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## INDICADORES PREDITIVOS DO AUTOCUIDADO – REVISÃO SISTEMÁTICA DA LITERATURA

PREDICTIVE INDICATORS OF SELF-CARE – SYSTEMATIC LITERATURE REVIEW INDICADORES PREDICTIVOS DEL AUTOCUIDADO – REVISIÓN SISTEMÁTICA DE LA LITERATURA

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#### **RESUMO**

**Introdução**: O Autocuidado é um conceito relevante para a prática de Enfermagem e particularmente para a Enfermagem de Reabilitação. Os objetivos deste estudo foram identificar os indicadores preditivos da capacidade de autocuidado da pessoa adulta e identificar o(s) método(s) de avaliação da capacidade de autocuidado da pessoa adulta.

**Metodologia:** Procedeu-se à Revisão Sistemática da Literatura (RSL). Os estudos foram obtidos através de pesquisa em bases de dados eletrónicas inseridas na plataforma EBSCO Host. Admitiram-se estudos indexados em revistas académicas entre 1 de setembro de 2011 e 30 de setembro de 2021. Foram incluídos 7 estudos na RSL.

**Resultados:** Identificaram-se 3 classes de indicadores preditivos da capacidade de autocuidado: Pessoais, Organizacionais e Sociais. Destaca-se ainda a identificação de validade de utilização de 2 instrumentos de avaliação da capacidade de autocuidado: *Self-care Ability Scale for Elderly* e *Appraisal of Self-care Agency Scale*.

**Discussão**: Através da avaliação destes indicadores é possível delinear estratégias para potenciar os fatores facilitadores do autocuidado e remover, minimizar ou ultrapassar as barreiras identificadas, de forma a maximizar a funcionalidade da pessoa e desenvolver a sua capacidade de autocuidado.

**Conclusão:** O Enfermeiro deve considerar estas três classes na avaliação da pessoa e utilizar Instrumentos de Avaliação válidos para avaliar e monitorizar a capacidade de autocuidado da pessoa. Sugere-se realização de estudos complementares para validar as três classes de indicadores identificados.

**Descritores:** Adulto, Autocuidado, Enfermagem, Indicadores

## ABSTRACT

**Introduction**: Self-care is recognized as a crucial concept for nursing care, specifically for rehabilitation nursing. The major goals of this systematic literature review were to identify the predictive indicators of self-care ability in adults, as well as to identify the methods to assess self-care ability in adults.

**Methodology**: It was developed a systematic and precise process method. Then we searched databases that were integrated into the EBSCO Host platform. We accepted studies that were published in academic journals between September 1, 2011, and September 30, 2021. This review includes a total of seven studies.

**Results**: After further research, it was identified three classes of predictive indicators of self-care ability: Personal, Organizational, and Social. Also noteworthy is the identification of the validity of the use of 2 self-care capacity assessment instruments: Self-care Ability Scale for Elderly, and Appraisal of Self-care Agency Scale.

**Discussion**: Through the evaluation of these indicators, it is possible to outline strategies to enhance the facilitating factors of self-care and to remove, minimize, or overcome the identified barriers, to maximize the person's functionality and develop their capacity for self-care.

**Conclusion**: It was inferred that, when measuring a patient's self-care abilities, the nurse should consider these three classes and valid assessment instruments. Complementary

studies are suggested to validate the three classes of indicators.

Descriptors: Adult, Self-Care, Nurse, Indicators

#### RESUMEN

**Introducción:** El autocuidado es relevante para la Enfermería y para la práctica de la Enfermería de Rehabilitación<sup>(1–3).</sup> Los objetivos de este estudio fueron identificar los indicadores predictivos de la capacidad de autocuidado de la persona adulta e identificar el(los) método(s) de evaluación de la capacidad de autocuidado de la persona adulta.

**Metodología:** Se realizó Revisión Sistemática de la Literatura (SLR). Los estudios fueron obtenidos en bases de datos insertadas en la plataforma EBSCO Host. Se aceptaron estudios indexados en revistas académicas entre el 1 de septiembre de 2011 y el 30 de septiembre de 2021. Esta revisión incluye siete estudios.

