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RESEARCH ARTICLE

THE USE OF DIGITAL TECHNOLOGIES IN EDUCATION AND HEALTH PROMOTION AGAINST COVID 19 IN INSTITUTIONALIZED ELDERLY

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ABSTRACT

According to official data from the Ministry of Health, at the same time, the number of cases and deaths increased worldwide. Since then, several initiatives have been developed in order to contain the contagion, prioritizing people considered to be at risk, such as the elderly. In view of this, isolation was adopted by several sectors. In view of this, the elderly had the eagerness to communicate with the family, the outside environment, promoted new attitudes in favor of information, contacts, news activities, that is, means that allowed solving of daily living. In this way, the elderly who had some kind of knowledge about technology, they could have access to several opportunities to reduce the effects of social isolation, whether for a video call, as well as conducting online searches in search of movies, or even for virtual mall. This article aims to study the use of Digital Technologies in Education and Health Promotion in the face of COVID 19 in institutionalized elderly. The research is an integrative literature review. The selection took place through reading titles, abstracts and, when necessary, the full reading of texts as a way of selecting them according to the inclusion and exclusion criteria. During this phase, the researchers critically and independently evaluated the full articles and made the appropriate selections. It was concluded that resources are present in the life of all technological possibilities increasingly within reach, and the positive impact they can cause to the elderly is impressive, because from them isolation can become less aggressive. However, the elderly are the age group with the lowest participation in the digital world. The results in relation to technology users were positive in the cases mentioned in the survey. Technology helps seniors to stay mentally active, which can bring a sense of well-being, such as talking to other people, reading, playing games, staying informed.

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INTRODUCTION

At the end of 2019, there was an outbreak of a new pathology with respiratory predominance, caused by the coronavirus (COVID-19), Severe Acute Respiratory Syndrome (SARS-CoV-2), more precisely in Wuhan, China, and later affected 26 people.

Countries across the world. COVID-19 corresponds to an acute respiratory pathology, causing severe massive alveolar damage and progressive respiratory failure. In Brazil, until 03.26.2020, there were already about 2,915 confirmed cases and 77 deaths. According to official data from the Ministry of Health, at the same time, the number of cases and deaths worldwide increased, closing at 526,006 people infected with 23,720 deaths.

The Covid -19 virus, is included in a viral category, which determines respiratory infections, whose agent was discovered on December 31, 2020, after cases in China. Thus, it is known that the group most affected by the Coronavirus disease correspond to elderly individuals. Occasionally, the world faces epidemics. The pandemic caused by the new coronavirus (SARS-CoV-2), however, remains more resistant compared to the others, Severe Acute Respiratory Syndromes (SARS): with effects similar to the Spanish Flu, which occurred in 1918. Since then, they are Several initiatives are being developed in order to contain the contagion, prioritizing people considered to be at risk, such as the elderly (Oliveira, 2020). From a new perspective, which is also related to the elderly age group, it is highlighted that isolation generated new demands, which became virtual possibilities. Thus, the eagerness to communicate with the family, the outside environment, promoted new attitudes in favor of information, contacts, news, that is, means that allowed solving activities of daily living, such as buying food, medicine, among others. Technological resources through the use of the Internet were one of the alternatives used to face the changes in attitudes brought about by the pandemic, including relationships and social coexistence. In this way, the elderly who had some kind of knowledge about computers, tablets and smartphones, they could have access to several opportunities to reduce the effects of social isolation, whether for video calling, as well as conducting online surveys in search of movies, or even for virtual shopping. The resources exist, they are present in everyone's lives, and the technological possibilities are increasingly within reach, however, it does not mean that all the elderly have access to technology, as they know how to deal with its offered resources. Positive impacts are observed in the eyes of the elderly, as it is a strategy to reduce the physical and psychological damage caused by social isolation. However, there is a need to know how applications work, etc., using languages that are not always accessible to the elderly population (Viana et al, 2020).

