Paidéia
2024, Vol. 34, e3409.doi:https://doi.org/10.1590/1982-4327e3409
ISSN 1982-4327 (online version)

Developmental Psychology

Residents in Institutions for Older Adults: Characteristics and their Relationship with the Institution

Maryam Furlan Ayoub[1]
Lucas Cardoso Manfredo[1]
Andréia Schmidt[1]

Abstract: Population aging and the reduction in the availability of family caregivers have driven the demand for care for older adults in long-term care facilities (LTCF). This study aimed to characterize the sociodemographic, functional, cognitive and emotional aspects of residents of philanthropic LTCF in a medium-sized Brazilian city. This study also sought to correlate variables in residents' life and their levels of depression and cognitive performance. Cognitive (MMSE and ACE-R) and mood screening instruments (GDS-15) and a guided interview were applied to 78 residents. Generally, residents were White, single/widowed, independent women showing depressive symptoms (52%) and cognitive impairment (74%). Most participants reported satisfaction with the care offered by the LTCF, but this satisfaction was negatively correlated with the depression score. This profile suggests the need for an institutional arrangement that considers the needs of residents and promotes their quality of life.

Keywords: aged, depression, dementia, elder care, homes for the aged

Residentes em Instituições para Idosos: Características e sua Relação com a Instituição

Resumo: O envelhecimento populacional e a redução de disponibilidade de cuidadores familiares têm impulsionado a procura pelo atendimento de pessoas idosas em instituições de longa permanência (ILPI). Este estudo buscou caracterizar aspectos sociodemográficos, funcionais, cognitivos e emocionais de residentes de ILPI filantrópicas de uma cidade brasileira de médio porte. Também buscou-se correlacionar variáveis do contexto de vida dos residentes e seus níveis de depressão e desempenho cognitivo. Foram aplicados instrumentos de rastreio cognitivo (MEEM e ACE-R) e de humor (EDG-15), além de um roteiro de entrevista em 78 residentes. Em geral, os residentes eram mulheres, brancas, solteiras/viúvas, independentes, apresentando sintomas depressivos (52%) e declínio cognitivo (74%). A maioria referiu satisfação com o atendimento ofertado pelas ILPI, mas essa satisfação se correlacionou negativamente com o escore de depressão. Esse perfil sugere a necessidade de um arranjo institucional que leve em conta as necessidades dos residentes e favoreça sua qualidade de vida.

Palavras-chave: idosos, depressão, demência, cuidado do idoso, instituição de longa permanência para idosos

Residentes en Instituciones para Personas Mayores: Características y su Relación con la Institución

Resumen: El envejecimiento de la población y la reducción de la disponibilidad de cuidadores familiares han impulsado la búsqueda de atención para las personas mayores en instituciones de larga permanencia (ILPI). Este estudio buscó caracterizar los aspectos sociodemográficos, funcionales, cognitivos y emocionales de los residentes en ILPI filantrópicas en una ciudad brasileña de tamaño medio. También se intentó correlacionar variables del contexto de vida de los residentes con sus niveles de depresión y rendimiento cognitivo. Se aplicaron una guía de entrevista y herramientas de evaluación cognitiva (MEEM y ACE-R) y de humor (EDG-15) a 78 residentes. La mayoría de los participantes eran mujeres, blancas, solteras/viudas e independientes, con síntomas depresivos (52%) y declive cognitivo (74%). Aunque la mayoría expresó satisfacción con la atención ofrecida por las ILPI, esta satisfacción se correlacionó negativamente con el puntaje de depresión. Se sugiere la necesidad de un diseño institucional que considere las necesidades de los residentes y favorezca su calidad de vida.

Palabras clave: adultos mayores, depresión, demencia, cuidado del anciano, hogares para ancianos

Worldwide, people are living longer. Brazil experienced a 46.6% increase in the proportion of persons aged 60 years and older from 2010 to 2022. This population — comprising 10.8% of all Brazilians — now represents 15.8% of this total (Instituto Brasileiro de Geografia e Estatística [IBGE], 2023). Population aging offers one of the most challenging contemporary scenarios for public health systems (Pinheiro et al., 2016) since an increasing number of individuals will need help to carry out their daily tasks (Camarano, 2023).

[1]*Universidade de São Paulo, Ribeirão Preto-SP, Brazil*

Support: Article derived from the first author's PhD dissertation under supervision of the third author, presented in 2023, in the Graduate Program in Psychobiology at Universidade de São Paulo. The first author received a fellowship support from CAPES [PhD grant, process 88887.649006/2021-00]. This research belongs to the scientific program of the National Institute of Science and Technology on Behavior, Cognition, and Teaching (FAPESP, # 2014/50909-8 and CNPq, # 465686/2014-1).

