Indicators for evaluating long-term care facilities for old people: development and validation

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Abstract

Objective: Develop and validate a quality assessment matrix for long-term facilities for old people, using the integrated multidimensional model of quality and care as the theoretical framework. *Method:* This is a methodological study that selected 66 variables included in the census of the Unified System of Social Assistance, to assess the seven dimensions of quality proposed by the model. The modified Delphi technique was used for validation with the participation of 15 experts who used the *Survey Monkey*® online platform, until a minimum of 75% consensus was reached. 18 indicators were proposed and two validation cycles were needed until consensus. *Results:* In the first cycle, all indicators were considered relevant, represented the concept and demonstrated consistency with the theoretical dimension of quality. There was a need to review the calculation formula for two indicators, which was considered adequate by more than 75% of experts in the second validation cycle. *Conclusion:* The matrix proved to be valid and can be used in the process of evaluating and monitoring the quality of the facilities participating in the Unified Social Assistance System Census, contributing to define priorities for the permanent improvement of the care provided.

Keywords: Quality Control.
Homes for the Aged.
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INTRODUCTION

Population aging is a worldwide phenomenon resulting from the decrease in fertility rates and the increase in life expectancy associated with improvements in the population's living conditions[1]. This accelerated demographic transition requires attention to ensure better living conditions for old people[2,3].

Among the regulated support services for old people, the Long-Term Care Facilities for Old People (LTCF) stand out. These facilities incorporate care aimed at social and emotional life, the needs of daily life and health care[4]. Although a census carried out in the Brazilian territory has shown that less than 1% of the old people population live in LTCF[5], an increase in institutionalization is expected as a consequence of aging and family dynamics changes[3,6].

In the literature, there are several studies aimed at the analysis of LTCF[7-9], however, most of these studies have specific cuttings about the health of old people residents[10]. In Brazil, LTCF are regulated by the Collegiate Board Resolution - RDC nº 283 of September 26, 2005 (RDC - Anvisa)[4], which provides for the evaluation of services provided through some indicators: mortality and incidence rates of diarrhea diseases, scabies, dehydration, decubitus ulcer and malnutrition in old people. These outcome indicators have been used in evaluation studies that mostly adopt quality measures focused on medical care and clinical conditions of residents[6,7].

However, quality is a multidimensional concept, of an objective or subjective nature, which can vary according to the interest of groups or social actors and with the context and objectives of the evaluation[11]. For LTCF, the definition of quality is even more complex because it can be confused with regulation, in addition to being subject to contextual influence and resident conditions. The Integrated Multidimensional Model of Quality and Care for facilities focused on long-term care for old people[12] is a conceptual, multidimensional model developed specifically for Facilities focused on long-term care for old people, based on person-centered care. This model aggregates seven dimensions of quality defined based on the results of focus groups with professionals involved in the care of old people, family members and institutionalized old people. The adoption of this model[12] can guide the development of indicators that seek a more comprehensive assessment of the quality of LTCF.

In Brazil, since 2012, the Ministry of Social Development has instituted the Unified Social Assistance System Census (SUAS Census), which includes the collection of data on Brazilian governmental and non-governmental LTCFs (which do not have an agreement with the government). The generation of data in the scope of the SUAS Census aims to provide subsidies for the construction and maintenance of monitoring and evaluation indicators of the Unified Social Assistance System[13].

In this sense, taking the Integrated Multidimensional Quality model as a theoretical reference[12] and the need for systematic evaluation of LTCF10, this study aims to develop and validate an evaluation matrix composed of indicators created using the SUAS Census variables. It is expected that this study will generate interpretable information and reveal aspects to be prioritized for the permanent improvement of the care provided in LTCF.

METHOD

This is a methodological study of the development of an evaluation matrix composed of indicators conducted from November 2019 to March 2020. The indicators were constructed using variables collected by the SUAS Census, described in the Census instructions, for the year 2018, of free access on the website of the Ministry of Social Development of Brazil[14].

For the development of the Evaluation Matrix indicators, 66 variables from the SUAS Census were selected, considering aspects of quality according to the seven theoretical dimensions of the Integrated Multidimensional Quality model (Chart 1)[12].

Chart 1. Quality dimensions of the Integrated Multidimensional Model of Quality and Service and concepts. Columbia, Missouri, United States of America, 1999.