Despite the difficulties, the health class provides humanized assistance seeking to preserve the quality of life, both for patients already affected by COVID-19, and for those exposed to the virus, as they already live in crowded environments, and are far from the direct guidelines of the organs. of health and the like. In this situation, institutionalized elderly people are especially mentioned, who, by preventive measures, were isolated from contact with family members, but live with each other, which does not mean that they are free from the risk of becoming infected, even, because, there is coexistence with the institution's employees, and the fact that they are often unaware of preventive measures. Thus, from the sanitary point of view, it becomes a priority for health professionals to act as health educators in this context, seeking to work on health promotion through the inclusion of digital technologies, as a means of instrumentalizing this specific population. of the elderly, in order to reduce the risks of COVID 19. Based on this assumption, it is essential, in terms of a pandemic, to reflect on this situation, which is so relevant in terms of health education today, through an integrative review of the literature detailed in area.

Theoretical Assumptions: We call presuppositions as personal beliefs, which underlie the elaboration of the theoretical framework of this chapter.

Considerations about COVID 19: Coronavirus is a zoonotic virus, an RNA virus of the order Nidovirales, of the family Coronaviridae. This is a family of viruses that cause respiratory infections, which were first isolated in 1937 and described as such in 1965 because of their crown-like profile under microscopy. The types of coronaviruses known so far are: alpha coronavirus HCoV-229E and alpha coronavirus HCoV-NL63, beta coronavirus HCoV-OC43 and beta coronavirus HCoV-HKU1, SARS-CoV (causing severe acute respiratory syndrome or SARS), MERS- CoV (causing Middle East Respiratory Syndrome or MERS) and SARS-CoV-2, a novel coronavirus described in late 2019 after cases reported in China. This causes the disease called COVID-19. The clinical spectrum of coronavirus infection is very wide, ranging from a simple cold to severe pneumonia. The initial clinical picture of the disease is characterized as a flu-like syndrome. People with COVID-19 usually develop signs and symptoms, including mild breathing problems and persistent fever, on average 5-6 days after infection (mean incubation period 5-6 days, range 1-14 days). (Lima, 2020, p.2).

The new coronavirus, named SARS-CoV-2, which causes the disease COVID-19, was first detected on December 31, 2019 in the city of Wuhan, China. On March 11, 2020, it was decreed by the World Health Organization (WHO) as a World Pandemic. In Brazil, the first case of COVID-19 was confirmed on February 26, 2020, in an elderly individual. Thus, the elderly became the center of association of the COVID-19 disease with the high risk of death, as they are one of the risk groups, in this way, forced a situation of unprogrammed social isolation, propagating the image of the frail elderly and easy agent. contaminant during the pandemic. Thus, in this pandemic context, Covid-19 does not always result in acute respiratory syndrome, however, the impacts caused by it are worrying. In this sense, with a view to protecting the elderly population, which is socially considered a more vulnerable group, justifying the need for social isolation. In this line of reasoning, protective measures were adopted, such as: hand hygiene with 70% alcohol gel, wash hands frequently, clean the soles of shoes with bleach diluted in water, change clothes when in crowded environments, wear a mask , among others. New precautions were learned to avoid contagion (Gullo, et al, 2020). Consequently, contact between people had to be reduced and, in many cases, avoided. Social isolation unleashed negative effects on society as it restricted circulation, reducing the well-being of many people, bringing a feeling of imprisonment in their own home. On the other hand, isolation generated new demands that became virtual possibilities. The need for communication, concern for friends and family, promoted new attitudes in search of information, contacts, news and mainly means to solve daily activities such as buying food, medicine, among others. Technological resources through the use of the Internet were one of the alternatives found to face this phase in which many were far from everything and needed to resolve situations of daily life, including relationships and social coexistence.

The insertion of Digital Technologies in Education and Health Promotion: It is worth noting that the human being must always be the subject of his own education. The search for knowledge must always be permanent in "itself". Education is closely related to awareness, as it consists of the critical unveiling of awareness. This implies that we go beyond the spontaneous sphere of apprehension of reality, in order to reach a critical sphere in which reality is given as a knowable

