Original Article

Elderly people's knowledge and preventive practices about COVID-19*

Saberes e práticas preventivas de pessoas idosas sobre a COVID-19

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ABSTRACT

Objective: to understand the knowledge and preventive practices of elderly people about COVID-19. **Methods:** qualitative research developed with 11 elderly people living in a condominium for the elderly. Data were obtained using the technique of individual interviews and then submitted to lexicographic analysis by means of the Descending Hierarchical Classification using the software IRaMuTeQ®; and discussion in the light of the literature on COVID-19. **Results:** six classes emerged: Building knowledge and preventive practices about COVID-19; Emotional consequences; Preventive and control practices; Recognition and importance of prevention strategies; Physical, social, and economic impacts; and Individual and collective risk factors. **Conclusion:** the elderly understands the negative consequences of COVID-19, identifying the individual and collective risk factors, learned based on experiences during the pandemic, previous experiences, dialogues, and sources of information. They recognize the importance of preventive practices, carrying out care in the home and urban environment. **Contributions to practice:** the study contributes positively to the care of the elderly with the construction of knowledge about COVID-19, especially in the context of elderly residents in a condominium for the elderly, sensitizing and grounding health professionals to plan and develop problematizing educational actions, impacting on professional practice.

Descriptors: Aged; Health of the Elderly; COVID-19; Disease Prevention; Housing for the Elderly.

RESUMO

Objetivo: compreender os saberes e as práticas preventivas de pessoas idosas sobre a COVID-19. **Métodos:** pesquisa qualitativa e desenvolvida com 11 pessoas idosas residentes em um condomínio do idoso. Dados obtidos com uso da técnica de entrevistas individuais e, a seguir, submetidos à análise lexicográfica por meio da Classificação Hierárquica Descendente utilizando o *software* IRaMuTeQ®; e discussão à luz da literatura sobre COVID-19. **Resultados:** emergiram seis classes: Construindo saberes e práticas preventivas sobre a COVID-19; Consequências emocionais; Práticas preventivas e de controle; Reconhecimento e importância das estratégias de prevenção; Impactos físicos, sociais e econômicos e Fatores de risco individuais e coletivos. **Conclusão:** as pessoas idosas compreendem as consequências negativas da COVID-19, identificando os fatores de risco individuais e coletivos, apreendidos com base em vivências durante a pandemia, experiências prévias, diálogos e fontes de informação. Reconhecem a importância das práticas preventivas, realizando cuidados no ambiente domiciliar e urbano. **Contribuições para a prática:** o estudo contribui positivamente para a assistência às pessoas idosas com a construção de conhecimentos acerca da COVID-19, sobretudo, no contexto de pessoas idosas residentes em um condomínio do idoso, sensibilizando e embasando os profissionais de saúde para planejarem e desenvolverem ações educativas problematizadoras, impactando na prática profissional.

Descritores: Idoso; Saúde do Idoso; COVID-19; Prevenção de Doenças; Habitação para Idosos.

Introduction

In the year 2020, the world was hit by the Coronavirus Disease-19 (COVID-19) pandemic, caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) virus[1]. Regarding elderly people (in Brazil, those aged 60 years or more), they are considered the most vulnerable population group for this disease, presenting higher rates of infection, worsening and lethality[2-3].

There is a higher mortality rate in elderly people when compared to the general population, since the risk of dying from COVID-19 increases with advancing age, especially in those with chronic diseases[4]. Until August 17, 2022, Brazil had a total of 34,148,131 million notified cases of the disease and 681,253 thousand deaths. In the state of Paraná, 44,875 thousand people died, representing 6.58% of the total number of deaths[5].

In this context, the Elderly Community emerges as a favorable scenario for the spread of the virus among the elderly, as well as for the development of preventive practices. The Elderly Community is a modality of assisted housing for low-income elderly people in situations of social vulnerability, offered by the public authorities and coordinated by the Social Assistance and Citizenship Secretariats of the municipalities. The residents are autonomous elderly people, who are functionally independent and live alone or with their partners, who are also elderly[6].

The adoption of effective measures for the protection of the elderly population is necessary, especially behavioral preventive practices in the daily lives of these people. However, we know little about the practices and adherence of the elderly to preventive care for COVID-19 as well as their knowledge about the disease[2-3].

