

Self-care Practices in Elderly People with Chronic Disease Amid COVID-19 Pandemic

Práticas de Autocuidado dos Idosos com Doença Crônica em tempos da COVID-19

Prácticas de autocuidado para ancianos con enfermedades crónicas en tiempos de COVID-19

Beatriz dos Santos Oranje¹, Deyvylan Araujo Reis²

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REVISA

1. Federal University of Amazonas.
Manaus, Amazonas, Brazil.
<https://orcid.org/0000-0002-5239-1707>

2. Federal University of Amazonas.
Manaus, Amazonas, Brazil.
<http://orcid.org/0000-0001-9314-3745>

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RESUMO

Objetivo: analisar as evidências científicas sobre as práticas de autocuidado de idosos com doença crônica em tempo de pandemia da COVID-19. **Método:** trata-se de uma revisão integrativa da literatura, que compreendeu buscas nas bases de dados eletrônicas LILACS, BDENF, SCIELO, MEDLINE, CINAHL, WOS e Science Direct, no período de 2020 a 2022, tendo como descritores controlados o DeCS e o MeSH. **Resultados:** cinco artigos foram selecionados para análise, os quais apontaram mudanças de hábitos e mecanismos de autocuidado, bem como dificuldades para a realização de atividades básicas e instrumentais da vida diária, além do impacto na dieta e prática de exercícios, assim como aspectos relacionados a fatores socioeconômicos e à saúde mental. **Considerações finais:** para que haja manutenção dessas práticas de forma satisfatória, a colaboração entre profissionais da saúde e idosos deve existir, por meio da educação em saúde e das ações de intervenção e cuidado na atenção especializada, a fim de que a dieta adequada seja mantida, além de uma regularidade na realização de exercícios físicos e manutenção das terapias medicamentosas, como também independência e autonomia aos idosos quanto ao próprio cuidado.

Descritores: Idosos; Doença Crônica; Autocuidado; Covid-19.

ABSTRACT

Objective: To analyze the scientific evidence on the self-care practices of the elderly with chronic illness in the time of the COVID-19 pandemic. **Method:** This is an integrative literature review, carried out using the databases LILACS, BDENF, SCIELO, MEDLINE, CINAHL, WEB OF SCIENCE and SCIENCE DIRECT, from literature published in the period between 2020 and 2022, having as controlling descriptors the DeCS and MESH. **Results:** Five articles were selected for analysis, which showed changes in habits and self-care mechanisms, such as difficulties in performing basic and instrumental activities of daily living, in addition to the impact on diet and exercise, as well as aspects related to socioeconomic factors and mental health. **Final Considerations:** In order for these practices to be maintained satisfactorily, collaboration between health professionals and the elderly must exist, through health education and care interventions on specialized care, so that an adequate diet is maintained, as well as as there is a regularity in the accomplishment of physical exercises and maintenance of the pertinent drug therapies in order to provide discernment and autonomy of the own care to the elderly.

Descriptors: Elderly; Chronic Disease; Self-care; COVID-19.

RESUMEN

Objetivo: Analizar las evidencias científicas sobre las prácticas de autocuidado de los ancianos con enfermedad crónica en tiempos de la pandemia de COVID-19. **Método:** Esta es una revisión integradora de la literatura, que comprende búsquedas en las biblioteca virtuales LILACS, BDENF, SCIELO, MEDLINE, CINAHL, WEB OF SCIENCE y SCIENCE DIRECT, de 2020 a 2022, con los descriptores controlados DeCS y MESH. **Resultados:** Se seleccionaron cinco artículos para el análisis, que evidenciaron cambios en los hábitos y mecanismos de autocuidado, como dificultades para realizar las actividades básicas e instrumentales de la vida diaria, además del impacto en la alimentación y el ejercicio, así como aspectos relacionados con factores socioeconómicos y salud mental. **Consideraciones finales:** Para que estas prácticas se mantengan satisfactoriamente, debe existir una colaboración entre los profesionales sanitarios y los ancianos, a través de la educación sanitaria y de acciones de intervención y atención centradas en la atención especializada, de forma que se mantenga una alimentación adecuada, así como una regularidad en la la realización de ejercicios físicos y mantenimiento de las terapias farmacológicas pertinentes a fin de proporcionar discernimiento y autonomía del propio cuidado a los ancianos.

Descriptores: Ancianos; Enfermedad Crónica; Autocuidado; COVID-19.

