

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

Queila Rebeca Pazzetto Santos¹, Maria Antonia Ramos Costa²

Poliana Avila Silva³, Vanessa Denardi Antoniassi Baldissera⁴

Giovanna Brichi Pesce⁵, Mariana Pissioli Lourenço⁶

Highlights: (1) Collaborative development of an educational leaflet on COVID-19 for the elderly population. (2) Material validated by experts and older adults, with accessible language and reliable information. (3) Health education as a strategy to reduce fake news and promote self-care among older adults.

PRE-PROOF

(as accepted)

This is a preliminary, unedited version of a manuscript that was accepted for publication in Revista Contexto & Saúde. As a service to our readers, we are making this initial version of the manuscript available, as accepted. The article will still be reviewed, formatted and approved by the authors before being published in its final form.

<http://dx.doi.org/10.21527/2176-7114.2026.51.14822>

How to cite:

Santos QRP, Costa MAR, Silva PA, Baldissera VDA, Pesce GB, Lourenço MP. Development of educational material for the prevention of covid-19 complications. Rev. Contexto & Saúde. 2026;26(51):e14822

¹ Universidade Estadual do Paraná – UNESPAR. Paranavaí/PR, Brazil. <https://orcid.org/0009-0007-1752-0570>

² Universidade Estadual do Paraná – UNESPAR. Paranavaí/PR, Brazil. <https://orcid.org/0000-0001-6906-5396>

³ Universidade Estadual de Mato Grosso do Sul – UEMS. Campo Grande/MS, Brazil.
<https://orcid.org/0000-0002-5930-7424>

⁴ Universidade Estadual de Maringá – UEM. Maringá/PR, Brazil. <https://orcid.org/0000-0003-1680-9165>

⁵ Universidade Estadual do Paraná – UNESPAR. Paranavaí/PR, Brazil. <https://orcid.org/0000-0003-1859-7987>

⁶ Universidade Estadual do Paraná – UNESPAR. Paranavaí/PR, Brazil. <https://orcid.org/0000-0003-4097-5040>

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

ABSTRACT

Objective: to collaboratively develop material with scientific information for promoting and maintaining the health of the elderly population. **Method:** this is an action research project focused on the collective development of educational material. Data collection and the development of educational material took place in June 2022, in the city of Paranavaí, Paraná, Brazil. The research consisted of five phases: identification of questions that permeated the lives of older adults during the COVID-19 pandemic; content composition; choice of illustrations; expert evaluation; and approval of the material by older adults. The elderly were randomly selected from a survey conducted by a nurse at a Basic Health Unit of elderly people in her area who had the cognitive capacity to respond to the questionnaire. **Results:** the survey included 15 elderly people and four health professionals (nurses). Regarding vaccination against COVID-19, 14 elderly people (93.3%) were immunized with three doses of the vaccine, and one (6.6%) with two doses. Regarding the search for information about COVID-19, 13 (86.6%) sought information through traditional media, such as radio and television, and six (40%) through digital media, such as: YouTube, Instagram, WhatsApp, and Facebook. Ten (66.6%) disseminated the information they received about COVID-19, and five (33.3%) did not. **Conclusion:** it is concluded that there are still many doubts surrounding the lives of the elderly regarding the COVID-19 pandemic, and the creation of the *folder* is one of the strategies to facilitate access to health-related information, free from fake news.

Keywords: COVID-19; Elderly; Health Promotion; Disease Prevention; Disinformation.

INTRODUCTION

During the COVID-19 pandemic, in addition to the speed of the spread of the disease, there was also a rapid increase in information, which in many cases was inaccurate and yet was disseminated in the media, leading to a greater need to adopt health education strategies to provide adequate guidance to the population¹.

The intensity of the spread of information was so massive that the World Health Organization (WHO) called this movement an “infodemic,” which was intensified by fake

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

news, characterized as the spread of false news with the intent of distorting facts to attract an audience, disinform, and mislead the population¹⁻².

We know that the COVID-19 pandemic is a public health problem and is affecting people around the world, in addition to being associated with relatively higher mortality among the elderly, with rates ranging from 3.6% to 14.8%³. In this scenario, it is known that older adults are increasingly involved in the technological world and can be targeted by fake news, making them even more vulnerable. In addition to believing that the content of the messages is accurate, they adopt questionable health practices and disseminate the information they receive.

Research shows that individuals aged 65 and over share seven times more fake news than users in other age groups, and it is still challenging to measure the impact that these messages can have on the lives of older adults, both in terms of abandoning treatment and using non-pharmacological measures with possible side effects on their health⁴.

