairs, shopping etc. online were in a much better and more advantageous position during the epidemic. For this, of course, it is not only necessary to have access to the tools, but also to have the necessary skills to use the technology, to use the technology autonomously or get help, social support to use it (DiMaggio & Hargittai, 2001). In connection with the elderly, services provided with the help of ICT are often planned in such a way that they calculate that the elderly also need the assistance of a caregiver in order to be able to use them. It is also a common solution to develop smart solutions, devices, or even robots, which are specifically adapted to the needs of the elderly, the use of which requires minimal ICT knowledge or can even be used easily by people with disabilities. Is a good example for this is that during the pandemic in UK care homes they started to use wheeled robots, called “Pepper”, to reduce loneliness. These robots can move independently, can hold simple conversations and are culturally competent, it means they learn about the interests and backgrounds of care home residents. In an international trial found these robots boosted mental health, and reduced loneliness ([http7](#)).

Csaba Kucsera and Anna Holpert examined the online activities of Alzheimer Cafés in the six months before and after the outbreak of the coronavirus. They see that "the often emerging or deepening social isolation and family crisis of people living with dementia and their caregivers, or the general sense of danger caused by the epidemic and the chronic stress situation caused by uncertainties, could probably be reduced by a solidary and actively supportive AC community" (Kucsera & Holpert, 2021:60). During the examined period, in Hungary - in contrast to the presented Dutch and Austrian examples - it was not really realized, the Alzheimer Cafés were typically not able to transition well to online operation, they typically suspended their activity, or it was only limited to sharing content. There were a few exceptions to this, for example, the “Hegyvidéki” Alzheimer Café (12th district of Budapest) event took

place online and the Modus Foundation shared its own supporting video content on dementia and elderly home care (Kucsera & Holpert, 2021).

Conclusions and recommendations

According to the literature review and research results, digital technology can play a major role in reducing the loneliness and isolation of the elderly, providing social and mental health services, and supporting the work of caregivers. Based on a review of the literature, Farrell Bohan reports that "the utilization of telehealth visits has a potential psychological benefit by dramatically increasing the quality of life for seniors. Additionally, it can decrease the financial burden of emergency department visits or missed appointments with their primary care provider" (Farrell, 2020: 3). Elderly people using telehealth services feel less lonely, their sense of security and well-being increases during the telehealth treatment. The proportion of depressed people due to loneliness decreases among the elderly who use the video conferencing service (Farrell, 2020). Telehealth and online group interventions can help to connect lonely and isolated older adults (Zubatsky et al., 2020). Several studies have shown that there are effective interventions against social isolation and loneliness that connect the elderly with others, such as by phone, online video chat or social media (Gorenko et al., 2021). Video communication can help reduce loneliness and isolation and improve the quality of life, satisfaction and self-esteem of the elderly (Széman, 2013).

Psychologists, social workers and other professional helpers offer many services on the Internet, including online therapies and individual consultations. These can be very important, for example, in processing losses, grief, and solving social and family problems. With the help of ICT, the elderly and their caregivers can communicate more easily and stay in touch with each other. Digital technology can not only make the lives of the elderly easier and better, but also make the work of their caregivers easier, for example by providing guidance, professional and mental support (Marziali, 2005; Chiu et al., 2009).

In summary, it can be said that information and communication technologies can greatly support the healthy and active old age of the elderly and, if necessary, their care and support (Bene, Móré & Zombory, 2020). There are many well-functioning telemental health model programs, projects, and initiatives, and it is important to share domestic and international good practices in connection with the services and care provided to the elderly with the help of ICT. It would be worth further research to what extent the pandemic situation has changed the use

of technology and social media by clients and social professionals, what experiences there were during the coronavirus emergency, and how the increased use of ICT affected inequalities.

The further spread of telemedicine and thus telemental health services is expected, with its effective application we can provide better, more targeted services that are better adapted to the needs of the population. The problem hindering the spread of telemental health services is that the cooperation between social and healthcare professionals is not strong enough, and in the care systems, the care of the patient/client run on separate threads. There is a lack of a holistic approach, keeping the client's physical, mental, and social well-being in mind, providing them with appropriate care, and protecting their health. In its announcement, the European Commission emphasizes that the spread of telemedicine services is also hindered by the fact that health and social workers do not know the potential of electronic health care and the potential users are unprepared (EU Commission, 2012).

It is also very important that the clients and helpers are involved in the design of the various tools, programs and software and that their feedback is also taken into account, that these tools are user-friendly, that they feel that the use of the given tool helps them, supports them and does not mean extra burden, difficulty to use. It is advisable to develop solutions that the elderly can use independently or with minimal skill development.

The introduction of the use of ICT in elderly care raises many legal questions and ethical dilemmas, and it would be very important to clarify them and conduct further research.

In addition to the need for infrastructural development of the social care system, it can be formulated as a recommendation that the training of social professionals, psychologists and other helpers needs to be transformed, and their digital literacy needs to be developed. As Perron and his co-authors point out, the use of ICT has not been sufficiently emphasized in the training and practice of social workers, which poses the danger that they will not be competitive in the provision of health and psychosocial services (Perron et al., 2010). Therefore, it is necessary to prepare students and practitioners for the ethical and professional use of ICT, for communication in the online space, and for the conscious use of social media. It would be important to create protocols, professional and methodological guidelines for online communication, social work and counseling. According to the results of my previous research, social professionals have a great need for this support (Tóth, 2021).

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http2 Gondosóra <https://gondosora.hu/> Last visit: 08.05.2022.

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