THE QUALITY OF LIFE IN INSTITUTIONALIZED ELDERLY PEOPLE AFTER STROKE
A QUALIDADE DE VIDA EM IDOSOS INSTITUCIONALIZADOS APÓS ACIDENTE VASCULAR CEREBRAL
LA CALIDAD DE VIDA EN ANCIANOS INSTITUCIONALIZADOS TRAS ACCIDENTE VASCULAR CEREBRAL

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ABSTRACT

Objective: to investigate the impact of stroke on the quality of life of elderly people at the Integrated Center for the Elderly of Marabá, Pará. Method: this is an exploratory qualitative research conducted through interviews with elderly people who have suffered stroke living at CIPIM. Three of the total number of elderly residents were selected for the interview. Two guiding questions were used: “After the stroke, were there changes in your daily life?” and “How do you assess your quality of life today?”. Additionally, the classification categorized into WHOQOL-OLD scores between 14.1 and 20 was used. Results: respondents R1, R2, R3 had similar quality of life scores: 10.3 (low), 10.0 (low), and 13.1 (average), respectively. Conclusion: the impacts that stroke causes, from the beginning of the onset, are a process in which the direct participation of health professionals, family members, and friends who welcome elderly people in situations of social vulnerability is a fundamental mechanism for recovery, rehabilitation, and improved quality of life after stroke.

Descriptors: Stroke; Elderly; Long-stay Institution for the Elderly; Quality of life; Perception.

RESUMO

Objetivo: investigar o impacto do AVC na qualidade de vida de idosos do Centro Integrado da Pessoa Idosa de Marabá, Pará. Método: trata-se de uma pesquisa qualitativa exploratória realizada por meio de entrevista com idosos que sofreram AVC residentes no CIPIM. Do total de idosos residentes, selecionaram-se três para a entrevista. Utilizaram-se duas perguntas norteadoras: “Após o AVC, houve mudanças em sua vida no dia a dia?” e “Como você avalia a sua qualidade de vida hoje?”. Suplementarmente, utilizou-se a classificação categorizada em escores do WHOQOL-OLD entre 14,1 e 20. Resultados: os entrevistados E1, E2, E3 tiveram escores de qualidade de vida semelhantes: 10,3 (baixa), 10,0 (baixa) e 13,1 (média), respectivamente. Conclusão: os impactos que o AVC causa, desde o início do acometimento, são um processo no qual a participação direta dos profissionais de saúde, familiares e amigos que acolhem idosos em situações de vulnerabilidade social é um
mecanismo fundamental para a recuperação, reabilitação e melhoria da qualidade de vida após o AVC.

**Descriores:** Acidente Vascular Cerebral; Idoso; Instituição de Longa Permanência para Idosos; Qualidade de vida; Percepção.

**RESUMEN**

**Objetivo:** investigar el impacto del AVC en la calidad de vida de las personas mayores del Centro Integrado de Mayores de Marabá, Pará. **Método:** se trata de una investigación cualitativa exploratoria realizada a través de entrevistas a ancianos que han sufrido ictus residentes en el CIPIM. Del total de residentes ancianos, se seleccionaron tres para la entrevista. Se utilizaron dos preguntas orientadoras: “Después del accidente cerebrovascular, ¿hubo cambios en su vida diaria?” y “¿Cómo evalúa hoy su calidad de vida?” Además, se utilizó la clasificación categorizada en puntajes WHOQOL-OLD entre 14.1 y 20. **Resultados:** los encuestados E1, E2, E3 tuvieron puntajes de calidad de vida similares: 10.3 (bajo), 10.0 (bajo) y 13.1 (promedio), respectivamente.

**Conclusión:** los impactos que provoca el AVC, desde el inicio del inicio, son un proceso en el que la participación directa de los profesionales de la salud, familiares y amigos que acogen a personas mayores en situaciones de vulnerabilidad social es un mecanismo fundamental para la recuperación, rehabilitación y mejora de la calidad de vida después de un accidente cerebrovascular.

