HEALTH AND SOCIETY PORTAL JOURNAL

Case Report

# TELECARE IN CORONAVIRUS PANDEMIC: PROMOTING HEALTH LITERACY IN THE ELDERLY

## TELECUIDADO NA PANDEMIA DE CORONAVÍRUS: PROMOVENDO A ALFABETIZAÇÃO EM SAÚDE DE IDOSOS

### TELECUIDADO EN LA PANDEMIA DEL CORONAVIRUS: PROMOCIÓN DE LA ALFABETIZACIÓN EN SALUD DE LOS ANCIANOS

Beatriz Lúcio Miranda da Silva[1], Magda Vitória Nunes da Silva[2], Erika Maria Barbosa Nunes[3], Aylla Rafaella Quintela Marcolino[4] Thayná Brenna de Lima Lopes[5], Andreivna Kharenine Serbim[6]

**RESUMO**

**Objetivo:** descrever a experiência de estudantes e docente do curso de Enfermagem na condução da ação de extensão em telecuidado realizada com idosos usuários de uma Unidade Básica de Saúde durante a pandemia de Coronavírus. **Método:** trata-se de um relato de experiência das estudantes e docente sobre a experiência de realizar ligações telefônicas e produção de material educativo para idosos de uma Unidade Básica de Saúde, no período de 16 semanas, mediante um roteiro estruturado que visava ao desenvolvimento das habilidades de alfabetização em saúde dos idosos. **Resultados:** as ações do telecuidado estimularam as estudantes a atuar com ênfase nos âmbitos social, cultural e científico, utilizando tecnologias leves para a promoção da saúde e do desenvolvimento de habilidades dos idosos a fim de que eles se tornassem multiplicadores de informações e transformadores da realidade social. Os 36 idosos atendidos obtiveram uma rede de apoio e compartilhamento de informações em saúde, além das ligações contribuírem para a redução da circulação dos idosos na unidade de saúde, evitando aglomerações e minimizando o risco de exposição à doença. **Conclusão:** a experiência proporcionou o desenvolvimento de habilidades de alfabetização em saúde dos idosos e aprimorou a assistência de saúde.

**Palavras-chave:** Letramento em Saúde; Saúde do Idoso; Educação em Saúde; Promoção da Saúde; Atenção Primária à Saúde.

**ABSTRACT**

**Objective:** to describe the experience of students and professor of the Nursing Course in conducting the Telecare extension action, realized with elderly users of a basic health unit during the coronavirus pandemic. **Method:** this is an experience report by students and professor about the experience of making telephone calls and producing educational material for the elderly in a basic health unit over a 16-week period, through a structured script that aimed to develop health literacy skills of the elderly. **Results:** the actions of Telecare encouraged students to act with emphasis in the social, cultural and scientific ambit, using light technologies to promote health and the development of skills of the elderly, so that they become multipliers of information and transformers of social reality. The 36 elderly attended had a support network and information sharing on health, besides the calls contribute to reduce the circulation of the elderly in the health unit, avoiding crowds and minimizing the risk of exposure to the disease. **Conclusion:** the experience provided the development of health literacy skills in the elderly and improved health care.

**Keyword:** Health Literacy; Health of the Elderly; Health Education; Health Promotion; Primary Health Care.

[1,2,3,4,5,6] Federal University of Alagoas. Arapiraca (AL), Brazil.

**RESUMEN**
**Objetivo:** describir la experiencia de estudiantes y profesor del Curso de Enfermería en la realización de la acción de extensión de telecuidado, realizada con usuarios mayores de una unidad básica de salud durante la pandemia del Coronavirus. **Método:** se trata de un relato de experiencia de estudiantes y profesor sobre la experiencia de realizar llamadas telefónicas y producir material educativo para personas mayores en una unidad básica de salud durante un período de 16 semanas, mediante un guion estructurado orientado a desarrollar habilidades de alfabetización en salud de los ancianos. **Resultados:** las acciones de telecuidado incentivaron a los estudiantes a actuar con énfasis en el campo social, cultural y científico, utilizando tecnologías ligeras para promover la salud y el desarrollo de habilidades de las personas mayores, para que se conviertan en multiplicadores de información y transformadores de la realidad social. Los 36 ancianos atendidos contaron con una red de apoyo e intercambio de información en salud, además de las llamadas que contribuyen a reducir la circulación de los ancianos en la unidad de salud, evitando aglomeraciones y minimizando el riesgo de exposición a la enfermedad. **Conclusión:** la experiencia proporcionó el desarrollo de habilidades de alfabetización en salud en los ancianos y mejoró la asistencia en salud.
**Palabras-clave:** Alfabetización en Salud; Salud del Anciano; Educación en Salud; Promoción de la Salud; Atención Primaria de Salud.