Developing a study on the knowledge and preventive practices of elderly people who live in condominiums of the elderly about COVID-19 is a way to identify their knowledge, individual and collective behaviors. In addition, it makes it possible to understand their perception of the disease and preventive practices, which may be related to the adoption of preventive behaviors. This information can impact the practice of health professionals in Primary Health Care by serving as a basis for the development of health education practices based on the identification of educational demands, aiming at the improvement of preventive practices[7].

This study was justified by the need to investigate what elderly people know about COVID-19 as well as what preventive strategies they practice, making it possible to increase studies of this nature and the gaps in the literature, since no research on the subject was found, besides the fact that it was carried out with elderly people who live in condominiums for the elderly.

It was believed that this unprecedented research could contribute to the social and health reality about the prevention of the disease in the elderly by allowing the unveiling of the theme and, thus, collaborating with the construction of knowledge and future development of effective problematizing educational practices in a condominium for the elderly aiming at the prevention of COVID-19 based on the change of individual and collective behaviors, by strengthening pandemic prevention actions among the elderly with the support of health professionals through extension activities.

Given the above, this study was based on the following question: what is the knowledge and preventive practices of elderly residents in a condominium for the elderly about COVID-19? The objective was, therefore, to understand the knowledge and preventive practices of elderly people about COVID-19.

Methods

This was a qualitative research study, which used the Consolidated Criteria for Reporting Qualitative Research (COREQ) guideline to guide the study, to understand what elderly people, know about COVID-19 and how they act when faced with prevention.

The target audience of the study consisted of 47 elderly residents in a condominium for the elderly in a city located in the North Central region of the state of Paraná, Brazil. This was a convenience sample due to the condominium's previous partnership with the teaching institution in which the main researcher performs her teaching and extension activities to collaborate for the future development of educational practices on this theme.

Elderly people who lived in the above-mentioned condominium and had preserved cognitive ability according to the Mini-Mental State Examination (MMSE)[8] were included in the study. Exclusion criteria were not being located at home after two attempts of contact by home visit at the time of data collection. Meeting the criteria, 11 elderly people participated in the research, and the number of participants was defined by exhaustion.

Data collection occurred during the month of May 2022, through individual semi-structured interviews conducted via home visits, using a script prepared by the researchers and composed of 20 guiding questions about the knowledge and preventive practices of the elderly about COVID-19. The script was about the knowledge of the disease, its severity, causes, consequences, prevention and risk factors, sources of information and previous experiences, prevention strategies for COVID-19 practiced by them, besides questions for sociodemographic characterization (age, sex, education, marital status, occupation) and health characterization (self-perception of health, vaccination history, and previous COVID-19).

The interviews were audio recorded, using a cell phone recorder, conducted by two previously trained and qualified researchers, on scheduled days and times and with an average duration of 16.16 minutes. The scheduling of the interviews occurred in person, through the director responsible for the elderly people's condominium, and the elderly people were approached at their homes by the researchers during the scheduled days.

To organize the data obtained, the interviews were transcribed in full by a researcher, and the material was organized into a corpus about the knowledge and preventive practices of older people about COVID-19. The corpus was processed using lexicographic analysis from the software Interface de *R pour lês Analyses Multidimensionnelles de Textes et de Questionnaires* (IRaMuTeQ®) through the Descending Hierarchical Classification (DHC)[9].

The lexicographic analysis was presented in a table format (Figure 1) based on the DHC about the knowledge and preventive practices of the elderly about COVID-19 and organized by the researcher according to the classes in descending order of Elementary Context Units (ECU) and according to the breakdowns and sub breakdowns of the originated dendrogram. The classes were interpreted, analyzed, named, and constituted by the interviewees' words and statements that illustrated each class. For the characterization of the elderly people, these data were organized in an electronic spreadsheet and analyzed using descriptive statistics. The findings were discussed using current and pertinent literature on COVID-19.

All ethical precepts governing research with human beings in Brazil were respected. The research was submitted to an Ethics Committee for Research with Human Beings and could only be initiated after obtaining the favorable opinion, number 5,344,026/2022 (Certificate of Presentation for Ethical Appreciation: 56913122,5,0000,0105) and the signature of the participants in the Informed Consent Form in two copies. To ensure the confidentiality of their identity, the statements were coded with the acronym EP, referring to the term "Elderly Person", followed by sequential Arabic numbers according to the order of the interviews.