Given the above and the particular nature of care for older adults during the COVID-19 pandemic, it is believed that identifying older adults' pandemic-related concerns will enable their involvement, as well as that of their caregivers, in health care actions. To facilitate the dissemination of appropriate health information that addresses the contexts in which older adults and their caregivers find themselves, the study aimed to collaboratively develop scientific materials to promote and maintain the health of the elderly population.

MATERIALS AND METHOD

This is a qualitative, descriptive, cross-sectional study, which is an action research project focused on the collective construction of educational materials. The central assumption of this methodology is that research should be conducted collectively and participatively, between researchers and participants, who are not only the objects of study, but also collaborators. The aim is not only to understand the problem, but to seek solutions to solve it, and to be able to generate reflections for individuals, the community, and society during this process⁵.

Therefore, the researchers first contacted the municipal health secretary to obtain authorization to conduct the research through a responsible agreement. Subsequently, the coordinating nurse of a Family Health Strategy (FHS) unit at a Basic Health Unit (BHU) in the

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

municipality was contacted. This was done to ensure she was aware of the research being conducted in her territory. This area was selected because it has a large proportion of elderly adults. The nurse then provided the researchers with a report listing the names and addresses of elderly residents in the BHU area.

Data collection and the development of educational material took place in June 2022, in five phases: identification of questions that permeated the lives of older adults during the COVID-19 pandemic; content composition; selection of illustrations; evaluation of the material by experts; and approval of the material by the elderly⁶.

Participants were randomly selected; the study included 15 older adults and 4 nurses, who served as specialists to evaluate the prepared material, and no participants were excluded. The first phase was to identify the concerns of the elderly regarding the COVID-19 pandemic. Data were obtained from a semi-structured questionnaire with sociodemographic questions⁷: gender, age group, level of education, and professional occupation, lifestyle habits adopted during the COVID-19 pandemic: stopped performing some leisure activity, started using masks, hand sanitizer, and washing hands more frequently. An open question about the doubts that permeated the pandemic period was applied through an interview. Each question was read individually to resolve any doubts that the elderly person presented, and the answers were noted by the researcher. The interviews lasted an average of thirty minutes and took place at the elderly person's home. The agenda of the place and time was made by mutual agreement between the researcher and the elderly by telephone and/or in person.

The selection of the subjects who participated in this phase was supported by an FHS that was randomly selected by the researchers, the nurse of this UBS pointed out the elderly who have preserved cognitive capacity to answer the questions. In addition to this criterion, the researchers' previous knowledge about cognitive impairment was used. Therefore, the following inclusion criterion was adopted: age 60 years or older. The exclusion criteria were: elderly people with impaired cognitive capacity. In total, 15 older adults participated, none of whom were excluded.

Also at this stage, general research was conducted in scientific literature to address the elderly's questions about COVID-19 and ensure the reliability of the information that would be passed on during data collection.

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

In phase two, for content composition, the information obtained in the first phase was compiled, regarding the knowledge needs about COVID-19 identified in contact with participants, namely: the place of origin of the SARS-CoV-2 virus, what a pandemic is, forms of transmission, symptoms of COVID-19, the isolation period, measures to reduce risk and contagion, the importance of vaccination, and deaths from COVID-19, up to June 2022.

As for the choice of illustrations, indicated as the third phase, images representing moments experienced during the COVID-19 pandemic were selected from the preliminary content, available on websites, educational, and easy to understand for the elderly population. This content was then edited and laid out. The information was arranged on a single double-sided sheet folded in half. The criteria established in advance for the folder construction process were ease of reading and content clarity.

In phase four, the educational material, in this case the *brochure*, was submitted for evaluation by *experts*, namely four health professionals and nurses, two of whom were doctors and nursing professors, one was a master's degree holder and nursing professor, and one was a nursing professor and specialist in healthcare-associated infection control, working at a tertiary healthcare institution in the municipality. The selection criteria were being a healthcare professional and familiarity with the topic. These professionals evaluated the suitability, information presentation, topic sequence, coverage of the educational needs of the elderly, language and terminology, and verbal actions, considering readers' perspectives, using a Booklet Suitability Instrument for the Elderly. They made notes that were accepted and later evaluated the final version, agreeing with the final product produced.

Finally, in the fifth and final phase, the elderly participants approved the material after reading and analyzing it with respect to vocabulary comprehension, unfamiliar or complex terms, and the appropriateness of the illustrations. The elderly participants' comments were positive, and no changes or adjustments to the folder were suggested.

The collected data were stored and tabulated in Microsoft Excel 2016® and then analyzed using simple descriptive statistics, including calculations to obtain means and percentages, and presented in tables.

It should be noted that, although the data collection was carried out during the COVID-19 pandemic, all biosafety measures were respected during the application of the questionnaire

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

for face-to-face interviews to protect better the elderly, such as the use of 70% alcohol gel for hand hygiene, the use of masks by both the researcher and the study participant, and a distance of 1.5 m between the researcher and the study participant.