Correspondence address: Maryam Furlan Ayoub. Universidade de São Paulo. Av. Bandeirantes, 3900, Ribeirão Preto-SP, Brazil. CEP 14040-900. Email: maryamfurlan@gmail.com

The number of long-term care facilities (LTCF) for older adults has been increasing in Brazil, especially private for-profit ones (Schmidt & Penna, 2021). Aspects such as the aging of older adults and changes in social organization — which reduce the availability of family caregivers (e.g., reduced family size, greater participation of women in the labor market, etc.) — contribute to such increase (Camarano, 2020). Philanthropic LTCF offer an alternative for many socioeconomically vulnerable families who have difficulties caring for dependent family members at home (Queirós et al., 2022) and offer a welcoming space for older adults who are highly vulnerable or at social risk.

LTCF resident show varying sociodemographic profiles across countries. In Brazil, this profile consists of White, widowed or single women with poor education (Mello et al., 2012; Pinheiro et al., 2016; Resende et al., 2020; Schmidt & Penna, 2021). This profile may vary depending on the type of facility. Pinheiro et al. (2016), for example, found that residents of nonprofit philanthropic facilities had worse social (e.g., victims of abandonment, presence of family conflicts, etc.) and economic conditions (e.g., absence of retirement and health insurance plan, low schooling, etc.) than those who lived in private for-profit facilities. This scenario indicates that during aging, the same social inequality processes that occur throughout the lives of younger adults are repeated (Pinheiro et al., 2016).

In addition to age, the main factors for institutionalizing older adults involve changes in cognitive function and increased dependence to perform basic daily tasks. In most cases, admission to such facilities worsens physical and psychological skills (Mello et al., 2012), deteriorating the functional capacity of residents over time, who develop a state of dependence (Camarano, 2020). The longitudinal study by González-Colaço Harmand et al. (2014) showed that institutionalized older adults have greater cognitive impairment over time than their peers who live in their communities.

The literature has shown a high prevalence of depressive symptoms and cognitive impairment in older adults living in LTCF located in different regions of Brazil, with varying rates. The prevalence of depressive symptoms varies ranges 46.3 – 76% based on some studies (E.B. Almeida et al., 2020; Guimarães et al., 2019; Resende et al., 2020; Schmidt & Penna, 2021), while that of cognitive impairment, from 62.4 to 86% (Guimarães et al., 2019; Scherrer Júnior et al., 2019; Schmidt & Penna, 2021). However, regardless of the index, the literature agrees on a higher prevalence of depressive symptoms and cognitive impairment among institutionalized older adults than in their peers living in their communities (Pais et al., 2020; Queirós et al., 2022). This finding indicates the more fragile condition of many institutionalized people and highlights the need to understand the factors correlated with these worst indices, especially environmental ones since they are modifiable.

Although depression is the most common psychiatric disorder in older adults, its diagnosis and treatment are often neglected despite it causing important damages to individuals' lives, such as worsening their quality of life and functional performance (Queirós et al., 2022). Identifying the factors related to depressive symptoms is essential to implement appropriate therapeutic interventions. Modifying and enriching institutional environments by promoting meaningful activities for residents offers a form of nonpharmacological treatment to improve individuals' mental health indices and maintain their physical capacity (Queirós et al., 2022).

Although LTCF prioritize basic subsistence care (e.g., food, hygiene, etc.) to the detriment of the development of activities that can promote residents' autonomy and independence (Corsini & Varoto, 2023), it is necessary to understand the specific aspects of residents' routines that relate to their cognitive and functional performance. Moreover, a preliminary step would include understanding individuals' cognitive and functional difficulties. Thus, Castro et al. (2016) highlight that assessing the cognitive status of LTCF residents may identify individuals' needs to enable the development of appropriate therapies.

Despite the importance of understanding the needs of users, especially socially vulnerable ones, few studies have investigated the correlations between aspects of residents' routine (e.g., participation in activities, physical frailty, etc.) and their mental and cognitive health indices. Furthermore, most studies dedicated to characterizing Brazilian LTCF residents involve small samples, and the Brazilian scientific production shows a gap regarding the investigation of the level of satisfaction of residents with the services offered to them by the facilities in which they reside.

Based on these gaps, this study sought to characterize the sociodemographic, functional, cognitive and emotional aspects of philanthropic LTCF residents in a medium-sized Brazilian city and to correlate the variables related to their life context, depression levels and cognitive performance.

Method

Participants

A total of 78 residents from five philanthropic LTCF in a medium-sized city in the state of São Paulo participated in this study. From 30 to 50% of residents of all sexes who were aged 60 years or older were recruited from each participating facility. The following criteria were set to include participants in this study: (a) aged 60 years or older and (b) having lived in a philanthropic LTCF for at least one month. The following exclusion criteria were considered: (a) severe hearing impairment that prevented hearing/understanding questions; (b) severe visual impairment that prevented answering the questions that required good visual acuity; (c) severe cognitive impairment that compromised understanding questions; (d) expressive language impairment that compromised the ability to answer questions; and (e) severe physical health

impairment or undergoing medical treatment outside the premises of the facility.