**Descriptores:** Accidente cerebrovascular; Persona mayor; Institución de larga estancia para personas mayores; Calidad de vida; Percepción.

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Senescence is the natural human path characterized by physiological, biological, and social changes, conditioning individuals to risks for the onset of morbidities that can interfere in their quality of life with the potential for institutionalization, especially in elderly people.

Stroke is a sudden neurological deficit motivated by ischemia or hemorrhage in the central nervous system¹, being the second cause of mortality in the world and the main cause of disability, physical, mental, and social sequelae, restricting functionality, particularly at the level of independence in Activities of Daily Living (ADL)². The prevalence of stroke is even higher in the elderly population, causing significant sequelae, such as functional disability, speech difficulties, and cognitive and motor impairment³.

Studies on institutionalized elderly people have revealed concerns about the quality of life and the potential risk for the onset of neurological diseases. Most of the findings deal with the conditions of care for the elderly patient, depression and functional incapacity, violence, and their insertion in community life⁴-⁷.

Because of this health concern about the quality of life of individuals affected by stroke, especially elderly people who are in asylum or long-term hospitalization, individual and collective, permanent and continuous health care is needed to obtain autonomy and social inclusion⁸-¹². For the World Health Organization (WHO), quality of life can be interpreted through the perception of individuals, in the cultural context, concerning their goals, expectations, standards, and concerns.¹³

Considering that stroke has negative consequences for the quality of life of the elderly population, we need to understand the perception of institutionalized individuals, given the consequences in which morbidity interferes with their quality of life. We also need to recognize the specificities of each elderly person to favor the independence, autonomy, and continuity of the life story/expectations of each individual.¹⁴

Given the consequences of stroke, that is, the sequelae resulting from the onset of morbidity, it is essential to investigate the perception of the quality of life of institutionalized elderly people in...
Long-Term Care Institutions (LTI), especially in the risk factors that impact the daily life and functional dependence of these patients.

**OBJECTIVE**

- To investigate the impact of stroke on the quality of life of the elderly person living at the Integrated Center for the Elderly of Marabá, Pará.

**MÉTODO**

This is exploratory qualitative research carried out through interviews with elderly people who suffered a stroke living in the Integrated Center for the Elderly of Marabá, Pará. The interviews were carried out by the student, with the supervision and training of the researcher teachers. They are the three authors of this article. The semi-structured interviews aim to identify and describe the investigative object in the social phenomena of particularities of the researched in the lived reality.

The Integrated Center for the Elderly “Antônio Rodrigues” (House of the Elderly) welcomes 18 elderly people aged between 60 and 85 years old who are in a situation of abandonment and/or social vulnerability. Space is maintained by the Municipality of Marabá and other institutions. The services offered are education, leisure, recreation, and medical care according to the particularities of each elderly person. The student who collected the data had no previous links with the participants.

Five of the eighteen elderly people at the institution suffered a stroke. Of those affected by morbidity, three were selected for the interview. One elderly person had speech difficulties (dysarthria) and the other was absent on the day scheduled for the interview. Participants were approached individually so that the researcher could introduce and explain the objectives, always giving them the freedom not to participate or to stop their contribution at any time.

General information about the elderly participants was collected through a form of the following variables: age in complete years; gender (male, female); marital status (single, common-law marriage, married, divorced, widowed); the number of children; the number of grandchildren; retired (yes, no); work; year of occurrence of the stroke; self-report of stroke symptoms; length of stay; stroke sequelae; the name of the medication.

We used two guiding questions: “After the stroke, were there changes in your daily life?” and “How do you assess your quality of life today?”. The interviews, with an average duration of 30 minutes, were carried out individually in a single meeting, in the afternoon, in the elderly center, in a room reserved by the coordination, minimizing possible inconveniences for the interviewees.

