







# Self-compassion and mental health promotion actions as moderators of anxiety among institutionalized older adults\*

*Autocompaixão e ações de promoção à saúde mental como moderadores da ansiedade entre idosos institucionalizados*

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## ABSTRACT

The objective of this study has been to verify the relationship between anxiety, self-compassion, and actions to promote mental health of older adults living in long-term facilities. This is an exploratory, cross-sectional, and quantitative study, carried out with 88 older adults living in six institutions in five cities in the state of São Paulo, Brazil, between 2016 and 2017, using a questionnaire to characterize the participants, the Mini-Mental State Examination, the Beck Anxiety Inventory, and the Self-Compassion Scale. Descriptive, correlational, and multiple linear regression analyses were performed using ordinary least squares. All ethical precautions were followed. For each point of increase in self-compassion scores, there was a 1.11% decrease in anxiety scores ( $p = 0.005$ ). Actions to promote mental health reduced anxiety scores by 0.54% ( $p = 0.043$ ). Thus, this study concludes that self-compassion and mental health promotion actions reduced anxiety in institutionalized older adults.

**Descriptors:** Aged; Geriatric Nursing; Anxiety; Mental Health; Health Promotion.

## RESUMO

Objetivou-se verificar a relação entre ansiedade, autocompaixão e ações de promoção à saúde mental de idosos residentes em Instituições de Longa Permanência. Estudo exploratório, transversal e quantitativo, realizado com 88 idosos residentes em seis instituições de cinco cidades do interior do Estado de São Paulo, entre 2016 e 2017, utilizando um questionário de caracterização dos participantes, o Mini exame do Estado Mental, o Inventário de Ansiedade de Beck e a Escala de Autocompaixão. Foram realizadas análises descritivas, correlacionais e de regressão linear múltipla pelos mínimos quadrados ordinários. Todos os cuidados éticos foram respeitados. Para cada um ponto de aumento nos escores de autocompaixão houve redução de 1,11% nos escores de ansiedade ( $p=0,005$ ). Ações de promoção à saúde mental reduziram em 0,54% ( $p=0,043$ ) os escores de ansiedade. Concluiu-se que a autocompaixão e as ações de promoção à saúde mental reduziram a ansiedade em idosos institucionalizados.

**Descritores:** Idoso; Enfermagem Geriátrica; Ansiedade; Saúde Mental; Promoção da Saúde.

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## INTRODUCTION

In the last decades, population aging has become noticeable for both developed and developing countries, because of the decrease in birth, fertility, and mortality rates together with the increase in the life expectancy of individuals<sup>(1)</sup>.

Researchers point out that there are approximately 30.2 million older adults in Brazil and of these, it is estimated that approximately 1% live in Long Term Care Facilities for Older Adults (LTCFs). Institutionalization may be associated with family problems, which increases weaknesses, physical disabilities, dependence in activities of daily living, as well as the occurrence of psychological disorders<sup>(2)</sup>.

Depressive and anxious symptoms, decreased self-esteem, loss of autonomy, feeling of insecurity, and difficulty socializing are prevalent among institutionalized older adults, being them directly proportional to the time of institutionalization. In addition, they can compromise the quality of life and the development of activities of daily living, in addition to increasing morbidity and mortality in this population<sup>(3)</sup>.

Because they experience several losses in this phase of life, older adults may be better prepared to face them when compared to younger persons. However, the adaptive response can be compromised by several conditions, such as economic, social, and even family aspects. Thus, the stress caused by changes in the environment, loss of connections, and deterioration of physical health can result in anxiety, depression, and loneliness, which are noticeable from the first month of institutionalization<sup>(3-4)</sup>.

Psychological symptoms such as anxiety can be influenced by self-compassion. Self-compassion comprises a positive mental state, which protects individuals from the negative consequences of self-judgment, isolation, and depressive feelings, resulting in forgiving failures, inadequacies, and suffering, as it is understood that they are natural phenomena of the human being, and as a consequence of this lower suffering, there is a decrease in depression and anxiety and increased well-being<sup>(5)</sup>.