Results

Eleven elderly individuals, with ages ranging from 65 to 79 years, mean 74.8 years, participated in the research. Most were female (n=7), married (n=6),

lived alone (n=7), had incomplete primary education (n=7), were retired (n=6) and, in addition, reported negative self-perception of health (n=7). All elderly people had already been vaccinated against COVID-19, and five had already had the disease.

The corpus processing took 25 seconds, identified 12,449 words, of which 1,039 were distinct words with 861 active forms and distributed in 363 ECUs. Of these, 260 were classified, representing 71,63% of the total corpus utilization.

Six analysis classes were derived from the DHC dendrogram. The dendrogram was initially divided into two partitions. The first partition split into two sub-partitions: from the first sub-partition, class 1 (ECU=14.6%) was obtained, and the second sub-partition split and generated class 6 (ECU=15%) and classes 5 (ECU=18.9%) and 2 (ECU=18.1%). The second split generated two classes: class 4 (ECU=18.9%); and class 3 (ECU=14.6%) (Figure 1).

Classes	Nomination	Lexicographic analysis			
		Words (p<0.0001)*	eff. total[†]	$X^{2‡}$	%[§]
Classe 5 18,9% 49 ECU	Knowledge about the negative consequences of COVID-19: physical, social, and economic impacts	Flu	14	43.3	85.7
		Give	33	37.1	57.6
		Feel	15	30.9	73.3
		Pain	13	30.2	76.9
		Head	10	25.4	80.0
		Husband	14	19.9	64.3
		Weak	4	17.5	100.0
		Fever	4	17.5	100.0
		Exam	8	17.0	75.0
		Test	6	16.7	83.3
Classe 2 18.1% 47 ECU	Knowledge about the emotional consequences of COVID-19: divine deliverance, feelings of fear, anguish and uncertainty experienced during the pandemic	God	17	60.5	88.2
		Fear	23	45.2	69.6
		Dying	23	37.9	65.2
		Hard	13	24.2	69.2
		Grace	7	22.2	85.7
		Living	4	18.4	100.0
		COVID	107	17.2	29.9
Classe 6 15% 39 ECU	Knowledge about individual and collective risk factors for COVID-19 and its complications: health conditions and lack of preventive practices	Risk	19	77.0	84.2
		Factor	9	52.8	100.0
		Disease	10	34.5	80.0
		Elderly	35	29.9	45.7
		Diabetes	9	28.8	77.8
		Person	62	19.0	32.3
		Walk	15	18.3	53.3
		Fat	3	17.2	100.0
		Fragile	3	17.2	100.0
		Getting Worse	3	17.2	100.0
		Child	3	17.2	100.0
		Worse	5	16.9	80.0
		Pressure	5	16.9	80.0
		Condition	5	16.9	80.0
Classe 1 14.6% 38 ECU	Building knowledge and preventive practices about COVID-19: experiences of the pandemic, previous experiences, dialogues, sources of information, and educational actions	Professional	15	93.0	100.0
		Television	11	53.6	90.9
		Chatting	10	47.4	90.0
		Learning	10	35.6	80.0
		Radio	5	29.8	100.0
		Orientation	5	29.8	100.0
		Condominium	18	25.9	55.6
		Listen to	6	23.2	83.3
		Talk	38	22.0	39.5
		Help	9	20.2	66.7
		Contact	3	17.7	100.0
		Guide	3	17.7	100.0
		Important	8	15.2	62.5
		Elderly	35	12.5	34.3
Classe 4 18.9% 49 ECU	Recognition and importance of prevention strategies: avoiding COVID-19	Use	31	87.9	80.6
		Mask	50	75.4	62.0
		Go to	35	33.2	54.3
		Church	11	29.8	81.8
		Leave	22	25.5	59.1
		Take	24	21.6	54.2
		Enter	15	17.6	60.0
		Avoid	24	16.8	50.0
		Care	14	14.2	57.1

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Classes	Nomination	Lexicographic analysis			
		Words (p<0.0001)*	eff. total†	$X^{2‡}$	%§
Classe 3 14.6% 38 ECU	Preventive and control practices for COVID-19 in the home and urban environment	Wash	24	100	83.3
		Alcohol	28	71.3	67.9
		Clothes	11	67.1	100.0
		Hand	19	57.3	73.7
		Reach	17	45.7	70.6
		Footwear	8	35.1	87.5
		Step	5	29.8	100.0
		Food	5	29.8	100.0
		Change	6	23.3	83.3
		Gel	18	19.4	50.0
		Bath	3	17.8	100.0
		Shot	3	17.8	100.0
		Purchase	3	17.8	100.0
		Bag	3	17.8	100.0
		Clean	5	17.5	80.0
		Take	8	15.2	62.5
		Take out	8	15.2	62.5