Quality Dimensions	Concepts
Central focus on residents, family, employees and community	This dimension includes the standards related to the service offered by these facilities to the community, addresses the needs of families that have members who need assistance services, recognizes the importance of the team of professionals and how the team is essential to take care of quality and meet individual needs of each old person, family members and the old people are recognized as the central focus of the Long-Term Care Facility (LTCF).
Human Resources	The LTCF must have a satisfactory number of professionals. It is important that there is a low turnover of professionals, supervision and training. The LTCF must recruit and retain responsive, compassionate, considerate, clean, well-prepared and involved employees.
Family involvement	The LTCF must involve family members in care, family members must have the opportunity to hold the team of professionals responsible for care and must participate in counseling and support groups.
Individualized care	The LTCF must guarantee basic care and minimize home incidents and injuries. It is necessary that they take care of the residents as people, offering good food and helping them to eat, engaging residents in activities;
Environment	The LTCF has a clean, odorless, quiet, spacious physical space with adequate furniture, lighting, ventilation, non-slip flooring, a safe and pleasant environment and accessibility.
Housing	The LTCF should give a feeling that the old people are in their own home, with the presence of volunteers, pets, children and plants. It should enable community involvement in the unit, with frequent visits by volunteers and children, members of churches and schools. It is important that profit is not the priority of these units.
Comunication	It is important to have communication systems in place to ensure that the needs, likes and dislikes of the old people are met. Good communication with family members and residents is essential. In quality facilities, the team really takes the time to engage residents in conversations.

Source: Rantz et al. (1999).

The SUAS Census Database is fed annually by a public agent, by filling out an electronic questionnaire containing 586 variables grouped in six blocks (identification; characterization; user characteristics; reception services; physical structure and location; people management). The evaluation matrix was built from the set of indicators. For each of the indicators, the dimension of quality to which it would be related, the objective, the SUAS Census variables used in the indicator's composition, the calculation formula, the way of calculating, interpreting and justifying the indicator were described.

The evaluation matrix was validated, using the modified Delphi technique. This technique allows experts to express their opinions on a given theme, through a participatory construction, until there is consensus, without contact between them[15]. A variation of the Delphi technique, it is the "modified" technique that proposes a limit of cycles until consensus[16].

For validation, the evaluation matrix was formatted using the Survey Monkey® online data collection software. A script was developed for the experts to record their considerations regarding the indicators. Prior to the beginning of the validation cycles, all the material (evaluation matrix and validation script) was subjected to a pre-test by two professionals with experience in caring for the institutionalized old people, asking them to evaluate the ease of use of the Survey Monkey® platform, the clarity of the guidelines for validation and the adequacy of the matrix format, as well as the questions proposed in the validation script.

Validation by the "modified" Delphi technique was proposed with the participation of 15 experts with the following professional profiles: Public Health (2), Gerontology (4), Health Surveillance (1), Statistics (1), Nursing (3) and representatives of LTCF (4).

The validation script made it possible for experts to express their opinion regarding the relevance of the indicator, whether it represented the content of the theoretical dimension of quality, and about methodological transparency in the construction of the calculation formula[17]. The following statements were made: 1) The "x" indicator is relevant for assessing the quality of the LTCF. 2) The "x" indicator makes it possible to evaluate its "objective", 3) The calculation method of the "x" indicator is easily understandable and reproducible, 4) The "x" indicator measures aspects of the "dimension x". For each statement, the expert should choose one of the following answers: 0 disagree, 1 disagree in part, 2 agree in part and 3 agree. In addition, for each indicator, a field was included with the following guidance: "Please insert your observations, criticisms or suggestions in relation to the evaluated indicator in this space". The Content Validity Index adopted was at least 75% of agreement among all experts[18]. This percentage was computed considering the answer options partially agree and agree.

The experts were invited to participate in the validation of the evaluation matrix by personal e-mail, with standardized text for everyone. The invitation contained clarifications about the study, a Free and Informed Consent Form, the Evaluation Matrix and the validation script, available only to those who consented to participate in the study. Invitees who did not consent were replaced by others with the same training criteria established in the study.

In the subsequent steps, the report with the result of the previous validation cycle was consolidated, showing the percentage of agreement for each indicator, as well as the set of comments obtained and the justifications and explanations about the changes made. This report was made available to experts, maintaining anonymity. The study is in accordance with Resolution No. 466/2012 and Resolution No. 510/2016, and was presented and approved by the ethics and research committee through opinion No. 3,143,674.