To avoid conflicts of interest and ensure that participants had access to information without bias, the researchers reviewed the Free and Informed Consent Form (FICF) and, after it was accepted and signed, began the interview, reading each question individually to clarify any questions the elderly participants might have. The elderly participants in the study completed the questionnaire without interference from relatives or other family members.

All guidelines established by current ethical standards for human experimentation, as set out in Resolutions 466/2012 and 510/2016 of the National Health Council⁷⁻⁸, were observed. The research was approved by the committee of the State University of Paraná with opinion number 5,460,824 and CAAE 56821722.6.0000.9247.

RESULTS

The research was conducted by 19 collaborators, including four health professionals and 15 elderly individuals.

Based on analysis of the sociodemographic questionnaire, the 15 elderly participants in this study ranged in age from 60 to 91 years, with a mean age of 72 years. Four (26.6%) were male and 11 (73.3%) were female. Their occupations were: nine retirees (60%), four homemakers (26.6%), one waxer (6.6%), and one civil servant (6.6%). Their educational levels ranged from elementary school 12 (80%), high school one, (6.6%), and two who had never studied (13.3%). Their marital status was married seven, (46.6%), divorced three, (20%), widowed (26.6%), and single (one, 6.6%). The number of people living in the same house ranged from one to three. Of the elderly, four (26.6%) live in rented accommodation, ten (66.6%) own their own home, and one (6.6%) lives in a house provided by their child, all of which are in urban areas 15, (100%).

After characterization, the elderly were also questioned about immunization against COVID-19, morbidities, lifestyle habits, and changes that occurred during the pandemic. Thus,

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

14 elderly individuals (93.3%) were immunized with three doses of the vaccine, one (6.6%) with two doses, and 11 (73.3%) had some chronic disease such as systemic arterial hypertension (SAH) and diabetes mellitus (DM), while three (20%) had no chronic disease. Only one (6.6%) attends a social club, and 14 (93.3%) do not. None of the elderly individuals perform volunteer work.

Table 1 - Changes in life due to the COVID-19 pandemic, Paraná, Brazil, 2022.

Life changes	N °	YES (%)	N °	NO (%)	Total	T (%)
They stopped doing some leisure activity.	13	86.6%	2	13.3%	15	100%
Engage in physical activity.	7	46.6%	8	53.3%	15	100%
Wearing a mask.	15	100%	0	0%	15	100%
Use of hand sanitizer.	15	100%	0	0%	15	100%
They wash their hands more frequently.	15	100%	0	0%	15	100%

Source: the authors, 2022.

Finally, regarding the search for information about COVID-19, 13 (86.6%) sought it via traditional media, such as radio and television, and six (40%) via digital media, such as YouTube, Instagram, WhatsApp, and Facebook, with 10 (66.6%) disseminating the information received about COVID-19 and five (33.3%) not disseminating it.

As for the format of the educational material, it was presented in a folder-type model, consisting of a sheet measuring 279.4 x 215.9 mm, with information on both sides and three folds, forming six sections. With the respective folds and after the introduction of the COVID-19 pandemic, the spaces were presented in the following sequence: introduction to the topic, a four-part development, and the back cover.

In the expert evaluation process, the submitted document was based on Manzini's instrument, in which the evaluators assessed the form, sequence, and scope of the issues presented in the folder⁹.

**DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE
PREVENTION OF COVID-19 COMPLICATIONS**

Chart 1 - Suggestions made by experts for inclusion of information in the folder.

Expert suggestions	
Font	Increase the font size, standardize the size and type, and avoid sentences in uppercase and bold.
Grammar	Grammatical error in the word "four"
Suggestions	Include the importance of the complete vaccination schedule. Insert the importance of healthy lifestyle habits. Remove words that are difficult to understand. Summarize the texts on care and isolation time. And insert the importance of continuing to take care of yourself, as the pandemic is not over yet.
Sequence	Place the item on symptoms after the item on transmission, followed by the topic on measures to reduce the risk of contagion.

Source: the authors, 2022.

The suggestions have been included and the changes have been made.