*Significance level of the word's association with the class; †Eff: Number of text segments in the corpus containing a given word; ‡X^2 of the word's association with the class; §Percentage of the word's occurrence in the text segments of the class; ECU: Elementary Context Units

Figure 1 – Lexical analysis of the classes referring to knowledge and preventive practices of older people about COVID-19 and listed according to the dendrogram established by the Descending Hierarchical Classification. Paraná, PR, Brazil, 2022

The classes obtained by the Descending Hierarchical Classification allowed us to understand the knowledge of the elderly about COVID-19, manifested by knowledge about the consequences of the disease (physical, emotional, social, and economic impacts), the individual and collective risk factors, the sources of information, in addition to knowledge about the importance and forms of prevention of COVID-19. We also understood the preventive practices used by them during the pandemic period in the home and urban environment.

Knowing about the negative consequences of COVID-19: physical, social, and economic impacts

Class 5 (ECU = 18.9%) showed the knowledge of the elderly about the negative consequences of COVID-19, manifested by the impacts on the health of the population as well as social and economic impacts. According to the elderly, the physical health impacts are related to the signs and symptoms presented during the acute phase of the disease and are manifested in different ways. Weakness, headache, diarrhea, cough, sore throat, and fever were reported as well as the need for social isolation during this time, impacting also on the social aspects: *It gives you a weakness, a huge weakness... You have a headache, you have a fever, these symptoms. It can cause discomfort. Discomfort is to be isolated, it's terrible to be isolated. It can give you headache, diarrhea* (EP1). *My COVID was like a flu. I kept coughing for two months* (EP 3). *We did the test. It was positive, and she held me for 14 days, 14 days I stayed in here* (EP 3). *My experience with COVID was terrible. It is terrible, some less, some more dangerous. You can't know how it manifests because it manifests differently* (EP 9).

The elderly people understand the seriousness of COVID-19, besides the fact that it can cause complications that can worsen the health condition, generating the need for hospitalization and invasive procedures, cardiorespiratory arrest and death, the latter being seen as the most serious consequence: *COVID is a serious problem, because many people have already died. The worst consequence is really death* (EP1). *I got COVID and at one point they intubated me. I had a cardiorespiratory arrest. I was hospitalized for two days, until the fever went down* (EP5).

Also, the elderly reported knowledge about the physical consequences and late symptoms of the disease, manifested after the cure of COVID-19, such as memory loss, shortness of breath on exertion, visual changes, palpitations, headaches, and joint pain: *Consequence was that I got a problem in my head. I used to have a perfect memory, now there are moments when it fails me. Pain in the legs that I didn't have, now I have too much, and this palpitation. COVID can cause a lot of things. It can cause headaches, heart palpitations. Your eyesight gets bad... I have pain in my legs until today that I didn't have. I did an exam, my legs are normal, the doctor told me it is COVID pain. It is in the joints!* (EP9).

In addition, financial difficulty was understood because of the pandemic: *The most difficult thing during the pandemic was the financial situation. The financial situation that got a lot worse. I felt a lot in this COVID the financial situation. The isolation also, I was away from the family. I was isolated, I couldn't do anything, I couldn't be going to get the money* (EP4).

Knowing about the emotional consequences of COVID-19: divine deliverance, feelings of fear, anguish and uncertainty experienced during the pandemic

Class 2 (ECU = 18.1%) corroborated the previous class when exemplifying the knowledge related to the emotional consequences of COVID-19 from the perspective of the elderly, manifested by feelings of fear, anguish and uncertainty experienced during the period of the pandemic. Feelings of fear and concern were reported regarding the possibility of contracting the disease, fear of the symptoms they might have in case of a positive COVID-19, the severity of the disease, hospitalization, and death. Still, the fear of transmitting the disease was reported and, therefore, the necessity and importance of preventive practices and care: *Her husband doesn't like anyone to visit them, because he is so afraid of getting COVID. He has a fear of dying, he is scared to death of getting COVID* (EP1). *She was afraid to pass it to the girls and went to get tested* (EP1). *I am afraid of COVID because I already have a health problem* (EP2). *I am very afraid of COVID, so much that I take care of myself. I know that COVID is a very bad disease* (EP4). *Everybody was afraid of us. They did not let us go out and come in, did not let relatives visit* (EP5). *If God forbid, I contract it, I will have diabetes* (EP6). *I am afraid of COVID. Because if you get COVID, and if it is strong, you must go to the hospital* (EP17).

