Article

Factors Associated with Self-Care Capacity of People with Chronic Conditions Hospitalized in a Clinical Ward*

* This paper is part of the project entitled "Self-Care Capacity of People Hospitalized in a Clinical Ward", which received a grant from the Fundação de Amparo à Pesquisa do Estado de São Paulo, Brazil, process number 2022/15679-8.

Jennifer de Mello Derigge
https://orcid.org/0009-0009-4802-9834
Universidade Federal de São Carlos, Brazil
jennifermello@estudante.ufscar.br

Andressa Rueda de Lima
https://orcid.org/0000-0002-0900-381X
Universidade Federal de São Carlos, Brazil
andressa.oliveirarueda97@gmail.com

Cristina Mara Zamarioli
https://orcid.org/0000-0002-4757-7611
Universidade de São Paulo, Brazil
cristinazamarioli@usp.br

✉ ***Aline Helena Appoloni Eduardo***
https://orcid.org/0000-0003-1577-3383
Universidade Federal de São Carlos, Brazil
alinehaeduardo@ufscar.br

Received: 19/07/2024
Sent to peers: 20/09/2024
Approved by peers: 28/02/2025
Accepted: 20/03/2025

DOI: 10.5294/aqui.2025.25.2.4

To reference this article / Para citar este artículo / Para citar este artigo
Derigge JM, Lima AR, Zamarioli CM, Eduardo AHA. Factors Associated with Self-Care Capacity of People with Chronic Conditions Hospitalized in a Clinical Ward. Aquichan. 2025;25(2):e2524. DOI: https://doi.org/10.5294/aqui.2025.25.2.4

Theme: Care processes and practices

Contributions to the field: Grounded in the concept of self-care capacity, this study contributes to ensuring that nursing practice is based on strategies to improve the self-care capacity in people with chronic conditions during clinical hospitalization.

Abstract

Objective: To identify the factors associated with self-care capacity in people with chronic conditions hospitalized in a clinical ward. **Materials and Methods:** This was an observational study conducted in an adult clinical inpatient unit. Data was collected using a form to characterize the participants and the Revised Self-Care Agency Assessment Scale (ASAS-R). Data was then analyzed using descriptive statistics and association tests (Pearson's correlation coefficient, Student's t-test for independent samples, and ANOVA). A significance level of 5 % was applied to all analyses. **Results:** A total of 100 patients participated, with a prevalence of men; with a mean age of 59.78 years; most had incomplete primary education, were married, and retired. Based on the application of the ASAS-R, the patients demonstrated the power to self-care; however, they showed reduced self-care capacity, as indicated by the mean ASAS-R score (53.56). The individual characteristics associated with lower self-care capacity were being male ($p = 0.006$), having a low level of education ($p = 0.022$), having no religious bond ($p = 0.050$), having been hospitalized for a long time ($p = 0.016$), and not taking medication daily ($p = 0.004$). **Conclusion:** The results indicate that people with chronic conditions hospitalized in a clinical ward have a reduced capacity for self-care, associated with individual and clinical factors.

Keywords (Source: DeCS)
Nursing; self-care; nursing theories; observational study; chronic conditions.

Factores asociados a la capacidad de autocuidado de las personas con condiciones crónicas hospitalizadas en unidad clínica*

* El artículo es parte del proyecto "Capacidad de autocuidado de personas hospitalizadas en un sector clínico", que contó con beca concedida por la Fundação de Amparo à Pesquisa do Estado de São Paulo, Brasil, proceso número 2022/15679-8.

Resumen

Objetivo: identificar los factores asociados a la capacidad de autocuidado de las personas con condiciones crónicas hospitalizadas en unidad clínica. **Materiales y métodos**: estudio observacional realizado en una unidad de hospitalización clínica de adultos. Los datos se recogieron mediante un formulario de caracterización de los participantes y la Escala de Valoración de la Capacidad de Autocuidado (ASAS-R, sigla en inglés), analizándose posteriormente mediante estadística descriptiva y pruebas de asociación (coeficiente de correlación de Pearson, prueba t de Student para muestras independientes y ANOVA). En todos los análisis se utilizó un nivel de significación del 5 %. **Resultados**: participaron 100 pacientes, con predominio de hombres; 59,78 años de media; la mayoría tenían estudios primarios incompletos, estaban casados y jubilados. A partir de la aplicación de la ASAS-R, os pacientes demostraron poder para el autocuidado; no obstante, presentaron una capacidad reducida, según lo indicado por la media de la ASAS-R (53,56). Las características individuales asociadas con una menor capacidad de autocuidado fueron el sexo masculino (p = 0,006), la baja escolaridad (p = 0,022), la ausencia de religión (p = 0,050), una hospitalización más prolongada (p = 0,016) y el uso diario de medicación (p = 0,004). **Conclusión**: Los resultados mostraron que las personas con condiciones crónicas hospitalizadas en unidad clínica presentan capacidad de autocuidado reducida, la que se asocia a factores individuales y clínicos se asociaron.

Palabras clave (Fuente: DeCS)
Enfermería; autocuidado; teorías de enfermería; estudio observacional; condiciones crónicas.