Self-compassion seems to increase with advancing age<sup>(6)</sup>, however results are inconsistent and most studies include young persons or middle-aged individuals<sup>(5)</sup>. Researchers state that in older individuals self-compassion is positively related to health and well-being, as well as greater satisfaction with life, social function, self-esteem, positive affects, and successful aging. On the other hand, its absence is related to painful perception, emotional problems, depressive symptoms, physical problems, and negative affects<sup>(7-8)</sup>.

A cross-sectional study conducted in South Korea with 203 community-dwelling older adults has aimed to examine the association between self-compassion and symptoms of mental health and health-related quality of life. The results showed that self-compassion protects older adults against the

development of mental health symptoms and improves their health-related quality of life<sup>(9)</sup>.

A recent systematic review carried out by Australian and American researchers has aimed to analyze the literature in relation to self-compassion and well-being of older adults aged 65 and over. The sample of this review comprised 11 studies. As a result, the authors have found that there was an association between self-compassion and lower levels of depression ( $r = -0.58$ , 95%CI [-0.66, -0.48]) and anxiety ( $r = -0.36$ , 95%CI [-0.60, -0.70]). In addition, self-compassion minimized the impact of physical symptoms on the well-being results of older adults<sup>(10)</sup>.

Given the above and the gap in the literature on the subject in relation to institutionalized older adults, it seems important and pertinent to study the relationship between self-compassion, anxiety, and mental health promotion actions in institutionalized older adults, especially in the Brazilian context, as there may be scarcity and limiting access to resources. We believe that the development of mental health promotion actions for institutionalized older adults and higher levels of self-compassion can contribute to lower levels of anxiety. Therefore, this study aims to verify the relationship between anxiety, self-compassion, and mental health promotion actions of older adults living in long-term care facilities.

## METHOD

This is a descriptive, exploratory, cross-sectional study based on quantitative research. Its structure followed the guidelines present in the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) Statement for cross-sectional studies.

It was carried out in five municipalities in the State of São Paulo (SP), Brazil: São Carlos, Tietê, Piracicaba, Cerquillo, and Capivari, in the context of six LTCFs (three philanthropic, two private, and one mixed).

The population was composed of older adults living in these LTCFs. Eighty-eight older adults who met the following inclusion criteria were interviewed: aged 60 years or over, no previous diagnosis of dementia syndrome, able to communicate verbally, and score above the cut-off point in the Mini-Mental State Examination according to education level. Recently institutionalized older adults (less than one month) were excluded from the sample. The sample was established based on non-probabilistic, convenience sampling by selecting older adults with preserved cognitive conditions.

Initially, the researcher made contact with the professional responsible for each of the referred LTCFs and identified the older adults to be invited to participate in this study. Then, these older adults were approached to receive information about the research objective, the voluntary nature of

participation, and the confidentiality of the data collected. In addition, we verified whether the older adults met the inclusion criteria. The individuals were invited to participate in the research and, in case of consent, the Informed Consent was presented for signature in two copies. The older adults were submitted to sociodemographic characterization and measured for cognition, anxiety, and self-compassion.

Data collection took place in a single session, from August 2016 to February 2017 and began after the consent of the participants. A questionnaire previously prepared by the researchers was used to collect the characterization data with the following information: sex, age, education level, marital status, religion, time of institutionalization, origin, legal guardian, if they had children, degree of (in)dependency. This characterization information was provided by the responsible nurse at each LTCF, based on the medical records of the institutionalized older adults.

To assess their cognition, the Mini-Mental State Examination (MMSE) was applied. This is a tool used to screen for signs of cognitive impairment, which has been validated for the Brazilian context<sup>(11)</sup>. The cut-off score, which indicates the likely presence of cognitive changes, varies according to the individual's education level<sup>(12)</sup>.

To assess anxiety, the Beck Anxiety Inventory (BAI) was used, which has self-report questions. This instrument has been validated for Brazil<sup>(13)</sup> and its total score is the result of the sum of the individual scores, ranging from 0 to 63, and the higher the score, the higher the degree of anxiety. The degrees of anxiety were classified by levels, being them: from 0 to 10 = minimal anxiety, 11 to 19 = mild anxiety, 20 to 30 = moderate anxiety, and 31 to 63 = severe anxiety.

To assess self-compassion, the Neff's Self-Compassion Scale (SCS) was applied, which has been translated and validated in Brazil<sup>(14)</sup>. It is a Likert scale with 26 statements graded from one to five, in which the respondent must indicate how often they feel that way, in which one = almost always up to five = almost never. The total score is calculated by the sum of the items and varies from 26 to 130. It indicates how much the respondent expresses self-compassion; higher scores express a greater sense of self-compassion.