**Resultados:** Se destaca la identificación de tres clases de indicadores predictivos de la capacidad de autocuidado: Personal, Organizacional y Social. También cabe destacar la identificación de la validez de uso de 2 instrumentos de evaluación de la capacidad de autocuidado: Self-care Ability Scale for Elderly y Appraisal of Self-care Agency Scale.

**Discusión:** La evaluación de los indicadores permite identificar estrategias para potenciar los factores facilitadores del autocuidado y la superación de barreras, para maximizar la funcionalidad de la persona y desarrollar su capacidad de autocuidado.

**Conclusión:** El Enfermero debe considerar estos indicadores y utilizar Instrumentos de Evaluación válidos para evaluar y controlar la capacidad de autocuidado de la persona. Se sugieren estudios complementarios para validar las tres clases de indicadores identificados.

Descriptores: Adulto, Autocuidado, Enfermería, Indicadores

Protocolo registado na Open Science Framework https://osf.io/cu2wx a 12 de março de 2023.

## INTRODUCTION

Self-care is a relevant concept in Nursing, especially since the presentation of the Self-Care Theory by Dorothea Orem in 1971<sup>(1)</sup>. This Nursing Theory is a scientific pillar of practice for building the quality of nursing care<sup>(2)</sup>.

The International Council of Nursing, in 2005, defined self-care as the set of activities necessary for the person to maintain their life and well-being, as well as to manage their individual needs and Activities of Daily Living (ADL)<sup>(3)</sup>. Self-care is intrinsic to the person and depends on their uniqueness(3).

The assessment of self-care ability is transversal to all nurses, but it represents a clinical decision area with special relevance for the practice of Rehabilitation Nursing (RN)<sup>(4,5)</sup>. Rehabilitation emerges at a transition point of self-care, depending on the person's autonomy and freedom to make decisions regarding their Health Project<sup>(6)</sup>.

The Specialist Nurse in Rehabilitation Nursing (SNRN) has three pillars in their praxis: caring, training and maximizing<sup>(7)</sup>. In this perspective, the SNRN can temporarily or permanently replace the person in carrying out ADLs and/or carry out interventions that enhance the person's functionality to carry out self-care<sup>(8)</sup>, transmitting knowledge and training skills in this process of the person and/or formal caregivers or informal, to carry out autonomous and independent self-care.

Currently, health gains can be evaluated through indicators, and self-care is a privileged area in the monitoring of health gains related to the nursing care provided. These favor the promotion of autonomy/independence and the development of unique abilities and/or of caregivers<sup>(9,10)</sup>.

It is fundamental to understand the predictive indicators of self-care since they designate the prediction of a person's behavior about a self-care activity<sup>(11)</sup>. These indicators influence the person's responsibility and ability to perform self-care actions<sup>(12)</sup>. The identification of predictive indicators of self-care is the basis of the Nursing Process since an efficient initial assessment allows the elaboration of a valid care plan<sup>(13–15)</sup>.

Dorothea Orem presupposes the existence of requirements and conditioning factors of self-care, but that deviate from the common citizen's sense<sup>(16)</sup>. Recently, a holistic personcentered model was developed by Narasimhan, Allotey, and Hardon, which emphasizes the importance of educational strategies and adaptation to transitions to promote self-care but does not clarify the predictive indicators of self-care<sup>(17)</sup>. From the research carried out by the authors on self-care, it was not possible to identify a structured core of predictive self-care indicators that support the clinical decision. On the other hand, there are several studies on the indicators of adherence to the therapeutic regime in relation to pathologies such as Diabetes Mellitus or Hypertension, but without addressing the predictive indicators of self-care.

A gap in the literature was thus identified, which gave rise to the research question with a variant of the PICO methodology, the "PO" (population/outcome, phenomenon): "What are the predictive indicators of the self-care capacity (O) of the adult person (P)?". The following aims were defined for this study:

- Identify the predictive indicators of the self-care capacity of the adult person;
- Identify the method(s) for assessing the adult's self-care ability.