Fatores associados à capacidade de autocuidado de pessoas com condições crônicas hospitalizadas em setor clínico*

* Este artigo faz parte do projeto intitulado "Capacidade do autocuidado de pessoas hospitalizadas em um setor clínico", que recebeu bolsa pela Fundação de Amparo à Pesquisa do Estado de São Paulo, Brasil, processo número 2022/15679-8.

Resumo

Objetivo: identificar os fatores associados à capacidade de autocuidado de pessoas com condições crônicas hospitalizadas em um setor clínico. **Materiais e métodos**: estudo observacional realizado em uma unidade de internação clínica de adultos. Os dados foram coletados por meio de um formulário para a caracterização dos participantes e da Escala Revisada para Avaliação da Agência de Autocuidado (ASAS-R, sigla em inglês), logo analisados com base na estatística descritiva e nos testes de associações (coeficiente de correlação de Pearson, teste t-student para amostras independentes e ANOVA). Em todas as análises, foi considerado nível de significância de 5 %. **Resultados**: participaram 100 pacientes, com predomínio de homens; com 59,78 anos em média; a maioria tinha ensino fundamental incompleto, era casada e aposentada. A partir da aplicação da ASAS-R, os pacientes demonstraram poder para o autocuidado; no entanto, apresentaram capacidade de autocuidado reduzida, conforme indicado pela média da ASAS-R (53,56). As características individuais associadas à menor capacidade do autocuidado foram sexo masculino (p = 0,006), baixa escolaridade (p = 0,022), ausência de vínculo religioso (p = 0,050), maior tempo de hospitalização (p = 0,016) e não utilização diária de medicações (p = 0,004). **Conclusão**: Os resultados indicam que pessoas com condições crônicas hospitalizadas em um setor clínico apresentam capacidade de autocuidado reduzida, associada a fatores individuais e clínicos.

Palavras-chave (Fonte DeCS)
Enfermagem; autocuidado; teorias de enfermagem; estudo observacional; condições crônicas.

Introduction

Self-care is a human function that encompasses the actions performed by people to preserve life and promote well-being. These actions cover all aspects of life and are not limited to daily living and instrumental activities. Self-care refers to the personal care that all people can perform to regulate their functioning and development (1).

A model of nursing care that focuses on self-care is described by the Self-Care Deficit Nursing Theory (1). One of the concepts of this theory is the capacity for self-care, which, for its author, is defined as a dynamic process through which individuals participate in their health care (1). This concept is at the heart of this study.

For people to perform self-care actions, they need human resources to provide continuous assistance for themselves or for people who are socially dependent on them, a fact that expresses the concept of self-care agency. This concept merges with the understanding of self-care capacity, which encompasses the development, operability, and adequacy of self-care actions performed by people for themselves (2).

Self-care capacity can be affected by a range of situations experienced by people, such as illness, and by individual factors, including age, education, culture, religious beliefs, gender, life experiences and habits, as well as one's family system (3). In this sense, its preservation is associated with a better perception of quality of life, improved control of adverse effects from medication use, and easier management of uncomfortable symptoms such as fatigue. Its impairment seems to be related to depression and reduced adherence to disease treatment (4). It also indicates the need for nursing actions directed both at meeting self-care needs that may be compromised by a lack of this capacity, and at supporting people in the recovery of self-care.

Self-care capacity is a complex concept that entails components of individual traits, divided into basic, enabling, and operational. *Basic traits* are associated with people's ability to perform any type of deliberate action; *enabling traits* comprise components of the ability to perform specific self-care actions and include the skills, knowledge, and energy to perform self-care. The *operational traits* are associated with skills directed towards self-care operations, such as the ability to research aspects that are significant for self-care, to make decisions and judgements, and to act to meet self-care needs. By understanding the components of self-care capacity, the influence of individual factors, such as physical, cognitive, and psychosocial aspects, on people's self-care actions becomes more evident (1, 4).

Self-care capacity can be compromised by the demands imposed by chronic conditions, due to physical discomfort and changes related to cognitive, emotional, social, and work (5-7). However, several studies highlight the importance of nursing interventions that help

people with chronic health conditions to be able to perform self-care, contributing to better clinical outcomes, improved quality of life, reduced hospitalizations, adequate symptom management, and greater treatment adherence (6, 8, 9).

Among people with chronic conditions, the frequency of hospital admissions is higher and can compromise self-care capacity. This is due to the fact that they express their care needs differently throughout the illness process, which may require changes in their health status, their search for health care, their decision-making, and their adherence to new therapeutic measures. In addition, this setting influences learning regarding the disease and its treatment (5, 10).

Hospitalization can raise patients' awareness of the importance of self-care, especially for the management of and adherence to treatment for chronic diseases. It can also favor closeness and interaction with healthcare professionals and is an opportune moment to identify gaps in patients' knowledge and capacity for self-care (11). Thus, researching the self-care capacity of people hospitalized with chronic conditions allows the nursing team to understand their needs and direct their actions to meet these demands, contributing to better health outcomes (12).

In this sense, researching the self-care capacity of people with chronic health conditions and the factors that interfere with it after hospitalization can provide better guidance and resolution of nursing care, as it allows contextualizing the level of impairment that hospitalization causes in patients' self-care capacity. The aim of this study was therefore to identify the factors associated with the self-care capacity of people with chronic conditions hospitalized in a clinical ward.