Introduction

Population aging is characterized by a proportional increase between the elderly and adult population and the decrease in the number of existing children and young people. Worldwide, the expansion of population aging began with the Industrial Revolution, a fact that led to a slowdown in the pace of population growth. In relation to the Brazilian population, there was an improvement in relative life, represented by a greater number of people aging than being born, demonstrated by the reduction in fertility rates, by the decrease in the average number of children per woman and by the decrease in the level of mortality.^{1,2}

Both globally and nationally, there has been an increase in life expectancy due to improved hygiene conditions, through measures such as the implementation of vaccines and the use of antibiotics, for example, which have provided significant development towards better conditions and quality of life over the years.³

However, due to urbanization and economic and social growth, even with the reduction in acute infectious conditions, society faces the dilemma of chronic non-communicable diseases (NCDs), characterized by affecting people of all social classes, and which has as risk factors race, sex, the presence of dyslipidemias, excessive alcohol consumption and sedentary lifestyle for example, reaching mainly those with low income, lower education rate and low access to health services.⁴⁻⁶

NCDs are considered as one of the main causes of death in the world and may occur due to changes in quality of life conditions or risk factors that may be preventable or not, with hypertension and diabetes being the most prevalent among the elderly in Brazil, with a proportion of people who reported some representative diagnosis of 56.6% and 21.9%, respectively, due to factors such as poor quality of eating habits, smoking and alcohol consumption, for example, practices indicative of the origin and cause of the illness of the old person.^{4,6-7}

Systemic arterial hypertension (SAH) is a clinical condition that can cause functional and structural changes in organs such as the heart, brain, kidneys and blood vessels, and metabolic changes, usually associated with type 2 diabetes, with diabetes mellitus (DM) being the name given to a group of metabolic diseases characterized by hyperglycemia due to deficiency in insulin secretion and/or its action.⁸⁻¹⁰

Even today, even with the care of chronic diseases, there is still the possibility of other diseases caused by external factors, such as the involvement of acute and severe infectious diseases, such as COVID-19, a disease caused by the SARS-CoV-2 virus and transmitted through direct, indirect or close contact with people infected with the virus, symptomatic or asymptomatic, through secretions such as saliva and secretions or respiratory droplets, which are expelled when an infected person coughs, sneezes or speaks and which can cause flu-like and even more severe symptoms such as dyspnea, respiratory distress, the drop in oxygen saturation and perioral cyanosis and on the face.^{11,12}

One study showed that much more severe cases affected the elderly, the majority of which occurred due to the pre-existence of comorbidities, considering that 64.3% of patients diagnosed with COVID-19, among the cases evaluated, had

some type of comorbidity aggravating the clinical picture, such as SAH (30%) and DM (12.1%), which represents a greater chance of a serious involvement to this population if there is exposure to said virus.¹³

According to reports, hyperglycemia associated with COVID-19 infection can reduce the capacity of the respiratory system, due to increased glucose levels at the epithelial level, in addition to an exacerbated formation of advanced glycation products and immunoglobulin dysfunction, and the virus may also bind to a pancreatic receptor and cause the glycemic index to decrease at very low levels, may indicate a prognostic index of possible serious complications, increasing the risk of mortality.¹⁴

Regarding cardiac functions, studies have identified the possibility of the virus using the same angiotensive conversion enzyme 2 receptor (ACE2) to enter the cell, also pointing out that hypertensive patients had abnormal levels of various indicators, such as lymphopenia and inflammation, and cardiac functions, indicating a low prognostic rate for improvement and even increased propensity to fatal cases for hypertensive patients.^{15,16}

Such diseases are considered chronic and require attention in their own care and management, due to the severity with which they may occur. Thus, self-care can be defined as the maintenance by an adult of living conditions, of their own needs and of the balance of basic needs, performing prevention and health promotion measures, and self-care practices are related to the knowledge and practices taught and learned that stimulate one's own ability to meet such health needs.^{17,18}

If the individual cannot maintain self-care practices or is unable to do so due to poor health issues, it is recommended that there is help mediated by health professionals through guidance and follow-up.¹⁹

The motivation for carrying out the study in question stems from the need to monitor patients in the maintenance of health in chronic conditions and a correct management of self-care practices, in order to seek to understand how the COVID-19 pandemic affected these practices, leading to possible self-neglect due to the high concern with COVID-19 and the low demand for identification and follow-up in the treatment of chronic diseases. In research in the databases, comprising the period from 2020 to 2021, evidence pointed to a gap in knowledge in articles about the practice of self-care in patients with chronic diseases in the period of the covid-19 pandemic, the object of this investigation.

