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Loneliness in the elderly and associated factors

Solidão em idosos e fatores associados

Soledad en ancianos y factores asociados

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This is a quantitative, cross-sectional study of a descriptive and correlational type. Data collection took place between August of 2017 and April of 2019, in the city of Uberaba, MG, Brazil. It aimed to analise the frequency of loneliness in the elderly and relationships between loneliness with the practice of pleasurable activities, depression, subjective well-being and self-rated health. Instruments for assessing loneliness, pleasurable activities, subjective well-being and depression were applied, in addition to a sociodemographic questionnaire in non-institutionalized elderly people without cognitive impairment. 156 elderly people aged between 60 and 88 years were surveyed (M = 69.72; SD = 6.77), 83.3% being female and 16.7% male. A total of 10.9% had moderate to severe loneliness. Significant relationships were found between loneliness and the other constructs: the higher the level of loneliness, the more symptoms of depression, the worse the self-rated health and the lesser the practice of pleasurable activities and well-being. The results point to probable risk and protective factors for loneliness in the elderly, and therefore have relevant implications for planning interventions and public policies aimed at improving the mental health of this public.
Descriptors: Aging; Mental health; Health promotion; Pleasure.

Este é um estudo quantitativo, de corte transversal do tipo descritivo e correlacional. A coleta de dados ocorreu entre agosto de 2017 e abril de 2019, na cidade de Uberaba, com o objetivo de analisar a frequência da solidão em idosos e relações entre solidão com prática de atividades prazerosas, depressão, bem-estar subjetivo e autoavaliação de saúde. Foram aplicados instrumentos de avaliação da solidão, atividades prazerosas, bem-estar subjetivo e depressão, além de um questionário sociodemográfico em idosos não institucionalizados e sem comprometimento cognitivo. Foram pesquisados 156 idosos com idades entre 60 e 88 anos (M=69,72; DP=6,77), sendo 83,3% do sexo feminino e 16,7% do sexo masculino. Um total de 10,9% apresentou solidão moderada a grave. Foram encontradas relações significativas entre solidão e os demais construtos: quanto maior o nível de solidão, mais sintomas de depressão, pior a autoavaliação em saúde e menor a prática de atividades prazerosas e bem-estar. Os resultados apontam para prováveis fatores de risco e de proteção para solidão em idosos, e por isso apresentam implicações relevantes para o planejamento de intervenções e políticas públicas que visem aprimorar a saúde mental desse público.
Descritores: Envelhecimento; Saúde mental; Promoção da saúde; Prazer.

Este es un estudio cuantitativo y transversal de tipo descriptivo y correlativo. La recogida de datos tuvo lugar entre agosto de 2017 y abril de 2019, en la ciudad de Uberaba, MG, Brasilcon el objetivo de analizar la frecuencia de la soledad en ancianos y las relaciones entre la soledad y la práctica de actividades placenteras, la depresión, el bienestar subjetivo y la autoevaluación de la salud. Se aplicaron instrumentos de evaluación de la soledad, actividades placenteras, bienestar subjetivo y depresión, además de un cuestionario sociodemográfico en ancianos no institucionalizados y sin deterioro cognitivo. Se encuestó a un total de 156 ancianos de entre 60 y 88 años (M=69,72; SD=6,77), 83,3% mujeres y 16,7% hombres. Un total del 10,9% presentó soledad moderada a severa. Se encontraron relaciones significativas entre soledad y otros constructos: cuanto más alto es el nivel de soledad, más síntomas de depresión, peor es la autoevaluación de la salud y menor es la práctica de actividades placenteras y de bienestar. Los resultados apuntan a probables factores de riesgo y de protección de la soledad en ancianos y, por lo tanto, tienen implicaciones relevantes para la planificación de intervenciones y políticas públicas destinadas a mejorar la salud mental de este público.
Descriptores: Envejecimiento; Salud mental; Promoción de la salud; Placer.

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INTRODUCTION

Loneliness can be understood as the individual's perception of how satisfactory their interpersonal relationships are, both in terms of quantity and quality[1]. It is not just about being or not in the presence of other people, as the individual may be in contact with several of them and still report feeling lonely[1,2]. That is, loneliness says about a lack of social connection experienced subjectively by the individual, which includes emotional and cognitive components that express perceptions and feelings of isolation and emptiness in relationships[3].

Currently, loneliness represents an epidemic, and is frequent in the elderly[4]. In this population, specifically, international studies show that loneliness appears associated with depression, social isolation and living alone[5]. Frequent complaints of loneliness in the elderly are also associated with normative events of transition throughout life, such as children leaving the family home, widowhood and retirement[6]. Loneliness in the elderly can also be related to a deficit in social support, loss of autonomy and deterioration of health, and a consequent decrease in well-being[7].