We used the interview method to understand the phenomenon studied and, through the speeches, we sought to assess the impacts of the stroke and, nowadays, what changes have occurred.
The interviews were recorded and transcribed for interpretation and description of the categories. The anonymity of the participants was maintained with the adoption of pseudonyms, coded in respondent 1 (R1), respondent 2 (R2), and respondent 3 (R3).

After this stage, we performed the content analysis. The participants' responses were grouped into three categories for content analysis: Beginning of aging and stroke; Sequelae and physical limitations after stroke; and the Quality of life of the elderly person after a stroke. These categories emerged as a result of the participants' statements.

As a supplement to the interview, quality of life was also measured using the Brazilian version of the WHOQOL-Old questionnaire validated with 24 items of the Likert scale. The WHOQOL-OLD Module represents a useful alternative with good psychometric performance in the investigation of quality of life in elderly people.

For this study, we chose the classification categorized in WHOQOL-OLD scores, which between 14.1 and 20 corresponds to the high quality of life; between 11 and 14 for the average; and scores below 10.9 mean low quality of life.

The study was approved by the Research Ethics Committee of the Federal University of Pará (CAAE 17028619.4.0000.0018). The participants were informed clearly and objectively about how the data passed on by them will be used, exposing the main objectives and reasons for the research, as well as its contributions, according to the guidelines in the Informed Consent Form (ICF), explained in the Resolution of the National Health Council 466/2012.

**RESULTS**

We collected information in the interviews with those affected by stroke, compiled in the table below (Table 1). In general, the elderly participants were male, retired, with a mean age of 72.5 (±8.4) years old. The main signs of impairment caused by stroke were sudden vertigo, dysarthria, and hemiparesis for all respondents.

<table>
<thead>
<tr>
<th><strong>Respondent</strong></th>
<th><strong>R1</strong></th>
<th><strong>R2</strong></th>
<th><strong>R3</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
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<td>68 years old</td>
<td>67 years old</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
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<td>Male</td>
<td>Male</td>
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<td><strong>Marital status</strong></td>
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<td>Single</td>
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</tr>
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<td><strong>Number of children</strong></td>
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<td>None</td>
<td>Two</td>
</tr>
<tr>
<td><strong>Number of grandchildren</strong></td>
<td>None</td>
<td>None</td>
<td>Two</td>
</tr>
<tr>
<td><strong>Retired</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Table 1** - Form on the general characteristics of the elderly participants at the Integrated Center for the Elderly of Marabá, PA, Brazil, 2019
The onset of aging and stroke

The beginning of aging is a milestone of great importance in anyone's life, a phase in which many experiences are learned, as the interviewees reported:

[...] Yeah... I learned, I always learned, since again that my life was on the edge... [...] The world teaches...[...] (R1)

Yeah [...] (Pause for 1 minute), it's thanks to God I learned, since Ceará that I learned... (R2)

You know it was fast. I came from a stroke, and with a half head like that, thinking a lot about what life was like, and when I reached... at 60...[...] (R3).

Regarding the emergence of stroke, the speeches of the interviewees show the diversity of occurrences:

I didn't have [...] really, I didn't have any symptoms! I went to the health center, I went to get some tickets to go to Belém... then when I got the tickets I came back [...] I left there at the interchange, pick up the bus [...] I fell and didn't see anything else, I was there [...] (R1)

Man, it was... I went out like that to a bodega, then I felt my leg “fail” [...] Then it failed, I didn't walk anymore [...] (R2).