object and in which man assumes an epistemological position. The more one becomes aware, the more one reveals to reality, to reach a critical sphere in which reality penetrates more into the phenomenal essence of the object, in front of which we find ourselves to analyze it (Freire, 1980, p. 26). Velasco (1997), education needs to be based on an ethical posture in which it takes place in dialogue with others; in a context of theoretical-practical action of critical unveiling and liberating transformation of reality, seeking a free society. Still Velasco (1997) defines liberation as the historical process of building the freedom of consensual decision regarding our lives, through the struggle against instances of intersubjective domination and alienated self-repression. Thus, the processes that establish productive and aesthetic relations of a preserving-regenerative character arise between human beings and nature. In this light, education provides the dialogic construction of living knowledge in a continuous and democratic way. The education process needs to be focused on questioning issues of both individual and collective interest. The educational process allows the development of a critical spirit, as well as the autonomy of a group. A transformative education values the student's freedom of opinion and decision, serving as a foundation for the elaboration of autonomous decisions.

It is necessary that education be understood as a process of man's reflection on his situation, on his concrete environment; the more he reflects on his reality, his concrete situation, and the use of his relationships, the more he will be able to discover himself as a fully conscious subject, committed, and empowered to intervene in reality. Education cannot be done by an isolated subject, it is a collective act, it is a process of exchanges between people. Therefore, education is required to be understood as a process through which man seeks to overcome his imperfections; being able to prepare man for criticism, proposing to him and with him, alternatives or possibilities for him to choose his path. Freire (1997) considers that the educational process corresponds to an act of knowledge and awareness: thus, education is built by subjects who learn and teach through dialogic relationships. This awareness raising implies the position and teaching work developed for the geriatric class, and based on theoretical methodological approaches that ensure these dialogic learning relationships, which can also be built mediated by technology. Technological evolution has opened paths for changes in teaching and learning processes. Among the new pedagogical tools available, Internet access deserves to be highlighted, thanks to the popularization of its use and richness of content. The application possibilities are vast, including quick access to information, expansion of didactic references, possibility of simulating real professional situations and active and interactive search for new knowledge (Impicciatore, 2010).

It is understood that these transformations give new meaning to the contents and the ways in which they are passed on, and the student is no longer a passive receiver of knowledge, he goes beyond the classroom environment and becomes a producer, this process began with web 2.0. Web 2.0 corresponds to the increase in the number of internet users in Brazil, which in 2001 rose from 8.6% of the population to 20.4% in 2007 (IBGE, 2017). These "new" users participating in the internet assimilate it as a central of information, data, communications as well as a collective learning network, in short "Web 2.0 allows new perspectives for the development of pedagogical and didactic proposals based on dynamics of

collaboration and cooperation" (Coll; Monereo, 2010, p. 36). "Network education supposes connectivity, companionship, solidarity" (Gomez, 2005, p. 14), in order to allow a collective learning network, websites and software aggregate facilitating information among users O'Reilly (2005). Thus, examples of these types of sites and software are: Blogs, Wikipedia, Facebook, Twitter, MySpace, MSN and Skype, emphasizing that they can be considered examples of social networking platforms on the internet. Social networks do not represent a new concept, as the fact of representing reality in a network is not new, as networks have been known for some time in the biological, mathematical or physical environment, as well as in the humanities (Brescia *et al.*, 2013). Gomes *et al.* (2013) ensure that the impact of Digital Information and Communication Technologies (DICT) provides changes within teaching in a positive way, making distance education gain its space as well as face-to-face education. Education through digital media already exists in several countries, this teaching method, known as TDIC, has its own identity, such as the way to share the didactic material, which needs special care when sent to a virtual environment. Nationally, this scenario is even more aggravating, because it is not clear, the transmission characteristics of this material, if observed from the perspective of social inequality, it is still common to find populations in precarious housing conditions of agglomeration among the individuals involved. Much has been discussed during the last year about what would be the best maneuver for Brazil to minimize contagion and transmission, whether vertical isolation or horizontal isolation. Faced with this, several debates about isolation strategies were raised, taking into account that isolation would be the best measure to slow transmission (Coelho *et al.*, 2020). According to Werneck and Carvalho (2020), state governments sought to put their states in a "quarantine" condition for several periods in an attempt to reduce the epidemiological curve of covid-19, with this, several organizations began to readapt with a new scenario. to continue to keep their business in constant operation, as well as teaching and even communication between people. It is from this scenario that we begin to observe that in moments of crisis, society begins to understand the importance for a country of a science and technology system strong enough to contribute to advances in health and its systems in order to guarantee access and the right to health (Werneck and Carvalho, 2020). This article aims to study the use of Digital Technologies in Education and Health Promotion against COVID 19 in institutionalized elderly.