Therefore, loneliness has important implications for people's physical and mental health, and the elucidation of possible risk and protective factors associated with the manifestation of loneliness is relevant. Considering the possible protective factors for loneliness in the elderly, the promotion of social contacts in the elderly through social groups can provide subjective well-being[8] and help to alleviate feelings of loneliness in the elderly[9]. Therefore, contexts in which the elderly have opportunities to establish meaningful interpersonal relationships and practice pleasurable activities seem to be protective of mental health, which may result in lower levels of loneliness in the elderly[10].

Still, the studies that investigate loneliness in the elderly in the Brazilian context are incipient, with little data on how loneliness manifests itself and with what factors it is related to this specific public. In Brazil, people aged 60 or over represent about 13% of the population, however this number is expected to double in the coming decades[11].

Considering the accelerated growth of the Brazilian elderly population, it is understood that investigations on the mental health of the elderly are essential for the elaboration and implementation of interventions and public policies to improve the conditions of aging of the population in Brazil. Thus, it is important to carry out studies that investigate the relationship between loneliness and aspects of mental health in the elderly, aiming to identify possible risk and protective factors for experiencing loneliness. Thus, the present study aims to investigate the frequency of loneliness in the elderly and the relationship between loneliness and the practice of pleasurable activities, depression, subjective well-being and self-rated health.

METHOD

This is a quantitative, cross-sectional study of a descriptive and correlational type. Data collection took place between August of 2017 and April of 2019, in the city of Uberaba. The present study was derived from the research project entitled: *Mental health indicators of the elderly from social groups*, which was referred to the Research Ethics Committee of the Universidade Federal do Triângulo Mineiro, having been approved (CAAE: 65813417.9.0000.5154).

For this study, a convenience sample was considered. The following inclusion criteria were adopted: people over 60 years old, non-institutionalized and attending recruitment sites selected for this study (social groups for the elderly, School Service in Psychology, Hiperdia group at Hospital das Clínicas, Universidade Federal do Mineiro Triangle - HC/UFTM). The exclusion criterion consisted of elderly people who had cognitive impairment referred by the professionals who accompanied these elderly people in the recruitment centers. When recruited at Hospital das Clínicas and at Serviço-Escola de Psicologia, cognitive impairment was

assessed by the Mini-Mental State Examination, and only the elderly who reached the cut-off score indicative of absence of cognitive impairment were considered for the study[12].

A sociodemographic questionnaire was used to obtain information on the characterization of the elderly, including self-rated health, which consisted of the following question: *In general, would you say your health is? 1 - excellent; 2 - very good; 3 - good; 4 - reasonable; 5 - bad.*

The Brazilian Scale of Solitude (UCLA-BR) was applied. The instrument is a scale for adults and the elderly that has been adapted for Brazil[3], based on the foreign versions UCLA-R13 and UCLA-31[4]. The UCLA-BR is composed of 20 statements, which portray the affective and cognitive states of loneliness. The participant indicates the frequency with which he has recently experienced the situations described in the items, which can vary from 1 (never) to 4 (frequently). The scale showed satisfactory internal consistency (α = 0.94) and presented evidence of external validity, since it has significant relationships with depression and social support. The cut-off score for interpretation are: 0 to 22 points, indicative of minimal loneliness; 23 to 35 points, indicative of mild loneliness; 36 to 47 points, indicative of moderate loneliness; and 48 to 60 points, indicating severe loneliness[15].

To evaluate the PPA (Practice of Pleasant Activities), the Brazilian Version adapted from the California Older Person's Pleasant Events Schedule[16] was used, namely the OPPES-BR[17]. The applied scale consists of 67 items that describe activities that tend to be pleasant for the elderly. The participant indicates the frequency that performed these activities in the last month according to the scoring scale: 0 (never); 1 (1 - 6 times), and 2 (more than 7 times). In addition, they must rate the subjective pleasure they have experienced in each activity performed, using the score scale: 0 (it was not or would not have been pleasant), 1 (it was or would have been reasonably pleasant) and 2 (it was or it would have been quite pleasant).

The PPA has a structure of four factors referring to the subscale Frequency[18]: (1) Social and Competence Activities (α = 0.94): cover social situations in which the elderly can express a sense of competence and usefulness for themselves and for others; (2) Contemplative Activities (α = 0.83): introspective activities in which the elderly person can express positive feelings and also be in contact with nature; (3) Practical Activities (α = 0.72): events present in the elderly's routine, such as domestic activities and community involvement; and (4) Intellectual Activities (α = 0.70): require reading and writing skills for the elderly to practice them.