Instruments

A 48-item *structured interview script* was applied. The interview collected data on participants' sociodemographic characteristics (e.g., gender, age, etc.) and their evaluations of the care offered in the LTCF in which they lived (e.g., satisfaction levels with the services professionals provided and with the activities the institution developed, etc.). The interview also investigated residents' self-reported difficulties with daily tasks (e.g., remembering family members' names, finding personal objects, etc.) and their adherence to activities.

The cognitive status of participants was assessed by the *Mini Mental State Examination* (MMSE) and the *Addenbrooke's Cognitive Examination – Brazilian Revised Version* (ACE-R). The MMSE is a cognitive screening instrument with good internal consistency and a 0.71 Cronbach's alpha (Lourenço et al., 2008). It consists of 19 questions and the total final score of which can range from 0 to 30 points (Folstein et al., 1975). The ACE-R is an accurate and brief instrument composed of cognitive tests designed to detect mild Alzheimer's Disease. Its maximum score totals 100 points across five domains: orientation, attention, verbal fluency, visuospatial abilities, memory, and language (Carvalho et al., 2010). The MMSE and ACE-R cut-off points were considered according to the schooling levels established by Brucki et al. (2003) and Carvalho et al. (2010), respectively.

The emotional state of residents was assessed by the *Geriatric Depression Scale (GDS - simplified version with 15 questions)* developed by Sheikh and Yesavage (1986) and validated in Brazil by O.P. Almeida and Almeida (1999). It has good internal consistency (0.81 Cronbach's alpha), its questions can be answered by "yes" or "no," and its total score ranges 0–15 points, with five being the cut-off score for depression (O.P. Almeida & Almeida, 1999).

Procedures

Data collection. Participants were recruited by directly contacting the facilities and professionals who worked in these places indicating the participants. Each participant was individually interviewed after signing an informed consent form. The interviews were conducted in private places in the institutions with as little interference as possible. If the application of all instruments lasted more than one hour, a second session was scheduled with the participant.

Data analysis. Data were analyzed on the Statistical Package for Social Sciences, version 22.0. Descriptive analyses were performed to verify the pattern of data distribution and the prerequisites for statistical tests, such as calculating means, standard deviations, and medians of the results obtained by applying the instruments. Then, the Spearman's correlation test was used to verify the statistical significance and strength of the linear correlations between the investigated quantitative variables (e.g., cognitive performance, age, length of residence, etc.). The Mann-Whitney U test of independent samples was used to compare differences in the distribution of GDS-15 results between genders. Prior to these last two analyses, the Kolmogorov-Smirnov test showed that the data failed to meet normality assumptions. Thus, the aforementioned nonparametric tests were adopted. For all hypothesis tests, $p < 0.05$ values were considered statistically significant.

Ethical Considerations

This study was approved by the Human Research Ethics Committee of the Faculty of Philosophy, Sciences, and Letters at Ribeirão Preto of the Universidade de São Paulo (CAAE No. 56872622.7.0000.5407). All volunteers signed an informed consent forms and accepted the conditions for participation in this research. The involved facilities authorized the conduction of this research on their premises through signing a term.

Results

This study designated the five participating facilities by the letters A, B, C, D, and E. All were philanthropic and linked to religious institutions and had an agreement with the city hall of the municipality in which they were located. They were responsible for admitting socially vulnerable older adults whose rights had been violated and who depended on referral by the government to obtain full protection. This study chose 85 residents for evaluation since they met the inclusion criteria. Of these, this research excluded seven based on exclusion criteria (four had severe cognitive impairment; two, severe hearing loss; and one, expressive language impairment). Thus, this study interviewed 78 residents (50 women and 28 men), who represented 38.8% of all residents in the participating facilities. This research interviewed about 40% of the population from each institution, except for institution C, which had a very high rate of residents who met the exclusion criteria of this study. Table 1 shows participants' sociodemographic characteristics.

Participants' ages ranged from 61 to 96 years (mean = 76). Most participants were White (n = 57). The remaining were either Black (n = 11) or Mixed-race (n = 10). Most were single (n = 30), divorced/separated (n = 21), or widowed (n = 21) as only five were married. Most had either no (n = 31) or one to two children (n = 31). Incomplete secondary education prevailed among residents (n = 53) as only seven reported having tertiary education. Most stated being Catholic (n = 43). Finally, the length of residence in the institutions from the date of admission to the moment of the interview totaled up to three years for most participants (n = 51).