Materials and Methods

This is a cross-sectional descriptive observational study based on the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines. It was conducted in a medical inpatient unit of a university hospital affiliated with a public higher education institution in a municipality in the countryside of the state of São Paulo, Brazil. In this unit, there is a 32-bed inpatient medical clinic which provides care to people with chronic health conditions, with varying levels of dependence on care and different clinical characteristics.

The study participants were patients with chronic health conditions hospitalized in the medical clinic, and the sample was convenience-based (13). To calculate the sample size, the mean number of total hospitalizations in the month (135 hospitalizations) in 2022 and a 5 % margin of error were considered, resulting in 100 participants.

Regarding the proposed inclusion criteria, patients who were aged 18 or above, who had been hospitalized within at least 24 hours, and whose medical records showed that they had a chronic condition of any kind were included. The exclusion criteria were not being able to express themselves verbally to answer the data collection instruments and having any discomfort, pain, dyspnea, fatigue, or any other symptom that hindered adequate communication. Recruitment and data collection were conducted between January 2023 and February 2024.

As for data collection, the researcher in charge went to the medical clinic ward and checked the list of inpatients to confirm the inclusion criteria. Then the researcher went to the patient's bedside to invite them to participate, as well as to explain the purpose of the study and its objectives, and to provide information on the ethics involved in conducting scientific research. Once they had agreed to participate in the study, they signed the informed consent form in two copies and the interview then started.

Two instruments were used in the interview, one to characterize the participants and the Appraisal of Self-Care Agency Scale-Revised (ASAS-R). The characterization instrument included sociodemographic variables (e.g., age, skin color, gender, marital status, level of education, work status, support network, religion) and clinical variables (e.g., diagnosis, comorbidities, length of hospitalization, number of hospitalizations in the last year, number of medications in daily use).

The ASAS-R measures self-care capacity through 15 items across three factors: 1) Having power to perform self-care (six items); 2) Developing power to perform self-care (five items); and 3) Lacking power to perform self-care (four items). Each item is answered via a Likert scale with five response options, described as: totally disagree, disagree, unsure, agree, and totally agree. The final score is the sum of the answers to each item, which yields a score between 15 and 75. In terms of analysis, the higher the score, the better the self-care capacity (14). It is an instrument that has been translated to and validated for the Brazilian Portuguese language, as well as being based on the Self-Care Deficit Theory proposed by Dorothea Orem, which is the theoretical framework for this study (15).

To comply with resolutions 466/2012 and 510/2016 (16, 17), which cover regulations for research conducted with human beings, the project was submitted to and approved by the Research Ethics Committee of the Universidade Federal de São Carlos (CAAE: 63249122.7.0000.5504 and Opinion: 5.690.625).

The dependent variable in this study is impaired self-care ability, measured using the ASAS-R. It is considered compromised when the result is lower than 45 points, obtained from the sum of the 15 items on the scale, which corresponds to 60% of the maximum score of 75 points. This variable is used as a reference for the analysis of the participants' impaired self-care capacity.

The independent variables analyzed in this study were obtained from the answers to the participant characterization form and include individual and clinical factors.

The data collected were organized in an Excel® spreadsheet with independent double-entry to check for errors and inconsistencies. The data were then transferred to the SPSS® program and analyzed. The variables studied were classified and analyzed according to the nature of the data. Quantitative variables (continuous and discrete) were described by measures of central tendency (mean) and dispersion (standard deviation [SD]), while qualitative variables (categorical) were described by their absolute values and percentages. After verifying the normality of the distribution of the variables studied, including self-care ability measured by the ASAS-R, and assessed by the Kolmogorov-Smirnov test ($p < 0.05$); the statistical analyses applied were grounded on parametric measures.

In addition, association tests were used between the variables studied. For the quantitative variables, Pearson's correlation coefficient was used; to study the association between the ASAS-R (quantitative variable) and the qualitative variables, the Student's t-test for independent samples and one-way ANOVA with Tukey's post hoc test were used. A significance level of 5% was adopted for all analyses.

Results

A total of 100 patients (n = 100) participated in the study, with a mean age of 59.8 (SD = 17.2), with a minimum age of 20 and a maximum of 93 years. The participants were classified into age groups: 48 participants (48%) were aged under 60, and 52 participants (52%) were aged over 60; 45 participants (45%) were female, and 55 participants (55%) were male; 50 participants (50%) were white, 34 participants (34%) were mixed race, and 16 participants (16%) were black and Asian. Of these, 40 (40%) had partners and 50 (50%) did not; 39 (39%) had between zero and five years of education and 61 (61%) had more than five years. Regarding their occupation, 26 (26%) were in paid employment, 12 (12%) were unemployed, 50 (50%) were retired and 12 (12%) received government assistance. Regarding their religion, 80 (80%) reported having one and 20 (20%) reported not having one.

Regarding the organic system compromised during hospitalization, four participants (4%) had problems with the neurological system; 25 participants (25%) had cardiovascular problems; 11 participants (11%) had gastrointestinal problems; 14 participants (14%) had urinary problems; 28 participants (28%) had respiratory problems; 14 participants (14%) had endocrine/rheumatological problems; and four participants (4%) had immune/derma-

tological problems. The mean number of days of hospitalization was 6.98, ranging from one to 90 days. Among the participants, 78 (78%) had comorbidities, 87 (87%) used daily medication, and 58 (58%) had been hospitalized in the last year.