RESULTS

Two researchers participated in the pre-test phase. The comments received helped to make the information available on the Survey Monkey® online platform more clear. Also based on the researchers' suggestions, the description of each quality dimension was included in the evaluation matrix before each corresponding indicator. This inclusion sought to facilitate the evaluation of indicators by experts regarding the issues presented in the validation script.

In the 1st validation cycle, all indicators were considered relevant and adequate to represent the dimension of quality proposed by more than 75% of the experts, as shown in Table 1. Regarding the calculation method, the experts considered that 78% of the indicators had formulas that are difficult to understand; however, they recognized methodological transparency and the possibility of reproduction, validating them in the first cycle of analysis, except for the method of calculating indicators 1 and 5. A new wording for the method of calculating the indicators considered difficult to understand was carried out and brought to the analysis of the experts in the 2nd validation cycle. As for indicators 1 and 5, new calculation formulas were developed, giving greater methodological transparency and the possibility of reproduction.

In addition, in view of the considerations made by the experts in the 1st validation cycle, two variables considered similar to indicator 15 were aggregated. For indicator 16, the exclusion of the variable "registration or not of the Facility in the council for the rights of old people" was suggested, as it presents low representativeness in relation to the proposed dimension. In addition, the variable "the unit accepts to receive a transvestite, transsexual, transgender old person" was inserted in the calculation formula for indicator 1, as suggested by an expert.

The changes made and evaluated in the 2nd validation cycle were in relation to the calculation method, with regard, mainly, to the wording of the calculation formula. The methods for calculating the indicators, after being modified, were approved by more than 75% of the experts with the exception of the exclusion of the variable "registration or not of the Facility in the council for the rights of old people" from the calculation of indicator 16 (Table 2). The experts did not justify the reason for the non-approval of the proposal made in relation to indicator 16, however, as it was an indicator already

validated in the 1st validation cycle, it was decided to maintain the calculation method presented in its initial version.

Chart 2 presents the validated Evaluation Matrix, composed of 18 indicators arranged in the first column, according to the respective dimensions of quality of the Integrated Multidimensional Model of Quality[12], the SUAS Census variables used and the calculation formula for calculating the indicator and, finally, parameters for the interpretation of the indicators.

Table 1. Content Validity Index of the indicators obtained in the 1st validation cycle in terms of relevance, objective evaluation, calculation method and measurement of aspects of the quality dimension. Belo Horizonte, Minas Gerais, Brazil, 2020.

Dimensions / Indicators		Content Validity Index (%)			
		Relevance	Objective evaluation	Calculation method	Measurement of aspects
Dimension 1- Central focus on residents, family, employees and community					
Indicators	1- Access without excluding differentiations	93.80	87.50	25.00*	93.75
	2-Presence of coordinator at the facility	87.60	93.75	87.50	93.75
	3-Valuing the team of professionals	93.80	87.50	81.25	93.75
	4- Attention to the family of the old person.	87.60	93.75	87.50	93.50
Dimension 2- Human Resources					
Indicators	5 - Ratio of caregivers per old person	93.80	87.50	68.75*	81.25
	6- Low turnover of professionals	100.00	100.00	93.75	93.75
	7 - Permanent education	93.80	93.75	87.50	93.75
Dimension 3- Family Involvement					
Indicator	8- Favoring the Family Bond	93.80	93.75	87.50	93.75
Dimension 4- Individualized Care					
Indicators	9- Socialization	93.80	93.75	81.25	81.25
	10 - Health care management.	93.80	93.75	87.50	93.75
	11 - Multiprofessional team in the health area.	93.80	93.75	87.50	87.50
Dimension 5- Environment					
Indicators	12 - Professionals for leisure activities	93.80	93.75	87.50	87.50
	13- Physical structure	93.80	93.75	87.50	93.75
	14- Accessibility.	87.50	87.50	81.25	87.50
Dimension 6- Housing					
Indicators	15- Existence of materials and equipment that encourage culture.	93.80	93.75	81.25	87.50
	16- Social profile of the facility	87.50	93.75	87.50	81.25
	17- Occupancy rate	87.60	93.75	81.25	87.50
Dimension 7- Communication					
Indicator	18- Openness to dialogue	93.80	93.75	81.25	93.75

*Content Validity Index < 75%

Table 2. Changes made in the calculating method of the indicators based on the suggestions given by the experts in the 1st validation cycle and Content Validity Index for this criterion obtained in the 2nd validation cycle. Belo Horizonte, Minas Gerais, Brazil, 2020.