To access subjective well-being, the Positive and Negative Affect Scale - PNAS[19] and the Satisfaction with Life Scale - LWLS[20] were used, which were translated into Brazil[21] and adapted for use with Brazilian elderly[22]. PNAS investigates the affections that people experience and LWLS enables a more global assessment of the individual's personal satisfaction with life. The PNAS is composed of ten different affects (positive and negative), and the respondent must answer on a scale of 1 (nothing) to 10 (extremely), how much each affect has been experiencing lately. The LWLS, on the other hand, consists of 4 statements that the interviewee must answer on a scale of 1 (strongly disagree) to 10 (strongly agree), regarding his satisfaction with life. Both scales show good internal consistencies (α = 0.78 for the PNAS and α = 0.84 for the LWLS).

The Geriatric Depression Scale - reduced version - (GDS-15) was applied. The GDS-15 was developed[23] and translated and validated for Brazil[24]. It consists of 15 items, being one of the most used instruments for detecting severe and mild depressive symptoms in the elderly, in research and in clinical practice[23]. Scores above 5 indicate positive screening for depression. It has a specificity of 73.9% and a sensitivity of 85.4%.

For data collection, the elderly were contacted in social groups (Elderly Care Unit and Universities Open to the Elderly), Hiperdia group at HC/UFTM and Serviço-Escola em Psicologia linked to the Institution of the Ethics Committee where the research was approved. First, professionals who worked directly with the elderly in these places were consulted to request indications from potential participants for the research.

From these indications, the elderly were invited to participate in the research. When the elderly accepted to participate, there was a previous agreement in regards to the method of application and instruments used, which occurred in a self-administered format or through an interview, depending on the conditions of the elderly. Psychology graduates, previously trained, performed data collection through the application of instruments in the institutions where the elderly person had been contacted. First, the Informed Consent Form was read. After signing the term, the instruments were applied.

Data analysis was performed using the SPSS version 22 program. Descriptive statistics techniques were used to investigate means, standard deviations, proportions and minimums and maximums of the variables, in addition to the Kolmogorov-Smirnov test to investigate the distribution of the variables, having been found that had non-normal distribution. Thus, Spearman's correlation coefficient was adopted to test the relationships between the constructs.

RESULTS

156 elderly people aged between 60 and 88 years participated in the survey (M = 69.72; SD = 6.77), of which 83.3% were female and 16.7% were male. Table 1 shows the frequency of loneliness, and it is possible to observe that most participants (89.1%) had minimal to slight loneliness.

Table 1. Levels of loneliness in the elderly (n = 156). Uberaba, August 2017 to April 2019.

Level of Loneliness	N	%
Minimal loneliness	114	73.1%
Mild loneliness	25	16.0%
Moderate loneliness	10	6.4%
Severe loneliness	7	4.5%

Table 2 shows the values of the correlation coefficient for the relationships between loneliness and depression, PPA, SWB and SEH. Note that loneliness showed statistically significant correlations with all constructs. Loneliness showed weak and moderate relationships with PPA, strong relationship with depression, moderate relationship with SWB and moderate relationship with SEH. In this way, the results indicate that the more loneliness the elderly person experiences, the less pleasurable activities they practice, the less SWB they experience, the more symptoms of depression they suffer and the worse they evaluate their health.

Table 2. Correlations between loneliness and the practice of pleasurable activities, depression, subjective well-being and self-rated health. Uberaba, August 2017 to April 2019.

		Loneliness
Practice of Pleasant Activities	General Frequency	-0.37**
	General Pleasure	-0.20**
	Social and Competence Activities	-0.38**
	Contemplative Activities	-0.25**
	Practical Activities	-0.16*
	Intelectual Activities	-0.19*
Subjective Well-Being	Positive Affection	-0.50**
	Negative Affection	0.51**
	Satisfaction with Life	-0.47**
Depression		0.61**
Self-Evaluated Health		0.40**

Key: *p<.05; **p<.01

DISCUSSION

It was found that the majority of those surveyed had a minimum to light level of loneliness. However, 10.9% of the elderly had indicative screening for moderate to severe loneliness. When this result is compared with studies that used versions of UCLA to measure loneliness in elderly people from other countries, the proportion of elderly people in the present study who suffer from more severe levels of loneliness is lower than in Chinese elderly people living in rural areas, where 78, 1% had moderate to severe loneliness[25], and in Indian elderly in the community, where 37.6% had scores above 50 at UCLA[26].

These results suggest that loneliness in the elderly can also be influenced by cultural factors, since discrepant proportions are observed in the prevalence of more severe levels of loneliness, measured from versions of the same instrument in different cultures. However, it is also necessary to consider that part of the elderly in the present study were recruited from community centers, places that favor the mental health of the elderly[8] and that, therefore, could explain, even partially, the lower proportion of elderly people with positive screening for levels more severe loneliness.

