

QUALITY OF LIFE AS A FACTOR ASSOCIATED WITH SELF-ESTEEM IN OLDER ADULTS FROM A SOCIAL GROUP

QUALIDADE DE VIDA COMO FATOR ASSOCIADO À AUTOESTIMA EM IDOSOS DE UM GRUPO SOCIAL

DOI: 10.16891/2317-434X.v13.e3.a2025.id2463

Recebido em: 07.11.2024 | Aceito em: 02.05.2025

**Grazieli Covre da Silva^a, Eduardo Quadros da Silva^a, Priscila Ester Lima Cruz^a,
Izabela Vitória Pereira Marques^a, Cleidson Colares Batista^a, Bruno Fernando Souza Tavares^a,
José Roberto Andrade do Nascimento Júnior^b, Daniel Vicentini de Oliveira^{c*}**

**Universidade Cesumar – UniCesumar, Maringá – PR, Brasil^a
Universidade da Força Aérea – UNIFA, Rio de Janeiro – RJ, Brasil^b
Universidade Estadual de Maringá – UEM, Ivaiporã – PR, Brasil^c
*E-mail: d.vicentini@hotmail.com**

ABSTRACT

This study investigated whether quality of life is significantly associated with self-esteem in older adults attending a community group. It was a cross-sectional study conducted with 148 older adults of both sexes. The WHOQOL-BREF, WHOQOL-OLD, and the Rosenberg Self-Esteem Scale were used. Data collection took place from March to August 2023. Data were analyzed using bootstrapping procedures, Pearson's correlation, and regression analysis ($p < 0.05$). Older adults reported higher quality of life scores in the environmental and social participation domains. A satisfactory level of self-esteem was observed ($M = 33.51$). All domains and facets of quality of life showed significant ($p < 0.05$) and positive correlations with self-esteem. Significant and positive correlations ($p < 0.05$) were found between the quality of life domains and facets (r ranging from 0.81 to 0.72). The physical ($p < 0.01$) and psychological ($p < 0.05$) domains were associated with self-esteem. The intimacy facet ($p < 0.001$) was also found to be associated with self-esteem scores. In conclusion, among the studied sample, higher perceived quality of life in the physical and psychological domains was associated with higher self-esteem in older adults participating in the community group, whereas higher scores in the social relationships domain may reduce self-esteem. Additionally, higher perceived quality of life in the intimacy facet was found to enhance self-esteem in this population.

Keywords: Aging; Social participation; Self-esteem.

RESUMO

Este estudo investigou se a qualidade de vida prediz significativamente a autoestima em idosos frequentadores de um grupo comunitário. Tratou-se de um estudo transversal realizado com 148 idosos de ambos os sexos. Foram utilizados o WHOQOL-BREF, WHOQOL-OLD e a Escala de Autoestima de Rosenberg. A coleta de dados ocorreu de março a agosto de 2023. Os dados foram analisados por meio de procedimentos de bootstrapping, correlação de Pearson e análise de regressão ($p < 0,05$). Os idosos apresentaram escores mais altos de qualidade de vida nos domínios ambiental e de participação social. Foi observado um nível satisfatório de autoestima ($M = 33,51$). Todos os domínios e facetas da qualidade de vida apresentaram correlações significativas ($p < 0,05$) e positivas com a autoestima. Foram encontradas correlações significativas ($p < 0,05$) e positivas entre os domínios e facetas da qualidade de vida (r entre 0,81 e 0,72). Os domínios físico ($p < 0,01$) e psicológico ($p < 0,05$) apresentaram previsões otimizadas no escore de autoestima. A faceta intimidade ($p < 0,001$) mostrou uma previsão otimista significativa no escore de autoestima. Conclui-se que, na amostra estudada, percepções elevadas de qualidade de vida nos domínios físico e psicológico aumentam a autoestima dos idosos frequentadores do grupo comunitário, enquanto escores elevados no domínio das relações sociais reduzem a autoestima. Além disso, percepções elevadas de qualidade de vida na faceta intimidade potencializam a autoestima desses idosos.

Palavras-chave: Envelhecimento; Participação social; Autoestima.