Table 1
Participants' Sociodemographic Characteristics

	N	%	Mean ± SD
Age (years)			75± 8.84
60 to 69	21	26.92	
70 to 79	34	43.58	
80 to 89	16	20.51	
90 or older	7	8.97	
Schooling			
Illiterate	7	8.97	
Primary education (complete/incomplete)	55	70.51	
Secondary education (complete/incomplete)	8	10.25	
Tertiary education (complete/incomplete)	7	8.97	
Not reported	1	1.28	
Marital status			
Single	30	38.46	
Widowed	21	26.92	
Married/Common-law marriage	5	6.41	
Divorced/Separated	21	26.92	
Not reported	1	1.28	
Skin color			
White	57	73.07	
Black	11	14.10	
Mixed-race	10	12.82	
Religion			
Catholic	43	55.12	
Evangelical	14	17.94	
Spiritist	8	10.25	
Catholic Spiritist	3	3.84	
None/other	9	11.53	
Number of medical diagnoses			
0 to 1	15	20	
2 to 5	43	57.33	
More than 5	17	22.66	
Level of dependence			
Grade 1	42	53.84	
Grade 2	26	33.33	
Grade 3	10	12.82	
Number of self-reported functional difficulties			
0	38	48.71	
1 or 2	27	34.61	
3 or 4	13	16.66	
Number of living children			
None	31	39.74	
One or two	31	39.74	
Three or more	16	20.51	
How long have you lived in this long-term care facility?			
Less than 1 year	20	25.64	
≥ 1 to 3 years	31	39.74	
> 3 to 6 years	09	11.53	
> 6 to 10 years	12	15.38	
More than 10 years	06	7.69	

More than half participants (n = 42) had grade 1 functional dependence (thus, independent). However, 40 residents (51%) perceived difficulties in performing at least one daily task independently, whereas the others (n = 38, 49%) stated no such difficulties. Those who reported difficulties, the most common were related to the use of television: following shows and turning on the device or changing channels, according to 15 and 12 participants, respectively. On the other hand, 43 residents reported having their own smartphone and, of these, only six stated some difficulty using it (i.e., making/receiving calls and/or charging its battery).

This study also investigated participants' medical diagnoses, obtaining this information from their medical records. However, it was impossible to access the data of three participants due to death or lack of medical records at the facility. Cardiovascular diseases were the most prevalent disorder (65%), with a predominance of systemic arterial hypertension. Psychiatric disorders (e.g., depression or schizophrenia, etc.) were the second most prevalent (42.6%), followed by endocrine diseases (e.g., hypothyroidism and diabetes mellitus, etc.) (41.3%). Depressive disorder was the most frequent psychiatric disease (n = 20), affecting 26.6% of the sample in this study, according to medical records.

This study applied the GDS-15 to 75 participants, finding a 4.62 ± 3.67 mean final score. More than half participants (n = 39, 52%) showed a score above the cut-off point, indicating the presence of depressive symptoms (Table 2). Other participants' (n = 36, 48%) final scores remained below the cut-off point, indicating no such symptoms. Notably, the results obtained by directly applying the GDS-15 (52% of participants showed a score above the cut-off point) exceed those in participants' medical records (26.6%).

The MMSE was applied to 73 participants. It obtained a 21 ± 5.26 final mean score. This study applied the ACE-R to 59 participants, finding a 55 ± 19.87 mean final score (Table 2). The mean values of the final scores in both instruments indicated cognitive impairment in the vast majority of participants (76.7% for the MMSE and 74.5% for the ACE-R).

Table 2

Means and Standard Deviation of the Scores Obtained by Applying Standardized Instruments

Instruments	Scores (mean ± SD)	Median	Scores above the cut-off point . N(%)	Scores below the cut-off point . N(%)
GDS	4.62 ± 3.67	5	39 (52)	36 (48)
MMSE	21 ± 5.26	22	17 (23.3)	56 (76.7)
ACE-R	55 ± 19.87	57	15 (25.4)	44 (74.5)

Note. Scores above the GDS-15 cut-off point indicate presence of depressive symptoms; while scores below the MMSE and ACE-R cut-off point, indicate presence of cognitive impairment.

Almost half of the interviewees (n = 36, 46%) reported liking all aspects of the facility in which they lived, whereas only two (2.56%) indicated disliking all its aspects. Negative aspects predominantly referred to their relationship with the institution, including the care provided by the staff and the LTCF rules of operation (23 negative references) and offered activities (n = 13), followed by living with other residents (n = 12). Moreover, five other residents pointed out varied negative aspects, such as feelings of insecurity, lack of hygiene supplies and medicines, feeling trapped in the facility, necessity to change their own bed linen, and having to walk to the dining room for meals.

Participants were asked to assign two scores (from zero to 10) – one to the service employees provided and other to the activities the facility in which they lived offered. Thus, this study could calculate two averages based on their answers that corresponded to two satisfaction indices (one for each investigated aspect). For the first index (service), 77 participants responded, averaging 8.8 (from 5 to 10), whereas for the second (activities), 75 residents answered, averaging 8.1 (from 3 to 10).

Criticism particularly revolved around staff's treatment (e.g., rude or unequal care in relation to other residents, loud tone of voice, noise at the end of workdays, negligence, etc.). As for activities, criticism was related to the lack of their offer — including lack of adequate options for people without cognitive impairment and inadequate offer (e.g., irregular and/or short sessions).

This study investigated in which activities residents participated and calculated the rates of adherence to each activity based on this information. Physiotherapy and occupational therapy, leisure (e.g., parties, bingo, etc.), music therapy, and religious activities showed high rates of adherence (> 60%) in all institutions that offered them. Reading (13.6%) and pet therapy (27.2%) in Institution D showed low adherence (< 30%).