The study aims to analyze scientific evidence on self-care practices of elderly people with chronic disease in time of pandemic covid-19.

Method

This is an integrative literature review study, which followed six stages: elaboration of the guide question, search or sampling in the literature, data collection, critical analysis of the included studies, interpretation of the results and presentation of the integrative review.²⁰

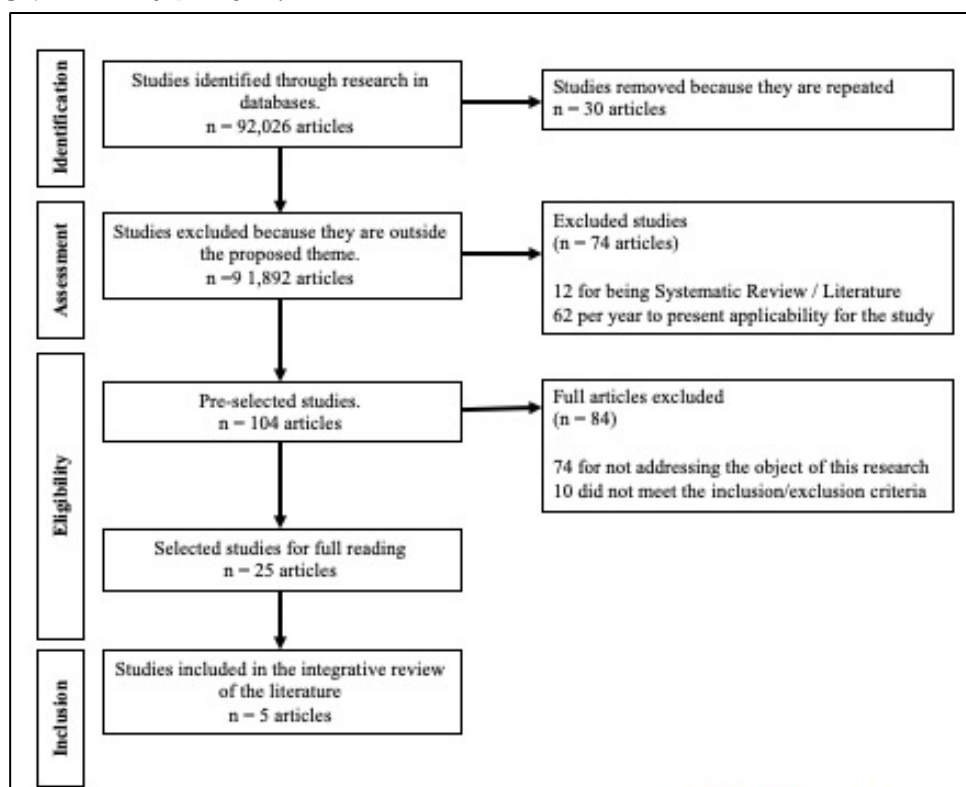
The research question of the integrative literature review arose from the PICO strategy, an acronym in which P means population, I- interest, Co-context, fundamental elements of the research question for integrative literature review 21. Taking into account the recommendations of the PICO Strategy, the question of the bibliographic search for the proposal of the integrative review study was: What is the scientific evidence published on the self-care practices (I) of the elderly with Chronic Disease (P) in the time of the COVID-19(Co)pandemic pandemic?

Data collection occurred from November 2021 to January 2022, when searches were conducted in the electronic databases Latin American and Caribbean Literature on Health Sciences (LILACS), Nursing Database (BDENF), Scientific Electronic Library Online (SciELO), Medical Literature Analysis and Retrieval System Online (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web Of Science (WOS) and Science Direct, we used the controlled descriptors Descriptors in Health Sciences (DeCS) and Medical Subject Headings (MeSH), and boolean logic with the operators "OR" (additive) and "AND" (delimiter).

The inclusion criteria were scientific articles published in full, from April 2020 to January 2022, available electronically, in Portuguese, English and Spanish, that met the objective of this research. A total of 92,026 articles were obtained, and 91,892 articles were excluded because they were repeated studies and literature reviews, reflective studies and experience reports, and a peer review was performed.