INTRODUCTION

Human aging constitutes a continuous process of transformation in individuals' biological, psychological, and social dimensions. This phenomenon is intrinsically linked to quality of life (QoL), which can be enhanced by promoting access to healthcare, vaccination, healthy eating, physical activity, leisure, housing conditions, and social relationships, among other factors (MARZO *et al.*, 2023). QoL, a comprehensive and subjective concept, reflects individuals' sociocultural, physical, and psychological well-being, synonymous with health and longevity (OLIVEIRA; RIBEIRO; COSTA, 2019).

It is worth noting that individual well-being directly influences QoL and is deeply intertwined with lifestyle. This concept is complexly affected not only by physical health but also by the level of independence, social relationships, environmental factors, and psychological factors such as self-esteem (SILVA *et al.*, 2019).

Self-esteem is crucial in this context, defined as self-concept, thoughts, and feelings about oneself, with positive (self-approval) or negative (depreciation) orientations. It shapes how individuals view themselves (NASCIMENTO *et al.*, 2022). Its impact throughout life, in various contexts of adulthood, is associated with emotional states, with high self-esteem correlated with good mood and positive feelings and low self-esteem associated with negative aspects such as bad mood, self-perception of incapacity, depression, and anxiety (CHUNG; NAMKUNG, 2022).

Given the changes and losses inherent in old age, older adults become more vulnerable to stereotypes and prejudices, which can challenge their ability to maintain physical functionality, quality of life, well-being, mental health, and self-esteem (SILVA *et al.*, 2019). Social isolation of older adults is often associated with negative views of aging, linking it to illness and disability, which can impact self-esteem (CASEMIRO; FERREIRA, 2020).

Activities carried out in groups by older adults, whether for leisure or socializing, favor the maintenance of biopsychosocial balance, reduction of environmental and personal conflicts, and improvement of self-esteem. Participation in group activities promotes active aging and contributes to maintaining QoL in the older population (SILVA *et al.*, 2019).

Therefore, the research is justified by the need to discuss the relationship between QoL and self-esteem in older adults as a strategy to promote health and prevent health problems. This aims to increase the interest of older adults in healthcare services, including public policies and specific programs for this age group, contributing to independence and improving the perception of QoL and self-esteem by encouraging the social involvement of older adults (ALENCAR *et al.*, 2019). Therefore, this study aimed to verify whether quality of life is significantly associated with self-esteem in older adults attending a community group.

METHODS

Study Type and Ethical Aspects

This is a quantitative, analytical, observational, and cross-sectional study, approved by the Ethics Committee on Research with Human Beings of UniCesumar University through opinion number 6,001,100, constructed by the tool Strengthening the Reporting of Observational Studies in Epidemiology (STROBE).

Population and Sample

The formula for finite populations was used to calculate the minimum number of participants, with a confidence level of 95%, an estimation error of 5%, and an expected proportion of 50%. Based on a population of 208 older adults, a minimum number of 148 participants was required, considering possible sample losses. Older adults registered and participated in a community group in the municipality of Tapejara, Paraná, were evaluated.

Older adults who did not answer all the questions of the instruments had some degree of cognitive impairment, were evaluated by the Mini-Mental State Examination – MMSE (FOLSTEIN; FOLSTEIN; MCHUGH, 1975; BRUCKI *et al.*, 2003), or used mobility aids (cane, walker, or wheelchair) were excluded. Older adults (60 or older) of both sexes who answered all the items of the forms, with or without assistance from a second person, were included.

Thus, 148 older adults of both sexes, aged 60 to 89, who participated in weekly activities in the community



group were evaluated. The activities carried out in the Older Adults Socialization and Bond Strengthening Service have a social and bond-building purpose, including gymnastics, adapted capoeira, singing, adapted volleyball, handicraft workshops, and dance parties.

Instruments and Data Collection Protocol

The authors developed a sociodemographic questionnaire to characterize older adults, with questions regarding age, sex, age group, retirement, education, monthly income, and occupational status.

To assess QoL, the WHOQOL-BREF and the WHOQOL-OLD, both validated for the Brazilian context, were used. The WHOQOL-BREF assesses the quality of life dimensions through 26 questions, including two general ones related to overall QoL and overall health, and 24 composing the four domains: physical, psychological, social, and environmental. The scale provides raw (0-20) and transformed (0-100) scores for each dimension. A higher value in each domain indicates better QoL (FLECK *et al.*, 2000).