This study asked participants which regular activities the facilities offered they most appreciated, obtaining 71 answers. Residents mentioned leisure activities the most (n = 28), followed by occupational therapy and physiotherapy activities, with 16 mentions each. In addition to the regular activities the LTCF offered, this study investigated whether residents performed pleasurable activities (e.g., talking to their children, listening to music) (n = 78), finding that most either performed no such activities (n = 22; 28%) or up to two activities (n = 30; 38.5%). The remaining residents (n = 26; 33.3%) reported performing more than two leisure activities.

Table 3 shows the correlation between the studied variables according to Spearman's correlation analysis.

Table 3
Correlations between the studied variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. GDS-15	1												
2. Age (years)	−.022	1											
3. Sch. (years)	−.031	−.147	1										
4. N children (alive)	.144	−.050	−.021	1									
5. T institution (months)	−.076	.210	−.126	−.043	1								
6. Care satis.	**−.287***	**.239***	−.224	.025	.066	1							
7. Activ. satis.	−.206	**.245***	−.140	**−.272***	−.091	**.421****	1						
8. Med. Diag. (N)	.084	.093	−.080	.127	**.349****	.212	−.001	1					
9. ACE-R	.017	−.240	**.325***	−.037	−.039	−.115	−.200	.243	1				
10. MMSE	.041	−.212	.225	−.011	−.119	−.157	−.147	.096	**.864****	1			
11. Func. Dif. (N)	.209	.049	.146	.054	−.004	−.077	−.189	.147	**−.273***	−.132	1		
12. Prt. activ. (N)	**−.354****	−.004	.009	**−.243***	.028	−.086	.165	−.044	.012	.029	.080	1	
13. Hobbies/ leisure activ.	−.055	.023	.134	−.067	.053	−.112	−.018	.155	**.629****	**.499****	−.179	−.032	1

Note. *The correlation is significant at the 0.05 (bilateral) level. **The correlation is significant at the 0.01 (bilateral) level. Activ.=activities; Cor. Coef.= correlation coefficient; Med. Diag.= medical diagnoses, except for depression and cognitive impairment; Func. Dif.= functional difficulties; Sch.= schooling; Care satis.= satisfaction index with the care provided by the facility (0=worst evaluation, 10=best evaluation); Activ. satis.= satisfaction index with the activities offered by the facility (0=worst evaluation, 10=best evaluation); T= time.

Analysis showed a significant negative correlation between GDS-15 scores, the number of activities in which residents participate (r = −.354; p = .02), and the service satisfaction index (r = −.287; p = .013). Thus, the higher the GDS-15 score, the lower the level of participation and satisfaction with the facility care. Although this study observed no statistically significant difference between men's and women's GDS-15 scores, it found that these groups differed in the percentage of individuals who scored more than five points on the instrument, suggesting a greater occurrence of depression in men (52%) than in women (37.5%).

ACE-R scores and the number of self-reported difficulties in independently performing daily tasks showed a significant negative correlation (p = .03; r = −.273), meaning that the greater the cognitive impairment, the greater the number of difficulties participants faced performing daily tasks. Both the ACE-R and the MMSE showed a positive correlation with the number of leisure activities residents reported (p = 0, r = .629; p = 0, r = .499, respectively), indicating that cognitive impairment affects residents' functional independence and ability to perform leisure activities.

Discussion

This study characterized residents of five philanthropic LTCF regarding their sociodemographic, functional, cognitive, and emotional aspects and correlated variables related to the characteristics of residents' life context, depression, and cognitive performance. It observed that the profile of the residents of these facilities generally include single or widowed independent women with low education, a maximum of two children, and from two to five medical diagnoses, who have lived up to three years in these facilities and show depressive symptoms and cognitive impairment. Several studies (e.g., Almeida et al., 2020; Alves-Silva et al., 2013; Mello et al., 2012; Pinheiro et al., 2016; Resende et al., 2020; Schmidt & Penna, 2021) in different regions of Brazil found similar results, indicating a recognizable sociodemographic pattern of institutionalized older adults in the country, especially in philanthropic institutions, which constitute most such services.

This historical profile is consistent with socioeconomic and health issues. The literature has repeatedly pointed out the predominance of women in Brazilian LTCF (e.g., Almeida et al., 2020; Alves-Silva et al., 2013; Mello et al., 2012; Pinheiro et al., 2016), which can be explained by their higher life expectancy, lower economic and educational levels, and greater chance of becoming widows earlier, favoring their more frequent institutionalization (Alves-Silva et al., 2013; Pinheiro et al., 2016).

Although the LTCF in which they lived considered most residents in this study as independent, their vast majority showed signs of cognitive impairment according to the applied cognitive screening instruments. Moreover, more than half of participants reported difficulties performing at least one daily task independently. This shows a high rate of individuals with cognitive and functional alterations in LTCF and suggests that institutions face difficulties monitoring residents' functional status.

The discrepancy between the data from participants' medical records (which indicated cognitive impairment in about 28% of participants) and the results in this study supports this apparent difficulty. This worrisome finding may limit professionals planning therapeutic interventions to serve the needs of residents.