After the search in the database and virtual library, 104 articles were selected to evaluate the applicability in the theme, and 74 articles were excluded because they did not address the object of this research, where 25 articles were pre-selected for full reading, of which 10 did not meet the eligibility criteria and, finally, five articles were selected to constitute the present review (Figure 1).

Figure 1- Flowchart Of Search and Selection Of Studies In Databases adapted from PRISMA22-Brazil-2022.



The critical evaluation related to methodological evaluation was related to the application of adapted instruments that gave more accurate diagnoses regarding the quality necessary for the observation of the articles.

The Critical Appraisal Skill Programme (CASP) consists of critical analysis based on the following questions: 1) Is the objective clear and justified?; 2) Is the methodology adequate?; 3) Are theoretical-methodological procedures presented and discussed?; 4) Was the study sample selected adequately?; 5) Is data collection detailed?; 6) Was the relationship between researcher and researched considered?; 7) Were the ethical aspects of the research considered?; 8) Is the data analysis rigorous and substantiated, with the specification of statistical tests?; 9) Were the results clearly presented?; 10) Is research important?.²³

This adapted instrument had ten items (maximum ten points), classifying the papers with the following scores: six to ten points for good methodological quality and reduced bias and the minimum five points for satisfactory methodological quality, with increased risk of bias.²⁴

The classification by level of evidence, based on a hierarchy, was guided by aspects delimited by the Agency for Healthcare and Research and Quality (AHRQ), in which seven levels could be observed, i.e.: level I is equivalent to systematic review or meta-analysis; level II is equivalent to well-delimited randomized controlled trials; level III is equivalent to well-delimited non-randomized clinical trials; level IV is equivalent to well-delimited cohort and case-control studies; level V is equivalent to the systematic review of descriptive and qualitative studies; level VI is equivalent to descriptive or qualitative studies

and level VII is equivalent to opinions of authorities and/or reports of speciality committees.^{23,25}

Regarding the discussion of the results, the data were compared by the findings of other authors in the literature, with delimitations of the conclusions and interference of the researchers. Regarding the presentation of the RIL were presented descriptively and through table and graph, using the Microsoft Excel program (version 2016).

As for the ethical aspects of the research, RIL does not require the submission of the study to a Research Ethics Committee (CEP).

Results

Among the databases and electronic libraries, SciELO and MEDLINE predominated, and 2021 presented a higher frequency, analyzing the year of publication. As for the objectives set out by the researchers of the studies, there are several, as presented in Chart I, in which among them, we sought to understand how the elderly with chronic diseases have lived and dealt with the COVID-19 pandemic, in addition to changes in habits.

Chart I - Characterization of the sample selected in the study. Brazil. 2022

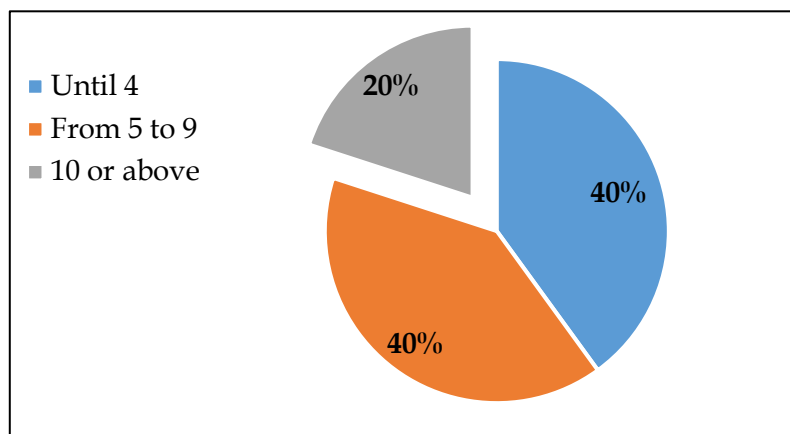
| Database/ Electronic library | Code | Title | Journal/ Year | Objective | Main Results |
|------------------------------------|------|--|--------------------------------|---|---|
| SciELO | S1 | Difficulty in activities of daily living and need for help in the elderly: discussing models of social distancing with evidence from the ELSI-COVID-19 initiative. | Cadernos de Saúde Pública 2020 | To analyze whether elderly people with difficulty or need help for basic or instrumental activities of daily living are more socially distant in times of COVID-19. | Limitations in the performance of ABVD or IADL have been identified |
| SciELO | S2 | Life habits of people with diabetes mellitus during the COVID-19 pandemic. | Cogitare Enfermagem 2021 | To characterize impacts of social distancing caused by the pandemic of coronavirus disease in the lives of people with diabetes mellitus. | There was an impact on weight and physical activity Socioeconomic aspects and Mental Health Affected |
| MEDLINE | S3 | Association between Fear of COVID-19 with Self-care Behaviors in Elderly: A Cross- Sectional Study | Frontiers in Psychology 2021 | To determine the association between the fear of COVID-19 and self-care practices in the elderly. | Fear associated with advanced age and perceived risk Depressive symptoms and anxiety |