The elderly people attributed to religiosity the strength to overcome the pandemic and the fear, understanding God as a divinity capable of defining the course of the disease, the contagion by COVID-19 and ensuring or not the cure and deliverance from the disease: *I wasn't afraid because I trusted God a lot. We trust in the God. We know that God has a set time for us, both to be born and to die, I was in his hand* (EP9). *I am not free, only God can know. Whoever has already caught COVID, it is destiny. If it is destiny that I should catch it and go away, who knows, but I am asking God that I don't* (EP10).

Knowing about individual and collective risk factors for COVID-19 and its complications: health conditions and lack of preventive practices

Class 6 (ECU = 15%) showed that older people understand the main individual and collective risk factors that can increase the chance of contracting COVID-19 and the severity of the disease, causing possible health complications. The health conditions of the individual and the presence of chronic diseases and comorbidities were highlighted, such as obesity, diabetes, hypertension, cardiomyopathies, and lung diseases, besides the fact of being elderly, attributing fragility to the elderly person but understanding their vulnerability to COVID-19: *It is of risk and can worsen the disease, the person having diabetes and obesity. Being elderly is a risk* (EP3). *Age can be an aggravating factor for COVID. Age can be a risk factor, and how is the health* (EP1). *The health condition of the elderly person can interfere because the elderly person is more fragile. The person with a health problem, the person who is older, it worsens. Pneumonia can occur* (EP4). *A risk factor is mainly those who have comorbidities. Who has diabetes, who has high blood pressure, who is fat. It must be a lot of risk. Being old is already a risk* (EP5). *People with health problems are at risk, it is more dangerous. Who has heart problem, diabetes, asthma, lung problem, it is more risk. Elderly people are more at risk* (EP6). *Hypertension, high blood pressure, can really aggravate* (EP11).

Not performing the proper preventive practices, such as wearing protective masks and/or not having had the vaccine against COVID-19, were understood as modifiable risk factors for the disease and its complications: *Risk factors, going out in the street without a mask, going to a party, that can make it worse. It can! Of course, it can, many people got COVID because of that* (EP1). *When I went out of the house, the biggest risk was not wearing a mask* (EP4). *He had diabetes and he didn't get his vaccinations. So, one of the things is also not taking the vaccine, he didn't take the vaccine, and he got COVID and died* (EP1).

Building knowledge and preventive practices about COVID-19: experiences of the pandemic, previous experiences, dialogues, sources of information, and educational actions

Class 1 (ECU = 14.6%) clarified that the knowledge and preventive practices of the elderly about COVID-19 were learned based on experiences during the pandemic as well as previous experiences with the disease, dissemination and sharing of information through sources of information and dialogues. It was observed the importance of sharing knowledge between health professionals and the elderly for the encouragement, guidance and implementation of preventive practices, which occurred during the realization of educational activities, lectures and/or consultations held in the condominium of the elderly, in the Basic Health Unit and in the hospital during hospitalization: *Professional guidance on COVID, only in the post office, which always when we go, they explain to us elderly people how to do, how we should do it* (EP2). *Talking to professionals is important, yes. They explained it to me* (EP9). *The professionals helped with the information. It started in the hospital, because I had COVID and in the hospital they oriented me a lot. Talking to health professionals helps a lot, asking for orientations too* (EP4). *I learned with our counselor. She is a health professional, she gives lectures* (EP10).

In addition, the dialogue about the disease was reported, informally, among the elderly, their relatives, and people who had already been affected by the coronavirus. As sources of information for COVID-19, the educational materials, booklets, and leaflets were mentioned, as well as the media, such as television, radio, and internet: *I learned on television, on the radio, they warn people a lot, only those who don't want to take care of themselves don't do it. The coordination team is always here looking and asking. The family members too. Health professionals came to the condominium to orient and talk about COVID. Talking to people and professionals helps a lot. Through the TV, through the radio, we are listening* (EP8). *I learned with life, but also with television, and radio. The children also, always talked. Health professionals also* (EP4). *I learned from the media, day-to-day, in contact with people, because you don't talk about anything else for two years. And, the primers that the professionals gave, we read them* (EP5). *I learned a lot through television. Those leaflets that they gave to us elderly people, we read them. There were two meetings here in the condominium. This is how we learned* (EP9). *We listened a lot on the internet* (EP10).