Indicators	Changes made to the indicators and evaluated by experts in the 2nd validation cycle	Content Validity Index (%) for Calculation Method
1	a) Inclusion of the variable "the unit accepts to receive Transvestite, Transsexual, Transgender old people"; b) Alteration of the calculation formula considered by experts to be difficult to understand. New proposed calculation formula: Number of variables with affirmative answers, divided by the total number of variables in the indicator, multiplied by 100. Equation: {(number of affirmative variables / 6) * 100} Best result: 100%.	a) 100.00 b) 100.00
2	Change in the wording of the calculation formula	90.00
3	Change in the wording of the calculation formula	90.00
4	Change in the wording of the calculation formula	90.00
5	New proposed calculation formula: Number of caregivers with a workload greater than or equal to 40 hours per week divided by the number of old people residents (Best result: ≥0.05)	90.00
8	Change in the wording of the calculation formula	90.00
9	Change in the wording of the calculation formula	90.00
10	Change in the wording of the calculation formula	90.00
11	Change in the wording of the calculation formula	90.00
12	Change in the wording of the calculation formula	90.00
13	Change in the wording of the calculation formula	90.00
14	Change in the wording of the calculation formula	90.00
15	Change in the wording of the calculation formula. Union of two variables, with variable "b" having the following wording: b)Presence of educational and cultural or educational games and hobby materials.	90.00
16	Change in the wording of the calculation formula: Exclusion of the variable "registration or not of the Facility in the council for the rights of old people".	72.00*
17	Change in the wording of the calculation formula	90.00
18	Change in the wording of the calculation formula	90.00

*Indicator with CVI <75%, therefore not yet considered with valid content in the 2nd validation cycle

Chart 2. Evaluation Matrix dimensions of quality, indicators, SUAS census variables, calculation formula and parameters for interpretation. Belo Horizonte, Minas Gerais, Brazil, 2020.

Quality Assessment Matrix of Long-Term Care Facilities for Old People			
Dimensions / indicators	SUAS Census Variables	Calculation formula	Parameters for interpretation
Dimension 1	Central focus on residents, families and communities		
1 Access without excluding differentiations	a) The unit accepts to receive an old person with a mental disorder; b) The unit accepts to receive older refugees / immigrants; c) The unit accepts to receive an old person with a history of homelessness; d) The unit accepts to receive old people from indigenous communities or from traditional communities (example: quilombola, gypsies, riverside dwellers); e) The unit accepts to receive old people with physical, sensory or intellectual disabilities; f) The unit accepts to receive Transvestite, Transsexual, Transgender old people.	{(number of affirmative variables/6)*100}	The bigger the better
2 Presence of coordinator at the facility	a) LTCF has a higher education coordinator/technician responsible, with a minimum workload of 20 hours, with a formal bond to coordinate the unit, according to RDC 283/2005; b) LTCF has a coordinator/technician responsible for the unit.	{(number of affirmative variables/2)*100}	The bigger the better
3 Valuing the team of professionals	a) Number of professionals with a working relationship with the facility [private sector employee, outsourced, press/ cooperative/service provider worker, statutory servant or public employee]; b) Number of professionals with and without working bond with the facility.	{(a/b)*100}	The bigger the better
4 Attention to the family of the old person	a) Performs psychosocial care of the families of the people receiving care (family guidance); b) Promotes meetings with groups of users' families; c) Promotes family contact and participation in the user's life.	{(number of affirmative variables/3)*100}	The bigger the better
Dimension 2	Human Resources		
5 - Ratio of caregivers per old person	Number of caregivers with a workload of 40 hours per week or more; b) Number of old people residents.	{(a/b)}	RDC nº 283/2005 establishes, at least, a caregiver with 40 hours per week for a group of 20 old people. Best result ≥0.05
6- Low turnover of professionals	a) Number of professionals who work at the facility for 1 year or more; b) Total number of professionals working at the facility.	{(a/b)*100}	The bigger the better
7 - Permanent education	a) Existence of lectures, workshops, training and qualification of workers in the unit; b) Existence of training in the field of geriatrics (Aging or Rights and care for old people).	{(number of affirmative variables/2)*100}	The bigger the better