The WHOQOL-OLD comprises 24 items assigned to six facets: sensory functioning, autonomy, past, present, and future activities, death and dying, and intimacy. It is a specific instrument for assessing QoL in older adults and should be applied with the WHOQOL-BREF. Scores are calculated using syntax and range from 0 to 100, with higher numbers corresponding to better QoL in the assessed facet (FLECK; CHACHAMOVICH; TRENTINI, 2006).

The Rosenberg Self-Esteem Scale was used to assess participants' self-esteem. It was translated, adapted, and updated by Hutz and Zanon (2011). This scale has 10 Likert-format questions with four response options (strongly agree, agree, disagree, and strongly disagree). For positive questions, the score (score) of the responses is: strongly agree (4 points), agree (3 points), disagree (2 points), and strongly disagree (1 point). For negative questions, the score is inverted. The score can range from 10 to 40 points, with higher scores indicating higher self-esteem. Satisfactory self-esteem is defined as a score of 30 or higher, and unsatisfactory self-esteem is defined as a score lower than 30.

Data collection took place between March and August 2023 by the researcher herself at the premises of the socialization group in the municipality on the days and times previously informed. Before the actual collection, a pilot study was conducted with 10 older adults to assess the time required for data collection per older adult and any possible issues.

Data Analysis

Preliminary data analyses, descriptive statistics, correlations, and multiple regression were performed using version 23.0 of SPSS. Bootstrapping procedures (1000 re-samples; 95% BCa CI) were carried out to obtain more excellent reliability of the results, to correct deviations from normality of the sample distribution and differences between group sizes, and also to provide a 95% confidence interval for the mean differences (HAUKOOS; LEWIS, 2005). Pearson correlation was used to investigate the correlation between QoL domains and facets and the self-esteem level of older adults. Regression analysis was used to determine whether domains (Model 1) and facets (Model 2) predict older adults' self-esteem. Two models were conducted using the enter method to enter the variables to investigate the prediction of QoL domains and facets (independent variables) on older adults' self-esteem (dependent variable). There were no correlations strong enough between variables to indicate multicollinearity problems.

RESULTS

Characterization of Participants

A total of 148 older adults who are attendees of a community group in the city of Tapejara participated in the research, with ages ranging from 60 to 89 years ($M = 70.88$; $SD = 7.55$). As per the data in Table 1, it is noticeable that there is a predominance of females (79.1%), older adults aged between 60 and 69 years (50.7%), individuals who are not employed (85.8%), retired (88.5%), with a monthly income of one to two minimum wages (55.4%), and with incomplete/complete elementary education (67.6%).

Table 1. Profile of the older adult participants in the research. Tapejara, 2023.

Variables	<i>f</i>	%
Gender		
Female	117	79.1
Male	31	20.9
Age range		
60 to 69 years	75	50.7
70 to 79 years	48	32.4
80 years or older	25	16.9
Occupational status		
Yes	21	14.2
No	127	85.8
Retirement		
Yes	131	88.5
No	17	11.5
Monthly Income		
1 to 2 MW	82	55.4
2,1 to 3 MW	53	35.8
More than 3 MW	13	8.8
Education		
Did not study	29	19.6
Elementary	100	67.6
High School	14	9.5
Higher Education	5	3.4

MW: Minimum wage (s).

Descriptive Statistics and Intercorrelations

As seen in Table 2, older adults exhibited higher scores in the environmental domain of QoL ($M = 17.25$; $SD = 2.51$), followed by the psychological ($M = 17.02$; SD

$= 2.21$), physical ($M = 16.54$; $SD = 2.65$), self-assessment ($M = 16.29$; $SD = 2.82$), and social relations ($M = 16.00$; $SD = 3.05$) domains. Regarding the facets of QoL, the highest mean was found in the social participation facet ($M = 84.83$; $SD = 13.87$), followed by the facets of past,



present, and future activities ($M = 83.15$; $SD = 15.11$), intimacy ($M = 82.85$; $SD = 17.45$), autonomy ($M = 79.64$; $SD = 19.72$), sensory functioning ($M = 78.58$; $SD = 17.57$), and death and dying ($M = 66.55$; $SD = 21.22$). Lastly, it was observed that older adults presented a satisfactory level of self-esteem ($M = 33.51$; $SD = 3.67$).