The Impact of the Daily Use of Digital Technologies for the Elderly: Technological innovations were quickly introduced into the daily life of society, which was gradually organized to face the social isolation proposed by the Covid 19 epidemic. Thus, this technological revolution boosted the consumption of new resources, allowing for an improvement in access to information, bringing those who are distant through video calls as well as social networks, as "a large number of people can socialize and work remotely from virtually any location" (Centro, 2015, p.25, Velho *et al.*, 2020). Through new digital technologies it is possible to identify needs that can be addressed, as part of the elderly can keep up with technological advances. The great stimulus for the use of technologies is highlighted, such as the new possibilities of communication, conversation applications and social networks that positively promote interest, allow the user to feel inserted, awakening more at ease in learning and exchanging digital information. with their friends and family (Doll, Machado & Cachioni,

2016). According to data from the Regional Center for Studies on the Development of the Information Society (2019), 72% of people aged 60 or over use cell phones, demonstrating that technologies reach a large number of elderly people, and Mobile resources are being spread across all generations. New features need time and practice to assimilate their functions. About 39% of people aged 60 and over use the Internet on their cell phones, which demonstrates a lag of elderly people, in the sense of following the whole movement of digitalization of communication through applications and social networks. The University of Caxias do Sul, through the UCS Senior Program, has provided the community with learning and practical activities in the use of technological equipment for approximately 22 years. During this period, the courses underwent many changes. Initially, the courses were aimed at learning how to use the computer, the objectives were related to teaching basic functions of turning it on and off, accessing the Internet, researching, evolving to the development of slideshows. With the constant technological evolution, expansion of students' interest and the need to serve society, in 2013 the Smartphone and Technologies courses began to replace the demand of the elderly public about computer use, making in 2020 most of the activities aimed at the use of Smartphones and Tablets. The presence of technologies caused by the digitalization of urban life makes access to these resources increasingly easier. Among the main objectives presented by the students enrolled in the technology courses of the UCS Senior Program, the following stand out: being able to follow the digital habits of the new generations, discovering what innovations have to offer, etc. The courses are divided into modules that last one semester, namely: Digital Learning; Smartphone and Technologies; Advanced Digital Tools; UpGrade in Technologies; Technologies, Interaction and Games (Velho *et al.*, 2020).

Institutionalized Elderly in the face of the COVID 19 Pandemic: In times of the COVID 19 pandemic, the elderly stand out as one of the most vulnerable groups to the physical-psychosomatic effects caused by the virus. According to the literature, there is a consensus on the premise that elderly individuals and those with chronic diseases are more susceptible to infection (Lima Dlf, *et al.*, 2020). Some studies point out that, in these realities, there is a high mortality rate for people over 80 years old, above 15%, in elderly people living in a Long Stay Institution for the Elderly (ILPI). Thus, aging is considered a high risk factor for infection, as it involves elderly people with several chronic comorbidities, such as difficulties related to the performance of activities of daily living; as well as the frequent contact of caregivers, professionals and visitors; and living in clusters (Jesusitet *et al.*, 2017). The COVID19 pandemic encouraged a greater concern, in encouraging care, than care in the ILPI. In the control of this pathology, prevention is considered as the main strategy, to reduce the risk of risk and contamination of the elderly residing in ILPI, highlighting among daily preventive measures: restriction of visits, monitoring of entry and exit control of workers and service providers, greater demand for hand washing and continuous use of 70% alcohol, tracking and monitoring of the presence of flu-like syndromes, warning about fever and respiratory symptoms, changing clothes and shoes, in addition to strict control of food that enters the place. The use of a face mask is recommended for all ILPI workers and also for the elderly residents when carrying out tasks outside their rooms.