to be continued

Continuation of Chart 2

Quality Assessment Matrix of Long-Term Care Facilities for Old People			
Dimensions / indicators	SUAS Census Variables	Calculation formula	Parameters for interpretation
Dimension 3	Family Involvement		
8 Favoring the Family Bond	a) The unit promotes coexistence services and strengthens bonds for the old people and their families (weight 0: no; weight 1: yes); b) The unit welcomes users with family ties (weight 0: no; weight 1: yes); c) LTCF visits are permitted (weight 0: no; weight 1: only on specific dates; weight 2: monthly, biweekly and 1 to 2 days or 3 to 6 days a week; weight 3: daily).	{(Sum of variables a, b and c weights/5)*100}	The bigger the better
Dimension 4	Individualized care		
9 Socialization	a) LTCF promotes activities with the participation of the community; b) Accompanies the old person to retrieve documents; c) Carries out tours with users; d) Promotes the participation of the people received in services, projects or activities existing in the community.	{(number of affirmative variables/4)*100}	The bigger the better
10 Health care management	a) Use of Individual Service Plan; b) Use of medical records in the unit; c) Makes technical reports of the cases being monitored; d) Conducts case discussions with other network professionals.	{(number of affirmative variables/4)*100}	The bigger the better
11 Multiprofessional team in the health area.	a) Presence of a psychologist for psychosocial care (individual or group in the unit); b) Presence of a nurse in the unit; c) Presence of a nutritionist in the unit; d) Presence of a physiotherapist in the unit; e) Presence of a doctor in the unit.	{(number of affirmative variables/5)*100}	The bigger the better
Dimension 5	Environment		
12 Professionals for leisure activities	a) Number of higher education professionals for leisure activities (educator / occupational therapist); b) Number of old people residents.	{(Number of professionals for leisure activity for 12 hours per week / number of old people residents)}	RDC nº 283/2005 establishes, at least, a professional of 12 hours per week for physical, recreational and cultural activities for a group of 40 old people. Best result: ≥0.025.

to be continued

Continuation of Chart 2

Quality Assessment Matrix of Long-Term Care Facilities for Old People			
Dimensions / indicators	SUAS Census Variables	Calculation formula	Parameters for interpretation
13 Physical structure	a) Existence of dormitories for a maximum of 4 people;	{(number of affirmative variables/9)*100}	The bigger the better
	b) Existence of bathrooms in the same number as bedrooms;		
	c) Existence of an external recreation area;		
	d) Existence of kitchen for food preparation, with or without pantry;		
	e) Existence of a laundry room;		
	f) Existence of a cafeteria/dining room;		
	g) Existence of a living room;		
	h) Existence of an administration room or meeting room;		
	i) Existence of room for collective activities.		
14 Accessibility	a) Main access adapted with ramps and the existence of an accessible route from the sidewalk to the interior of the unit according to ABNT;	{(number of affirmative variables/9)*100}	The bigger the better
	b) Main access adapted with ramps and the existence of an accessible route from the sidewalk to the interior of the unit;		
	c) Bathrooms adapted for people with disabilities or reduced mobility;		
	d) Bathrooms adapted for people with disabilities or reduced mobility according to ABNT;		
	e) Accessible route to the bathroom;		
	f) Accessible route to the bathroom according to ABNT;		
	g) Accessible route to dormitories and spaces for collective use;		
	h) Accessible route to dormitories and spaces for collective use according to ABNT;		
	i) Equipment/Furniture/materials suitable for people with disabilities or dependence (Assistive Technologies).		
Dimension 6	Housing		
15 Existence of materials and equipment that encourage culture.	a) Presence of bibliographic collection; b) Presence of educational and cultural materials; c) Presence of sporting goods; d) Presence of educational and hobby games; e) Presence of television.	{(Number of variables with affirmative answers/5)*100}	The bigger the better
16 Social profile of the facility	a) Presence of an agreement or term of partnership with the government; b) The facility is of a governmental nature; c) The facility is registered with the Council for the Rights of Old People; d) The facility receives a provision from a public entity for physical structure, HR, equipment/materials or transportation; e) Presence of old people with Continued Benefit at the facility (disabled or not).	{(Number of variables with affirmative answers/5)*100}	The bigger the better
17 Occupancy rate	a) Number of people admitted to the unit; b) Maximum service capacity.	{(a/b)*100}	≤100%

to be continued

Continuation of Chart 2

Quality Assessment Matrix of Long-Term Care Facilities for Old People			
Dimensions / indicators	SUAS Census Variables	Calculation formula	Parameters for interpretation
Dimension 7	Communication		
18 Openness to dialogue.	a) The unit organizes or promotes discussions with the old people about the unit's routines; b) The unit holds meetings with family members of the old people.	{(Number of variables with affirmative answers/2)*100}	The bigger the better