## INTRODUCTION

Health literacy is conceptualized as the degree to which people are able to access, understand, communicate and evaluate health information to maintain and promote health throughout life in different contexts.[1] It is related to people's ability to understand aspects of self-care and health care to make appropriate decisions.[2] This conceptual perspective is very necessary in view of the emergence of the new Coronavirus, called SARS-CoV-2.

SARS-CoV-2, causing COVID-19, has been mostly associated with elderly patients or the presence of comorbidities that affect the immune system.[3] The risk of dying from COVID-19 increases with age, as most deaths occur in the elderly, especially with chronic diseases.[3] The rapid development of COVID-19 requires people to acquire and apply health information and adapt their behaviors at a rapid pace.[4] Most of the widely available health information is about COVID-19 and how to avoid contracting or spreading the virus.[5]

Much of the information is published in a simple and practical way, such as washing hands, maintaining physical health and social distance. On the other hand, there is also complex, contradictory and false information.[4] In this context, it is highlighted that low literacy in population health is an underestimated public health problem.[5]

Some population groups may be marginalized in relation to health literacy, such as those made up of elderly people, with low income and schooling.[2,6] Low health literacy can have a major impact on the health of the elderly, not only as a result of a generation gap in education, but also because the elderly have more

chronic conditions, make more use of health services and require complex therapeutic regimens.[7] The complexities associated with the management of chronic diseases and the cognitive and sensory changes associated with aging make up the challenges of communicating with this highly vulnerable group.[8]

Health professionals play an important role in building knowledge and developing health literacy skills.[9] Among these professionals, the nurse may be the one indicated for such actions, since he is often at the first point of care and is referred as a leader in organizational transformation and public health.[10-11]

The Coronavirus pandemic highlighted the elderly, mainly due to their risk potential, with actions and strategies of social distancing specifically for this group, reinforcing the need to work on the measures to contain the dissemination and treatment of COVID-19, considering the specificities of the gerontological area.[12] However, it is concerned that the Brazilian elderly population presents low schooling and difficult access to technological resources, interfering in the acquisition of knowledge about the pandemic, as well as limiting the possibilities of communication, especially during social isolation.[12]

In a study[13] carried out in the same health unit of this extension action, it was evidenced that the elderly, besides low schooling and income, have a low literacy in health, with implications in the management of health situations.

When considering the large amount of information about COVID-19, the elderly have the challenge to critically evaluate the information and make the best decisions for health and self-care.[14] To help minimize the spread of the virus, health services have adopted alternative models for health care delivery, including telehealth services.[15] Thus, aiming to support and develop the skills of the elderly related to the search, understanding, use and evaluation of information in health, the Telecare extension project was created: developing health literacy and supporting the elderly users of a Basic Health Unit in the fight against COVID-19 in the municipality of Arapiraca/Alagoas.

The objective of this work is to describe the experience of students and faculty of the Nursing course in conducting the telecare extension action carried out with elderly users of a Basic Health Unit (BHU) during the Coronavirus pandemic.

## METHOD

The extension project entitled Telecare: developing health literacy and supporting the elderly users of a Basic Health Unit in the face of COVID-19 in the municipality of Arapiraca/Alagoas was carried out in a unit located in the João

Paulo II neighborhood of the municipality of Arapiraca (Alagoas). The main objectives were to develop health education activities through phone calls guided by a script of actions, in addition to developing informative and educational material.

The project team consisted of five students and one teacher from the Nursing undergraduate program at the Federal University of Alagoas - Campus Arapiraca. Health professionals who worked in the reference unit also participated as support. The family health team is destined to nine micro areas, which have, on average, 5,320 inhabitants, corresponding to 1,400 families. An approximate number of 166 elderly users of the referred health unit were estimated.

Before the first contact with elderly users of the unit, community health workers provided a list with their names and telephone contacts. A folder with the project information was produced for the agents to deliver to the homes of the elderly so that they would be aware that the students would come into contact and not think it was a prank call. Students received training before the start of the calls and the development of educational material with the aim of providing guidance on health literacy, health education and skills development (access, understanding, communication and evaluation of health information).

After this initial organization, the lists with the contacts were distributed among the three students responsible for conducting the calls. Each student was responsible for calling approximately 13 seniors per week. All the elderly users of the unit, even those unable to answer the calls (hearing impairment, cognitive decline, among others), were included in the project. For those unable to answer the calls, the calls were directed to the caregiver or the elderly family member. Those who did not answer the calls after three attempts were excluded.

