

THE MEDIATING EFFECT OF SOCIAL SUPPORT IN THE RELATIONSHIP BETWEEN RESILIENCE AND LONELINESS AMONG THE ELDERLY PEOPLE

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Abstract

Loneliness is an emotional and subjective experience that has a significant impact on people, especially elderly people. Various factors, such as resilience and social support, can help mitigate the negative effects of loneliness. However, further research is needed to understand how social support can influence the relationship between resilience and loneliness. With the aging of the population, understanding this issue has become even more urgent. **Objective:** The main objective of this research was to understand the mediating effect of social support on the relationship between resilience and loneliness among elderly people. **Method:** This study included a sample of 104 elderly people aged between 65 and 92 years, and three main measurement instruments were employed: the Wagnild and Young Resilience Scale, the Loneliness Scale (UCLA), and the Multidimensional Scale of Perceived Social Support (MSPSS). **Results:** The results indicated that social support had a significant mediating effect on the relationship between resilience and loneliness. We also found a negative correlation between loneliness, resilience, and social support, while resilience and social support were positively correlated. **Conclusion:** Thus, it was concluded that the inclusion of social support in the mediation model, together with resilience, demonstrated a greater effect in explaining loneliness among the elderly people. In this way, the results can help in the development of appropriate strategies to reduce loneliness and its impact on the elderly population, promoting resilience and increasing social support for this group. In addition, understanding these factors can provide valuable insights for healthcare professionals and public policy, enabling them to improve the psychological health of the elderly people, whose numbers have increased significantly.

Keywords: Resilience; Loneliness; Social Support; Elderly people.

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Introduction

Demographic aging refers to the continuous increase in the proportion of elderly people within the general population (Andrew, 2009). In Portugal, there are 185.6 elderly individuals (defined as those aged 65 or older) for every 100 young people (aged 0 to 14 years) (Instituto Nacional de Estatística [INE], 2023). Since the 1980s, this phenomenon has drawn increased interest from the scientific community due to its profound impact on population structure (e.g., greater healthcare needs, demand for social support) (Tavares et al., 2023). Aging is a natural part of the life cycle, marked by various psychological (e.g., internal conflicts, increased vulnerability to anxiety and depression), physiological (e.g., reduced mobility, diminished autonomy, and brain changes), and social transformations (e.g., retirement, widowhood, and institutionalization) (World Health Organization [WHO], 2024), which may contribute to health complaints or illnesses among the elderly people (Serra & Silva, 2023) and present significant challenges in their lives.

In this context, resilience becomes fundamental, as it enables individuals to more effectively overcome emerging challenges through adaptive processes, thereby fostering a more positive and autonomous response. Resilience is recognized as a protective factor against aging, aimed at mitigating its adverse effects (Wu et al., 2013). It represents the capacity to respond more effectively to stressful situations, thereby enhancing flexibility (Silva Júnior et al., 2019). Being resilient does not imply the elimination of problems but rather the capacity to ascribe new meaning to them (Oliveira et al., 2021). In a study conducted by Gerino et al. (2017) with 290 elderly individuals, findings revealed that high levels of resilience can support the development of psychological resources, thus improving the ability to cope with stress and loneliness. The most resilient older adults are not easily overwhelmed by adversity, demonstrating strong adaptive patterns or, if affected, quickly restoring their subjective well-being. When confronted with difficulties, they can reframe the situation, diminish perceived cognitive threats, reduce exposure to the problem, minimize negative reactions, maintain high self-esteem, and counteract the effects of stress. Conversely, individuals who are more vulnerable may lack the developed capacity to respond positively to adversity (Fontes & Neri, 2015; Laranjeira, 2007), which may increase feelings of loneliness or even susceptibility to mistreatment (Serra et al., 2022). Although it is known that greater resilience capacity is associated with a reduction in psychological distress and feelings of loneliness (Röhr et al., 2020), the study of loneliness has become increasingly necessary due to population aging (Azeredo & Afonso, 2016).

Nowadays, it is essential to address the issue of loneliness, as both the number of elderly individuals and cases of loneliness have increased, resulting in considerable suffering (Fonseca, 2005; Gough et al., 2023). Loneliness is a subjective experience marked by dissatisfaction or a perceived lack of meaningful and secure relationships, stemming from a pressing need to fulfill these connections and can be associated with an emotional component (e.g., absence of close relationships) and a social component (e.g., lack of interaction or social connection) (Lopes & Matos, 2018). This condition often leads to feelings of sadness and distress (Hossen, 2012) proving that negative emotions can predict loneliness (Serra et al., 2021).