The mean score for self-care capacity evaluated by the ASAS-R was 51.02 (SD ± 11.55), which means that the participants had some level of self-care capacity preservation. However, 29 participants (29%) had scores under 45 points, which was the cut-off considered in this study to indicate impaired self-care ability, representing the worst levels of self-care.

Factor 1, "Having power for self-care", had a mean of 22.32 (SD ± 6.00); Factor 2, "Developing power for self-care", had a mean of 18.02 (SD ± 4.65); and Factor 3, "Lacking power", had a mean of 21.73 (SD ± 3.48). The distribution of the frequency of responses to the items on the ASAS-R scale is shown in Table 1.

Table 1. Distribution of the Frequency of Responses to the ASAS-R Items in a Sample of Patients Hospitalized in a Clinical Ward. São Carlos, São Paulo, Brazil, 2023-2024

ASAS-R	1*	2†	3‡	4§	5**
Factor 1. Having power for self-care					
As circumstances change, I make the needed adjustments to stay healthy.	9%	15%	6%	26%	44%
If my mobility is decreased, I make the needed adjustments.	2%	9%	8%	35%	46%
When needed, I set new priorities in the measures that I take to stay healthy.	5%	20%	9%	27%	39%
I often lack the energy to care for myself in the way that I know I should.	11%	20%	6%	34%	29%
I look for better ways to care for myself.	6%	14%	2%	42%	36%
When needed, I manage to take time to care for myself.	13%	27%	13%	22%	25%
Factor 2. Developing power for self-care					
If I take a new medication, I obtain information about the side effects to better care for myself.	20%	23%	3%	26%	28%
In the past, I have changed some of my old habits in order to improve my health.	11%	28%	5%	20%	36%
I routinely take measures to insure the safety to myself and my family.	5%	21%	8%	29%	37%
I regularly evaluate the effectiveness of things I do to stay healthy.	5%	23%	4%	38%	30%
In my daily activities, I seldom take time to care for myself.	8%	10%	1%	32%	49%

ASAS-R	1*	2†	3‡	4§	5**
Factor 3. Lacking power for self-care					
I am able to get the information I need, when my health is threatened.	8%	16%	3%	40%	33%
I seek help when I am unable to take care of myself.	12%	36%	3%	34%	15%
I seldom have time for myself.	14%	37%	7%	29%	13%
I am not always able to care of myself in the way I would like.	9%	19%	5%	38%	29%

Source: Prepared by the authors based on the data collected in the research.
Note: * — totally disagree; † — disagree; ‡ —neither disagree or agree; § — agree; ** — totally agree.

When analyzing the frequency of responses in each item, it can be noted that the sum of the frequency of "agree" or "totally agree" responses was higher than 50% in almost all the items in the three factors, showing that most participants expressed the ability to employ general self-care measures (assessed by Factor 1) and had the ability to perform self-care operations in their lives (assessed by Factor 2). However, they also showed a high frequency of responses indicating impaired ability to perform specific self-care actions (assessed by Factor 3).

As an example of the ability to employ general self-care measures, most patients showed the ability to make adjustments when faced with mobility problems (81%), to find time for self-care (78%) and to make necessary changes when faced with life circumstances (70%). The most frequent examples of actions indicative of operationalizing self-care were asking for help when unable to take care of oneself (81%) and obtaining the necessary information when faced with health threats (68%). Examples of compromised self-care capacity in the sample were a lack of willingness to perform self-care (73%) and the inability to perform self-care in the way they would like to (67%).

The variables associated with the lowest mean scores for self-care ability were being male, having less than five years of education, having no religious affiliation, having been hospitalized for a long time, and not taking medication daily. The results of the association tests between the variables are detailed in Table 2.

Based on the analysis in Table 2, female participants ($p = 0.006$), who reported having a religion ($p = 0.050$), who had a longer length of hospitalization ($p = 0.016$), and who used medication daily ($p = 0.048$), showed a better capacity for self-care altogether. Female participants ($p = 0.009$), who reported having a religion ($p = 0.044$) and with a shorter hospitalization time ($p = 0.012$), showed better levels of self-care power, as measured by Factor 1. On the other hand, female patients ($p = 0.010$), those

Table 2. Tests of Association of the Variables Researched with the Measurements Obtained in the ASAS-R of the Study Participants. São Carlos, São Paulo, Brazil, 2023-2024