Table 2. Descriptive statistics and correlation between the domains and facets of quality of life and older adults' self-esteem level. Tapejara, Brazil, 2023

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Physical	-	0.75**	0.64**	0.73**	0.48**	0.48**	0.56**	0.60**	0.64**	0.33**	0.63**	0.55**
2. Psychological		-	0.58**	0.78**	0.51**	0.45**	0.57**	0.66**	0.70**	0.29**	0.67**	0.55**
3. Social Relations			-	0.60**	0.47**	0.49**	0.50**	0.47**	0.46**	0.18*	0.49**	0.27**
4. Environment				-	0.49**	0.37**	0.68**	0.72**	0.67**	0.16	0.62**	0.52**
5. Self-assessment					-	0.34**	0.33**	0.46**	0.40**	0.14	0.48**	0.26**
6. Sensory Functioning						-	0.40**	0.45**	0.41**	0.30**	0.57**	0.31**
7. Autonomy							-	0.77**	0.70**	0.11	0.59**	0.44**
8. Activities								-	0.86*	0.17*	0.69**	0.43**
9. Social Participation									-	0.25**	0.67**	0.42**
10. Death and Dying										-	0.15	0.17**
11. Intimacy											-	0.53**
12. Self-esteem												-
Mean	16.54	17.02	16.00	17.25	16.29	78.58	79.64	83.15	84.83	66.55	82.85	33.51
Standard Deviation	2.65	2.21	3.05	2.51	2.82	17.57	19.72	15.11	13.87	21.22	17.45	3.67

Pearson Correlation.

** Correlation is significant at the 0.01 level.

* Correlation is significant at the 0.05 level.

When analyzing the correlations between the domains and facets of QoL and the level of self-esteem among older adults (Table 2), it was found that all domains and facets of QoL exhibited a significant ($p < 0.05$) and positive correlation with the level of self-esteem (r between 0.17 and 0.55). Additionally, significant ($p < 0.05$) and positive correlations were found between the domains and facets of QoL (r between 0.81 and 0.72).

Multiple Regression Analysis

The multiple regression analysis (Table 3) revealed that the model composed of quality of life domains explained 36% of the variance in older adults' self-esteem scores. However, only the physical ($\beta = 0.36$; $p < 0.01$) and psychological ($\beta = 0.29$; $p < 0.05$) domains showed a positive association with self-esteem scores, while the social relationships domain showed a negative association ($\beta = -0.21$; $p < 0.05$) with self-esteem scores.



These findings suggest that higher perceived quality of life in the physical and psychological domains may enhance

older adults' self-esteem, whereas higher scores in the social relationships domain may reduce it.

Table 3. Quality of life domains and their association with older adults' self-esteem. Tapejara, Brazil, 2023.

Predictors	Self-esteem
	β (IC)
Physical	0.36 (0.19; 0.80)**
Psychological	0.29 (0.09; 0.87)*
Social Relationships	-0.21 (-0.46; -0.03)*
Environment	0.19 (-0.06; 0.60)
Self-Assessment	-0.06 (-0.28; 0.13)
R ²	0.36
F	17.526***
Durbin-Watson	1.92

Note: Only the standardized regression coefficients below the significance level of 0.05 are highlighted in bold. β = Standardized regression coefficient; CI = 95% confidence interval; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4 shows that the regression model composed of QoL facets explained 28% of the variance in the self-esteem scores of older adults. However, only the intimacy facet ($\beta = 0.42$; $p < 0.001$) showed a positive and

significant association on self-esteem scores. It is noteworthy that high perceptions of QoL in the intimacy facet enhance older adults' self-esteem.

Table 4. Quality of life domains associated with self-esteem level. Tapejara, Brazil, 2023.