The loneliness felt by older adults became more pronounced during the COVID-19 pandemic, reaching rates of 20%-34% across Europe, China, Latin America, and the United States (WHO, 2021). In Portugal, between 2020 and 2021, many elderly people were not vaccinated nor

receiving any kind of treatment for COVID-19, a situation that forced them into social isolation as a measure to prevent the spread of the disease. Furthermore, during this period, many elderly people did not have access to technological resources to communicate with others or to help them cope with the stress caused by the pandemic, further fostering social isolation and loneliness in general (Pereira et al., 2022). Specifically, social isolation - often resulting from insufficient social support - can intensify loneliness (Rodrigues, 2018). Moreover, even when a social support network is available, older adults may still experience loneliness due to various factors, such as inadequate support for their specific needs or a sense of exclusion (Monte et al., 2023).

Social support refers to relationships established with others or networks that provide protection, guidance, and health assistance (Ribeiro et al., 2019; Silva Júnior et al., 2019). Individuals who feel supported and protected, even when geographically distant, tend to experience less loneliness (Oliveira & Barroso, 2020). Satisfaction with a social support network may be negatively associated with loneliness and help prevent the adverse effects of loneliness (Azeredo & Afonso, 2016; Ferreira & Freire, 2010). In high-stress situations, such as serious health issues, social support becomes crucial due to the assistance it provides. However, there is an increasing fragility in interpersonal relationships, leading to a lack of support and a need for older individuals to seek alternative sources of social support (Faquinello & Marcon, 2011), a situation seemingly exacerbated after the COVID-19 pandemic, accompanied by negative emotions among those who lived alone (Tavares et al., 2022). Elderly people who reported being closer to their family experienced less loneliness, highlighting the importance of satisfactory social support (Lopes & Matos, 2018).

Pineda et al. (2022) demonstrated that adequate social support reduces levels of loneliness and improves participants' quality of life. In the same study, loneliness also served as a mediator between social support and resilience in relation to quality of life. However, little is known about the mediating effect of social support in the relationship between resilience and loneliness among the elderly people, despite the established protective role of social support against loneliness in this population (Luz & Miguel, 2015). Elderly people with resilience may view social support as a positive resource that helps them become more flexible and better cope with adverse situations, such as those caused by loneliness (e.g., personal and social disengagement, self-neglect) (Laranjeira, 2007). This leads us to hypothesize that the presence of social support in the relationship between resilience and loneliness can better explain the impact of resilience on loneliness in older adults.

Thus, the main objective of this study is to analyze the mediating effect of social support in the relationship between resilience and loneliness among the elderly.

Method

Participants

The sample of this study was non-probabilistic for convenience, consisting of 104 Portuguese elderly individuals of both sexes. The inclusion criteria encompassed people aged 65 or over, residing in the Lisbon and Vale do Tejo region, with the cognitive ability to answer the questionnaires independently, who voluntarily expressed an interest in participating, and who either

lived alone or were in institutions. The average age of the participants was 75.63 (± 7.84) years. All participants completed the study protocol (100%); 58 were women, representing 55.8% of the sample, and 46 were men, accounting for 44.2%. Most of the sample had completed primary education (4 years of schooling) (52.9%) and were widowed (42.3%), followed by married (32.7%), divorced (13.5%), and single (11.5%).

Regarding institutionalization, 47.1% of the elderly participants resided in social support institutions, while 52.9% lived in their own homes or with relatives. Of those institutionalized, 20.2% had been living in the institution for less than a year, 19.2% for between one and three years, and 7.7% for more than three years.

Measures

In this study, a sociodemographic questionnaire was applied to collect relevant information from the participants (e.g., age, sex, marital status, educational qualifications, whether, or not, institutionalized) in conjunction with The Wagnild and Young Resilience Scale, Scale of Loneliness (UCLA) and Multidimensional Scale of Perceived Social Support (MSPSS).

The Wagnild and Young Resilience Scale (original version by Wagnild & Young, 1990; Portuguese version by Felgueiras et al., 2010) aims to analyze how people adapt and respond to adverse events through 24 items, divided into five dimensions (Perseverance, Self-Reliance, Equanimity, Meaningfulness and Existential Aloneness). This is a Likert scale from 1 to 7, with 1 corresponding to “totally disagree” and 7 to “totally agree”. The higher the score, the higher the level of resilience. Scores below 121 equate to low resilience and above 145 to high resilience. The Portuguese version showed a Cronbach’s alpha of 0.82, and in the present study, the Cronbach’s alpha was 0.98, which is considered very strong.