[...] I don't remember anything anymore, they said that I fell down the stairs I hit the back of my head on the base of the stairs and the blood clotted. I was intubated for 20 days in a coma [...] (R3)

However, the statements of R1 and R2 show that at the time each one had the stroke, they were not at their homes, being helped by people who witnessed the moment they suffered the accident. R3 was already at home, however, in addition to having had a stroke, the fall worsened her clinical condition.
Sequelae and physical limitations after stroke

All participants had sequelae, dysarthria, and hemiparesis, as expressed in the statements:

*Only in the hand [...] here and in my fingers here [...] (He pointed to the hand where he was paralyzed). My fingers got a little stiff, but now it's softening more [...] (R1)*

*Now, it was the wheelchair thing because I started [...] to walk in a wheelchair and... I almost didn't feel any improvement. My tongue is already weighing like your girl, and I'm already afraid... (sad expression), of paralyzing [...] everything (R2).*

* [...] it left a sequel, it hooked my left leg, I lost my left hand, I lost 40% of my left vision, and 40% of my hearing on the left side. (R3).*

The sequelae in the elderly participants were as the stroke was particularly manifested. R1 had sequelae only on the fingers of his left hand; R2 lost leg movements, although he did not report it clearly in his speech, when he saw him at the time of the interview, the paresis in the lower limbs was clear; and finally, R3 had even more serious sequelae. However, in the statements below, it appears that the elderly participants value motricity. However, the inseparability between the physiological and the psychological is highlighted, that is, an aggravation in one aspect leads to comorbidities, which were not presented clinically before. Living with the consequences of a stroke is an extremely difficult challenge and the way each elderly person deals with this process also influences the coping with the consequences:

* [...] this arm here, it has already left its place [...] there is a problem, it only goes here [...] (He made a gesture with his arm showing how far it was going) [...] (R1).*

* [...] Yeah.... the people who dress me [...] then I don't do anything (laughs) [...] (R2).*

* [...] ah there was a lot [...] I would say more limited mobility, but mentally my reasoning thinks even better [...] (R3).*

In this study, only one participant had family support in the recovery process after a stroke. Respondents (R1 and R2) soon after the stroke were supported by the Integrated Center for the Elderly because they lived alone and had no family to help them:

*Then I stayed there with a partner, I spent a few days there but he was there, and I couldn't do anything else [...] then the woman who owns here went and brought me here (to the elderly center) (R1).*

*No, the people who came from Amapá took me. The owner went there and caught me [...] (R2)*

* [...] After this [...] the doctor who was a friend of the family admitted me to the specialized clinic, I was hospitalized for a year, [...] I had good treatment and a lot of support (R3).*
The quality of life of the elderly person after a stroke

Unlike other elderly people, R3 has been facing the sequelae of stroke for many years and is still undergoing treatment:

A tomography was done now, and the doctor told me that it’s something that the cartilage is eating I don’t know […] a liquid and we have to undergo surgery. And he advanced the surgery, but he has to go to the regulation center to see […] (R3).

After discharge, the greatest need for health care in the case of the participants in this research was follow-up with a physiotherapist due to physical and motor sequelae, as explained in the statements:

[…] what I need is physiotherapy, physiotherapy. He had to make an appointment for me to do physiotherapy, my finger got a little stiff. […] I wanted him to make an appointment for me to do physiotherapy so that I could get my hand back. (R1)

[…] at the time I went to exercise there […] I stayed there for almost 3 months of […]. (Pause for 2 minutes) but I didn’t feel any improvement (R2).

[…] they admitted me there at the clinic […] I did physiotherapy (R3).

Although it was the greatest need of the interviewees, only R3 had access to care for a long time due to the family support he had since the beginning of the onset of stroke. As for R2, it was not clear whether it was a follow-up or not; in the case of R1, it was quite clear that he had no follow-up, he even showed a feeling of indignation for not having had to access to rehabilitation.

As for the psychological aspects, so important for a healthy life, the elderly participants in the research reported that they feel saddened and frustrated for losing their autonomy, which was evidenced in their statements:

They say that you have to stay right here, you can’t go anywhere […] if you go out there, you have to have a person to accompany you […] (R1).

[…] but I wanted to work […]. (Sad expression) (R2).

[…] kicking a ball! […] on the court, on the field […] I liked to dance a lot […] (R3).