## METHODOLOGY

A Systematic Literature Review (SLR) was carried out to identify the predictive indicators of adult self-care capacity and the evaluation methods used by rehabilitation nurses. The SLR allows for identifying, evaluating, and synthesizing the results of several preponderant studies carried out in the health area, on a specific theme<sup>(18,19).</sup>

A specific protocol with PRISMA design was built, in order to become scientifically solid and to minimize obstacles that deteriorate the final result of the RSL<sup>(20,21)</sup>. Thus, the descriptors were selected using the DeCS/MeSH nomenclature: (Adult), (Self Care), (Nursing), (Self Management), (Indicators), (Rehabilitation), formulating the Boolean equation used for research: (Self Care) AND (Indicators).

It was decided to define the time limit from September 1, 2011, to September 30, 2021, to cover more studies on the subject. The EBSCO Host database platform was consulted by 2 reviewers, with simultaneous access to the following databases: CINAHL Complete, MEDLINE Complete, Nursing & Allied Health Collection: Comprehensive, Cochrane Central Register of Controlled Trials, and MedicLatina. Only full-text articles in Spanish, English, or Portuguese were considered. All remaining articles were excluded.

Titles and abstracts were read, looking for primary studies and referring to at least 2 defined descriptors. By applying these criteria, eliminating duplicate articles, and excluding articles without an abstract

Afterward, the articles were read in full, with the definition of the inclusion criteria: approach in the body of the text of self-care indicators of the adult person or methods of evaluating the self-care capacity of the adult person.

The next step consisted of the qualitative analysis of the selected studies, by 3 reviewers, to confidently select the final body of the study. The Critical Appraisal Tools of the Joana Briggs Institute (CAT-JBI) of qualitative studies, cohort studies, and cross-sectional studies were used, to admit studies of validated scientific quality. High-quality studies were defined as acceptance criteria, with a classification equal to or greater than 75% in the CAT-JBI. The level of evidence was classified by the JBI<sup>(22)</sup>.

## RESULTS

From the research carried out, 620 articles were identified. After reading the title, the sample was reduced to 41 articles. Afterward, the articles were read in full, and after applying the eligibility criteria, the sample was reduced to 9 articles. Two studies were excluded, as they presented a classification lower than 75% of the JBI criteria. The final body of studies was reduced to 7, being exposed in the Methodological Path of Selection of Articles (Figure 1).



Figure 1 – Identification, Selection, and Inclusion of Articles Path.

Subsequently, the data identified in the studies were analyzed based on the assumptions of the International Classification of Functioning, Disability and Health (ICF)<sup>(23)</sup>, since it provides a scientific basis for understanding and studying health determinants, as well as allowing the establishment of a Universal language.

In the following table, the results referring to the Selected Studies are explained (Table 1) to facilitate the analysis of their results. These studies form the core of SLR. The studies were developed in 5 European countries, China, and Canada, and presented a CAT-JBI level of evidence above 80%.

Authors	Year	Country	Journal	Title	Classification CAT-JBI
Dale, Soderhamn & Soderhamn(11)	2012	Norway	Scandinavian Journal of Caring Sciences	Self-care ability among home- dwelling older people in rural areas in southern Norway	100%
Smith, Pedneault & Schmitz <sup>(24)</sup>	2015	Canada	Canadian Journal of Public Health	Investigation of anxiety and depression symptom co- morbidity in a community sample with type 2 diabetes: Associations with indicators of self-care	100%

#### **Table 1 - Identification of Selected Studies**

Authors	Year	Country	Journal	Title	Classification CAT-JBI
Cheng, Sit, Leung & Li <sup>(25)</sup>	2016	China	Worldviews on Evidence-Based Nursing	The Association Between Self- Management Barriers and Self- Efficacy in Chinese Patients with Type 2 Diabetes: The Mediating Role of Appraisal	87.5%
Schwennesen, Henriksen & Willaing <sup>(26)</sup>	2016	Denmark	Scandinavian Journal of Caring Sciences	Patient explanations for non- attendance at type 2 diabetes self-management education: a qualitative study	90%
Evaristo & Marques <sup>(27)</sup>	2018	Portugal	Onco.News	Perfil de autocuidado do doente em tratamentos com hemodiálise: estudo descritivo transversal	87.5%
Manzanares, García, López, Dóniga, Ortega & García <sup>(28)</sup>	2019	Spain	Metas de Enfermería	Equilibrio emocional, capacidad de autocuidado e integridad cutánea en la persona ostomizada	81.8%
Heggdal, Mendelsohn, Stepanian, Oftedal & Larsen <sup>(29)</sup>	2021	Norway	Health Expectations	Health-care professionals' assessment of a person-centred intervention to empower self- management and health across chronic illness: Qualitative findings from a process evaluation study	100%

Subsequently, each selected study was read in full, extracting the data presented in Table 2, to proceed with their synthesis and critical and qualitative analysis.