DISCUSSION

This study presents an important quality assessment tool for LTCF, containing 18 indicators in the seven theoretical dimensions of the Integrated Multidimensional Model of Quality[12], elaborated from the perception of the subjects involved in the care of old people, their families and providers[12]. The study selected a set of variables to represent the concepts and develop the indicators, which were constituted in summary measures with information about the LTCF regarding the dimensions of quality.

The elaborated matrix will allow comparisons for evaluation and planning over time, in annual evaluation cycles, according to the SUAS census, guiding actions to improve care. The indicators were considered relevant, clear, with an understandable calculation formula, allowing reproducibility. They can be analyzed and compared, considering the LTCF as a unit of analysis or other levels of aggregation, such as municipalities, states or regions. RDC 283/2005, although it is absent in some definitions of care, was taken as a reference of legal requirement to verify related indicators.

To measure the dimension "Central Focus on the Community, Residents, Family and Professional Team", four indicators were established. The "Access without excluding differentiations" indicator seeks to reveal the exercise of the welcoming function of the LTCF and its social role before the community, mainly because in several states of the federation there are no public LTCFs[4]. Still in this dimension, the "Ratio of Professionals with a Work Link" indicator reveals the percentage of professionals who have standardized work at the facility, with regulated workload and function. The work team is essential to ensure quality and meet the individual needs of each old person and formal work represents the respect and appreciation of the team[12]. The "Attention to the Family of the Old Person" indicator recognizes the importance of family participation in caring for the old people. There is evidence that active family engagement is associated with health care for old people with favorable quality[19].

The "Human Resources" dimension points to the need for LTCF to maintain a satisfactory number of professionals, low turnover, presence of supervision and training. Thus, the "Ratio of caregiver per old person" indicator observes the minimum existence of caregivers required by RDC 283/2005. The RDC defines this ratio considering the levels of dependence of the old people for daily activities. In this study, due to the unavailability of the levels of dependence of the old people in the Census-SUAS, the ratio of 1 caregiver for every 20 old people (Ratio≥0.05) was considered a minimum condition required by the RDC to indicate the ability to provide assistance. The "Low turnover of professionals" indicator points to the existence of a condition that favors the link between professionals and the old people[12], due to the worker remaining in the same LTCF. Still in this dimension, we sought to ascertain, through the "Permanent Education" indicator, the existence of actions that qualify the service offered by the facility, through deepening, discussing, updating knowledge, developing competencies and skills of professionals in the areas related to aging. The permanent education activity is recognized as a potential to qualify the assistance provided in LTCF[4]. Evidence shows that educational interventions carried out with nursing teams focusing on specific skills (communication

with old people; care for terminally ill patients; care for individuals with dementia) can improve the quality of care for residents, functional capacity and well-being of old people[20-22].

"Family Involvement" reinforces the importance of the family as co-responsible for care, emotional, instrumental and social support. The appreciation of family participation highlights the LTCF's concern with the emotional and mental health of the old people, recognizing that psychosocial health can contribute to the quality of life and well-being of the old people, in addition to minimizing the feeling of abandonment[23]. The "Favoring the Family Bond" indicator observes the existence of actions to strengthen the bond between old people and their families, the reception of people with the same degree of kinship and the frequency of visits allowed in the facility.