| | | | | | |
|---------|----|--|--|--|--|
| MEDLINE | S4 | What Happened to People with Non-Communicable Diseases during COVID-19: Implications of H-EDRM Policies. | International Journal of Environmental Research and Public Health 2020 | Examine the experiences of people with NCDs and their relevant self-care patterns during the COVID-19 pandemic. | Difficulty in monitoring with health professionals and in the purchase of protection supplies. |
| CINAHL | S5 | Assessing acceptability and patient experience of a behavioral lifestyle intervention using fitbit technology in older adults to manage type 2 diabetes amid covid-19 pandemic: A focus group study: Focus group analysis of lifestyle intervention. | Geriatric Nursing 2021 | To evaluate the acceptance and experiences of elderly patients with overweight/obesity and diabetes mellitus 2, during the use of a fitness technology device through interventions in lifestyle and behavior, adapted during the COVID-19 pandemic. | Impact on diet and exercise |

Codes from S1 to S5 were used to represent the selected articles as an element to simplify their identification and presentation.

Regarding the number of authors, two articles presented between 4 and 7 authors (80%), and one had 10 authors (20%), as can be seen in Figure 2, in which their training included nursing, medicine, biochemistry and physiotherapy, with collaborators who had technical training to the postdoctoral. In a search carried out in the Open Researcher and Contributor ID (ORCID), it was found that the information about the formation of some authors was incomplete. Therefore, only the information available and present in the ORCID curriculum was considered.

Figure 2 - Number of Authors of Selected Articles - Brazil - 2022.



Regarding the characterization of the selected studies, the areas of journals/journals encompassed axes such as collective health, psychology sciences, interdisciplinarity and nursing; Regarding the Qualis of the journals, B1 was the most recurrent, with level 3 qualification, good, taking into account the score eight, of ten, in the classification (Chart 2).

Chart 2 - Characterization of the selected studies, according to language, methodological design, journal quals, instrument used and place of study/participants. Brazil, 2022.

| Code | Language | Methodological design/ Qualis of the journal | Instrument used | Place of study/ Participants | EL |
|------|------------|---|---|---|----|
| S1 | Portuguese | Cross-sectional study/ B1 | Standardized questionnaire, with sociodemographic information, ABVD, IADL, need for help and large Brazilian region where it was performed/ Modified Katz Index/ Lawton Scale | Brazil 4,035 participants, with an average age of 70 years | VI |
| S2 | Portuguese | Descriptive study of quantitative approach/B1 | Self-Care Activities Questionnaire related to Diabetes, translated version, adapted and validated for Brazilian culture (QAD)/ | Brazil 102 people with DM, with an average age group of 41.8 years | VI |
| S3 | English | Cross-Sectional Study/ A2 | Standardized questionnaire | Singapore, Mainland Asia 413 older people, with an average age of 69 years | VI |
| S4 | English | Cohort study, randomized/ B1 | Standardized questionnaire (open questions) | Hong Kong, China 765 people, aged 64 years | II |
| S5 | English | Qualitative study, with focus group method/ A1 | Semi-structured questionnaire | San Antonio, Texas, United States 18 elderly with an average age of 72 years | VI |

*EL: Evidence Level

Regarding language, English was the most recurrent, and quantitative studies prevailed, in the form of cross-sectional and cohort studies, as well as

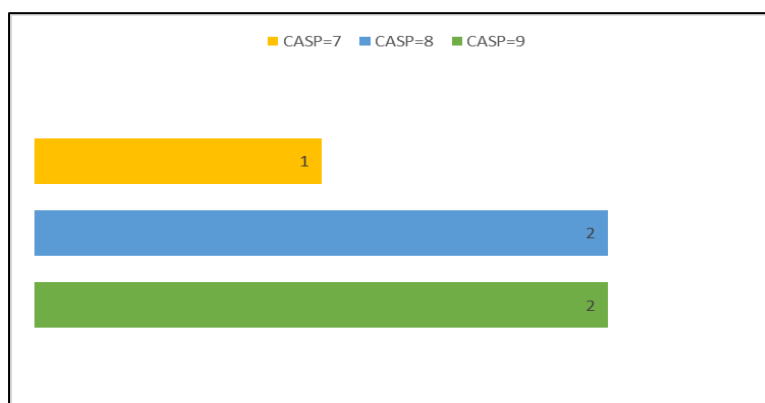
randomized, with standardized questionnaires, and this instrument was the most used research method.