Authors / Country	Design, Purpose of the Study and JBI Level of Evidence	Participants	Intervention	Results /Conclusions
Dale, Soderhamn & Soderhamn <sup>(11)</sup> ; Norway	Cross-sectional study. EL - 4.b Aim: To describe the self-care ability of elderly people living in rural areas of southern Norway.	1,050 people living in rural areas of southern Norway, 526 men and 524 women, aged between 65 and 96 years old.	Application of a demographic questionnaire and five assessment instruments: Self- care Ability Scale for Elderly (SASE), Appraisal of Self- care Agency Scale (ASA), Sense of Coherence Scale, Nutritional Form for the Elderly (NUFFE), and General Questionnaire of Godberg Health.	Predictive factors of self-care ability: • High level of education; • Have your own home; • Family support; • Positive perception of aging, health, and self-care ability; • Active aging; • Satisfaction with life; • Low NUFFE score; • High score on SASE and ASA. Predictive factors of self-care inability: • Low level of education; • Housing in residences or homes; • Changes in mental health; • Feeling helpless; • Low nutritional status; • Co-morbidity. The study demonstrated that the greater the age, the lower the capacity for self-care.

#### Table 2 – Identification of the main data of the Selected Studies

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Authors / Country	Design, Purpose of the Study and JBI Level of Evidence	Participants	Intervention	Results /Conclusions
Smith, Pedneault & Schmitz <sup>(24),</sup> Canada	Longitudinal Community-Based Study. EL 3.e Aim: To understand the impact of depression and anxiety symptoms on self-care.	1990 people with <i>Diabetes Mellitus</i> , mean age of 60 years old, and a standard deviation of 8 years.	Application of a telephone questionnaire, based on the General Anxiety Disorder Questionnaire and the Canadian recommendations on self-care factors for people with Diabetes Mellitus.	Symptoms of depression and/or anxiety have a negative effect on the ability of people with <i>Diabetes</i> <i>Mellitus</i> to practice self-care. Symptoms of depression (for example, fatigue and concentration problems) lead to obstacles in managing the therapeutic regimen, and anxiety causes difficulties, mainly, in proper dietary management.
Cheng, Sit, Leung & Li <sup>(25)</sup> ; China	Cross-sectional study. Aim: To determine the relationship between self- assessment of <i>Diabetes Mellitus</i> and obstacles in self-management of the disease and self-efficacy.	346 adults with type 2 <i>diabetes</i> <i>mellitus</i> .	Application of 4 assessment instruments: Personal Diabetes Questionnaire, Diabetes Assessment Scale, Diabetes Empowerment Scale, and Summary of Diabetes Self-Care Activities.	A strong negative impact of self-management obstacles on self-management behaviors was identified. A positive view of the disease facilitates the mitigation of self-management obstacles. A negative view of the disease increases the effect of obstacles on self-management behaviors. Obstacles to self-management: • Lack of knowledge; • Low level of education; • Difficulty in solving day-to-day problems; • Stress; • Negative perception of the disease.
Schwennesen, Henriksen & Willaing <sup>(26)</sup> ; Denmark	Qualitative study. EL - 3 Aim: To explore the reasons for non-adherence to education sessions for self- management of Type 2 Diabetes Mellitus.	15 adults with Type 2 <i>Diabetes</i> <i>Mellitus</i> , between 30 and 76 years old.	Application of semi-structured telephone interview.	Reasons for not joining the sessions: • Individual (illness, lack of perceived benefit and motivation); • Organizational factors (not receiving session notification early enough, lengthy session duration, multiple sessions); • Content (unattractive). People's Preferences: • Time of short sessions tailored to each person's learning needs individually (e.g. acceptance of illness, feeling of competence, and other priorities in life). Factors that facilitate adherence to sessions: • Greater free time for unemployed or retired people compared to employed people; • Diagnosis of the disease more than 2 years ago.