Cognitive impairment and institutional organization increase functional dependence and difficulties managing everyday aspects. This study found a significant negative correlation between ACE-R scores and the number of self-reported difficulties performing daily tasks independently. Thus, the higher the level of cognitive impairment, the greater the number of difficulties in performing daily tasks. Although institutionalization should improve or, at least, maintain older adults' independence in all domains of social life (Barbosa et al., 2020), facility employees often foster their dependence, performing activities for residents instead of waiting for them, thus depriving them of the possibility of doing them independently (Alves-Silva et al., 2013). This model of care tends to reinforce the difficulties of residents, who have fewer opportunities to exercise the skills necessary to perform daily tasks independently and thus become increasingly dependent.

LTCF have rigid and standardized routines with pre-established rules and schedules for carrying out activities and no space for residents to express their desires and subjectivity. This model limits the social and affective life of older adults who, once admitted, must adapt to a routine that is very different from their previous one (i.e., distant from their social and family environments) in which they must share spaces and their intimacy with unknown people. Thus, institutionalization becomes a stressor to older adults as it implies abrupt changes in their lives, explaining the high prevalence of depressive disorder among the residents of these entities (Alves-Silva et al., 2013).

In this study, more than half of the evaluated residents showed depressive symptoms, corroborating the data in the literature that point to a high prevalence (> 40%) of depression in Brazilian LTCF residents (Guimarães et al., 2019; Resende et al., 2020; Schmidt & Penna, 2021). E.B. Almeida et al. (2020) found an even higher prevalence, affecting 76% of their sample. In addition, there is evidence that the prevalence of depressive symptoms is significantly higher in LTCF residents than in peers living in their communities (54.2 and 18.9%, respectively, according to Plati et al., 2006). Thus, institutionalization-related factors (e.g., distance from significant others, reduced levels of privacy and freedom) are likely associated with the worsening of individuals' moods.

In addition to institutionalization, it is necessary to understand how the living in LTCF can affect individuals' mental health. This study found a significant negative correlation between depressive symptoms, level of participation in activities, and satisfaction with LTCF care. Modifiable environmental factors, such as facilities offering and encouraging participation in meaningful activities and providing good-quality care, may be related to better mental health indices.

Despite the high adherence of residents in most offered activities and their positive average evaluations of facility services, this study often observed many individuals who were inactive and/or isolated in their rooms. Moreover, a small number of professionals carried out the activities, limiting the possibility of residents' participation, especially by those with greater dependence. In addition to this, about 30% of participants negatively evaluated their experiences in the LTCF in which they lived (e.g., conflicts with employees, little activity variety, etc.). Finally, most residents reported performing no or up to two leisure/hobby activities beyond those offered by the LTCF. These aspects show the monotony and social isolation several residents experience, factors that may partially explain the high prevalence of depressive symptoms in the sample of this study.

Resende et al.'s (2020) outcomes are in line with ours as the authors observed that residents' participation in pleasurable activities (e.g., handicrafts, games, etc.) and their positive evaluation of their experience in the institution were significantly correlated with their well-being. Thus, pleasant routines that encourage leisure activities are essential to promote mental health, social interactions, and feelings of belonging to LTCF in their residents (Resende et al., 2020).

Results in this and other studies indicate the need for profound changes in the institutional model of LTCF in Brazil, which is still based on basic survival care (e.g., food, hygiene, etc.) to the detriment of developing stimulating environments with varied activities that are appropriate to residents' sociocultural profiles. Such activities are important to enhance older adults' autonomy, independence, and quality of life, reduce the prevalence of depressive symptoms, and favor the maintenance of their cognitive functioning (Corsini & Varoto, 2023; Queirós et al., 2022).

Although this study included all LTCF affiliated with the Municipal Council for Older Adults in the municipality in which this research was carried out and about 40% of all residents in these facilities, this study has some limitations, including the exclusion of residents with very marked cognitive impairment, many of whom were neither indicated by the professionals of the LTCF technical team to participate in the research nor were able to agree to participate and understand the questions of the applied instruments. Although the number of these people was insignificant in the studied population, this may have impacted the prevalence rates of cognitive impairment in this study. This means that, especially institution C, may hold a higher number of people with cognitive impairment than that described in this study.

Although this study interviewed bedridden residents, the number of participants with grade 3 dependence was insignificant, which constitutes another limitation, as well as the impossibility of evaluating residents with severe sensory limitations (e.g., inability to hear questions) due to the used

instruments. Thus, this research focused on more independent people with a better preserved cognitive functioning, who have different needs than those who did not participate in the study and who represent an important portion of LTCF residents. Moreover, the lack of randomization in the recruitment of participants also represents a bias. Finally, results are restricted to a sample of individuals living in a single municipality and housed in philanthropic nonprofit institutions, reducing the possibility of generalizing the data in this research to populations from different locations and sociocultural realities.