Recognition and importance of prevention strategies: avoiding COVID-19

Class 4 (ECU = 18.9%) demonstrated the recognition and importance of preventive practices and ways to prevent COVID-19 from the perspective of the elderly, who understand that the disease can be avoided. In their reports, they pointed out the use of protective masks, vaccination, distance, and social isolation. Besides these strategies, the importance of hand hygiene and the use of alcohol gel was mentioned, as well as avoiding crowds and ventilating the home environment: *Prevention is not to stop wearing the mask, and to take the vaccines* (EP2). *COVID can be avoided. Just take the right vaccines, and don't walk around with everybody, you must wear a mask to avoid this disease* (EP2). *COVID can be avoided. After this vaccine, I believe so! It is wearing a mask, taking care of yourself. The vaccine and the mask, this can help a lot to prevent it* (EP4). *To prevent it you need to wash your hands well, sanitize your hands with alcohol gel, and wear a mask! To prevent COVID, you must use mask and alcohol gel, avoid crowds* (EP6). *Leave the environment ventilated* (EP10). *I didn't let them go out and enter the house, I didn't let a relative visit* (EP5).

Preventive and control practices for COVID-19 in the home and urban environment

Finally, class 3 (ECU = 14.6%) corroborated the previous class by exemplifying the preventive and control practices of COVID-19 practiced and recognized by the elderly in the home and urban environment. It portrayed that the elderly practiced them mainly at the beginning of the pandemic, losing the habit and dispensing such care over time.

In addition to social isolation, mentioned in the previous class, the practices were manifested by the care performed at home, especially when leaving and returning to it through hand hygiene and use of alcohol, hygiene of market purchases and food, cleaning the home, washing clothes and bathing. The elderly people also left their shoes outside the house when returning home from the street: *When we came home from the street, we washed our hands and used alcohol. I used to wash the food. I used to do it in the beginning, now I stopped* (EP8). *If I go to the center, I take the clothes that I went, put them to wash or leave them in the sun all day. I wash the food* (EP6). *I leave the shoes outside, if possible, I change clothes. Mainly when I went to the hospital for an appointment* (EP5). *Market bags, everything was left outside. The goods that I could wash, I washed* (EP9). *When I leave home, I arrive, I put the clothes in the washing machine, I wash them. I have an alcohol and an alcohol gel. I go straight to washing my hands. I wash my hands first, take off my clothes, put them in the machine and go to take a shower* (EP11). *Inside the house I always cleaned. I use alcohol, scented alcohol, and sanitizer* (EP10). *To avoid COVID, in the beginning of the pandemic, the clothes and shoes that I went out, I came in and took them off. Then, I didn't do it anymore, even the groceries I washed* (EP3).

Discussion

All the elderly people participating in the study knew someone - close elderly people, friends or family members - who were victims of COVID-19, and almost half of them had already been affected by the disease. This fact allows us to infer that previous lives and experiences, combined with sources of information

and educational practices, enable knowledge about the subject and drive the development of preventive practices, favored by the reality of the pandemic experienced around the world. The knowledge and preventive practices of the elderly about COVID-19 were permeated with risk factors and the recognition of prevention, the physical, social, emotional, and economic consequences, as well as the preventive strategies used by them in the home and urban environment.

Class 5 outlined the knowledge of the elderly in relation to the physical consequences of COVID-19 for the health of the population, in which death was seen as the consequence of greater aggravation. In the municipality of the present study, by the month of June 2022, 1,777 deaths had occurred, that is, 4.08% of the deaths in the state of Paraná[10]. In the year 2021 alone, there were 1,282 deaths, of which 801 were of people aged 60 years or more, in other words, 62.50% of the deaths in the city were of elderly people in that year[11].

The elderly population has a higher risk of mortality by COVID-19 when compared to other age groups, especially those with multiple comorbidities, presenting an increase in mortality rate with increasing age. Elderly people are more likely to progress to severe forms of the disease due to the fragility of the immune system, the so-called immunosenescence[12], although the mortality of elderly people by COVID-19 in Brazil is also related to demographic and income distribution aspects[13].

Regarding the physical consequences of COVID-19 from the perspective of the elderly and evidenced in class 5, it was found that they are related to the signs and symptoms presented during the acute and late phase of the disease. A literature review pointed out that flu-like symptoms such as fever, cough, and sore throat were commonly presented by elderly people with COVID-19, such as were experienced and understood in the present study[12].