Authors / Country	Design, Purpose of the Study and JBI Level of Evidence	Participants	Intervention	Results /Conclusions
Evaristo & Marques <sup>(27)</sup> ; Portugal	Cross-sectional exploratory, descriptive and correlational study. EL - 4.b Aim: To determine and describe the self-care profiles in people undergoing hemodialysis, and to understand how the profiles influence the management of the therapeutic regimen.	122 people on hemodialysis in a Portuguese health unit. 58.2% were men with a mean age of 62 years old, and a standard deviation of 16 years.	Interviews using the Self-care of <i>Home</i> <i>Dwelling Elderly</i> <i>Questionnaire</i> (SHDE).	There are 4 self-care profiles: responsible, formally guided, independent, and abandonment. It was not possible to define the type of self-care profile of 71 people. Characteristics of each self-care profile: • Responsible – high adherence to health projects related to self-care; few obstacles and positive future perspective; asks for help when needed and seeks interpersonal relationships; positively influences self-care ability. • Formally guided – not shown. • Independent – not shown. • Abandonment – low adherence to the therapeutic regime and no definition of a health project; higher incidence of emotional trauma, social isolation, and depression; "desire to give up"; negatively influences self-care ability. Characteristics of people with the highest incidence by self-care profile: • Responsible – young people, a high degree of academic training, and a high health literacy. • Formally guided – elderly, retired, chronic illness or severe symptoms, low level of education, low health literacy. • Independent – not shown. • Abandonment – elderly, retired, widowed, low level of education, low health literacy, little knowledge about death and alternative therapeutic plans.
Manzanares, García, López, Dóniga, Ortega & García <sup>(28)</sup> , Spain	Cohort study. EL - 3.b Aim: To explore the relationship between emotional stability, self-care, and skin integrity in people with an ostomy, according to the nursing interventions classification criteria.	55 people with an ostomy, with an average age of 67 years old and 58.2% over 65 years old.	Interview, physical examination, and review of clinical history at 7 days after hospital discharge, at 2 months, 6 months, and 12 months.	<ul> <li>Factors that conditioned the practice of self-care:</li> <li>Emotional state, initially unstable, with ineffective self-care;</li> <li>Acceptance of the new health condition, as a facilitating factor;</li> <li>Serene mood and restorative sleep;</li> <li>Age, especially elderly people with greater difficulty in performing skin care.</li> <li>The relationship between peristomal skin integrity and the ability to perform ADL was moderate.</li> </ul>
Heggdal, Mendelsohn, Stepanian, Oftedal & Larsen <sup>(29)</sup> ; Norway	Qualitative study. EL - 3 Aim: To assess the impact of health care centered on people with chronic illnesses, inferring the impact on their well-being and health.	58 people were admitted to specialist care centers in Norway, aged between 29 and 81.	Semi-structured interviews over 8 sessions during the implementation of a body knowledge program.	Recovery facilitating factors: • Sharing experiences with people with the same clinical condition; • Empathy; • Interpersonal relationships and peer support. Factors that hinder recovery: • Stress; • Perception of the consequences of the disease.

After identifying the data, three classes of indicators were considered, to facilitate the understanding, and systematization of the data. These classes allow the Nurse to have a guide for assessing the person's self-care capacity. Then there are the following classes:

- Personal Indicators;
- Organizational Indicators;
- Social Indicators.

Personal Indicators are contemplated as Intrinsic Indicators to the person, while Organizational Indicators and Social Indicators refer to Extrinsic Indicators. The ICF also advocates the influence of Facilitating Factors and Barrier Factors (complicating factors) in activities<sup>(23)</sup>. In Table 3, data from the survey results were grouped by Indicator Class, Factor and Dimension.