As for the study site, three were concentrated on the American continent, one in the North American continent, two in the South American and two on the Asian continent. Regarding the age of the participants of such studies, the average was between 69 and 72 years.

Regarding the critical evaluation of the selected articles, the articles were classified, by level of evidence and orientation, based on the agency for healthcare and research and quality (AHRQ) instrument, as levels II and VI, for presenting evidence derived from a randomized cohort study and four descriptive or qualitative studies.

Regarding the methodological evaluation, the articles presented a score greater than or equal to seven according to critical analysis through the CASP, where one article presented a score of seven and two presented scores equivalent to eight and nine, demonstrating a good methodological quality and reduced bias, as can be observed in Figure 3.

Figure 3- Number of Selected Articles Evaluated Methodologically according to CASP. Amazon, 2022.



Discussion

Considering the relevance and contemporaneity of COVID-19, there was an increase in the number of publications between 2020 and 2022 on this topic. The growth in scientific production regarding this pathology resulted from the need to expand knowledge to direct the actions to be carried out. When analyzing the publications available in a database, it was found that, even if there was a predominance of articles published in countries with greater scientific infrastructure, those considered emerging continued in the search for knowledge in order to encourage research and education.²⁶

A scientific research, conducted in China between January and March 2020, identified the production of 55 articles, being the country with the highest scientific production, with predominant language in English, in which the majority of the studied public was composed of adults and the elderly, who had already been infected by COVID-19, with a methodological design composed of mostly quantitative research.²⁷

Therefore, analyzing the relationship between the elderly and the pandemic of the new coronavirus, we highlight guidelines aimed at active aging

and ageism, in which concepts such as autonomy and dependence are interspersed and impacted on aspects of the lives of the elderly, some totally dependent and others completely autonomous. These aspects impact life-organizing practices, especially considering the reality of a pandemic.

On the other hand, it is also observed that there has been a significant increase in the interdependence of family members, highlighted by the concern with the elderly, their forgetfulness and their adequacy to the measures to prevent covid-19. In addition, the difficulties imposed by the pandemic situation and the fear of the virus and its potential consequences for the elderly arose.²⁸

Another worrisome factor is the high prevalence of chronic diseases in Brazil, and hypertension and diabetes are the predominant non-communicable chronic diseases, since risk factors for covid-19 are also considered. The elderly with these pathologies have a health profile prone to a high risk of severity if they are infected. There is evidence that, because of the pandemic, there was a lower demand for medical, dental or other health professionals, as well as a considerable worsening of the health status of this population.²⁹

A study that sought to identify the socioeconomic profile of elderly people in a region of Brazil showed that chronic non-communicable diseases, mainly hypertension and diabetes, were predominant among the elderly, with a mean age of 72 years. The research aimed to highlight the practice of self-care in the pandemic period, such as measures related to mask handling, cleaning of household surfaces more frequently, isolation, physical distancing and maintenance of adequate domestic supply of food and medicines. The study showed full levels of independence of the elderly evaluated by tests applied through the Katz and Lawton scales, which measure their functionalities regarding the performance of basic and instrumental activities of daily living, respectively.³⁰

Thus, we highlight some self-care practices observed in the studies that comprised the present investigation, regarding the maintenance of medication or suspension, due to doubts about the dosage or impossibility of contacting any doctor. It was also identified that there were difficulties for the supply to occur, in addition to the practice of physical activities and the care of mental state due to financial instability. However, it was noted that there was concern to maintain adequate glucose levels in the case of the elderly with type 2 diabetes mellitus.³¹

With regard to self-care practices performed by the elderly, a study states that the performance of such measures enables their autonomy in relation to themselves, because, in this way, they can recognize symptoms of their health conditions and even develop strategies, so that the performance of these activities promotes the improvement of their health and living condition.³²