Also, it is important to emphasize social distancing, greater separation between workers and the elderly in tasks related to care, reduction of collective activities among the elderly, are measures that must be adopted. Regarding the institutionalization process, vulnerability is frequent, due to social confinement, which provides the realities of the elderly in collective environments. This fact allows an increase in the risk of illness due to comorbidities, as well as contracting infectious diseases (Benksima, *et al.*, 2020). Being elderly is considered a risk factor for the contamination of COVID-19, as shown by a study carried out in two hospitals in the city of Wuhan, China in December 2019, which identified that increasing age is associated with greater vulnerability to contracting the disease. and higher mortality since the severity of the disease becomes greater in this population. The more vulnerable the elderly, the greater their risk of contracting COVID-19 in the most severe condition¹. This situation is even worse in elderly people living in ILPI due to the fact that they present these and other risk factors obtained in the results, still in an associated way (SOUZA *et al.*, *et al.*, 2020). Among the factors studied to determine the vulnerability of institutionalized elderly, functional disability stands out, which requires complex skills to live in society. Since the institutionalization process takes place, there are changes in the daily life of the elderly, which interfere in the development of socioeconomic and family actions, as is the case of the Instrumental Activities of Daily Living (IADL), where the elderly are able to make purchases, control your finances, doing light housework, showering alone, and walking. Given this reality, disability causes damage to the quality of life of the elderly (Souza *Et al.*, 2021).

In a comparative study, carried out between elderly and non-elderly patients, it was evidenced that in patients over 55 years of age, COVID-19, for disease progression, was faster, severe, with greater pulmonary involvement and with slower recovery (Liu *et al.*, 2020). The infection caused by SARS-CoV-2 triggered a higher mortality rate in this age group. The Brazilian reality showed that 70% of deaths occurred in people over 60 years of age, and of these, 64% had at least one risk factor. risk (Barbosa *et al.*, 2020). The ILPI can therefore be a major risk factor for this disease and after the installation of the virus, the power of contagion is rapid with a high mortality rate (WHO estimates that, in many countries, up to 80% of deaths from Covid-19 19 is among the elderly residing in long-stay institutions). A previous study identified that in Brazil there is a scarcity of data that compares the mortality and infection rate between institutionalized and non-institutionalized elderly people (Da Mata; Oliveira, 2020). In this way, as it is a new disease, COVID-19 requires the intense development of studies that go beyond the discovery of a cure and preventive methods. It is necessary to understand how much this disease has impacted, in different spheres, so that the necessary and still non-existent responses are identified for the management and relief of its repercussions on society and, even, to adjust the measures adopted, with the purpose of minimizing the negative impacts on different perspectives, including economic. It should be noted that there is very little information on the disease situation in the country. In recent years, long-stay institutions for the elderly (ILPIs), popularly known as nursing homes, have been the alternative adopted by families who, for different reasons, cannot, cannot, or do not want to take care of their elderly relative. Although the family is still an alternative to support the elderly, authors report that there are numerous reasons that interfere with the permanence

of the elderly with their families, among them, family conflict, the emergence of diseases that generate the elderly's dependence, family members occupied in their daily obligations, offering care and company, in addition to a space for coexistence and socialization 6-8. Despite the elderly mentioning that they need more attention, affection and that the family is important in the context of their lives, studies have shown that asylum leads to a progressive distancing between the elderly and their families, and in certain situations the complete separation from the family (Cataneo *et al*, 2019).

Digital strategies in the instrumentalization of institutionalized elderly people: Currently, it is perceived that the elderly are returning to studies/learning, especially in the digital technological area, with the aim of cultural updating, as well as promoting socialization bonds. They want to learn, develop specific skills aimed at the practice of TDIC, where they can interact in contextualized educational spaces. Thus, the use of technological means in the pedagogical practice of digital inclusion in the gerontological area allows the integration of the elderly with the outside environment, a world full of novelties, hitherto unknown in their current, institutionalized reality. In this situation, according to the literature, SARS-CoV-2 infection is high, with a suggestion of a mortality rate for people over 80 years old above 15%, considering that; agglomerations of elderly people, presence of chronic comorbidities, difficulties in activities of daily living; contact with caregivers, professionals and visitors; contribute to the high risk of infections. The use of technological tools by the elderly allows social approximation, however, one must consider a part of the population of semi-illiterate elderly, without access to educational instruction; as a non-facilitating factor of technological learning. In times of a pandemic, the lack of acquisition of knowledge about it makes communication possibilities difficult, especially during distancing (Almeida *et al*, 2020).