However, when asked what activities the participants do to have some fun, we that this is limited. Some leisure conditions are related not only to the neurophysical limitations of the elderly person but mainly to institutional life:

[…] Only here listening to the radio […] (R1).

[…] It’s so good to go for a walk! I like it, I like it a lot […] (R2).

[…] Ahhh… doing exercises […] Yeah… I was even improving a few things…[…] (R3).
However, according to the results of the WHOQOL-Old questionnaire, respondents R1, R2, R3 had similar quality of life scores, with the following values: 10.3 (low quality of life), 10.0 (low quality of life), and 13.1 (average quality of life), respectively.

By analyzing the items of the WHOQOL-old questionnaire, we found that the loss of sensory skills and the ability to interact was the item that most contributed to the low quality of life among the elderly interviewed.

**DISCUSSION**

The prevalence of stroke is higher among older men, and the main risk factor is an unhealthy lifestyle with alcohol consumption, tobacco, and sedentary lifestyle in adulthood. Cerebrovascular diseases grow rapidly and identify the factor of risk is an effective method to mitigate the risks of these in elderly people and, especially, in the general population.

We identified that the length of stay of the two participants was long, which is justified by the severity of the sequelae, which can be intermediate or permanent. The findings of this study are consistent with other researches that occasionally add that the longer the hospital stay, the more costly it is for public health, the State, and, above all, for the affected individual.

Regarding the sequelae after the stroke, all the elderly participants had hemiparesis in different areas and different limbs. This is one of the biggest challenges for them and the LTI health team, as the functional capacity is compromised to perform daily activities and, consequently, it can generate a feeling of sadness, frustration, and social isolation, resulting in the quality of life of the elderly person. In a study with a larger sample, there was a high prevalence of stroke (29.9%) and all with sequelae, especially of functionality and mobility.

However, when analyzing the statements, the mobility limitation had a different impact on the life of each respondent. For many elderly people, old age is seen as a stage in which people become more experienced to deal with situations related to their own life, whether in the social, physical, or mental scope. However, we need to emphasize that the severity in each case and how the stroke manifests unusually can result in serious consequences in the life of those affected.

The first period after the stroke is the most critical moment, as crises of mood changes arise, marked by insecurity about the future, which can even lead to social isolation. However, the lives of the elderly person after the stroke are influenced by the meaning vital factor that the person attributed to being away from home during hospitalization, the feeling of psychological limit, the lack of appetite, the limitations resulting from the stroke, and the difficulties they felt in adapting to this new condition.
At that time, the presence of the family is very important but two interviewees were supported by the Integrated Center for the Elderly because they lived alone and had no family to help them. This is a reality for many elderly people in the municipality, especially older men.

Thus, the presence of a caregiver is necessary for health care and, mainly, support. In the case of the institutionalized elderly person, care is assumed by a multidisciplinary team.22

We found in the descriptions of the speeches that there is the trust of the elderly person in the institution (House of the Elderly), as two of them reported that the coordinator of the center had provided individualized and specialized care for the treatment of each elderly person with stroke, resuming the importance of individual and early intervention for the treatment of elderly people with morbidity. Institutionalized and vulnerable elderly people need specific care, which ranges from encouraging group interaction to a refined analysis of the use of medication and care resources suited to their particular needs.18

In this institution, the elderly participants are monitored by a multidisciplinary team and participate in different activities adapted to the needs and functional dependence of each one. Most referrals are for rehabilitation (functional and motor), which substantially contributes to the recovery of the autonomy of the person affected by stroke so that they can go back to performing activities of daily living.4,7,9

A study carried out with doctors and nurses from the Family Health Strategy (FHS) teams in a city in southern Brazil, in 2013, revealed that the referrals made by professionals are mostly for the treatment of physiotherapy (77.3%), neurology (72.7%), and speech therapy (54.5%).23