When evaluating relationships between loneliness and other constructs (depression, PPA, SWB and SEH), the strongest relationship found was between loneliness and depression, a relationship that has been well documented for the general population, whether in the national context[2,3] as in other countries[4]. The present study investigated this relationship only in the elderly, showing that this relationship is maintained for this audience. Therefore, these results are in addition to existing research that attests that loneliness is positively associated with a greater risk for the development of depression in the elderly[27].

The results also demonstrated significant associations between loneliness and SWB, so that elderly people who experience less loneliness have better SWB rates, since they are more likely to experience less negative affects and greater satisfaction with life and positive affects. Relationships between SWB and loneliness (as measured by the short Portuguese version of UCLA) were also tested in Portuguese elderly[28] and corroborate the results presented here, in the sense that SWB seems to be a protective factor for the development of loneliness in the elderly.

SEH also appeared to be associated with loneliness in the elderly. SEH is a measure widely used as an important indicator of the well-being of the elderly, as it is a measure recommended by the World Health Organization to verify the health of populations. Thus, in view of data that attest that loneliness is directly related to aspects of people's mental health and physical health[29], it was expected that SEH was also associated with loneliness in the elderly, suggesting that the worse the assessment that the elderly person makes health, the greater the risk of experiencing loneliness.

The investigation presented here also showed associations between loneliness and PPA, showing that these constructs are generally related, but in different magnitudes, when considering the specific type of pleasant activity. The relations of greater magnitude between loneliness and PPA were observed for social and competence activities, followed by contemplative activities.

Loneliness showed weaker relations and a lower level of significance with practical and intellectual activities. The form of social contact that each type of pleasurable activity presupposes can help explain these observed relationships. For example, no type of social contact is necessary for intellectual activities to be practiced[18], and thus, this type of activity would have little relationship with loneliness, since this is a construct defined from the individual's subjective perception of his social relations[1].

Social and competence activities, in turn, were the type of activity that showed a greater relationship with loneliness. Activities of this nature imply rewarding social contacts for those who practice them, considering that these activities describe situations in which the elderly person generally expresses a sense of competence and usefulness in the relationship with other

people[18], which can reflect in more positive evaluations about social relationships and consequent attenuation of loneliness experiences.

However, contemplative activities also showed a greater magnitude of association with loneliness, and such activities do not require contact with other people for them to occur, whereas practical activities that include activities developed in the domestic and community context and that would therefore require some social contact[18], were the ones least associated with loneliness. This data can be explained by understanding the difference between loneliness and loneliness.

Solitude, in contrast to the definition of loneliness, expresses a positive state in which the individual derives benefits from being alone[30], which may be the case for people who practice contemplative activities, which consist of introspective events, for which the individual is alone, but has the opportunity to express positive feelings[18], and consequently have less chance of experiencing loneliness. A qualitative Brazilian study with elderly women revealed that these women reported evaluating loneliness as a positive experience, which in this case could be considered as loneliness, because according to the perception of these elderly women, it only favors the practice of pleasurable activities without the presence of others. people, serving as a condition for a connection with oneself and a pleasant life[9].

Practical activities are less related to loneliness, probably because the fact that the elderly person has contact with people in the home or even in the community when involved in domestic or community activities, does not necessarily imply the experience of satisfying and rewarding relationships that protect them from loneliness, and therefore there would be little relationship between these constructs. Thus, the availability of social contacts is a necessary condition for the individual to derive social support and be less vulnerable to experiencing loneliness, but it is not a guarantee for this.

The study shown here goes on to analyze the frequency of loneliness in a sample of Brazilian elderly people, in addition to pointing out which types of pleasurable activities, in particular, seem to protect the elderly from loneliness the most.

CONCLUSION

The results of this study showed that the majority of the elderly had low levels of loneliness, as well as, probable risk factors for loneliness in the elderly were identified, being the case of depression and a worse SEH. Still, from the relationships observed between loneliness with PPA and SWB, it was found that elderly people who experience higher levels of SWB and practice pleasurable activities, especially social/competence and contemplative activities, which are more protected from experiences of loneliness.

However, the study presented as a limitation having a convenience sample, and therefore not representative of the elderly Brazilian population, being necessary to be cautious in making generalizations. Future studies should focus on investigating risk and protective factors for loneliness in the elderly from more representative samples. Still, the observed relationships must be explored in more detail in future investigations, such as from the development of regression models and structural equations to better elucidate the nature of the relationships between these constructs.

The implications of the results of this study are relevant to the planning and implementation of interventions that seek to prevent loneliness in the elderly, understood today as a public health problem. Thus, providing opportunities for the elderly to seek to experience higher levels of SWB and perform activities that are pleasurable, are important strategies for the prevention of loneliness and consequent promotion of mental health.

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CONTRIBUTIONS
Heloísa Gonçalves Ferreira was responsible for research, data analysis and review. **Níldila Villa Casemiro** contributed to data collection and writing.

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