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

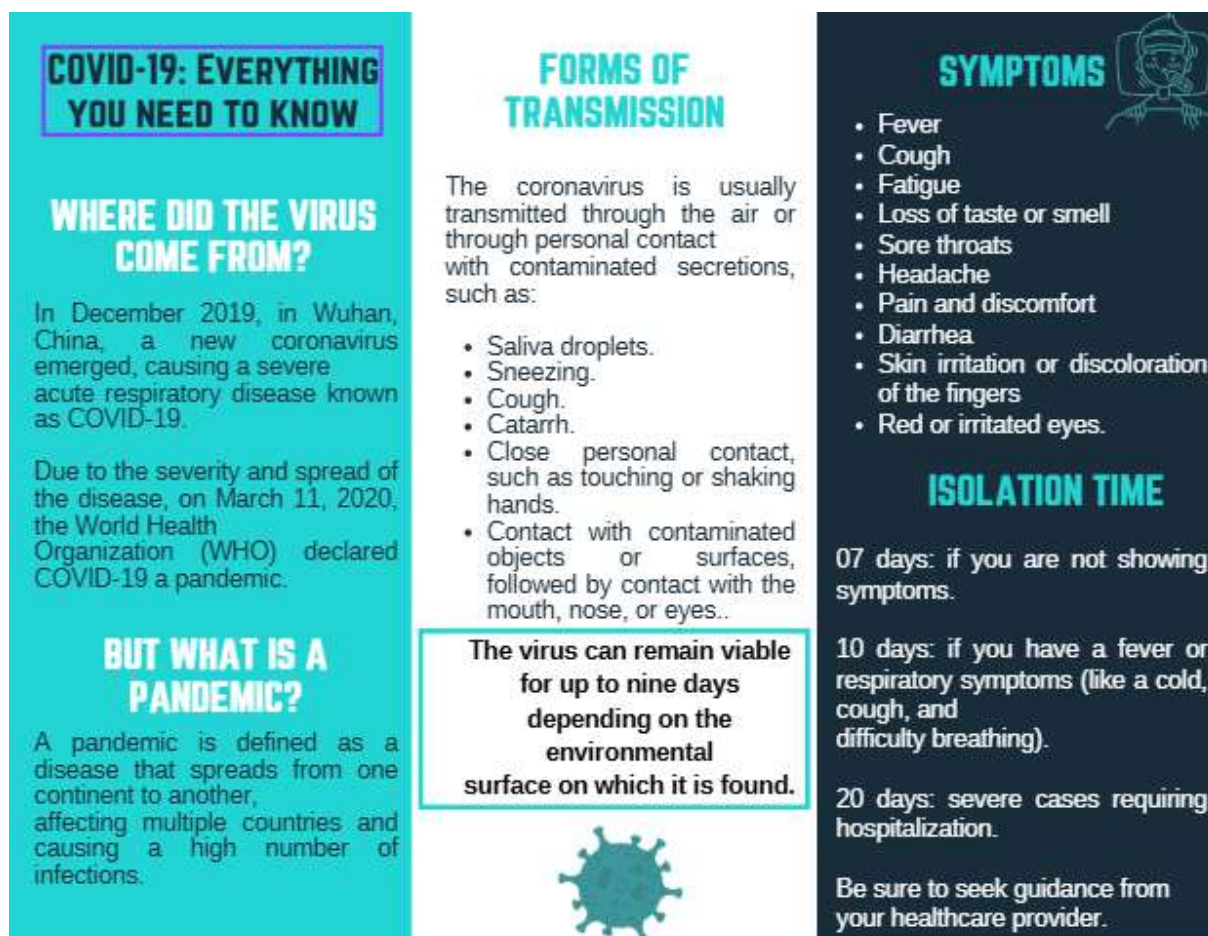


Image 1 - Folder – COVID-19 pandemic (Side 1)

Source: the authors, 2022.

All experts gave a highly satisfactory assessment of the items in the folder. The language was considered easy to understand, which was considered vital for providing reliable information to the elderly.

In terms of content, the information was arranged in the order in which it would be read by the reader. On the first page, a brief introduction to the topic was presented, including information on the emergence of the COVID-19 virus and the definition of a pandemic. Subsequently, highly relevant information was provided in response to the questions the elderly people asked during the interview.

In the second part, which focuses on the development of the brochure aimed at reducing the transmission of COVID-19, examples illustrate how the virus is transmitted and how long

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

it can remain viable on surfaces or in the environment.

The third part presents the most common symptoms of COVID-19 and the isolation period for each case (mild, moderate, and severe), aiming to reduce contagion and emphasizing the importance of seeking health services for further guidance, diagnostic testing, and symptom monitoring.

The fourth part describes measures to reduce the risk of infection and how to implement them, including handwashing, avoiding physical contact, covering coughs and sneezes, cleaning surfaces and objects, and the importance of healthy lifestyle habits for preventing COVID-19.

The fifth part presented information on vaccines, including how antibodies are produced after vaccination, which vaccines are available in Brazil, their common side effects, and the implications of these effects. The importance of booster doses and maintaining the complete vaccination schedule was also described.

In the sixth and final part, data related to deaths from COVID-19 were presented, along with the preventive measures adopted to reduce contagion among family members who will be mourning the body of an individual who died from COVID-19.