Indicator	Factor Dimension		Data	
		Demographic	Adult under the age of 65, have their own home and be retired <sup>(11,27,28)</sup>	
	Facilitating Factors	Psychological	Strong impact of positive feelings and emotions, satisfaction with life, and motivation <sup>(11,28)</sup>	
		Cognitive	High level of education and health literacy <sup>(11,27)</sup> , positive perception of aging, health and self-care ability <sup>(11,27,28)</sup> and knowledge of the disease process <sup>(26)</sup>	
		Physiological	High nutritional status <sup>(11)</sup> and restorative sleep <sup>(28)</sup>	
Personal	Barrier Factors	Demographic	Age equal to or greater than 65 <sup>(11)</sup> and living in residences or nursing homes <sup>(27)</sup>	
		Psychological	Depressive symptomatology <sup>(24)</sup> , negative perception of the disease <sup>(25)</sup> and its consequences <sup>(29)</sup> , feeling of abandonment, social isolation and emotional trauma <sup>(27)</sup> and stress <sup>(25,29)</sup>	
		Cognitive	Lack of knowledge, low level of education <sup>(25,27)</sup> and mental illness <sup>(11)</sup>	
		Physiological	Low nutritional status, comorbidity <sup>(27)</sup>	
	Facilitating Fac	ctors	Health education sessions <sup>(26)</sup> and active aging <sup>(11,27,29)</sup>	
Organizational	Barrier Factors	3	Not identified.	
Social	Facilitating Fac	ctors	Active aging <sup>(11,27,29)</sup> , strong family support network <sup>(11)</sup> and testimony of people who experience similar situations <sup>(29)</sup>	
	Barrier Factors	3	Not identified.	

#### Table 3 – Identification of data referring to each Class of Indicator

A table was also created with the main data on the identified Self-Care Capacity Assessment Instruments (Table 4). The studies identified in this SLR do not deeply address how each Assessment Instrument is applied, so the data were complemented by consulting other studies.

	SASE	ASA	NUFFE	SHDE
Type of Assessment	Self-care ability <sup>(30,31)</sup>	Capacity and execution of self- care <sup>(30,32)</sup>	Risk of malnutrition in the elderly <sup>(11,33)</sup>	Elderly predisposition to practice self-care <sup>(27,34)</sup>
Assessment Core	Identification of: • Ability to achieve care goals; • Repertoire capacity; • Ability to achieve well-being <sup>(31)</sup> .	Identification of: • Capacity for self-care; • Development of self- care skills; • Lack of self-care ability <sup>(32)</sup> .	Data rating: • Anthropometrics; • Biomechanics; • Functional • Social <sup>(33)</sup> .	Identification of the Self- Care Profile of the Elderly: • Responsible; • Formally guided; • Independent; • Abandonment <sup>(27,34)</sup> .

#### Table 4 – Self-Care Capacity Assessment Instruments

Subtitle: SASE- Self-care Ability Scale for Elderly, ASA - Self-Care Agency Scale, NUFFE -Nutritional Form for the Elderly, SHDE - Self-care of Home Dwelling Elderly

#### DISCUSSION

Most studies allowed the identification of several predictive indicators of self-care with facilitating or barrier factors in the self-care capacity of the elderly person<sup>(11,26–29)</sup>. However, two of the studies present only barrier factors<sup>(24,25)</sup>.

The person has a greater capacity for self-care when he manages his life autonomously and in his own home, without interference from third parties<sup>(11,27)</sup>. There is a greater predisposition to perform quality self-care activities when there is free time (for example, retired person), psychological and physiological well-being, and ability to understand life situations, illness and self-care<sup>(11,27,28,35)</sup>. The SNRN can intervene at any time of the life cycle, playing, mainly, the role of guiding the person in promoting the person's autonomy, and independence through the identification of special intervention and learning needs<sup>(7)</sup>.

It is fundamental for institutions to create activities with the involvement of Nurses and, particularly, SNRN that promote the functional readaptation of the adult person in a transition situation, to live in fullness, with privilege for acceptance and adaptation to their state of health<sup>(7, 26)</sup>. Health education sessions should be prepared that are of the person's real interest and need, with time adjusted to their training needs, and with consideration for their knowledge/competence<sup>(26)</sup>.

Health literacy is mirrored as a facilitating factor of self-care ability in two studies presented<sup>(11,27)</sup>. However, illiteracy in health and low levels of education may compromise the understanding of readaptation strategies, leading to incapacity for self-care<sup>(25,27,29)</sup>. Decreased understanding of the disease may also lead to an erroneous perception of the state of health, making efficient self-management, recovery, and/or rehabilitation of the person more difficult<sup>(29)</sup>.