For the scope of the elderly with diabetes mellitus, another study states that the practice of self-care for diabetic patients is related both to the interest of the elderly and to the specialized care in which it is inserted. It points out aspects such as the need for professionals to be aware of drug interactions and are pointed out as measures for the elderly to pay attention to adequate replacement of medication and glycemic control, considering that good health maintenance provides lower risk and severity in cases of infection. In view of the panorama of the pandemic as one of the worst-case scenarios, it is essential to follow up with

a well-trained and informed multidisciplinary team in order to care for the elderly and clarify the measures they should practice.³³

Regarding aspects related to mental health, topics such as vulnerability and resilience were pointed out, such as fear, stress, anxiety and depression, which are evidenced as some of the reflexes in the emotional health of patients. As a means of alleviate this situation, practical and emotional support is indicated by health professionals, in addition to the sharing of simple and clear information about the health conditions and disease resulting from the pandemic. It is also recommended to strengthen contact through digital media with their relative and, mainly, the establishment or maintenance of regular routines, such as the practice of daily physical activities and the proper diet, thus creating continuous habits.³⁴

For this, nursing, which acts in the care of patients in an integral and continuous way and has essential attributions to clinical practice, such as preventive and intervention actions, in the person of gerontological nurses, plays a fundamental role in the action in the face of the pandemic. It works through nursing diagnoses that enable the identification of the problems and the real needs of the elderly, in order to provide adequate care with the provision of necessary guidance and care, using a holistic and humanized care to the sick individual and his/her family. In addition, it should act through measures such as encouraging the maintenance of basic and instrumental activities of daily living, the correct use of their medications, as well as encouraging the promotion of activities that strengthen the mental and physical health of the elderly, covering their socio-psychobiological profile.^{35,36}

Although this study reached the objective of raising the available scientific evidence about the practice of self-care for elderly patients with chronic disease, one can consider a limitation of the study the limited availability of articles relevant to the subject, which evidences the need for further research, at a level of comparison regarding the evaluation of scientific aspects, enabling to relate the data obtained in the national and international literature.

This study can contribute to evidence-based practice by seeking to analyze scientific evidence on self-care practices of elderly people with chronic disease in covid-19 pandemic time and thus improve evidence-based nursing practice. Thus, it is possible to stimulate knowledge and encourage the realization of other studies relevant both to clinical practice and to the strengthening of scientific knowledge.

Final Considerations

Chronic non-communicable diseases are highly prevalent in the population group of the elderly, characterized by non-infectious etiology and prolonged course, relating to the association with physiological deterioration characteristic of this age group, being necessary even continuous drug therapies to control and maintain health status. In a pandemic context, there are certain obstacles to maintain measures that prioritize well-being and health, especially when such pathology prevents the normal functioning of daily activities worldwide.

Self-care practices of the elderly with chronic disease in pandemic time revealed changes in the habits and aspects affected in their daily lives and in the mechanisms of self-care. These include difficulties in performing basic and instrumental activities of daily living, the impact on diet and exercise, in addition to aspects related to socioeconomic factors and mental health.

Thus, the importance of the integrative literature review contained in this study lies in the improvement of scientific knowledge about self-care practices in a systematized and structured way, through the use of a proven and functional method for convergence and even the identification of gaps related to potential future studies.

Therefore, the maintenance of self-care practice satisfactorily consists of collaboration between health professionals and the elderly, through health education and intervention and care actions versed in specialized care. These aim at maintaining the adequate diet and regularity in the performance of physical exercises, as well as the maintenance of relevant drug therapies, in order to provide discernment and autonomy of their care to the elderly.

This synthesis of the knowledge brought by the studies included in this review reinforces the practice of self-care as an essential tool in maintaining the health of patients with chronic disease, especially for the elderly in this period of covid-19 pandemic. For this, there is a need for involvement of health professionals. Being of fundamental importance the performance of the nursing team, which provides continuous care through direct contact with patients, in order to train their patients, making them attentive to their own health. These professionals need to be aware that their practices directly interfere with the physical and mental well-being of patients, clarifying them with the best that knowledge and scientific evidence can provide to the elderly.

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Correspondent Author

Beatriz dos Santos Oranje
1200 General Rodrigo Octavio Jordão Ramos Av.
ZIP: 69067-005 - Coroado I. Manaus, Amazonas, Brazil.
btz.oranje@gmail.com