However, the reality of many Brazilian municipalities, especially small ones, districts, and neighborhoods far from the urban perimeter, causes substantial limitation to the access of the elderly population to specialized health services, which is largely slow or almost non-existent. The main barriers found were bureaucratic difficulties in accessing health services (55%) and waiting for time (41%) to start treatment.24

The sequelae resulting from stroke directly affect the quality of life of the elderly person, mainly due to possible physical and psychological damage, findings that are evidenced in the present study. Stroke leaves limitations that last for a significant time and directly affect their lives, for example, in performing daily tasks such as dressing alone and eating alone, compromising their autonomy from routine activities.4-18

Although the interviewees demonstrated impairment in speech, it was evident in the speeches that their lives would improve if they could recover the movements compromised to carry out daily activities, which brings satisfaction and quality of life. Studies show that the more daily
activities the elderly can perform alone, the higher their quality of life. On the other hand, the longer
the limitations last, they will inevitably lead to a sudden compromise in quality of life.\textsuperscript{4,8,9,14}

From this perspective, quality of life permeates paths and aspects on which the satisfaction
of needs, both physical and psychological, stands out as a multifactorial and individual process at the
same time.\textsuperscript{4,6,22}

Given the above, there is a need for care that promotes a better quality of life and care for
the elderly population, especially when they are in a state of depreciation regarding the future. The
induced motivation enables an expectation of social reintegration, valuing life, and a strategy for
creating social projects that encourage them to be idealistic even after a stroke.\textsuperscript{6-7}

The multidisciplinary team of elderly care institutions needs to play an active role in the
referral for rehabilitation and monitoring of these individuals. Concomitantly, the onset of stroke in
the elderly is a phenomenon that can be directly linked to the behaviors that determine their
institutionalization. Therefore, it raises new reflections and studies on the perception of the elderly
who suffered a stroke and the adversities related to this new stage of life.

\textbf{CONCLUSION}

The findings reflect the importance of establishing investigative measures for early detection
not only of neurophysical and sensorineural limitations but also the multidimensional aspects that
permeate the quality of life of institutionalized elderly, considering biopsychosocial conditions,
especially those who should be assisted and supported by intersectoral and interdisciplinary care
based on prevention and health promotion.

Therefore, the impacts that stroke causes from the beginning of the onset to the present day
were highlighted. We observed that it is a process in which the direct participation of health
professionals, especially in the area of physiotherapy and psychology, family and friends, as well as
institutions that welcome elderly people in situations of social vulnerability, is essential in recovery,
rehabilitation, and improved quality of life after stroke.

However, stroke promotes short- and long-term sequelae (intermediate or long-lasting) in the
lives of institutionalized elderly people. In the study, they are conceived as compromising physical
conditions, autonomy, leisure in daily activities, and especially in the quality of life of the elderly at
the Integrated Center for the Elderly of Marabá. Factors such as stroke limit institutionalized elderly
people, preventing them from enjoying life as they could and should. This point was confirmed
through the WHOQOL-OLD score.

We also sought to show that stroke in the elderly population is a serious public health problem
and that prevention and health promotion measures are urgently needed to reduce the incidence and
prevalence of this disease. The promotion of research to investigate institutionalized elderly people
affected by stroke is pertinent, as there is an urgent demand for the government and society as a whole to commit to inspecting and mainly subsidizing actions that will alleviate the problems, the limitations related to access to services health care and treatment. The family's commitment is essential for the treatment of the elderly patient in therapy and/or treatment.

Considering that the number of elderly people is increasing and that they are potential users of health services, we need to analyze the issues related to the sequelae of stroke, including its different extensions in the life of the elderly person, family, and community. Longitudinal studies are recommended to monitor institutionalized elderly people with stroke to establish early and punctual clinical interventions according to each need.

**CONTRIBUTIONS**

All authors also contributed in the conception, analysis and interpretation of the research, in the writing and critical review with intellectual contribution, and, in the approval of the final version.

**CONFLICT OF INTERESTS**

Nothing to declare.

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