The clinical aspect of the disease is heterogeneous and, although fever, cough and dyspnea are often the main signs and symptoms presented by those

infected, others may be present, such as altered smell, taste, and gastrointestinal symptoms[14-15]. Severe cases of the disease represent about 20% of the total number of cases, requiring hospitalization and/or intensive care unit, and may cause death[14] as mentioned above.

The elderly people interviewed also presented knowledge related to the physical consequences of post-COVID. Approximately, 80% of those recovered have sequelae up to four months after infection. The sequelae include the worsening of pre-existing comorbidities, besides respiratory problems, fatigue, joint pain, hair loss, mental disorders, heart palpitations and cognitive difficulties[16].

It is worth noting that in addition to the physical consequences, another understood and relevant aspect of COVID-19 was the impact on the income and socioeconomic status of the elderly (class 5). The pandemic impacted financially and increased unemployment among the elderly population. A survey of 9,173 elderly people found that only 8.3% of those who were employed continued to work normally during the pandemic. The income of elderly people decreased by almost half, and in 23.6% it was drastically reduced, or they had no income at all[17].

Besides the physical, social, and economic consequences, class 2 represented the knowledge about the emotional consequences of COVID-19 on the health of the elderly population. The pandemic of COVID-19, being responsible for countless deaths worldwide, generated increased feelings of fear, worries and anguish in the population, feelings that were also experienced by the elderly in the present study[12].

Corroborating the authors, a study identified that the main factors associated with depression symptoms among elderly people during the pandemic of COVID-19 were female gender, low socioeconomic status, and low education. In addition, elderly people who had occupations that directly exposed them to COVID-19 showed higher depression scores[18].

To protect the elderly from the disease, many family members and friends stopped visiting and re-mained distant, increasing considerably the feelings of loneliness and even abandonment, affecting the mental health of the elderly[19]. This fact has repercussions, especially in those who live alone - as is the case of most elderly people in this study who live in a condominium for the elderly - as well as those who are institutionalized, live in a rural community, are widowed and/or have mental disorders[12].

Among the various measures taken in Brazil and worldwide to prevent the disease, one of the most widespread was the use of protective masks, distance and social isolation, preventive practices, also practiced by the elderly in this study (class 4). A survey conducted virtually in Brazil during the pandemic pointed out that elderly people who do not work and/or are retired have a higher rate of adherence to this last measure[17].

Social isolation was a prevention strategy recommended by public agencies, collaborating with the reduction of the contagion curve in the country. Although effective, it also had a negative impact on people's lives, interfering with mental health by collaborating to the increase in cases of mental disorders such as anxiety and depression, bringing physical and emotional consequences to the health of the entire population[12,17,19].

The religious dimension of the elderly was also evidenced in class 2. Religiosity was seen as a coping strategy for COVID-19 by the elderly and can contribute to minimize emotional and mental suffering during the pandemic period due to social distance and should be encouraged[20].

Comorbidities are risk factors for severe cases of COVID-19 and were uncovered in the present study (class 6), being in accordance with the literature. The most prevalent pre-existing diseases in elderly individuals are hypertension, diabetes mellitus and cardiovascular disease[16], besides other comorbidities such as liver, kidney and hematological diseases, obesity, cancer, HIV infection, autoimmune and pulmonary diseases[15-16,21].

Regarding the sources of information about

COVID-19 (class 1), the use of television, radio, digital social media, and also educational materials to access information about the pandemic were mentioned. Digital social media are associated with increased levels of anxiety and stress in the population, and these are the information sources most used by the general population to access information about the pandemic[22]. Contrary to the results of this study, despite being mentioned in class 1, digital social media were not the majority, and this fact may be related to the low education and socioeconomic status of the elderly participants in this study.

Among the preventive practices of the COVID-19 evidenced in classes 4 and 3 and practiced by the elderly, the social distancing and isolation, vaccination, hand washing, cleaning the environment, food hygiene and the use of protective masks were highlighted, corroborating another study that presented the most used preventive strategies against COVID-19, including by health professionals[23]. Such measures are necessary for the health care of the elderly population, can reduce the risk of infection and are in accordance with the recommendations of the Ministry of Health[24-25], and should be practiced daily during the pandemic[3].