Finally, a link to the Ministry of Health website was provided so that the elderly can find more information on the topic on a secure, fact-checked site, free from Fake News.

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

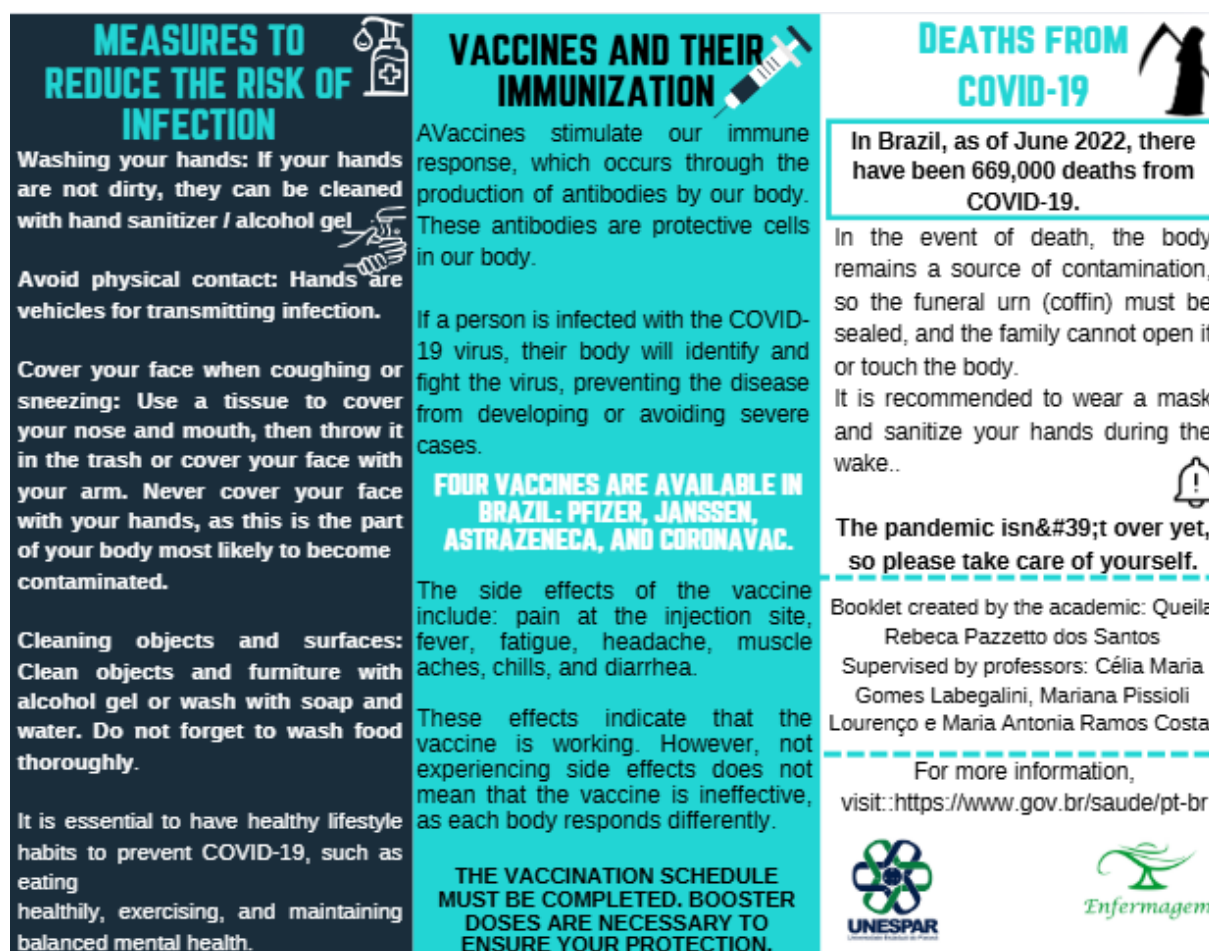


Image 2 - Folder – COVID-19 pandemic (Side 2)

Source: the authors, 2022.

DISCUSSION

During the COVID-19 pandemic, the daily routine of older adults underwent some significant changes. Most of them were socially active, but due to measures adopted to reduce the risk of viral transmission, many stopped participating in leisure activities, such as attending church, exercising, and visiting relatives/friends, among others¹⁰.

It is known that social distancing is a risk factor for the development of various emotional and physical illnesses, the main ones being anxiety, depression, sleep disorders, mood swings, suicidal ideation, and a sedentary lifestyle, which can also lead to the risk of developing SAH and obesity. The latter, together with age, was a risk factor for disease

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

progression in COVID-19¹¹. Therefore, early identification of conditions is essential, along with the dissemination of information as a strategy for the prevention and promotion of the population's health¹²⁻¹³.