Predictors	Self-esteem
	β (IC)
Sensory Functioning	-0.03 (-0.04; 0.03)
Autonomy	0.20 (-0.01; 0.08)
Activities	-0.02 (-0.08; 0.07)
Social Participation	0.01 (-0.07; 0.08)
Death and Dying	0.10 (-0.10; 0.04)
Intimacy	0.42 (0.04; 0.63)***
R ²	0.28
F	10.475***
Durbin-Watson	2.18

Note: Only standardized regression coefficients below the significance level of 0.05 are highlighted in bold. β = Standardized regression coefficient; CI = 95% confidence interval; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

DISCUSSION

Our results indicated that high perceptions of QoL

in the physical domain enhance older adults' self-esteem. In the study by Tavares *et al.* (2016), lower scores in all QoL domains, including the physical domain, were associated with the lowest levels of self-esteem. This can be explained by the positive influence that good physical



health has on autonomy and independence in old age (NAGAE *et al.*, 2023). Older adults who perceive themselves to be in good physical condition tend to experience greater vitality and functional capacity, contributing to a more positive view of themselves and raising self-esteem (SANTOS *et al.*, 2023). Engagement in physical activities and the social interaction provided by the group contribute to maintaining this physical well-being, establishing a direct correlation between QoL in the physical domain and self-esteem in the older population (ALVAREZ *et al.*, 2022).

The same result was found in the psychological domain and the study by Tavares *et al.* (2016). High perceptions of QoL in the psychological domain can enhance self-esteem in older adults who attend community groups for various reasons. Firstly, mental health plays a crucial role in the perception of well-being and personal satisfaction. Older adults who report high psychological QoL often experience greater emotional resilience, optimism, and self-acceptance, directly contributing to positive self-esteem (PARIOL *et al.*, 2019). Additionally, the social interaction provided by the community group offers important emotional support, reducing isolation and promoting positive interpersonal relationships (SILVA; MENDES; PINHEIRO, 2022). Sharing experiences, exchanging emotional support, and feeling a sense of belonging to a community can strengthen older adults' mental health, positively influencing their self-esteem (NAGAE; MITSUTAKE; SAKAMOTO, 2023). Therefore, the perception of QoL in the psychological aspect emerges as a key factor in promoting self-esteem in older adults participating in these groups.

A paradoxical finding emerged in our study: higher scores in the "social relationships" domain of quality of life were associated with lower levels of self-esteem among older adults participating in the community group. This contrasts with the findings of Tavares *et al.* (2016), who reported that lower scores in this domain were linked to reduced self-esteem. One possible explanation lies in the complex interplay between perceived social support and subjective well-being. Older adults may enter community groups with high expectations for emotional support, companionship, and recognition. However, when these expectations are unmet—or only partially met—feelings of exclusion, invisibility, or relational asymmetry may arise, generating frustration and a sense of personal

inadequacy that undermines self-esteem.

Furthermore, the social environment within community groups is not always uniformly positive. As Fu, Li, and Mao (2018) highlight, intense or frequent social interactions may increase vulnerability to interpersonal conflicts, social comparison, or perceived social hierarchies. These psychosocial dynamics can heighten self-awareness of personal limitations (e.g., cognitive or physical decline), evoke feelings of dependency, or reinforce internalized ageist stereotypes, all of which can erode self-esteem (HSU *et al.*, 2019). From a psychosocial perspective, self-esteem in later life is not only influenced by the presence of social ties but also by their quality, reciprocity, and the individual's sense of belonging and value within the group.

This apparent contradiction emphasizes the need to consider not merely the quantity of social relationships, but their subjective meaning and emotional resonance in shaping self-perception among older adults. It also underscores the importance of designing community interventions that foster inclusive, empowering, and emotionally safe social environments.

We also found that high perceptions of QoL in the intimacy facet enhance older adults' self-esteem. Souza Júnior *et al.* (2022) also found an association between the intimacy facet and the self-esteem of older people in the community. The quality and depth of intimate relationships are often associated with a sense of belonging and emotional support, fundamental elements for building a positive self-image (OLIVEIRA *et al.*, 2019). Feeling understood, appreciated, and supported in intimate relationships contributes to constructing a solid foundation for self-esteem (SOUZA JÚNIOR *et al.*, 2022; OLIVEIRA *et al.*, 2019). Additionally, intimacy is intrinsically linked to emotional and social connection, and older adults who perceive high levels of QoL in this area may experience greater personal satisfaction and a sense of meaning in life (RISAL *et al.*, 2020). This result highlights the importance of close interpersonal relationships in promoting psychological well-being and self-esteem in older adults.