The roadmap for health education activities and health literacy skills development, described in chart 1, was adapted from the study that conducted an intervention for the development of health literacy skills.[13] The calls were made weekly, lasting approximately 20 minutes, and for a period of 16 weeks. In addition to the calls, two students were responsible for producing weekly educational and informative material, as developed, shared with the elderly or family/caretakers.

The students had weekly supervision from the project coordinator. These supervisions were aimed at carrying out a discussion about the connections made, clarifying doubts about the themes worked and developing, with the students, the most suitable materials for each elderly person. In addition, the students made

biweekly reports, with the main information of the elderly and possible demands, forwarded to the professionals of the health unit.

**Figure 1.** Roadmap and guiding issues of the Telecare Extension Project. Arapiraca (Al), Brazil, 2020.

| **WEEK 1** | **WEEK 2** | **WEEK 3** | **WEEK 4** |
|---|---|---|---|
| **Interview and initial contact with the elderly** | **Access to health information**<br><br>Coronavirus care services (reference unit care protocol; phones, websites and social networks for the search of information about the coronavirus). | **Understanding health information**<br><br>What is the coronavirus (disease, signs and symptoms and doubts about the coronavirus). | **Understanding health information**<br><br>Coronavirus prevention (social isolation, hand washing, alcohol gel, use of mask). |
| **WEEK 5** | **WEEK 6** | **WEEK 7** | **WEEK 8** |
| **Understanding health information**<br><br>Care inside the home (hygiene of the environment; use of cleaning products). | **Understanding health information**<br><br>Prevention of falls at home (organization of environments, use of carpets, slippers, protective bars). | **Understanding health information**<br><br>Period of social detachment (how to deal with thoughts, emotions, loneliness, behavior and spirituality). | **Understanding health information**<br><br>Period of social distancing (guidelines for healthy eating, shopping and food care). |
| **WEEK 9** | **WEEK 10** | **WEEK 11** | **WEEK 12** |
| **Understanding health information**<br><br>The importance of healthy habits (physical activity, sleep hygiene, preventing alcohol/smoking abuse). | **Understanding health information**<br><br>What to do during social detachment (awakening of creativity, leisure, a new learning/ new experiences). | **Understanding health information**<br><br>Family and community support (practical ideas for the elderly and their relatives to face the family quarantine period). | **Evaluation of health information**<br><br>Knowledge about the disease and the pandemic, and what to do when any signs/symptoms appear. |

| WEEK 13 | WEEK 14 | WEEK 15 | WEEK 16 |
|---|---|---|---|
| **Evaluation of health information**<br><br>Evaluating fake news, reliable means of information about coronavirus. | **Sharing health information**<br><br>What the elderly have learned and can use during the pandemic to help others (preventing coronavirus, coronary symptoms). | **Sharing health information**<br><br>People to exchange information, communicating with health professionals. | **Project Closure**<br><br>Closing and feedback from the elderly about the project.<br><br>If the elderly person has any need, it will be articulated with the health unit and team. |

## RESULTS AND DISCUSSION

A total of 36 elderly people were assisted in the extension project. 68 contacts were made available by the agents and, from these, 14 seniors did not accept to participate and 18 did not answer the calls. In the first week of initial contact with the elderly, some information was identified on how the elderly dealt with health information and what would be the most appropriate way to receive health information in order to know and understand what their needs were. Of the 36 elderly, most were female (n=24) and did not use social networks (n=28). It is noteworthy that half of the elderly were illiterate (n=18) and 21 were between 60 and 69 years old. Of the total number of seniors, four preferred to receive the weekly information via text message and 17 agreed to receive the materials produced via WhatsApp. In addition, of all those served, 25 were responsible for handling the calls and 11 were represented by their spouses or family members. In addition, 20 elderly people reported that they had relatives/acquaintances who had acquired Coronavirus and 24 reported that they had received guidance on the virus in the period prior to the telecare project.

In the following weeks, besides the contact by calls, several educational materials were elaborated with guidelines about the pandemic, care for the prevention of the disease, physical and mental health of the elderly. The materials were made according to the four skills of health literacy and considering the specificities of each elderly, such as the level of schooling, the use of social networks, the preference for visual and illustrative or written material. The topics covered were related to COVID-19, self-care, healthy eating, physical activity,

leisure, suggestions for activities during the period of social withdrawal, prevention of falls and care with fake news. The production of the materials prioritized the use of images, little text and large letters to facilitate the understanding of health information.