The profile in the participants of this research corroborates what the specific Brazilian literature has pointed out in recent years. The observed high rates of depressive symptoms and cognitive impairment suggest that institutional environments must promote adequate stimulation by varied and meaningful activities and provide personalized care centered on each individual's needs. Such measures are essential so that older adults, especially the most vulnerable (who depend on LTCF), can have a dignified and good-quality life.

References

Almeida, E. B., Lima-Silva, T. B., & Menna-Barreto, L. (2020). Depressive symptoms and chronotypes of elderly nursing home residents: A case management study. *Dementia & Neuropsychologia, 14*(2), 165-170. https://doi.org/10.1590/1980-57642020dn14-020010

Almeida, O. P., & Almeida, S. A. (1999). Confiabilidade da versão brasileira da escala de depressão em geriatria (GDS) versão reduzida [Reliability of the Brazilian version of the abbreviated form of Geriatric Depression Scale (GDS) short form]. *Arquivos de Neuro-Psiquiatria, 57*(2B), 421-426. https://doi.org/10.1590/S0004-282X1999000300013

Alves-Silva, J. D., Scorsolini-Comin, F., & Santos, M. A. (2013). Idosos em instituições de longa permanência: Desenvolvimento, condições de vida e saúde [Elderly in long-term institutions: Development, living conditions and health]. *Psicologia: Reflexão e Crítica, 26*(4), 820-830. https://doi.org/10.1590/S0102-79722013000400023

Barbosa, L. M., Noronha, K., Camargos, M. C. S., & Machado, C. J. (2020). Perfis de integração social entre idosos institucionalizados não frágeis no município de Natal, Rio Grande do Norte, Brasil [Social integration profiles among non-frail elderly institutionalized individuals in Natal, State of Rio Grande do Norte, Brazil]. *Ciência & Saúde Coletiva, 25*(6), 2017-2030. https://doi.org/10.1590/1413-81232020256.19652018

Brucki, S. M. D., Nitrini, R., Caramelli, P., Bertolucci, P. H. F., & Okamoto, I. H. (2003). Sugestões para o uso do mini-exame do estado mental no Brasil [Suggestions for utilization of the mini-mental state examination in Brazil]. *Arquivos de Neuro-Psiquiatria, 61*(3B), 777-781. https://doi.org/10.1590/S0004-282X2003000500014

Camarano, A. A. (2023). *A Dinâmica demográfica e a pandemia: Como andará a população brasileira?* [Demographic dynamics and the pandemic: How will the Brazilian population fare?]. Instituto de Pesquisa Econômica Aplicada (IPEA). https://repositorio.ipea.gov.br/bitstream/11058/11974/1/TD_2873_Web.pdf

Camarano, A. A. (2020). É possível definir o que sejam Instituições de Longa Permanência para Idosos (ILPI)? [Is it possible to define what Long-Term Care Facilities for the Aged (LTCFs) are?]. *Mais60 – Estudos sobre Envelhecimento, 31*(78), 8-25. https://portal.sescsp.org.br/files/artigo/ad640afb/c468/4715/a3bc/371372d16834.pdf

Carvalho, V. A., Barbosa, M. T., & Caramelli, P. (2010). Brazilian version of the Addenbrooke Cognitive Examination-revised in the diagnosis of mild Alzheimer disease. *Cognitive and Behavioral Neurology, 23*(1), 8-13. https://doi.org/10.1097/WNN.0b013e3181c5e2e5

Castro, V. C., Lange, C., Baldissera, V. D. A., Silva, E. S., & Carreira, L. (2016). Cognitive assessment of elderly people in long-stay institutions: A cross-sectional study. *Online Brazilian Journal of Nursing, 15*(3), 372-381. https://doi.org/10.17665/1676-4285.20165535

Corsini, T. V. M., & Varoto, V. A. G. (2023). Caracterização e rotina de instituição de longa permanência para idosos [Characterization and routine of long-term care facilities for the elderly]. *Revista Eletrônica Multidisciplinar de Investigação Científica, 2*(3), 1-14. https://doi.org/10.56166/remici.2023.5.v2n3.4.18

Folstein, M. F., Folstein, S. E., & McHugh, P. R. (1975). "Mini-mental state": A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research, 12*(3), 189-198. https://doi.org/10.1016/0022-3956(75)90026-6

González-Colaço Harmand, M., Meillon, C., Rullier, L., Avila-Funes, J. A., Bergua, V., Dartigues, J. F., & Amieva, H. (2014). Cognitive decline after entering a nursing home: A 22-year follow-up study of institutionalized and noninstitutionalized elderly people. *Journal of the American Medical Directors Association, 15*(7), 504-508. https://doi.org/10.1016/j.jamda.2014.02.006

Guimarães, L. A., Brito, T. A., Pithon, K. R., Jesus, C. S., Souto, C. S., Souza, S. J. N., & Santos, T. S. (2019). Depressive symptoms and associated factors in elderly long-term care residents. *Ciência & Saúde Coletiva, 24*(9), 3275-3282. https://doi.org/10.1590/1413-81232018249.30942017