With advances in technology and social media, access to information has become easier, and, consequently, Fake News has emerged on social networks, aiming to distort accurate information and, in numerous instances, causing a negative impact on the population¹⁴.

An international survey found that more than half of the elderly participants were engaged with technology. They also concluded that this involvement could improve elderly people's level of information about health and health care¹⁵. One factor influencing internet access is economic development. In regions where society is less developed, access is more restricted, and even those who use the *internet* do so for only a few hours a day, but almost every day of the week. Regarding health-related information, a study found that 22.5% of older adults search the internet for information on food, medications, and diseases. However, it is necessary to teach older adults to search for reliable sources of scientific information¹⁶.

Given the above and according to the literature, it is known that the elderly are also included in this context¹⁷. In a study conducted in the city of São Paulo on the COVID-19 infodemic and older adults, it was found that the means of communication that older adults use most to stay informed about COVID-19 is the internet, followed by television and radio¹⁸. This finding differs from the results of the present study, which found that most of this audience seeks information via radio and television, whereas a smaller portion seeks it via digital media.

Regarding these aspects, it is necessary to train older adults in technology, to facilitate their access to it, and to equip them to distinguish true from false information, thereby promoting access to reliable information grounded in research and scientific evidence¹⁴.

Another strategy for promoting and preventing health among the elderly population is the use of easily accessible, self-explanatory educational materials with simple language, reliable information, and an attractive design to stimulate interest in reading and understanding, such as folders and booklets. The production and dissemination of these materials maintain and promote the autonomy and independence of the elderly in relation to their care and health. This aligns with the present study, which found that the educational material was easy to understand and contained information relevant to the elderly¹⁹.

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

However, for materials to be used by this population, they must be developed collaboratively, with stakeholders working together to ensure the participation of those interested in the material and experts in the field. Experts can verify the accuracy of the information and the applicability of the material, while older adults can identify what information is really necessary and should be included in the educational material²⁰.

Regarding experts in the field, healthcare professionals are trained to disseminate health information and should also remain up to date on current topics, seeking better strategies to inform and clarify for the target audience, especially the most vulnerable groups. Educational materials facilitate the work of health professionals, as patients' knowledge of the subject increases their acceptance of treatment, leading to better outcomes. In addition to providing quick sources of guidance and decision-making in the face of the problem, they consolidate the language and enable comprehensive and multidisciplinary care, as determined by the Unified Health System²¹⁻²².

Practical, straightforward, and welcoming communication between healthcare professionals and between them and older adults leads to better outcomes. Thus, the folder produced in this study represents an important tool for interaction between all actors in this process, facilitating health promotion and prevention among older adults by conveying accurate information. We cannot deny the existence of other folders related to COVID-19; however, no articles were found in the literature that report the collaborative construction of a booklet aimed at the elderly on this topic with the effective participation of the elderly, which is a limitation of this study. Another limitation is the fact that the study was conducted only with a group of elderly people from a FHS team, making it impossible to generalize the results. The material was designed for all the elderly, and those who lack the literacy to read it can seek support from a family member or caregiver to understand it.

CONCLUSION

This research also shows that, despite the topic being widely disseminated, many questions about COVID-19 remain unanswered, even after extensive media coverage and social network activity.

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

Most of the elderly people studied in the research disseminate the information they receive about COVID-19. Therefore, the *folder* presented in this study is of great importance, as it provides the elderly with easily accessible material free of misinformation that could lead to health-related problems.

It is suggested that further studies be conducted to analyze whether there are still doubts among the elderly on the subject, and thus promote health and prevent disease complications.

A weakness of the study is the collection of data from the elderly during the COVID-19 pandemic, given the risk of contagion and their increased risk of disease complications.

Acknowledgements:

We would like to thank CAPES/CNPQ for their financial support for this research.

REFERENCES

- ¹ Galhardi CP, Freire NP, Minayo MC de S, Fagundes MCM. Fact or fake? An analysis of disinformation regarding the covid-19 pandemic in Brazil. *Ciencia e Saude Coletiva* [Internet]. 2020 [acesso 2022 Fev 7];25:4201–10. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S141381232020006804201&lng=en&nrm=iso
- ² Zarocostas J. How to fight an infodemic. *Lancet* [Internet] 2020; [acesso 2022 Fev 7];395(10225):676. Disponível em: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30461-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30461-X/fulltext)
- ³ Mehra A, Rani S, Sahoo S, Parveen S, Singh AP, Chakrabarti S, et al. A crisis for elderly with mental disorders: Relapse of symptoms due to heightened anxiety due to COVID-19. *Asian J Psychiatr* [Internet]. 2020 [acesso 2022 Fev 7];51. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7166027/>
- ⁴ Guess A, Nagler J, Tucker J. Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *American Association for the Advancement of Science* [Internet]. 2019 [acesso 2022 Fev 7]. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/30662946/>
- ⁵ Thiollent M. *Metodologia da pesquisa-ação*. 14º ed. 2018. 136p.