It was observed, considering the receptivity and participation of the elderly in the calls, that in the first call most of them became suspicious, seeking to know more information about the project. After the students explained and cited the partnership with the health team of the reference unit, they became more receptive. In the following weeks, it was possible to notice that they created a bond with the students, better receiving the information, interacting and reporting whether or not they followed the recommendations. The elderly were more confident and comfortable to exchange experiences and clarify doubts that arose during the weeks, such as some medication in use, change of some symptom or even the emergence of some health problem.

Connections were also an important resource for emotional support to the elderly, alleviating periods of loneliness and social withdrawal. They gained confidence to talk about other issues and request demands for the unit's health staff. Many took advantage of the connections to express their anxieties and personal problems, including some revealing themselves to be lonely due to social isolation, so students were aware of any signs of depression/isolation. It is important to emphasize that all the changes observed in the calls were passed on to the health team, providing continuity of care to the elderly. The students also noticed that some elderly people didn't like to talk much, they just listened to the weekly themes, and they respected those particularities of the elderly.

The demands of the elderly were noted, discussed with the responsible teacher and shared with the unit's health team and, based on this exchange of information, a closer relationship between the students and the health team was promoted, besides a better understanding of the importance of health communication and the completeness of care. The health team also directed guidelines for students to pass on to the elderly and, from this integrated communication, the elderly stayed safe and informed in their homes.

In telecare, the resource used for remote assistance has a differential, since most of the services use social networks and video calls, as found in an experience report that used online videos in Instagram.[16] The use of this "older" tool has allowed us to serve those who do not have access or affinity with other

technologies. In the context of the Coronavirus pandemic, it is important to consider that there is a bombardment of information and many of these can be false. Therefore, a closer contact with a health unit professional or health student can help to prevent the spread of fake news, as well as provide understanding about the disease and emotional support in this period of social detachment.

Another advantage for the use of the technologies in telehealth is the reduction of the circulation of the elderly in the health units to avoid agglomerations and minimize the risk of exposure to the disease. It also allows to guarantee the care of patients with pre-existing comorbidities, who cannot personally attend medical appointments due to the Coronavirus prevention guidelines.[17] Thus, technologies such as telecare can be used as strategies for intervention and access to the most vulnerable elderly, providing a support network and sharing health information, especially during the pandemic and the period of social withdrawal.[18]

Among the limitations of this project, the difficulty of access to the elderly through calls stands out, since there were those who did not answer. It is not known if the register of these elderly was outdated. It is also worth mentioning that two micro-areas of the mentioned unit were discovered by community health agents and, therefore, a smaller number of contacts than expected were passed on. The low schooling and income of the elderly population highlighted the difficulty of access to technological resources, with limited use of the cell phone. Many elderly people were illiterate and did not have telephones in good conditions of use, some needing successive attempts for the students to succeed in calling.

Another limitation in the execution of the project was the number of elderly people who did not accept to participate. Some elderly people showed resistance in participating in the project, considering the difficulty of establishing a distance link, because they didn't know the person who was "on the other side" of the line.

The actions of the project aimed to stimulate students to act with emphasis in the social, cultural and scientific spheres, using light technologies for the promotion of health and the development of skills of the elderly so that they become multipliers of information and transformers of social reality. In addition, this roadmap of structured links can serve as a platform for health professionals to use in the daily health care of the elderly, in the qualification of health care processes, making possible timely times of access and resolution of health services.[19]

## CONCLUSION

Telecare has strengthened teaching and extension activities, since it has contributed to the performance of nursing students, enabling the development of skills and abilities required for health care of the elderly in the community. In addition, it provided the strengthening and integration of the relationship between the university, the health service and the community, strengthening the university's contribution to the community in this period of pandemic. In addition, it was possible to direct a continuous and integral service to the elderly attended, giving support through communication and dialogue, providing guidance and emotional support.

The telecare was also necessary, as it prevented the dissemination of fake news, clarifying doubts in real time, offering adequate health information and enabling the construction and dialogue with the elderly so that the subjects feel empowered and with the possibility of social transformation in their communities.

For future studies, it is suggested to test the effects that interventions carried out through telephone calls can have on the health literacy of these elderly, as well as on the quality of life and even health habits. It is also suggested to improve models like this so that the elderly population, especially the most vulnerable, are always in contact with health professionals and can receive Nursing care through different models of care.

This experience report can also contribute to the professional performance of the nurse and has implications for nursing care in primary health care. It presents contributions for future studies or even the implementation of interventions with the elderly by means of telecare or teleconsultation.