The Scale of Loneliness - UCLA (original version by Russell et al., 1978; Portuguese version by Pocinho et al., 2010) aims to understand the feelings associated with loneliness and social isolation. The 16 items should be answered according to the frequency with which these feelings are felt. This scale is administered on a 4-point Likert scale (from 1- never to 4- often). A higher value represents a greater level of loneliness. The Portuguese version of the scale revealed a Cronbach’s alpha of 0.905, and in the present study, the Cronbach’s alpha obtained was 0.97.

The Multidimensional Scale of Perceived Social Support (MSPSS) (original version by Zimet et al., 1988; Portuguese version by Carvalho et al., 2011) aims to analyze how social support from family, friends and significant others is perceived through 12 items. Four items assess perceived social support from family (items 3, 4, 8, and 11), four analyze social support from friends (items 6, 7, 9, and 12), and four assess social support from other significant individuals (items 1, 2, 5, and 10). It varies on a Likert scale from 1 to 7, from “totally disagree” (1) to “totally agree” (7). The Portuguese version of this instrument showed a Cronbach’s alpha of 0.94, and in the present study, the reliability was $\alpha = .97$.

Procedure

After approval by the ethics committee, the study protocol was conducted in person at institutions such as care homes and day centers or at the participants’ homes after obtaining the necessary authorizations. Data collection took place between October 2022 and December 2023.

Informed consent was signed by the participants, their legal representatives, and the institutions that collaborated in the data collection. Participants were fully informed about the study’s objectives, that their participation was voluntary, that they could withdraw at any time, and that all collected data would remain confidential. Data collection proceeded with measures in place to ensure participants’ comfort, safety, confidentiality, and a well-lit environment. For institutionalized elderly participants, assessments were conducted in a private room designated for this purpose. For non-institutionalized participants, the instruments were administered at their homes, with their consent. This study guaranteed the confidentiality of all collected data, and no participants were put at risk or harmed in any way.

Data analysis

The data collected was analyzed using the Statistical Package for Social Sciences (SPSS) version 29.0 for Windows. The Cronbach’s Alpha coefficient was analyzed, as well as the normality of the data through the Kolmogorov-Smirnov test. The descriptive analysis included absolute frequencies and percentages, means and standard deviations. Inferential statistics were used to draw conclusions about this study. The lack of normality in the data led to the choice of Spearman’s correlation coefficient to analyze the relationship between the variables and its strength and direction (Al-Hameed, 2022). The Process Macro version 4.0 tool was used to analyze the mediation model of the variables, following the indications of the mediation models of Baron & Kenny (1986). This study considered significance levels of p-value $\leq .05$.

Results

Correlations between resilience, loneliness and social support

The following table (table 1) shows the statistical correlations between resilience and loneliness, considering its dimensions.

TABLE 1.
Correlations between resilience and loneliness.

	Loneliness		Affinities		Social isolation	
	rho	P	rho	p	rho	p
Resilience	-.839	<.001**	-.825	<.001**	-.831	<.001**
Perseverance	-.748	<.001**	-.752	<.001**	-.735	<.001**
Self-confidence	-.845	<.001**	-.832	<.001**	-.831	<.001**
Serenity	-.849	<.001**	-.847	<.001**	-.828	<.001**
Sense of life	-.838	<.001**	-.819	<.001**	-.839	<.001**
Self-sufficiency	-.698	<.001**	-.702	<.001**	-.698	<.001**

Note. rho= correlation coefficient; p= p-value (*.05; **.01; ***.001).

The following table (table 2) shows the statistical correlations between resilience and social support, considering their dimensions.

TABLE 2.
Correlations between resilience and social support.

	Social support		Family		Friends		Significants	
	rho	p	rho	p	rho	p	rho	p
Resiliência	.668	<.001**	.601	<.001**	.683	<.001**	.727	<.001**
Perseverance	.718	<.001**	.647	<.001**	.721	<.001**	.730	<.001**
Self-confidence	.668	<.001**	.590	<.001**	.683	<.001**	.723	<.001**
Serenity	.628	<.001**	.576	<.001**	.645	<.001**	.672	<.001**
Sense of life	.651	<.001**	.614	<.001**	.658	<.001**	.700	<.001**
Self-sufficiency	.699	<.001**	.601	<.001**	.722	<.001**	.725	<.001**

Note. rho= correlation coefficient; p= p-value (*.05; **.01; ***.001).