Instituto Brasileiro de Geografia e Estatística. (2023). *Censo Demográfico 2022* [*Demographic Census 2022*]. IBGE. https://biblioteca.ibge.gov.br/visualizacao/livros/liv102038.pdf

Lourenço, R. A., Veras, R. P., & Ribeiro, P. C. C. (2008). Confiabilidade teste-reteste do Mini-Exame do Estado Mental em uma população idosa assistida em uma unidade ambulatorial de saúde [Test-retest reliability of the Mini-Mental State Examination in an elderly population attended in a primary health care setting]. *Revista Brasileira de Geriatria e Gerontologia, 11*(1), 7-16. https://doi.org/10.1590/1809-9823.2008.11012

Mello, B. L. D., Haddad, M. C. L., & Dellaroza, M. S. G. (2012). Avaliação cognitiva de idosos institucionalizados [Cognitive evaluation of institutionalized elderly]. *Acta Scientiarum. Health Sciences, 34*(1), 95-102. https://doi.org/10.4025/actascihealthsci.v34i1.7974

Pais, R., Ruano, L., P. Carvalho, O., & Barros, H. (2020). Global cognitive impairment prevalence and incidence in community dwelling older adults - A systematic review. *Geriatrics, 5*(4), 84. https://doi.org/10.3390/geriatrics5040084

Pinheiro, N. C. G., Holanda, V. C. D., Melo, L. A., Medeiros, A. K. B., & Lima, K. C. (2016). Desigualdade no perfil dos idosos institucionalizados na cidade de Natal, Brasil [Inequality in the characteristics of the institutionalized elderly in the city of Natal, Brazil]. *Ciência & Saúde Coletiva, 21*(11), 3399-3405. https://doi.org/10.1590/1413-812320152111.19472015

Plati, M. C. F., Covre, P., Lukasova, K., & Macedo, E. C. (2006). Depressive symptoms and cognitive performance of the elderly: Relationship between institutionalization and activity programs. *Brazilian Journal of Psychiatry, 28*(2), 118-121. https://doi.org/10.1590/S1516-44462006000200008

Queirós, L. R. M., Figueiredo, B. Q., & Oliveira, R. C. (2022). Análise do alto índice de depressão em idosos institucionalizados: Uma revisão integrativa de literatura [Analysis of the high rate of depression in institutionalized elderly: An integrative literature review]. *Research, Society and Development, 11*(10), e318111032943. https://doi.org/10.33448/rsd-v11i10.32943

Resende, J. C., Nascimento, E. P. F., Arvelos, D. S., Oliveira, F., & Coelho, K. R. (2020). Sintomas depressivos e fatores associados: Desafio para o cuidado de idosos institucionalizados [Depressive symptoms and associated factors: Challenge for the institutionalized elderly care]. *Revista Kairós-Gerontologia, 23*(1), 377-394. http://dx.doi.org/10.23925/2176-901X.2020v23i1p377-394

Sheikh, J. I., & Yesavage, J. A. (1986). Geriatric depression scale (GDS): Recent evidence and development of a shorter version. *Clinical Gerontologist, 5*(1-2), 165-173. https://doi.org/10.1300/J018v05n01_09

Scherrer Júnior, G., Simão, M., Passos, K. G., Ernandes, R. C., Alonso, A. C., & Belasco, A. G. S. (2019). Cognição prejudicada de idosos em instituições de longa permanência pública de São Paulo [Cognitive impairment of older adults in public long-term care institutions of São Paulo. *Enfermagem Brasil, 19*(3), 339-348. https://doi.org/10.33233/eb.v18i3.3085

Schmidt, A., & Penna, R. A. (2021). Instituições residenciais brasileiras para idosos e condições psicológicas e cognitivas de residentes [Brazilian long-term care institutions and psychological and cognitive conditions of residents]. *Psicologia: Ciência e Profissão, 41*(spe 4), e191768. https://doi.org/10.1590/1982-3703003191768

Maryam Furlan Ayoub is a Ph.D. candidate at Universidade de São Paulo, Ribeirão Preto-SP, Brazil.

Lucas Cardoso Manfredo is a Ph.D. candidate at Universidade de São Paulo, Ribeirão Preto-SP, Brazil.

Andréia Schmidt is Associate Professor at Universidade de São Paulo, Ribeirão Preto-SP, Brazil.

Authors' Contribution:
All authors made substantial contributions to the conception and design of this study, to data analysis and interpretation, and to the manuscript revision and approval of the final version. All authors assume public responsibility for the content of this manuscript.

Associate editor:
Wanderlei Abadio de Oliveira

Received: Dec. 19, 2023

1st Revision: Feb. 15, 2024

Approved: Feb. 17, 2024

How to cite this article:
Ayoub, M. F., Manfredo, L. C., & Schmidt, A. (2024). Residents in institutions for older adults: Characteristics and their relationship with the institution. *Paidéia (Ribeirão Preto), 34,* e3409. doi: https://doi.org/10.1590/1982-4327e3409