Regarding this issue, class 4 outlined the recognition and importance of these practices from the perspective of the elderly to prevent COVID-19. The prevention measures practiced by the elderly individuals were like those found in a related study, which analyzed how the population enrolled in a Family Health Strategy (FHS) team perceives and adopts measures to prevent the contagion of COVID-19. The most adopted was the use of protective mask with 68.57%, followed by hand washing (37.14%), use of alcohol gel (37.14%) and social isolation (11.43%)[26].

Although essential and of great importance for the collective health, these preventive measures still encounter barriers to their implementation and, when added to the dissemination of false news, the so--called "fake news", they make it even more difficult

to perform and sustain[27]. The false information about COVID-19 sought to soften the severity of the disease and disqualify the prevention and control measures as well as propagate the use of medication without scientific evidence[28].

The pandemic of COVID-19 has increased, not only the need for educational strategies that embrace scientific evidence[28] but also the beliefs and the historical, cultural, and social factors, given that they determine individual choices, attitudes, and behaviors, directly implicating the development of prevention actions[29].

The preventive practices practiced by the elderly were made possible by dialogue, sharing of experiences in an informal way, but also formally with the support of health professionals. A similar study pointed out that when they exist, the educational practices developed by the FHS professionals for the COVID-19 are manifested through orientations (carried out in the Basic Health Unit and at home), distribution of pamphlets and posters. Most FHS teams did not perform Health Education actions for the prevention of COVID-19 during the pandemic, and only 18.57% did[26].

Elderly people need attention and care, including strategies for support and warning signs and symptoms[3]. Special attention should be given by FHS professionals to collective housing as well as to condominiums of the elderly. In the occurrence of a case, intensive care should be dedicated to the affected elderly person and other residents, monitoring them frequently, providing information and guidance on ways to prevent COVID-19, restricting collective activities and social interaction.

Gerontological care practiced by nurses and other health professionals in the pandemic should be based primarily on prevention and also on health promotion and self-care of the elderly through the encouragement of physical exercise, proper nutrition, quality of sleep, sun exposure, leisure, mental health, religiosity, and spirituality, which can enable the pre-

servation and promotion of health of the immune and respiratory systems, and can be addressed in the educational activities[30] of the FHS along with care strategies at home and in the urban environment.

Given this, it is up to health professionals of the FHS teams to perform and adapt their actions and educational practices, aiming to strengthen the community approach to promote the reduction and dissemination of the COVID-19 virus in the community, contributing to improve individual and collective health conditions, besides including the care mentioned to the elderly people who reside in condominiums of the elderly, especially during the pandemic. To this end, problematizing educational practices emerge as indispensable for the prevention of health problems[6], as in the case of COVID-19 in elderly people living in the community, including those living in elderly condominiums.

Study limitations

As a limitation of the study, it is emphasized that the research was conducted in only one elderly person's condominium, so it is limited to a restricted local context.

Contributions to practice

This research contributes positively to the care of the elderly population with the construction of knowledge about COVID-19, sensitizing and grounding health professionals to plan and develop problematizing educational actions, considering the knowledge and reality of life of the elderly, impacting on professional practice. It is noteworthy that Health Education actions can be important tools for the transformation of knowledge and preventive practices, which can contribute to the prevention of new cases of COVID-19 (and other respiratory diseases that manifest themselves in the same way) and to the end of the pandemic.

Conclusion

It was possible to understand the knowledge and preventive practices of the elderly about the COVID-19 and point out that they have knowledge about the negative consequences of the disease, manifested by the physical, social, and economic impacts, as well as the emotional consequences, permeated by fear, anxiety, and uncertainty. It was also verified that the elderly understood the individual and collective risk factors for the COVID-19, learned through experiences during the pandemic, previous experiences, dialogues, and sources of information, recognizing the importance of preventive practices and performing care in the home and urban environment.

Authors' contribution

Conception and design or data analysis and interpretation: Nogueira IS, Manjinski E.
Writing of the manuscript or relevant critical review of the intellectual content: Nogueira IS, Silva ERV, Gallina MZ, Constantino FH, Manjinski E.
Final approval of the version to be published: Nogueira IS, Silva ERV, Gallina MZ, Constantino FH, Manjinski E.
Agreement to be responsible for all aspects of the manuscript related to the accuracy or completeness of any part of the manuscript to be investigated and resolved appropriately: Nogueira IS, Silva ERV, Gallina MZ, Constantino FH, Manjinski E.

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