It should be noted that the risk of social isolation of the elderly has become a concern, based on the real possibility of triggering depression and anxiety, the abuse of substances such as alcohol and tobacco; worsening of cardiovascular and autoimmune problems, to neurocognitive and mental health problems (Bezerra *et al.*, 2020). Thus, the mental health of the elderly and social isolation gained notoriety, expanding one more element in this knowledge about the elderly. The technological tools used to deal with the pandemic were digital information and communication technologies (TDIC), as they facilitated contact and the development of activities remotely. The digital world is integrated into human life, in times of social distancing, it has become practically impossible to despise this technology in day-to-day activities. It is noticed that the need to continue work activities, remotely, as well as the approximation, even if virtual, of people, made that new habits were incorporated into daily life in a short space of time, facilitated by the use of the internet. However, not every population has access to this technology, so they have not learned to deal with the digital world, excluding themselves even more from their daily relationships (Castro *et al*, 2020). It is known that most of the elderly access the Internet, based on the principle that initially this contact with technology and the elderly was possible, through specific projects often linked to Universities for the Third Age. of equipment and access to the Internet lack of direct need of the elderly. During this period, about 92% of elderly people had never had access to a computer.

There was a greater adherence of older adults to new technological resources between 2016 and 2017. It increased by 25.9%% (Castro *et al*.2020).

METHODOLOGY

This is an integrative literature review. This type of work consists of a search for relevant research on a given subject, which makes it possible to identify gaps that can be filled by carrying out other studies. This research design enables a critical assessment and synthesis of available evidence on the topic investigated in its final product, providing an organization of the current state of knowledge and reflections for the implementation of new interventions⁹.

The integrative review follows the following phases

- Identification of the theme and formulation of the research question;
- Establishment of inclusion and exclusion criteria for studies for sampling;
- Collection of data that will be extracted from the studies;
- Critical analysis of selected studies;
- Interpretation of results;
- Presentation of the established synthesis and review of the contents.

Obedying the first step, the following guiding question was elaborated: "How to apply digital technologies in the health education process through COVID 19 in institutionalized elderly?" (Mendes *et al*, 2008). As inclusion criteria for the study, only articles from 2020 were delimited with studies that answer the guiding question, with full texts available online in English, Portuguese and Spanish. For exclusion criteria were defined: epidemiological studies, simple and expanded abstracts and works related to the theme of the article. The selection took place through reading titles, abstracts and, when necessary, the full reading of the texts as a way of selecting them according to the inclusion and exclusion criteria. After the searches, a number of 22 articles were counted and after the cleavage, 12 works were excluded. During this phase, the researchers critically and independently evaluated the full articles and made the appropriate selections. In the analysis process, data were collected regarding the journal (title, year of publication), the authors (full names) and the study (objective, academic affiliation, theoretical framework, type of study, methodological aspects, results and recommendations). The interpretation of the data was based on the results of the careful evaluation of the selected articles. After the critical evaluation, a final sample of 10 studies was obtained. Among the articles researched, 10 titles were found in the databases mentioned above, which were relevant to the research, contemplating the established and objective criteria, being analyzed in the discussion. The search for articles was carried out through the Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature on Health Sciences (LILACS), Virtual Health Library (BVS) and PUBMED databases. Data collection was carried out from August to November 2021.

The descriptors used for the bibliographic research were divided:

Table 1. Main results found.