The "Individualized Care" Dimension addresses aspects of the provision of necessary health care and the rescue or maintenance of old people in society. The "Socialization" indicator provides information on the participation of the old people in community actions. There is evidence that social support networks contribute to the well-being of old people[24]. Another indicator that makes up this dimension is the "Health Care Management", which seeks to portray the availability of tools and work processes (individual care plan, use of medical records, reports and discussion of cases) for health care in the facility. The annual update of the Health Care Plan is a requirement for the operation of LTCF in Brazil, according to RDC 283/2005. This plan must be "compatible with the principles of universalization, equity and integrality"; indicate "the health resources available to each resident, at all levels of care, whether public or private, as well as references, if necessary", in addition to providing "comprehensive health care for the old people, addressing promotion aspects, protection and prevention" and contain "information about incident and prevalent pathologies in residents". The discussion of cases favors the unique therapeutic plan appropriate to the needs and the degree of functional dependence of the old people, guaranteeing attention to essential needs (medicines, food, personal hygiene, changing positions) and preventing health problems.

The "Multiprofessional Team in the Health Area" indicator demonstrates the availability of health professionals with diversified backgrounds working at the facility. The existence of a multi-professional team can qualify care, expanding the understanding of phenomena and the interpretation of health from different angles of the multiplicity of its organic, social and cultural nature[25]. A systematic review indicated that a multidisciplinary team and professionals specialized in caring for old people (nurses or doctors) can contribute to improving the health responses of the old people in LTCF[26]. However, in Brazil, there is no legal requirement for a minimum number of professionals. The "Professionals for Leisure Activities" indicator observes the existence of professionals for physical, recreational and cultural activities in the facility for a number of 40 old people, as regulated by RDC 283/2005.

The "Environment" dimension concerns aspects related to physical space, hygiene, odors, furniture, accessibility, lighting and ventilation. To measure this dimension, two indicators were established: "Physical Structure" and "Accessibility", which address the necessary requirements for housing and the safety of the old people, as provided for in the RDC. In turn, the information regarding odors, hygiene, lighting and ventilation did not compose indicators, as the SUAS Census does not include variables in this regard.

The "Housing" Dimension involves aspects related to the feeling of living in a home, valuing the presence of people from the community, pets, personal objects and highlights that profit should not be the priority of these units. The importance of creating an environment like home has been a recurring theme in the literature[27]. Some variables were identified to indicate the orientation of care so that the old people feel at home. However, it is assumed that these indicators do not address all the complexity of this dimension. The "Social profile of the facility" indicator seeks to portray the support received from the government, the presence of old people with the benefit of continued provision, registration in the council for the rights of old people, removing or not the profitable interest of the LTCF. The "Existence of materials for culture and leisure in the facility" indicator shows

the presence of equipment that favors interaction between residents, the preservation of habits and culture, such as reading. These actions favor well-being, minimize stress and contribute to the health of the old people[28]. The "Occupation Rate" seeks to present situations that translate into violations of basic rights, such as the presence of overcrowding, that is understood as violence perpetrated against the old people[29].

The "Communication" Dimension involves verbal and non-verbal actions of the LTCF with families and residents in order to meet the needs of the old people[12]. Through the "Openness to dialogue" indicator, it is possible to observe the presence or absence of discussions about the routines with the old people and the holding of meetings with their families. These efforts align with the person-centered care plan and trends that support patient participation in decision-making and move away from paternalistic models of healthcare in which they are passive spectators[30,31]. Additionally, the lack of listening is reported as one of the forms of violence suffered by the old people and their families in LTCF[29].

The validation of the Evaluation Matrix using the Delphi technique relied on the experts' contribution, especially with regard to improving the methodological clarity and transparency of the indicators, which are fundamental attributes for the legitimacy of the indicators in the social and political sphere, which allow greater understanding by the population[17]. The experts, professionals with training and experience in different areas of knowledge, attested to the validity of the indicators, that is, they recognized that they can measure aspects of quality proposed by the Integrated Multidimensional Quality model[12]. The Evaluation Matrix built from the variables available in the public data of the SUAS Census, collected periodically, will favor the conduct of systematic and continuous evaluations of the quality of LTCF in the national territory, allowing for temporal comparisons and monitoring of policies and actions implemented in these care spaces. As a limitation of this study, we highlight the lack of participation of three experts in the 2nd validation cycle and the restriction of the information contained in the SUAS Census, limiting the evaluation of all concepts presented in the theoretical dimension.

CONCLUSION

The matrix proved to be valid and can be used in the process of evaluating and monitoring the quality of Long-Term Care Facilities for old people participating in the Unified Social Assistance System Census, which can be extended to other existing institutions, contributing to reveal aspects to be prioritized for the permanent improvement of the care provided.

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