For the identification of mental health promotion actions, an interview was conducted with the coordinators of the LTCFs, who informed all the activities that were carried out with the residents of those facilities.

The aspects present in Resolution 466/2012 regulated by the National Health Council were observed and followed. This study was approved by the Research Ethics Committee on 03/Aug/2016, under opinion No. 1663053, CAAE: 56505216.1.0000.5504.

The reliability of the scales was assessed by Cronbach's alpha coefficient. In the descriptive analysis of the data, frequency distributions, averages, and standard deviations

were estimated for the continuous variables of the study. For categorical variables, proportions were estimated.

The Spearman correlation was used to determine the correlation between two variables, as well as to determine whether such a relation is inversely or directly proportional. In addition, multiple linear regression was performed using ordinary least squares, considered statistically significant if  $p < 0.05$ , with anxiety being a dependent factor and variables as binary. Qualitative non-binary variables were transformed into binary variables (zero or one), in which one indicates the presence of the characteristic. The estimation with the variables in log allows the interpretation of the results in terms of elasticities (influence force that one has over the other), thus enabling the simplified comparison of variables with different units and measures.

## RESULTS

The sample consisted of 88 older adults. There was a predominance of males ( $n=48$ , 54.5%), single ( $n=34$ ; 39%), mean age of 74.9 years ( $SD=8.3$ ; [61-97]), Catholics ( $n=51$ ; 57.9%), with incomplete primary education ( $n=46$ ; 52%), with children ( $n=51$ ; 58%), and independence in ADL (activities of daily living) ( $n=54$ , 61%).

Regarding institutionalization, the majority of the older adults came from their own homes ( $n=80$ , 90.9%), with legal responsibility attributed to a child ( $n=36$ ; 41%). The average institutionalization time was 70.4 months ( $SD=77.3$ ; [1-468]). The reasons that led the older adults to institutionalization were: difficulties with self-care ( $n=25$ , 28.4%), loneliness ( $n=20$ , 22.7%), family decision ( $n=11$ , 12.5%), absence of family or home ( $n=11$ , 12.5%), willingly ( $n=10$ , 11.4%), chronic illness of the older adult or caregiver ( $n=9$ , 10.2%), closure of the facility of origin ( $n=2$ , 2.3%).

As for the activities related to the promotion of mental health of the residents of the facilities, only 50% of the LTCFs performed them, 50% developed leisure activities, 83.3% individual therapies, 83.3% group therapies, 66.6% crafts, 66.6% prescription of psychotropic drugs, 66.6% physical activities, 50% integrative therapies, and 16.6% recreation.

In the reliability analysis, Cronbach's Alpha coefficient showed an index of 0.851 for BAI (anxiety) and 0.766 for SCS (self-compassion), thus attesting to its reliability.

Among the participants, the average BAI score was 14.3 ( $SD=11.0$ ; [0-46]; median = 10.5;  $CI=11.93-16.61$ ). Minimal anxiety was identified in 50% of the older adults ( $n=44$ ), followed by mild ( $n=20$ , 22.7%), moderate ( $n=16$ , 18.2%), and severe ( $n=8$ , 9.1%).

Regarding self-compassion, the average total SCS score was 84.2 ( $SD=15.1$ ). For the corrected values, the average was 3.2 [1.9 – 4.0].

The Spearman correlation showed a negative, significant, and low intensity correlation ( $r = -0.379$ ;  $p < 0.001$ ) between anxiety and self-compassion, which indicates that older adults with higher self-compassion scores have lower anxiety scores. The analysis of multiple linear regression of ordinary least squares (OLS) quantified this association, as shown in Table 1.

**Table 1.** Association between anxiety and other variables according to OLS. São Carlos, Tietê, Piracicaba, Cerquillo, and Capivari, SP, Brazil, 2016-2017.