| AUTHOR | YEAR | PLACE OF PUBLICATION | OBJECTIVE |
|-----------------------------|------|---|---|
| 1-LEAO <i>et al.</i> | 2020 | Revista do Ceam, ISSN 1519-6968, Brasília, v. 6, no. 2, Aug./Dec. | Mass communication media play an important role in conveying information about the new coronavirus to society. The way in which such information is conveyed constitutes the object of this study, which aims to analyze the literal representation of what was conveyed by the elderly in mass communication media, in the case of newspapers in the Federal District, available online and accessible. free, during the month of April, using the IRAMUTEQ® software |
| 2-SOUZA <i>et al.</i> | 2021 | Electronic Journal Collection Health / Electronic Journal Collection Health ISSN 2178-2091 | Identify the association of risk factors for COVID-19 with vulnerability in elderly people living in long-term care institutions |
| 3-OLIVEIRA <i>et al.</i> | 2020 | CONJUNCTURE BULLETIN (BOCA) year II, vol. 2, no. 5, Boa Vista, 2020. | This article aims to reflect and promote the debate on elements related to the Brazilian educational system in the face of the new coronavirus (COVID-19) pandemic, in a cut of public policies and pedagogical strategies in the context of Basic Education. |
| 4-VELHO <i>et al.</i> | 2020 | Rosa dos Ventos Tourism and Hospitality,12 (3 – Covid-19 Special), 1-14, DOI: http://dx.doi.org/10.18226/21789061.v12i3a09 | The purpose of this study is to bring to the discussion the perception of the elderly about social isolation, caused by the COVID-19 pandemic. |
| 5-ALMEIDA <i>et al.</i> | 2020 | consider sick. 25: e72849, 2020 | it is about free communication with the intention of reflectively and critically addressing aspects related to the health of the elderly in times of the COVID-19 pandemic. |
| 6-CASTRO <i>et al.</i> | 2020 | Population Horizons – LARNA Special Issue 2020 | This theoretical article discusses the social distancing caused by the coronavirus-19 pandemic, addressing the contexts experienced by the elderly living in Brazil, focusing on the impacts on social and family life, digital inequalities related to access and skills to use information technologies and communication. It discusses gerotechnological knowledge, addressing its contributions to the life of an aging society, seeking to look at the needs of the elderly and trace paths based on technologies. D |
| 7-CAETANO, <i>et al.</i> | 2020 | Cad. Public Health 2020; 36(5): e00088920 | The article discusses the contribution of telehealth to combating COVID-19 and the recent initiatives launched in the country, as opportunities for the consolidation of telemedicine and the improvement of the Unified Health System. |
| 8-Bezerra <i>et al.</i> | 2020 | Research Society Development | Investigate the effects of Social Isolation on Physical and Mental Health for older people during the COVID 19 pandemic. |
| 9-BARBOSA <i>et al.</i> | 2020 | Journal of Public Health of Paraná. Ten; 3(supl1);129-139 | To describe the activities carried out by the Health Division for the Elderly of the Paraná State Health Department, from January to July 2020. |
| 10-GULL, | 2020 | Rosa dos Ventos Magazine, vol. 12, no. Esp.3, 2020. | The purpose of this article is to make some considerations about the impacts on the economy, especially on the Brazilian economy in times of a pandemic. |
| 11-MORAES, <i>et al.</i> | 2020 | Public health science 25 (9) Sep 2020 | In this article, strategies for tracking infection in residents and workers of ILPI through laboratory tests available in Brazil are proposed. |
| 12-MACHADO, <i>et al.</i> 2 | 2020 | Public health science 25 (9) 28 Aug 2020 Sep 2020 | To estimate the impact of COVID-19 on the mortality of institutionalized elderly people in Brazil. |

Source – from the author

In English - COVID-19, Digital Technologies, Education, Health, COVID 19, institutionalized elderly- In Portuguese - Digital Technologies, Education, Health, COVID 19, institutionalized elderly. For a better understanding of the research, a table was organized (see below) detailing the 12 articles. The exclusion criteria established were: articles far from the established inclusion criteria, abstracts, proceedings, monographs, not available in indexed databases.

RESULTS AND DISCUSSION

After performing the electronic search procedure in the aforementioned databases, the articles were evaluated and analyzed. Table 1 presents the distribution of the main results found. For each article, the following characteristics were included in the table: author, year, place of publication and objectives. The elderly, according to the World Health Organization, represents the individual over 60 years of age. When we talk about the elderly, diversity should be considered, as it would be in another age group. However, the current view is often restricted to an elderly person, the social imaginary commonly found in several countries around the world is the frail elderly, physically and mentally debilitated, unable to respond for themselves and to have an independent life. It is called ageism, this reinforcement of a stereotyped view of aging and old age. Several news related to the advance of the coronavirus, have been conveyed in the mass media directly or indirectly associated with the elderly population. (Leao, 2020). The uncontrolled way in which the corona virus spread caused worldwide fear. The elderly population is exposed to greater risks of being affected by comorbidities, as well as the risk of death. The fear of contamination by the virus is highlighted, which can be socially transmitted, causing uncertainty (Gullo *et al.*, 2020).