The following table (table 3) shows the correlations between social support and loneliness, considering their dimensions.

TABLE 3.
Correlations between social support and loneliness.

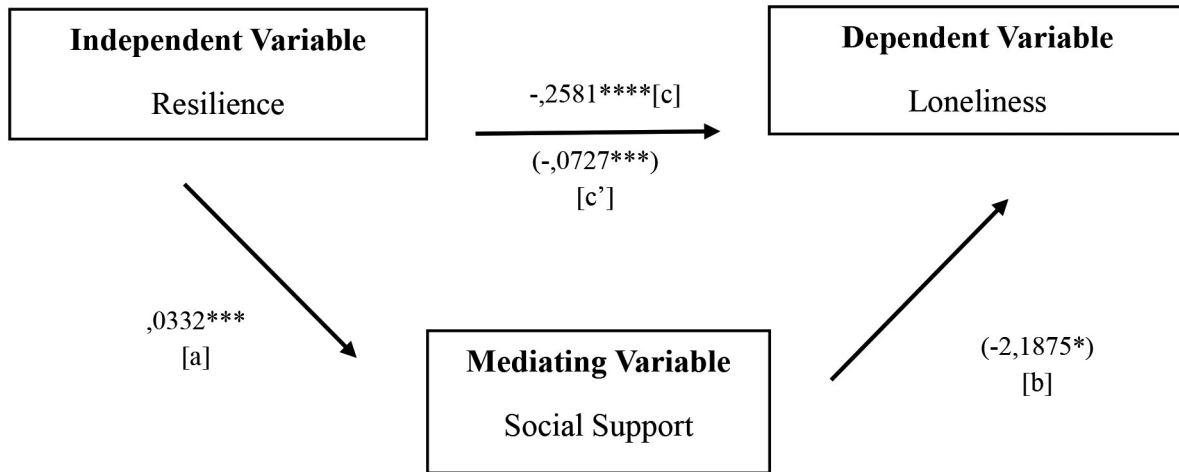
	Loneliness		Afinities		Social isolation	
	rho	P	rho	p	rho	p
Social support	-.652	<.001**	-.657	<.001**	-.668	<.001**
Family	-.623	<.001**	-.602	<.001**	-.643	<.001**
Friends	-.657	<.001**	-.661	<.001**	-.672	<.001**
Significants	-.682	<.001**	-.697	<.001**	-.690	<.001**

Note. rho= correlation coefficient; p= p-value (*.05; **.01; ***.001).

The mediating effect of social support on the relationship between resilience and loneliness
 Using the mediation model, we observed how the effect of the explanatory variable (resilience) influences the outcome variable (loneliness) through a mediating variable (social support) which was used as an intervening variable to explain this effect. The predictor variable, through the mediator variable, had an indirect effect on the outcome variable of $c' = -.0727^{***}$. The effect of resilience on loneliness ($c = -.2581^{***}$), the effect of resilience on social support ($a = .0332^{***}$) and the effect of social support on loneliness ($b = -2.1875^*$) were also analyzed and significant. The following figure (Figure 1) shows the significant mediating effect of social support on the relationship between resilience and loneliness.

FIGURE 1.

The mediating effect of social support on the relationship between resilience and loneliness



Note. The numerical values in brackets represent the beta values derived from the second regression, and the remaining values represent zero-order correlations. [C] = total effect of resilience without including the mediating variable; [C'] = effect of resilience on loneliness considering the effect of the mediating variable. *p < 0.05; **p < 0.01; ***p < 0.001.

Discussion

The primary objective of this study was to examine whether social support functions as a mediating variable in the relationship between resilience and loneliness in older adults. Additionally, correlations among the variables included in the study were tested.