The SNRN has to consider these aspects in health education sessions, whether individual or group intervention, as it is a specific competence of the SNRN<sup>(8)</sup>. The person's training process should be seen as a sharing of desires for the person and knowledge about techniques and/ or skills by the SNRN, in order to promote their functional readaptation due to disability, limitation of activity and/or restriction of participation in their activities<sup>(8,26)</sup>.

Active aging appears in these studies as an Organizational and Social Indicator, since it is

seen as an opportunity that institutions offer to the elderly to maintain and develop their abilities, providing their social inclusion and encouraging them to develop skills to live in peace. community<sup>(11,29,35,36)</sup>. This concept is very practical and aims to allow the elderly to participate in social and leisure activities that provide a better perception of health and life habits<sup>(11,27,35)</sup>. It is a facilitating factor in carrying out ADLs, which are directly related to the implementation of self-care<sup>(36,37)</sup>.

In these studies, the impact of Social Indicators on the willingness to carry out self-care activities is evident. People feel more comforted if they have a strong family support network<sup>(11,38)</sup>. On the other hand, the extended social support network is also crucial, for example, through the testimony of people who experience similar situations<sup>(29)</sup>. Empathy and interpersonal relationships facilitate the person's maintenance or development of motivation<sup>(11,29,38)</sup>. Another study carried out in Portugal validates these data, as the family facilitates the well-being, and enhances the capabilities of the elderly<sup>(35)</sup>.

It was not possible to identify Organizational and Social Indicators with a barrier effect on self-care ability. It appears that the absence of facilitating indicators of self-care capacity constitutes a barrier factor. The barrier factor with the highest incidence in the studies is age greater than or equal to 65 years old since it is related to the occurrence of chronic diseases, and comorbidities in the elderly population<sup>(11,27,39)</sup>. The aging process is reflected in greater vulnerability to internal and external factors, associated with the frailty of the elderly<sup>(40)</sup>. Several signs and symptoms predict disability in self-care, especially unintentional weight loss, fatigue, decreased fine motor skills, reduced physical activity, and decreased gait speed<sup>(11,28,29,40)</sup>.

The decline in mental health is also associated with the inability to self-care, as there is a direct relationship between mental health and the ability to solve everyday problems/ situations<sup>(11,25)</sup>. The balance of this relationship is affected by problems such as depression and anxiety<sup>(11,24,28)</sup>, which reduce the person's ability to concentrate and self-management<sup>(24)</sup>.

Living in residences and homes affects the person's autonomy because the person is not exclusively responsible for managing self-care, which may lead to a decrease in self-care capacity<sup>(27)</sup>. The Nurse has to consider this factor, to promote the exercise of autonomy and decision-making of the person<sup>(7)</sup>.

Once the predictive indicators of the person's self-care ability are identified, it is possible to outline strategies to maximize the facilitating factors and remove, minimize, or overcome the identified barriers, aiming to maximize the person's functionality and develop their abilities in the various levels of competence<sup>(7, 15.23)</sup>. The Nurse considers these indicators in the evaluation phase of the Nursing Process<sup>(13,14)</sup>.

Regarding self-care capacity assessment methods, several Self-Care Capacity Assessment Instruments were identified. The Assessment Instruments allow for assessing needs, diagnoses and predicting the results of the Nurses' care<sup>(14,15)</sup>. In these studies, 4 Assessment Instruments were identified that allow the objective assessment of self-care capacity: SASE, ASA, NUFFE<sup>(11)</sup>, and SHDE<sup>(27)</sup>.

SASE is validated for universal use<sup>(30)</sup>. The ability to achieve goals is the main construct of SASE, since it is through the establishment of goals that the person manages to outline their self-care practice. The repertoire capacity consists of the set of knowledge and skills

that the person possesses and recruits to perform self-care activities. The ability to achieve well-being is related to the person's satisfaction and quality of life<sup>(31)</sup>. The SASE has not yet been validated for the Portuguese context, so further research on this topic is recommended.

The ASE presents questions directly related to self-care ability, self-care inability, and development of self-care ability, to identify which of the 3 categories the person identifies with most<sup>(32)</sup>. The use of SASE and ASE allows the perception of the person's self-care ability, and their classifications are predictive of self-care ability<sup>(30,32)</sup>. The ASE has been translated into Portuguese but has not been validated for the Portuguese population<sup>(41)</sup>.