Variables	ASAS-R			
	Total	Factor 1	Factor 2	Factor 3
Age	*r* = -0.045 0.656*	*r* = 0.003 0.975*	*r* = -0.140 0.165*	*r* = 0.050 0.623*
Age group *(p-value)*	0.300†	0.676†	0.088†	0.780†
< 60 years *(mean)*	52.3	22.6	18.8	10.8
> 60 years *(mean)*	49.8	22.1	17.2	10.6
Sex *(p-value)*	0.006†	0.009†	0.130†	0.010†
Female *(mean)*	54.6	24.0	18.8	11.7
Male *(mean)*	48.1	20.9	17.4	9.9
Skin color *(p-value)*	0.625‡	0.304‡	0.981‡	0.810‡
White *(mean)*	52.0	23.2	17.9	10.9
Mixed *(mean)*	49.5	21.1	18.1	10.4
Black and Asian *(mean)*	51.0	22.2	17.9	10.8
Marital status *(p-value)*	0.803†	0.925†	0.188†	0.384†
With a partner *(mean)*	51.4	22.2	18.8	10.3
Without a partner *(mean)*	50.8	22.4	17.5	11.0
Education *(p-value)*	0.450†	0.873†	0.633†	0.022†
From 0 to 5 years *(mean)*	49.9	22.4	17.7	9.7
> 5 years *(mean)*	51.7	22.2	18.2	11.4
Occupation *(p-value)*	0.447‡	0.784‡	0.540‡	0.081‡
Performs paid activities *(mean)*	53.7	23.2	18.9	11.5
Unemployed *(mean)*	47.5	21.4	17.6	8.5
Retired *(mean)*	50.4	22.3	17.5	10.7
Receives government assistance *(mean)*	51.5	22.4	18.7	11.3
Religion *(p-value)*	0.050†	0.044†	0.195†	0.085†
Yes *(mean)*	52.3	23.0	18.3	11.0
No *(mean)*	45.9	19.7	16.7	9.4
Compromised system *(p-value)*	0.027‡	0.070‡	0.180‡	0.034‡
Neurological system *(mean)*	53.5	21.7	19.7	12.0
Cardiovascular system *(mean)*	49.9	21.5	18.6	9.8
Gastrointestinal system *(mean)*	42.5	18.3	15.0	9.4
Urinary system *(mean)*	58.4	25.7	19.7	12.9
Respiratory system *(mean)*	50.7	22.4	17.3	11.2
Endocrine/rheumatological system *(mean)*	53.9	24.1	18.9	10.9
Immune/dermatological system *(mean)*	45.5	20.7	17.0	7.7
Length of hospitalization	*r* = -0.240 0.016*	*r* = -0.251 0.012*	*r* = -0.213 0.033*	*r* = -0.070 0.488*
Comorbidities	0.673†	0.693†	0.477†	0.071†
Yes *(mean)*	51.3	22.4	17.8	11.1
No *(mean)*	50.1	21.9	18.7	9.5
Daily use medication	0.048†	0.252†	0.084†	0.002†
Yes *(mean)*	52.1	22.6	18.4	11.1
No *(mean)*	43.9	20.1	15.5	8.23
Hospitalization in the last year	0.564†	0.215†	0.692†	0.849†
Yes *(mean)*	50.5	21.7	18.2	10.8
No *(mean)*	51.8	23.2	17.8	10.7

Source: Prepared by the authors based on research data.

Note: * — Pearson's correlation coefficient; † — Student's t-test for independent samples; ‡ — One-way ANOVA; r — Pearson's correlation coefficient result.

with more than five years of education (p = 0.022), and those who used medication daily (p = 0.002) reported a lack of power to perform self-care, as measured by Factor 3. Only length of hospitalization compromised self-care performance in the sample (p = 0.033), as measured by Factor 2.

A compromised system and a system under treatment during hospitalization also influenced self-care capacity; post hoc analyses showed that the variance was greater among people with diseases of the gastrointestinal system than the respiratory system, both in terms of measures of self-care capacity in general (p = 0.027) and in terms of Factor 3 (p = 0.034), as shown in Table 2.

Discussion

The present study found that, among hospitalized patients with chronic conditions, self-care capacity was not well operationalized, since the mean score on the assessment scale for this variable was approximately 50 points, when the score indicating good self-care operationalization should be close to 75. However, the individual analyses of the answers to the items distributed in the different factors of the scale showed that the patients were able to perform self-care, but that some aspects such as energy and organization to perform self-care were compromised at the time.

Orem distinguished three aspects of self-care capacity: development, operability, and adequacy. Development constitutes the possible actions of self-care performed by people; operability comprises the actions performed consciously and effectively; and adequacy consists of the relationship between the actions people can perform and the actions required to meet a self-care demand (1). These aspects are influenced by the disease, the environment, and the person's relationship with healthcare (15). In this study's sample, the chronic condition may require people to perform self-care actions. However, hospitalization can be associated with clinical instability and new health care demands, in which patients may feel incapable, unable and/or without resources to act, making nursing care necessary (1).

In this sample, individual and clinical factors associated with compromised self-care capacity in hospitalized patients with chronic conditions were also identified, such as being male, having a lower level of education, having no religious affiliation, length of hospitalization, type of compromised system, and not taking medication daily.

Differences in terms of sex have been found in other studies, both in hospitalization settings in clinical wards and in other settings, for instance, among older people living in rural areas in Japan, among people with chronic conditions receiving outpatient care, and among people hospitalized with chronic obstructive pulmo-

nary disease (5, 18, 19). However, results that differ from these, with the best performance in self-care capacity among men, are presented in studies conducted among people with chronic kidney disease and older people hospitalized with various chronic diseases (20, 21). Supporting the divergent results between different studies, the literature suggests that there are differences in care needs between the genders at different stages of chronic diseases (7).

In Brazil, the country where the study was conducted, despite the existence of public policies aimed at men's health, the emphasis on promoting self-care among men is generally overlooked. A limiting influence on the manifestations of self-care among men worldwide is attributed to culture since self-care is recognized as a specific attribute of women. In addition, the significance of the family, work, and social roles held by men contributes to the downgrading of self-care (22, 23).