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

- ⁶ Schelb M, Liz de Oliveira Cunha M, Bernarda Donato Gottems L, Patrícia Freitas Soares Chariglione I. ARTIGO 7-Original O processo de construção de material educativo para mulheres vítimas de violência. *Enfermagem em foco* [Internet]. 2019 [acesso 2022 Jul 14];10(6):50–6. Disponível em: https://www.researchgate.net/publication/341770033_O_processo_de_construcao_de_materia_l_educativo_para_mulheres_vitimas_de_violencia
- ⁷ Brasil. Resolução nº 466, de 12 de dezembro de 2012 [Internet]. Brasília, DF, 2013 [Acesso em: 07 fevereiro 2022]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html
- ⁸ Brasil. Resolução nº 510, de 07 de abril de 2016 [Internet]. Brasília, DF, 2013 [Acesso em: 07 fevereiro 2022]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0510_07_05_2016.html
- ⁹ Manzini EJ. Considerações sobre a elaboração de roteiros para entrevista semi-estruturada. Londrina; 2003.11-25p.
- ¹⁰ Munik DB dos S, Dos Santos IB, Moraes EA, Castro DS de P, José MR, Massi GAA, et al. Visão de idosos com perda auditiva e de seus cônjuges acerca de mudanças ocorridas em sua qualidade de vida durante a pandemia do COVID-19. *Research, Society and Development* [Internet]. 2022 [acesso 2022 Nov 13] 11. Disponível em: <https://rsdjournal.org/index.php/rsd/article/view/28404>
- ¹¹ Santos JO, Alves De Oliveira ES, Guabiroba JS, Cristina L, Lopes C. Isolamento social na pandemia de COVID: reflexões sobre a qualidade de vida dos idosos. *Colóquio Estadual de Pesquisa Multidisciplinar* [Internet]. 2022. [acesso 2022 Ago 8]. Disponível em: <https://www.unifimes.edu.br/ojs/index.php/coloquio/article/view/1684>
- ¹² Wu B. Social isolation and loneliness among older adults in the context of COVID-19: a global challenge. *Glob Health Res Policy* [Internet]. 2020 [acesso 2022 Jul 28];5:27. Disponível em: <https://doi.org/10.1186/s41256-020-00154-3>
- ¹³ Pereira MD, Oliveira LC, Costa CFT, Bezerra CM de O, Pereira MD. A pandemia de COVID-19, o isolamento social, consequência na saúde mental e estratégias de enfrentamento: uma revisão integrativa. *Research, Society and Development* [Internet]. 2020 [acesso 2023 Jul 5]. Disponível em: <https://rsdjournal.org/index.php/rsd/article/view/4548>
- ¹⁴ Severo MB, Lopes LGDO, Frichembruder K, Santos CM Dos, Bulgarelli AF. Acesso À Informação, Saúde Mental De Idosos E Pandemia De Covid-19: Pesquisando No Estado Do Rio Grande Do Sul. Em: *Infodemia: gênese, contextualizações e interfaces com a pandemia de covid-19*. Editora Aben [Internet]. 2022 [acesso 2022 Jul 29]; p. 124–31. Disponível em: https://www.researchgate.net/profile/Alexandre-Bulgarelli/publication/362052018_Acesso_A_Informacao_Saude_Mental_De_Idosos_E_Pandemia_De_Covid19_Pesquisando_No_Estado_Do_Rio_Grande_Do_Sul/links/62d56677af41

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

5930464cfa71/Acesso-A-Informacao-Saude-Mental-De-Idosos-E-Pandemia-De-Covid-19-Pesquisando-No-Estado-Do-Rio-Grande-Do-Sul.pdf

¹⁵ Arcury TA, Sandberg JC, Melius KP, Quandt SA, Leng X, Latulipe C, et al. Older Adult Internet Use and eHealth Literacy. *Journal of Applied Gerontology* [Internet]. 2020; [acesso 2023 Jul 3]; 39(2):141–50. Disponível em: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6698430/>

¹⁶ Sun X, Yan W, Zhou H, Wang Z, Zhang X, Huang S, et al. Internet use and need for digital health technology among the elderly: A cross-sectional survey in China. *BMC Public Health* [Internet]. 2020; [acesso 2023 Jul 3]; 20(1). Disponível em: <https://pubmed.ncbi.nlm.nih.gov/32917171/>