## REFERENCES


1. Begoray DL, Kwan B. A Canadian exploratory study to define a measure of health literacy. Health Promot Int. 2012 Mar; 27(1):23-32. Doi: 10.1093/heapro/dar015

2. Cutilli CC. Health literacy in geriatric patients: an integrative review of the literature. Orthop Nurs. 2007 Jan/Feb; 26(1):43–8. Doi: 10.1097/00006416-200701000-00014

3. World Health Organization. Coronavirus disease (COVID-19) [Internet]. Geneva: WHO; 2020 [cited 2020 Sept 11]. Availabre from: https://www.who.int/news-room/q-a-detail/coronavirus-disease-covid-19

4. Zarocostas J. How to fight an infodemic. Lancet. 2020 Feb; 395(10225):676. Doi: 10.1016/S0140-6736(20)30461-X

5. Paakkari L, Okan O. COVID-19:health literacy is an underestimated problem. Lancet Public Health. 2020 Apr; 5:e249-50. Doi: 10.1016/S2468-2667(20)30086-4

6. Sorensen K, Pelikan JM, Rothlin F, Ganahl K, Slonska Z, Doyle G, et al. Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU). Eur J Public Health. 2015 Apr; 25(6):1053-8. Doi: 10.1093/eurpub/ckv043

7. Gazmararian JA, Baker DW, Williams MV, Parker RM, Scott TL, Green DC, et al. Health literacy among Medicare enrollees in a managed care organization. JAMA. 1999 Feb; 281(6):545-51. Doi: 10.1001/jama.281.6.545.

8. Speros CI. More than words: promoting health literacy in older adults. OJIN. 2009 Feb; 14(3). Doi: 10.3912/OJIN.Vol14No03Man05

9. Lambert M, Luke J, Downey B, Crengle S, Kelaher M, Reid S, et al. Health literacy: health professionals' understandings and their perceptions of barriers that Indigenous patients encounter. BMC Health Serv Res. 2014 Nov; 14:614. Doi: 10.1186/s12913-014-0614-1

10. Speros CI. Promoting health literacy: a nursing imperative. Nurs Clin North Am. 2011 Sept; 46(3):321-33. Doi: 10.1016/j.cnur.2011.05.007

11. Loan LA, Parnell TA, Stichler JF, Boyle DK, Allen P, VanFosson CA, et al. Call for action: Nurses must play a critical role to enhance health literacy. Nurs Outlook. 2018 Jan/Feb; 66(1):97-100. Doi: 10.1016/j.outlook.2017.11.003

12. Hammerschmidt KSA, Santana RF. Health of the older adults in times of the Covid-19 pandemic. Cogitare Enferm. 2020; 25:e72849. Doi: 10.5380/ce.v25i0.72849

13. Serbim A, Paskulin L, Nutbeam D. Improving health literacy among older people through primary health care units in Brazil: Feasibility study. Health Promot Int. 2019 Dec; 01-11. Doi: 10.1093/heapro /daz121

14. Abel T, McQueen D. Critical health literacy and the COVID-19 crisis. Health Promot Int. 2020 Apr; daaa040. Doi: 10.1093/heapro/daaa040

15. Monaghesh E, Hajizadeh A. The role of telehealth during COVID-19 outbreak: a systematic review based on current evidence. Res Square. 2020; 1-20. Doi: 10.21203/rs.3.rs-23906/v3

16. Lima MCL, Simplicio MRS, Hola ECSO. Health educationon risk factors in the occurrence off alls in the elderly in times of the covid-19 pandemic: experience report. Braz J Develop. 2020 Aug; 6(8):58825-30. Doi:10.34117/bjdv6n8-334

17. Caetano R, Silva AB, Guedes ACCM, Paiva CCND, Ribeiro GDR, Santos DL, et al. Challenges and opportunities for telehealth during the COVID-19 pandemic: ideas on spaces and initiatives in the Brazilian context. Cad Saúde Pública. 2020; 36(5): e00088920. Doi: 10.1590/0102-311X00088920

18. Armitage R, Nellums LB. COVID-19 and the consequences of isolating the elderly. Lancet Public Health. 2020 Mar; 5(5):e256. Doi: 10.1016/S2468-2667(20)30061-X

19. Sociedade Beneficente Israelita Brasileira Albert Einstein. Nota técnica para organização da rede de atenção à saúde com foco na atenção primária à saúde e na atenção ambulatorial especializada - saúde da pessoa idosa [Internet]. São Paulo: Sociedade Beneficente Israelita Brasileira Albert Einstein/ Hospital Israelita Albert Einstein: Ministério da Saúde; 2019 [cited 2020 Aug 10]. Available from: https://atencaobasica.saude.rs.gov.br/upload/arquivos/202001/03091212-nt-saude-do-idoso-planificasus.pdf