In several studies, age has been associated with a reduction in people's self-care capacity, although this study found no relationship between this variable and the self-care capacity of people hospitalized with chronic conditions (24, 25). However, age is a factor of focus for self-care interventions since, as people become older, they experience inadequacies in fulfilling their self-care needs, depending on the physical, emotional, and economic difficulties that arise due to the various diseases that follow the aging process (26).

The findings of this study on the influence of level of education on self-care capacity corroborate the results presented in the literature (24, 26, 27). A positive aspect of the relationship between high levels of education and self-care capacity is the strengthening of educational interventions focused on this purpose. People with a higher level of education tend to have a better understanding of the complexities of their health conditions, more easily apply the information they receive about diseases and therefore have a greater commitment to self-care (21, 24). Although this advantage may contribute to better results in self-care interventions, it does not invalidate the need to develop educational actions and interventions aimed at increasing knowledge and/or self-care performance. Studies evaluating educational interventions on self-care have demonstrated the effectiveness of these approaches in improving the self-care capacity of people with chronic conditions, such as chronic obstructive pulmonary disease and coronary artery disease (8, 18, 28).

It is worth noting that self-care is closely related to health literacy, that is, knowledge regarding one's own health. Actions aimed at the acquisition of health literacy are necessary to promote skills and competencies in the domains of writing, speaking, and communication to achieve autonomy in the self-care process (29). A study conducted with almost 250 in-patients with heart disease highlighted the effect of these patients' health literacy on their self-care skills and stressed the importance of healthcare professionals employing health education measures with patients hospitalized for chronic conditions (30).

In this study, most hospitalizations were caused by chronic respiratory conditions (28 % of cases). However, the capacity for self-care was lower among people hospitalized for diseases of the gastrointestinal system. It is possible that most people hospitalized for this reason had characteristics that affected self-care, such as gastrointestinal compromise being related to the male sex or longer hospitalization time, since the site where the research was conducted had a high number of cases of prolonged hospitalization, people with a compromised liver, and older people.

In addition, religious people had better operationalization of self-care and the ability to perform self-care actions. Similarly, a study conducted in Turkey, a country as religious as Brazil, found that the operationalization of self-care capacity, assessed in 200 patients with chronic lung disease, was influenced by spiritual well-being (6).

Aspects surrounding religiosity have been proven to influence health outcomes among people with chronic illnesses, since they are associated with a better quality of life, greater longevity, improved mental health, increased awareness of one's own health and a lower incidence of illnesses in general, as well as helping people to cope with health-related adversities (31).

Religiosity leads people to assign meaning to their lives and mobilize internal resources to deal with life events, which contributes to self-care (24). These findings are somewhat in line with the results of this study. It is worth highlighting the originality of these findings, as studies on aspects of the spiritual dimension and self-care are scarce (6).

Several studies have described the influence of self-care capacity on adherence to treatment for chronic conditions (12, 27, 32). Complementary to this aspect, in the present study, participants who used one or more medications daily had better levels of self-care capacity. Although this information is different, it is hypothesized that there is a relationship between the operationalization of the self-care capacity of people hospitalized with chronic conditions and treatment adherence, since the use of medication daily can lead people to feel more involved in their self-care, committed to taking their medication daily and seeking information regarding the medication used. In a study conducted with 151 patients with chronic cardiovascular disease, treatment adherence was related to the operationalization of self-care capacity. The authors believed that the disease and its needs stimulated awareness of the importance of self-care (27).

The benefits of self-care for people with chronic health conditions include reduced hospitalization time, favored by better treatment adherence and more efficient recovery (24, 27). In addition, high levels of self-care capacity are associated with bet-

ter self-management of chronic conditions, improved quality of life, protection from depressive symptoms, reduced costs of disease treatment, and increased health-related self-efficacy (20, 21, 26).

In addition, as a resource in the management of chronic conditions, self-care capacity can integrate health care and promote self-responsibility to allow individuals to care for themselves in a range of health conditions (30). It is therefore essential for nurses to understand the degree to which patients' self-care capacity is compromised, as well as the factors that influence it to plan more adequate and effective care to support them in this process (21).

In a Colombian study conducted with patients with cardiovascular conditions, the high levels of self-care capacity shown by the patients studied were the result of their awareness of the importance of self-care (27). This highlights the role of self-care capacity in the care of people with chronic conditions.

The limitations of the present study lie in its cross-sectional design, which hinders analysis capable of establishing causal relationships between the variables researched. In addition, the use of convenience rather than random sampling may compromise the representativeness of the study population and limit the generalizability of the results. For future studies, it would be worth considering the adoption of random sampling, as well as the development of longitudinal studies to monitor the impact of length of stay on self-care capacity. In addition, it is recommended to explore the influence of health conditions on this process.

This study provides the nursing field with perspectives on the assessment of self-care capacity among hospitalized people with chronic conditions, to ground the nursing process in this context and organize professional knowledge based on a conceptual framework. In addition, it expands the nursing team's knowledge of factors that interfere with these patients' capacity for self-care during hospitalization, which should be monitored and considered when planning care to help them develop self-care skills.