The NUFFE is a validated questionnaire for use in the rehabilitation plan<sup>(11,33)</sup>. However, it should be used by professionals with in-depth knowledge of nutrition<sup>(33)</sup>. High self-care ability is estimated with high scores on SASE, and ASA, low scores on NUFFE<sup>(11)</sup>, and Responsible Self-Care Profile on SHDE<sup>(27)</sup>.

SHDE has not been fully validated yet for use in the Portuguese population<sup>(12,27)</sup>. In the study presented in this SLR, it was not possible to define the Self-Care Profile of 71 of the 122 participants in the study<sup>(27)</sup>.

Regarding each type of Self-Care Profile, the person who presents the Responsible Self-Care Profile reveals interest in their Health Project, and cares about self-care, idealizing life, health, and the future with optimism<sup>(27)</sup>. The person with this profile is responsible and performs ADLs, seeks knowledge about their health status and shows the ability to make decisions<sup>(12,34,42)</sup>.

In the study on Self-Care Profiles, no information is presented on the Formally Guided, and Independent Self-Care Profiles, constituting a limitation of this study<sup>(27)</sup>. The original publication of the model was consulted to understand these profiles<sup>(34)</sup>. The Formally Guided Self-Care Profile is adopted by people with little knowledge, but who are concerned with their life, health, and self-care, following the nurses' instructions even if they do not understand them. Regarding the Independent Self-Care Profile, the person believes he has the necessary tools and knowledge, devaluing the nurse's intervention<sup>(34)</sup>.

The Abandonment Self-Care Profile is presented as a barrier to self-care ability. This profile is characterized by low adherence to the therapeutic regime, lack of a Health Project, devaluation of self-care, and a tendency towards social isolation<sup>(12,27,34)</sup>. The person is powerless to manage their life and health, lack of responsibility, illiteracy in health, depression, insecurity, fear of death, and may have a disability<sup>(27,42)</sup>. It is necessary to accompany this person throughout life, to provide support and supervision, minimizing the negative impact on self-care<sup>(34)</sup>.

Although this review does not present the results of the Assessment Instruments with a barrier effect on self-care ability, it appears that it constitutes a barrier factor when the opposite result is verified in the Assessment Instruments. Also, not all types of ADL, described by the OE, with an impact on self-care are presented<sup>(43)</sup>. The focus on food stands out since it has been widely studied in Diabetes Mellitus, which is a disease with a high incidence in studies of this SLR and with specific Assessment Instruments.

SLR has several limitations, which are named below:

• The selected studies are essentially aimed at the elderly population, so it is not possible to assess whether these data apply to all adult age groups, constituting the main limitation of this SLR;

- It was not possible to scrutinize the information with an impact on the self-care of people with pathologies other than Diabetes Mellitus and the person undergoing renal replacement therapy, through hemodialysis;
- Only two valid and easy-to-apply methods were identified for assessing self-care ability, using the SASE and ASA Assessment Instruments.

## CONCLUSION

In this SLR, 3 classes of predictive indicators of self-care ability were identified: Personal, Organizational, and Social. The studies emphasize the relevance of Personal Indicators, considering that the prediction of self-care ability is essentially intrinsic to the person himself. In this way, they are considered in the evaluation of the person and may present facilitating or barrier factors.

The use of the Assessment Instruments complements the person's assessment, also using them to monitor self-care ability. The assessment of the self-care capacity of the elderly can be performed using the SASE and ASA scales. The SHDE, despite presenting content with apparent importance in the prediction and assessment of self-care ability, should be used with caution in Portugal as it has not yet been fully validated in the Portuguese context.

All Nurses and, above all, the SNRN will be able to use these Indicators and Assessment Instruments in their practice to predict self-care ability, finding a balance between facilitating and barrier factors, to maximize the person's functionality and self-care ability.

It should be highlighted the emergence of several opportunities for scientific research, namely:

- Carrying out a broad study to validate the classes of self-care predictive indicators addressed;
- Elaboration of studies that equally encompass all adult age groups and that document in greater detail the items to be considered in each class of indicators;
- Analysis of the impact of beliefs on self-care ability;
- Validation of the SHDE for the Portuguese population;
- Analysis of the impact of SNRN interventions on self-care barrier factors.

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## **ETHICAL DISCLOSURES**

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