Relationship with BAI (anxiety)	Coefficient	t	P> t
SCS (self-compassion)	-1.11	-2.92	0.005
MMSE (cognition)	-1.75	-2.66	0.010
Age	1.82	2.11	0.038
Education level	-0.54	-3.29	0.002
Willingly	1.32	2.26	0.027
Independence in ADL	-0.62	-2.86	0.006
Mental health promotion actions	-0.54	-2.06	0.043

OLS = Ordinary Least Squares; BAI = Beck Anxiety Inventory; SCS = Self-Compassion Scale; MMSE = Mini-Mental State Examination; ADL = Activities of Daily Living.

Self-compassion and mental health actions showed a significant association and a negative correlation with anxiety. In addition, for each point of increase in self-compassion scores there was a 1.11% decrease in anxiety scores. Furthermore, mental health promotion actions reduced anxiety by 0.54%. Other variables with significant association and negative correlation with anxiety were education level, cognition, and independence. The associated variables with a positive correlation to anxiety were age and willing institutionalization.

## DISCUSSION

Most participants in this study were men. Divergent data were found in the Brazilian and Portuguese literature, which point to a female predominance among institutionalized older adults<sup>(15-16)</sup>.

Most institutionalized women can be explained by the feminization of old age, as they live longer than men, are less exposed to smoking, alcoholism, and accidents due to external causes, have greater cardiovascular protection from female hormones, and seek health services more often. Furthermore, by becoming widows and experiencing an

unfavorable economic situation, they are predisposed to institutionalization<sup>(15)</sup>. The male predominance of the sample in this study may be related to the cognition of the LTCF residents. As women live longer than men, have a greater chance of living with chronic diseases, and are the majority in these facilities, they may have a more impaired cognition, which is an exclusion criterion in this study.

There was a predominance of single older adults, aged 74.9 years on average, with incomplete primary education, and with children. Researchers point out that factors such as low education level, few children, and no presence of a partner are considered predictors for institutionalization<sup>(15)</sup>.

Regarding anxiety, 50% of the older adults had minimal anxiety. However, the other half showed mild to severe anxiety. Researchers claim that anxiety is common among institutionalized older adults. Its prevalence is heterogeneous given that several methods, research designs, and instruments can be used to screen for this condition, in addition to the variability of the population studied and the cultural differences.<sup>(4,17)</sup>

The move to an unknown environment, the breaking of ties with family and friends, and the impairment of the physical health are factors that contribute to the emergence of anxious and depressive symptoms among institutionalized older adults<sup>(4)</sup>.

While some studies have shown a lower prevalence of anxiety in relation to depression in older adults, others have pointed out that the prevalence of anxiety disorders occurs between two and seven times more frequently than depression, and this rate is even higher in those living in nursing homes. Thus, it is suggested that residing in an LTCF is a risk factor for anxiety and depression, or both<sup>(3-4)</sup>. In this sense, we highlighted the importance of carrying out early assertive actions in order to prevent the appearance of such symptoms, as well as the development of longitudinal studies that assess the onset or worsening of anxiety between admission and stay at LTCFs.

Age showed a significant positive relationship with anxiety, that is, the increase of one year of life increases anxiety by 1.82%. A cross-sectional study conducted with 817 institutionalized Chinese older adults identified an association between anxiety and age (OR=8.34 95%CI: 4.43 – 15.69)<sup>(18)</sup>.

The physical and social changes that affect older adults, such as the loss of loved ones and companions, the proximity to death, the decrease in social relationships, especially the loneliness experienced with the distancing of family members because of their institutional routine, physical health problems, and the dependence in activities of daily living intensify with advancing age<sup>(4)</sup>. It can be assumed that these conditions raise anxiety in this age group.

Contrary to what we expected, willing institutionalization showed a positive correlation with anxiety. Such a correlation has not been identified in the national or international literature. When considering that there was a predominance of male and single individuals, we can assume that this anxiety is related to the loneliness already experienced before the choice to reside in an LTCF and the degree of autonomy of those who make such an option. Individuals aware of their limitations and with no other options can have a higher degree of uncertainty about their future, thus leading to increased anxiety<sup>(19)</sup>. In addition, institutionalization can result in the reduced autonomy of residents, in addition to the routines to be followed, with few recreation and leisure activities, which can culminate in increased anxiety<sup>(4,16)</sup>.

The variables that correlated negatively with anxiety were cognition, education level, independence, mental health promotion actions, and the self-compassion score.