Initially, the results revealed a strong and significant negative correlation between resilience and loneliness; that is, as resilience increases, feelings of loneliness decrease. Consistent with Jakobsen et al. (2020), the findings also indicated that more resilient individuals reported lower levels of loneliness. Resilience represents a set of resources that facilitate adaptation to various challenges, such as social isolation. Consequently, individuals who lack resources such as resilience and coping strategies are more vulnerable to experiencing loneliness (Lapane et al., 2022). The study by Roth et al. (2024) similarly showed that resilience acts as a protective factor against loneliness, in a sample of 596 subjects. According to Pakdaman et al. (2016), in times of crisis, a strong capacity for resilience enables individuals to recover emotionally and cognitively, making them more sociable and empathetic, whereas those experiencing loneliness often struggle to maintain their social connections. Indeed, the adaptive capacity of resilient individuals demonstrates that they are better prepared to handle emotional and cognitive demands when faced with challenges, such as loneliness. This ability to overcome adversity and maintain positive thinking helps them strengthen their social and relational interactions. The presence of resilience fosters greater emotional regulation and feelings of self-efficacy, which promote social engagement (Troy et al., 2023). Conversely, the experience of loneliness tends to distance individuals from others, increasing their difficulty in forming social bonds (Azeredo & Afonso, 20216).

The results of the present study also revealed a positive, strong, and significant correlation between resilience and social support. According to Ferreira et al. (2012), older adults who actively and regularly engage in leisure and social activities tend to face the consequences of aging more easily and with less difficulty. These authors also found that a strong capacity for resilience is associated with high self-esteem. Xiang et al. (2020) indicated that low psychological resources may lead to limited social support, making it more challenging to recover from stressful events and to build resilience.

The presence of resilience enhances the pursuit of strong social networks that are crucial for individuals' emotional and social well-being. When present in vulnerable populations, such as the elderly, it proves to be a strategy for reducing negative emotions and social isolation (Troy et al., 2023). The existence of a social network that provides emotional support to individuals has positive implications for mental and physical well-being, as well as for promoting successful aging (Thoits, 2011).

In this study, a strong and significant negative correlation was confirmed between social support and loneliness. According to the study by Rhodes (2014), which involved 54 participants, the perception of being loved and cared for by someone or by a group reduces feelings of loneliness. The study by Palos et al. (2022), which used a larger sample (4433 elderly individuals), showed that when older adults feel supported, they are less likely to experience loneliness, even if they are not exposed to daily companionship (Oliveira & Barroso, 2020). According to Kemperman et al. (2019), social support is correlated with loneliness, but not in terms of its quantity, such as the size of the support network, but rather its quality, such as the value of these relationships and how much one feels cared for by them. The study by Gallardo-Peralta et al. (2023) indicated that the better a person's perception of their relationships, the lower their feelings of loneliness. The way individuals perceive their social support network influences their levels of loneliness; if they have a negative perception of those around them, they may feel that their social support is insufficient and that they are not cared for or supported (Hutten et al., 2021). Social support proves to be a protective factor for the health of the elderly, particularly due to the psychological, emotional, instrumental, or informational impact it provides. This influence of social support leads to an increase in feelings of safety and trust and a decrease in feelings of loneliness (Resna et al., 2022).

Regarding the mediation effect analyzed, the mediating effect of social support on the relationship between resilience and loneliness was confirmed. According to the study by Pakdaman et al. (2016), resilience is a predictor of loneliness due to family relationships, i.e., informal social support. Resilient individuals are generally more communicative, have stronger social ties, better social support, and experience less loneliness. Roth et al. (2024) state that in situations of social isolation (lack of good social support), resilience plays a fundamental role in mitigating the effects that loneliness can have on an individual and is crucial for combating feelings of loneliness in the face of inadequate social support. The presence of resilience enables individuals to face painful moments with a more positive attitude and greater capacity to adapt to the changes that adverse situations require (Babić et al., 2020).

However, this study has several limitations that future research should consider. Conducting a cross-sectional study does not allow for long-term follow-up, and a longitudinal study would be more beneficial. A longitudinal study may reveal some type of causal relationship regarding the experiences of feelings of loneliness among the elderly. Self-report scales may be influenced by

social desirability biases or by the different perceptions participants have of the same issue. In this regard, the use of various data collection methods could help overcome this limitation, such as through interviews or direct observation recordings.

The study sample is not probabilistic, so the results cannot be generalized. Future studies could consider these variables in a representative sample, which would help both in the generalization and in the reliability and accuracy of the obtained results.

Furthermore, the effect of the length of institutionalization on the study variables was not considered and should be the subject of future research.

Conclusion

This study highlighted the important mediating role of social support in the relationship between resilience and loneliness, revealing its influence on the effects that resilience has on the loneliness of older adults. In addition, significant associations were found between the study variables, particularly a positive association between resilience and social support, and a negative association between both resilience and social support with loneliness. These results underscore the importance of considering social support in interventions aimed at strengthening resilience and reducing experiences of loneliness among the elderly, key factors in promoting healthier aging.

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