The aging process itself allows physiological changes that increase the predisposition for the development of more severe cases, such as: the reduction of muscle mass and changes in the respiratory system. Characteristic respiratory symptoms are observed, such as: weakness of the inspiratory and expiratory muscles, reduced mobility of the rib cage, pulmonary elasticity and forced vital capacity, due to the loss of the elastic component of the lungs, in addition to changes in the immune system. It has become essential to plan specialized care aimed at this public, focusing mainly on residents in Long Stay Institutions for the Elderly (ILPIS), because, in addition to the common alterations of senescence or senility, and comorbidities in advanced stages, many have daily contact with caregivers and health professionals, potentially creating a risk factor. (2020). The elderly residing in Long Stay Institutions (ILPIS) are more susceptible to the disease and show negative results from this infection. In countries in Europe, Asia and Oceania, about 30% to 60% of deaths occur in ILPIs (MORAES *et al.*, 2020). Education is an essential factor for human development, generating individual and collective quality of life, and must be prioritized in public policies, both in terms of quality and quantity, at all levels and in all forms of learning and teaching. One of the ways, which has been growing over time, of learning and teaching is through the computerized teaching system, that is, with the help of information technology, the growth of this modality as a tool in health education has increasingly been seen (Oliveira, 2014). It is a fact that Long Stay Institutions for the Elderly are a main risk factor for the increase in morbidity and mortality

by COVID19, as it has characteristics inherent to the virus that are necessary conditions for the involvement. Countries in North America, Oceania and Europe of all deaths due to COVID19, between 30% and 60% occurred in places such as ILPI and the like. (Souza, *et al.*, 2020). For seniors who had some kind of knowledge about computers, tablets and smartphones, it was possible to find several opportunities, whether for video calls or online searches to search for movies or even for virtual shopping. Resources are present in everyone's lives, with technological possibilities increasingly within reach, and the positive impact they can have on the elderly is impressive, since from them isolation can become less aggressive. However, it is important to know how to handle applications using languages that are not always accessible to the elderly population (Leao, *et al.*, 2020). The technological tools used to deal with the pandemic were digital information and communication technologies-TDIC, as they facilitated contact and the development of activities remotely. However, the elderly are the age group with the lowest participation in the digital world (PNAD, 2018). First-level inequality – having access or not – and second-level inequality – accessing, but with degrees of limitations (CGI, 2019), correspond to relevant aspects to understand the digital divide in Brazil. In addition to the difficulties in accessing the Internet, there is also the precarious domain of the elderly over ICT, which is a reason that greatly hinders their contact with their families and health professionals, as well as the exercise of citizenship (Castro *et al.*, 2020). The opportunities presented to the elderly who were literate in the use of digital information and communication technologies provided opportunities for social, banking and communication practices carried out on a daily basis and which also made this elderly person more informed about the actions and practices of asepsis.

CONCLUSION

Technology and seniors are increasingly connected. In this sense, it should be part of the daily life of the elderly. Most elderly people prefer to have their own space, as they do not like to bother their loved ones for any reason and because they feel alone and because they do not have anyone to talk to, the possibilities of social networks are a factor for socialization. At this point, it is important to ensure that the elderly have access to the internet to enjoy the technology it offers. For seniors who have more difficulty using smartphones, they can use WhatsApp's audio feature, which facilitates communication and relationships with friends and family. This is made possible by devices that allow doctors to monitor the elderly remotely. Smartphones themselves can be programmed to remind seniors of their medication schedule or other important tasks in their routine. The relationship between technology and seniors makes them more independent. Dependence on other people leaves seniors unmotivated as they feel it is an obligation to the people who are helping them. Elderly people who take advantage of technology daily reduce the risk of developing diseases related to the mind, such as Alzheimer's, as this type of activity restores the health of neural cells, improving quality of life. As you can see, technology and the elderly can relate in a healthy way, allowing the person to improve their social life, to be more independent, and the best, to feel younger, reducing the risk of developing diseases such as depression and anxiety.

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