Similar data have been found in the literature regarding the relationship between cognition and anxiety. Researchers have identified that frequent complaints of forgetfulness had a positive relationship with anxiety scores in older adults<sup>(7)</sup>.

In this same sense, studies indicate that older adults with low education can have a high prevalence of anxiety, as they are not economically independent, in addition to having difficulties in finding solutions that alleviate the problems they experience<sup>(20)</sup>.

In this study, older adults who were independent in relation to activities of daily living had 0.62% less anxiety. Self-reliance is another crucial factor in the development of anxiety. Activities that encourage the independence of older adults are important to avoid the onset of such disorder, as well as health actions that seek self-satisfaction and improve mental and physical capacity<sup>(21)</sup>.

Older adults living in facilities that offer mental health promotion actions showed a 0.54% reduction in anxiety scores. Measures such as therapeutic listening, valuing the older adult, relationships based on compassion, affection, and authenticity can help reduce everyday anxiety<sup>(22)</sup>. Other types of intervention such as group therapy and therapeutic workshops (such as crafts and recreational activities) are also useful to minimize anxiety in older adults. Activities that promote the expression of subjectivity, social engagement, personal appreciation, and strengthening of bonds can reduce anxiety<sup>(21)</sup>.

The presence of trained professionals in the facilities is essential for the planning of assertive actions and tasks aimed at promoting the mental health of residents and, consequently, decreasing the levels of anxiety of the older adults<sup>(21)</sup>. Integrative and additional practices such as massage therapy, acupuncture, meditation, relaxation, and aromatherapy can alleviate anxiety levels and they also have been shown to be effective in reducing stress and pain<sup>(23)</sup>.

The variable of self-compassion was negatively correlated with anxiety, that is, for each point of increase in self-compassion scores, there was a 1.11% decrease in anxiety scores. These data are in accordance with the literature<sup>(8)</sup>. There is evidence that older adults with high levels of self-compassion have less depressive symptoms, less anxiety, and greater satisfaction with life. In addition, there is a relationship between self-compassion and psychological well-being (happiness, optimism, personal initiative, connection, social connection, social intelligence)<sup>(7)</sup>.

As we age, self-compassion becomes more important for mental health. With the decline in physical health, memory lapses, and failures in the execution of tasks, many older adults tend to self-criticism, which increases feelings of anger and frustration towards themselves. In this way, improved self-compassion attenuates the negativity of these natural events<sup>(8)</sup>.

The way we face aging and our attitudes towards milestones that suggest it from middle age (menopause, role transition, health problems, loss of family members of previous generations) are determinant for better results in relation to mental health in our old age. In this sense, positive attitudes and thoughts about the aging process using self-compassion even in middle age becomes a useful tool for a healthy and successful aging. Older adults with high levels of self-compassion tend to have a better sense of well-being, emotional balance, greater satisfaction with life, and low levels of suffering<sup>(8)</sup>.

According to a Portuguese research, institutionalized older adults have lower levels of self-compassion when compared to the community-dwelling ones. Thus, higher levels of anxiety can be observed in that population<sup>(7)</sup>.

This work presented as limitation the scarce number of studies that investigated anxiety in the context of institutionalized older adults and those that investigated self-compassion in older adults, which limited the discussion of our findings. Furthermore, the resistance of the coordinators of the facilities to allow the research to be carried out was also considered a limiting factor. In addition, we cannot establish a cause and effect relationship or generalize the information considering the cross-sectional design and the convenience sample, respectively. However, such limitations do not nullify the results found and serve as a stimulus for the development of more robust research. In this sense, we suggest that intervention studies should be carried out in order to assess the mental health of institutionalized older adults before and after training related to self-compassion.

For the clinical practice of the nursing professional, this study demonstrates the importance of mental health screening and the use of self-report instruments, which can be crucial to quickly identify possible disorders and, as a consequence, allow early intervention with assertive strategies. Since anxiety can precede depression, the early detection of its symptoms

and the offering of appropriate treatment, in addition to reducing the damage caused by the anxiety disorder itself, can limit the later development of depression in older adults.

## CONCLUSION

For each point of increase in self-compassion scores, there is a decrease in anxiety scores. Actions to promote mental health also reduce anxiety scores. Cognition, independence, and education level showed a significant association and were negatively correlated with anxiety, while age and willing institutionalization were correlated positively with anxiety.

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