¹⁷ Fhon JRS, Rodrigues RAP, Diogo RCDS, Kusumota L, Lopes CT, Püschel VADA. O Impacto Das Fake News Nas Ações Do Cuidador De Idosos: Abordagem Do Enfermeiro. Em: *Infodemia: gênese, contextualizações e interfaces com a pandemia de covid-19*. Editora Aben [Internet]. 2022; [acesso 2022 Ago 10]; p. 50–62. Disponível em: https://web.archive.org/web/20220717183011id_/https://publicacoes.abennacional.org.br/wp-content/uploads/2022/07/e10-infodemia-cap6.pdf

¹⁸ Fhon JRS, Püschel VA de A, Cavalcante RB, Cruz FV, Gonçalves LN, Li W, et al. Infodemic of covid-19 and repercussions on the mental health of the elderly from São Paulo. *Revista da Escola de Enfermagem da USP* [Internet]. 2022; [acesso 2023 Jul 3]; 56. Disponível em: <https://www.scielo.br/j/reeusp/a/rJ6wSMhwVwVM6W7xZKNRssq/?format=pdf&lang=pt>

¹⁹ Priscila Peixoto Silva M, Lene dos Santos W. Saúde do idoso em tempos de pandemia covid-19: cuidados de enfermagem health of the elderly in times of pandemic covid-19: nursing care. *Revista JRG de Estudos Acadêmicos-Ano III* [Internet]. 2020; [acesso 2022 Fev 7].(7). Disponível em: <http://doi.org/10.5281/zenodo.4118417>

²⁰ Slodkowski BK, Machado LR, Behar PA. Digital skills of the elderly: A focus on the construction of digital materials. *Acta Scientiarum – Education* [Internet]. 2022; [acesso 2022 Ago 10]. 44. Disponível em: <https://periodicos.uem.br/ojs/index.php/ActaSciEduc/article/view/54325>

²¹ Nakamura MY, Almeida K de. Desenvolvimento de material educacional para orientação de idosos candidatos ao uso de próteses auditivas. *Audiology - Communication Research* [Internet]. 2018; [acesso em 2022 Set 30]. 23. Disponível em: <https://doi.org/10.1590/2317-6431-2017-1938>

²² Ministério da Saúde Secretaria de Vigilância em Saúde Secretaria de Atenção à Saúde B. Política Nacional de Promoção da Saúde: PNPS: revisão da Portaria MS/GM no 687, de 30 de março de 2006 [Internet]. 2014. [acesso 2022 Set 30]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_promocao_saude_pnaps.pdf

DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE PREVENTION OF COVID-19 COMPLICATIONS

²³ Moraes Lm, Leite Ac, Silva T, Lima Avr, Gomes Ab, Carmo Ts. Benefícios de uma boa comunicação na equipe interdisciplinar em cuidados paliativos: Revisão Integrativa. Em: Open Science Research III. Editora Científica Digital [Internet]. 2022 [acesso 2022 Nov 21]; p. 897–906. Disponível em: <https://s3.amazonaws.com/downloads.editoracientifica.com.br/articles/220308459.pdf>

Submitted: August 11, 2023

Accepted: June 18, 2025

Published: January 2, 2026

Authors' contributions	
Queila Rebeca Pazzetto dos Santos:	Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Validation; Visualization; Writing – original draft; Writing – review & editing.
Maria Antonia Ramos Costa:	Conceptualization; Data curation; Formal analysis; Methodology; Project administration; Resources; Validation; Visualization; Supervision; Writing – original draft; Writing – review & editing.
Poliana Avila Silva:	Validation; Visualization; Writing – review & editing.
Vanessa Denardi Antoniassi Baldissera:	Validation; Visualization; Writing – review & editing.
Giovanna Brichi Pesce:	Validation; Visualization; Writing – review & editing.
Mariana Pissoli Lourenço:	Conceptualization; Data curation; Formal analysis; Methodology; Project administration; Resources; Validation; Visualization; Supervision; Writing – original draft; Writing – review & editing.
All authors approved the final version of the text.	
Conflict of interest: There is no conflict of interest.	

**DEVELOPMENT OF EDUCATIONAL MATERIALS FOR THE
PREVENTION OF COVID-19 COMPLICATIONS**

Financing:	Coordination for the Improvement of Higher Education Personnel – CAPES / National Council for Scientific and Technological Development – CNPq
Corresponding author:	Queila Rebeca Pazzetto Santos State University of Paraná – UNESPAR Av. Gabriel Esperidião, S/N - Jd. Morumbi. Paranavaí/PR, Brazil. Zip code 87703-000. keilarebeca00@gmail.com
Editor-in-chief:	Adriane Cristina Bernat Kolankiewicz. PhD
Editor:	Christiane de Fátima Colet. PhD

This is an open-access article distributed under the terms of the Creative Commons license.