Conclusion

The objective of identifying factors associated with the self-care capacity of people with chronic conditions hospitalized in a clinical ward was achieved. Individual factors that were associated with lower levels of operationalization of self-care capacity were sex, level of education, religion, type of system involved, length of hospitalization, and not taking medication daily.

This study showed that hospitalized patients with chronic conditions have compromised self-care capacity, although they have some power to perform and develop actions in this sense. These findings highlight the importance of nurses implementing measures

that compensate for deficient resources and minimize the limitations that hinder patients from exercising self-care.

The contributions of this study reinforce the evaluation of patients, considering the factors mentioned, which can favor a more targeted and resolutive nursing practice in terms of self-care for people with chronic health conditions.

Acknowledgements

We would like to thank the University Hospital of the Universidade Federal de São Carlos, São Paulo, and the Empresa Brasileira de Serviços Hospitalares.

Conflict of interest: None declared.

References

1. Orem DE. Nursing concepts of pratice. 6ª ed. Saint Louis: Mosby; 2001.
2. Santos MC, Bittencourt GK, Beserra PJ, Nóbrega MM. Teoria geral do autocuidado segundo o modelo de análise de teorias de Meleis. Revista de Enfermagem Referência. 2022; 6(1):e21047. DOI: https://doi.org/10.12707/RV21047
3. Oliveira L, Teixeira A, Duarte I. The Appraisal of Self-Care Agency Scale-Revised (ASAS-R): Reliability and Validity among Portuguese Medical Students. Int. J. Environ. Res. Public Health. 2022;19(17):10848. DOI: https://doi.org/10.3390/ijerph191710848
4. Deng Q, Kang L, Zhu S, Luo W, Qing J, Zhong S et al. Effects of nursing based on Orem's self-care model on self-care efficacy, quality of life and adverse emotions in patients with advanced lung cancer. Am J Transl Res. 2021;13(4):2983-89. Disponível em: https://pubmed.ncbi.nlm.nih.gov/34017465
5. Iovino P, Lyons KS, De Maria M, Vellone E, Ausili D, Lee CS, Riegel B, Matarese M. Patient and caregiver contributions to self-care in multiple chronic conditions: A multilevel modelling analysis. Int J Nurs Stud. 2021;116:103574. DOI: https://doi.org/10.1016/j.ijnurstu.2020.103574
6. Yildiz ÇŞ, Özlü ZK. Examınatıon of self-care agency and quality of life in individuals with chronic venous disease. J Vasc Nurs. 2021;39(4):114-9. DOI: https://doi.org/10.1016/j.jvn.2021.08.001
7. Demirci PY, Yeşilot SB, Eskimez Z. The Role of Sex and Other Personal Characteristics in the Effects of Symptoms Severity on Self-Care Agency in Individuals with Multiple Sclerosis. Brain Behav. 2024;14(10):e70091. DOI: https://doi.org/10.1002/brb3.70091
8. Sánchez-Ortega MA, Lluch-Canut MT, Roldán-Merino J, Agüera Z, Hidalgo-Blanco MA, Moreno-Poyato AR, Tinoco-Camarena J, Moreno-Arroyo C, Puig-Llobet M. Nursing Intervention to Improve Positive Mental Health and Self-Care Skills in People with Chronic Physical Health Conditions. Int J Environ Res Public Health. 2022;20(1):528. DOI: https://doi.org/10.3390/ijerph20010528
9. Masadeh AB, Saleh AM. The Effect of a Diabetes Self-Management Mobile Application on Self-Efficacy, Self-Care Agency, and Self-Care Management Among Patients with Type 1 Diabetes Mellitus. Creat Nurs. 2023;29(3):286-94. DOI: https://doi.org/10.1177/10784535231211693
10. Bláhová H, Bártová A, Dostálová V, Holmerová I. The needs of older patients in hospital care: a scoping review. Aging Clin Exp Res. 2021;33(8):2113-22. DOI: https://doi.org/10.1007/s40520-020-01734-6
11. França AA, Barbosa JAG, Guimarães FP, Guimarães GL, Guimarães JB. Avaliação da adesão ao autocuidado em diabetes após intervenção educativa realizada com pacientes hospitalizados. Revista Brasileira de Ciências da Saúde. 2020;24(supl. 2). DOI: https://doi.org/10.22478/ufpb.2317-6032.2020v24nSupl.2.47260
12. Yip JYC. Theory-Based Advanced Nursing Practice: A Practice Update on the Application of Orem's Self-Care Deficit Nursing Theory. SAGE Open Nurs. 202120;7:23779608211011993. DOI: https://doi.org/10.1177/23779608211011993
13. Browner WS, Newman TB, Cummings SR, Grady SR, Huang AJ, Kanaya AM, Pletcher MJ. Delineando a pesquisa clínica de Hulley. 5ª ed. Porto Alegre: Artmed; 2024.
14. Schönenberg A, Teschner U, Prell T, Mühlhammer HM. Validation and Psychometric Analysis of the German Translation of the Appraisal of Self-Care Agency Scale-Revised. Healthcare (Basel). 2022;10(9):1785. DOI: https://doi.org/10.3390/healthcare10091785
15. Stacciarini TSG, Pace AE. Confirmatory factor analysis of the Appraisal of Self-Care Agency Scale — Revised. Rev Latino-Am Enfermagem. 2017;25:e2856. DOI: https://doi.org/10.1590/1518-8345.1378.2856
16. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 466, de 12 de dezembro de 2012. Trata sobre as diretrizes e normas regulamentadoras de pesquisa envolvendo seres humanos. Diário Oficial da União. 13 jun. 2013. Disponível em: https://www.inca.gov.br/publicacoes/legislacao/resolucao-cns-466-12
17. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 510, de 7 de abril de 2016. Trata sobre as diretrizes e normas regulamentadoras de pesquisa em ciências humanas e sociais. Diário Oficial da União. 24 maio 2016. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/cns/2016/reso510_07_04_2016.html