The study has some limitations that must be acknowledged. One key limitation concerns the generalizability of the findings, as the research was conducted within a specific geographical and sociocultural context, which may limit its applicability to other



populations of older adults living in different cultural, economic, or social settings. Additionally, there is a potential participation bias: individuals who voluntarily engage in community groups may represent a subset of the older population who are more socially active, autonomous, or motivated. This self-selection bias may skew the results, overrepresenting individuals with higher functional or psychosocial engagement, and underrepresenting those who are more socially isolated or vulnerable.

Moreover, the cross-sectional design of the study precludes the establishment of causal relationships. It is not possible to determine whether lower self-esteem leads to specific perceptions of social relationships or whether certain qualities of social engagement affect self-esteem levels. The directionality of the associations observed — such as the paradoxical link between high scores in social relationships and lower self-esteem — may reflect reverse causality or underlying confounding factors not captured in the study. Longitudinal designs would be necessary to

explore these relationships more robustly and clarify the temporal dynamics involved.

In conclusion, in the studied sample, high perceptions of QoL in the physical and psychological domains enhance the self-esteem of older adults participating in community groups, while high scores in the social relationships domain reduce their self-esteem. Additionally, high perceptions of QoL in the intimacy facet enhance the self-esteem of these older adults.

Based on the mentioned results, practical implications suggest the need for personalized intervention programs for older adults participating in community groups to promote overall quality of life and strengthen the physical and psychological domains. Strategies aimed at improving older adults' physical and emotional health can be implemented to enhance their self-esteem. Moreover, it is important to consider the role of intimacy in promoting self-esteem, suggesting the inclusion of activities that encourage interpersonal connection and social support within these groups.

REFERENCES

ALENCAR, L. K. *et al.* Promovendo saúde: um elo de cuidados no tratamento não medicamentoso de doenças crônicas na terceira idade. **Revista Interfaces**, v. 7, n. 1, p. 250-254, 2019. DOI: <https://doi.org/10.16891/665>.

ALVAREZ, A. P. E. *et al.* Centro de Convivência Virtual: potencialidades e desafios para a promoção da saúde e redes de afeto em tempos de pandemia. **Reciis – Revista Eletrônica de Comunicação, Informação & Inovação em Saúde**, v. 16, n. 3, p. 517-529, 2022. DOI: <https://doi.org/10.29397/reciis.v16i3.3307>.

BRUCKI, S. M. D. *et al.* Sugestões para o uso do mini exame do estado mental no Brasil. **Arquivos de Neuropsiquiatria**, 61 (3-B), p. 777-781, 2003. DOI: <https://doi.org/10.1590/S0004-282X2003000500014>.

CASEMIRO, N. V.; FERREIRA, H. G. Indicadores de saúde mental em idosos frequentadores de grupos de convivência. **Revista da SPAGESP**, v. 21, n. 2, p. 83-96, 2020.

CASTRO, J. L. C. *et al.* Análise psicossocial do

envelhecimento entre idosos: Suas representações sociais. **Revista Actualidade em Psicologia**, v. 34, n. 28, p. 1-15, 2020. DOI: <http://dx.doi.org/10.15517/ap.v34i128.35246>.

CHUNG, S.; NAMKUNG, E. H. Self-esteem as a mediator in the relationship between perceived age stigma and emotional well-being among Korean older adults: the moderation effect of marital status. *Aging and Mental Health*, v. 26, n. 7, p. 1470-1478, 2022. <https://doi.org/10.1080/13607863.2021.1991276>.

FLECK, M. P. A. *et al.* Aplicação da versão em português do instrumento WHOQOL-bref. *Revista de Saúde Pública*, v. 34, n. 2, p. 178-183, 2000. DOI: <https://doi.org/10.1590/S0034-89102000000200012>.

FLECK, M.; CHACHAMOVICH, E.; TRENTINI, C. M. Projeto WHOQOL-OLD: método e resultados de grupos focais no Brasil. **Revista de Saúde Pública**, 37, p. 793-799, 2003.