18. Yildirim Z, Kasikçi M. The effect of education on self-care agency and rational drug use of patients with COPD. Patient Educ Couns. 2023;114:107804. DOI: https://doi.org/10.1016/j.pec.2023.107804

19. Yoshimura J, Tanimura C, Matsumoto H, Tokushima Y, Inoue K, Park D et al. Relationship of Physical Activity to Self-Care Agency and Physical Condition Among Older Adults in a Rural Area. Yonago Acta Med. 2021;64(1):18-29. DOI: https://doi.org/10.33160/yam.2021.02.004

20. Lerma C, Lima-Zapata LI, Amaya-Aguilar JA, Leonardo-Cruz I, Lazo-Sámchez M, Bermúdes LA et al. Gender-Specific Differences in Self-Care, Treatment-Related Symptoms, and Quality of Life in Hemodialysis Patients. Int J Environ Res Public Health. 2021;18:13022. DOI: https://doi.org/10.3390/ijerph182413022

21. Batı S, Polat HT, Akkuş H. Determination of the Relationship Between Self-Care Agency and Death Anxiety Among Elderly Individuals. Omega (Westport). 2022;29:302228221095907. DOI: https://doi.org/10.1177/00302228221095907

22. Garcia LHC, Cardoso NDO, Bernardi CMCN. Autocuidado e adoecimento dos homens: uma revisão integrativa nacional. Rev Psicol Saúde. 2019;11(3):19-33. DOI: https://doi.org/10.20435/pssa.v11i3.933

23. Yildiz ÇŞ, Özlü ZK. Examınatıon of self-care agency and quality of life in individuals with chronic venous disease. J Vasc Nurs. 2021;39(4):114-9. DOI: https://doi.org/10.1016/j.jvn.2021.08.001

24. Cho H, Park E. Canonical Correlation Between Self-Care Agency and Health-Related Self-Efficacy with Chronic Viral Hepatitis Patients. Osong Public Health Res Perspect. 2019;10(5):281-8. DOI: https://doi.org/10.24171/j.phrp.2019.10.5.04

25. Hauenstein EJ, Davey A, Clark RS, Daly S, You W, Merwin EI. Self-care capacity and its relationship to age, disability, and Perceived well-being in medicare beneficiaries. Nurs Res. 2022;71(1):21-32. DOI: https://doi.org/10.1097/NNR.0000000000000551

26. Isik K, Cengiz Z, Doğan Z. The Relationship Between Self-Care Agency and Depression in Older Adults and Influencing Factors. J Psychosoc Nurs Ment Health Serv. 2020;58(10):39-47. DOI: https://doi.org/10.3928/02793695-20200817-02

27. Vargas-Escobar LM, Valle-Ballesteros R, Alemán-Parra CM, Parrado-Sarmiento AC, Cortes-Muñoz F, Sánchez-Casas C. Relationship Among Treatment Adherence, Family Functioning, and Self-Care Agency in Colombian Patients with Cardiovascular Disease. Journal of Nursing Research, 2019;30(4):e224. DOI: https://doi.org/10.1097/jnr.0000000000000504

28. Tok Yildiz F, Kaşikçi M. Impact of Training Based on Orem's Theory on Self-Care Agency and Quality of Life in Patients With Coronary Artery Disease. J Nurs Res. 2020;28(6):e125. DOI: https://doi.org/10.1097/JNR.0000000000000406

29. Virgens BD, Rocha MSD. A implicação do letramento em saúde no autocuidado. Revista Internacional de Debates da Administração Pública. 2019;4(1):191-206.

30. Yao L, Wu F, Mu H, Wang X, Liu J, Lu H. Mediating effect of health literacy on social support and self-care ability in older patients undergoing percutaneous coronary stent implantation. Cardiovasc Diagn Ther. 2024;14(5):821-31. DOI: https://doi.org/10.21037/cdt-24-50

31. Mendes NS, Malaguti C, Dos Anjos Sena L, Lucchetti G, de Jesus LAS, Vitorino LM et al. Spirituality and religiosity are associated with physical and psychological status in patients with chronic obstructive pulmonary disease. J Clin Nurs. 2022;31(5-6):669-78. DOI: https://doi.org/10.1111/jocn.15926

32. Chen Z, Jiang Y, Chen M, Baiyila N, Nan J. Resilience as a Mediator of the Association between Spirituality and Self-Management among Older People with Chronic Obstructive Pulmonary Disease. Healthcare (Basel). 2021;9(12):1631. DOI: https://doi.org/10.3390/healthcare9121631