FOLSTEIN, M. F.; FOLSTEIN, S. E.; MCHUGH, P. R. Mini Mental state – A practical method for clinicians to

grade the cognitive state of patients. **Journal of Psychiatric research**, 12, p. 189-198, 1975.

FU, C.; LI, Z.; MAO, Z. Association between Social Activities and Cognitive Function among the Elderly in China: A Cross-Sectional Study. **International Journal of Environmental Research and Public Health**, v. 15, n. 2, 2018. DOI: <https://doi.org/10.3390/ijerph15020231>.

HAUKOOS, J. S.; LEWIS, R. J. Advanced statistics: bootstrapping confidence intervals for statistics with “difficult” distributions. **Academic emergency medicine**, v. 12, n. 4, 2005.

HSU, H. C. *et al.* Social Determinants and Disparities in Active Aging Among Older Taiwanese. **International Journal of Environmental Research and Public Health**, v. 16, n. 16, 2019. DOI: <https://doi.org/10.3390/ijerph16163005>.

HUTZ, C. S.; ZANON, C. Revisão da adaptação, validação e normatização da escala de autoestima de Rosenberg. **Avaliação psicológica**, v. 10, n. 1, p. 41-49, 2011.

MARZO, R. R. *et al.* Determinants of active aging and quality of life among older adults: systematic review. **Frontiers in Public Health**, 11, 2023. DOI: <https://doi.org/10.3389/fpubh.2023.1193789>.

NAGAE, M.; MITSUTAKE, T.; SAKAMOTO, M. Impact of skin care on body image of aging people: A quasi-randomized pilot trial. **Heliyon**, 9, 2023. <https://doi.org/10.1016/j.heliyon.2023.e13230>.

NASCIMENTO, C. M. M. *et al.* Uso do perfil de atividades e participação para avaliação da funcionalidade de idosos inativos fisicamente. **Fisioterapia em Movimento**, 35, 2022. DOI: <https://doi.org/10.1590/fm.2022.35119.0>.

OLIVEIRA, D. V. *et al.* Self-esteem among older adults treated at basic health units and associated factors. **Geriatrics, Gerontology and Aging**, v. 13, n. 3, p. 133-140, 2019. <https://doi.org/10.5327/Z2447-211520191900029>.

OLIVEIRA, M. A.; RIBEIRO, H. F.; COSTA, N. P. Qualidade de vida de idosos amazônicos que participam de um grupo de convivência. **Enfermagem em Foco**, v. 10, n. 5, p. 26-31, 2019.

PARIOL, C. L. L. *et al.* A influência da autoestima no processo do envelhecimento: uma visão da psicologia. **Diálogos Interdisciplinares**, v. 8, n. 1, p. 45-52, 2019.

RISAL, A. *et al.* Quality of life and its predictors among aging people in urban and rural Nepal. **Quality of Life Research**, v. 29, n. 12, p. 3201-3212, 2020. <https://doi.org/10.1007/s11136-020-02593-4>.

Santos, D. L. *et al.* (2023). Atividade física, sintomatologia depressiva e autopercepção do envelhecimento em idosas ativas de Porto Alegre-RS. **Revista Nursing**, v. 26, n. 306, p. 10038-10044, 2023. DOI: <https://doi.org/10.36489/nursing.2023v26i306p10038-10044>.

SILVA, A. S.; MENDES, R. H. L. S.; PINHEIRO, L. L. Impacto do Envelhecimento na Autoestima e Satisfação com a Vida em Brasileiros. **Revista de administração sociedade e inovação**, p. 1-14, 2022.

SILVA, M. M. V. *et al.* Promovendo a qualidade de vida da população idosa. **Revista Interfaces**, v. 7, n. 1, p. 255-263, 2019. DOI: <https://doi.org/10.16891/664>.

SOUZA JÚNIOR, E.V. *et al.* Is self-esteem associated with the elderly person's quality of life? **Revista Brasileira de Enfermagem**, n. 4, 2022. DOI: <https://doi.org/10.1590/0034-7167-2021-0388>.

TAVARES, D. M. *et al.* Quality of life and self-esteem among the elderly in the community. **Ciência Saúde Coletiva**, v. 21, n. 11, 2016. DOI: <https://doi.org/10.1590/1413-812320152111.03032016>.