Burden and associated factors in caregivers of older adults in the context of the COVID-19 pandemic

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Abstract

Objective: To identify the prevalence of burden and associated factors among caregivers of older adults in the context of the COVID-19 pandemic. *Method:* A cross-sectional, descriptive, analytical study of 54 caregivers of older adults in a medium-sized city located in the southwest of the state of Goiás, Brazil, was conducted between 2022 and 2023. A sociodemographic questionnaire and the Zarit Burden Interview were used. The analysis included descriptive statistics, bivariate analysis, and Poisson regression with robust variance. *Results:* The prevalence of burden was 64.8%. In the bivariate analysis, the variables significantly associated with burden were kinship with the older adult, co-residence, receiving help with caregiving, diagnosis of mental disorder, presence of pain, decreased income during the pandemic, living with a person belonging to a risk group, and social distancing. In the adjusted multivariable model, the presence of pain and social distancing remained associated with burden. *Conclusion:* A high prevalence of burden was observed among the caregivers evaluated. The presence of pain and social distancing remained independently associated with burden, highlighting the need for support strategies that consider caregivers' health conditions and the repercussions of the pandemic context on caregiving.

Keywords: Caregivers. Aged. Caregiver Burden. Covid-19.

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INTRODUCTION

Population aging is a global phenomenon that poses significant challenges for health systems and families. Increased longevity is often accompanied by a higher prevalence of chronic diseases and functional decline, requiring long-term care. In Brazil, such care is predominantly provided by family members at home[1,2].

Caregivers of older adults, whether family or formal caregivers, play a fundamental role in maintaining the quality of life and autonomy of dependent older adults. However, the physical, emotional, and financial demands associated with caregiving may result in caregiver burden, defined as the set of physical, psychological, emotional, social, and financial problems experienced by caregivers[3]. Caregiver burden has been associated with negative outcomes for both caregivers and care recipients, including impaired mental health, social isolation, reduced quality of life, and premature institutionalization of the older adult[4,5].

The Zarit Burden Interview (ZBI) is widely used to assess caregiver burden. The ZBI has been validated for use in Brazil and demonstrated adequate psychometric properties[6]. Brazilian studies have identified varying prevalences of burden among caregivers of older adults, ranging from 40% to 80%, depending on the characteristics of the study population and context of caregiving[7,8].

The COVID-19 pandemic, declared by the World Health Organization in March 2020, posed additional challenges for caregivers of older adults. Social distancing, fear of infection, reduced access to health and support services, and the economic repercussions of the health crisis may have intensified the burden experienced by these individuals[9,10]. Older adults were identified as a group at higher risk of more severe forms of the disease, increasing caregivers' concern and responsibility[11].

Numerous studies conducted during the pandemic demonstrated increased burden, anxiety, and depressive symptoms among caregivers of older adults[12,13]. In Brazil, research on the impact of the pandemic on caregiver burden remains scarce, particularly in medium-sized cities situated in the country's interior, where access to support services can be more limited.

Identifying caregiver burden and its associated factors among caregivers of older adults during the COVID-19 pandemic represents a relevant scientific contribution, with potential implications for clinical practice and for the development of public policies targeting this population. Findings may also provide a basis for further research on caregivers of older adults. The study was based on the hypothesis that informal caregivers, those with poorer health status, and those who experienced social distancing would have a higher prevalence of burden than other caregivers. Therefore, the objective of the present study was to investigate the prevalence of burden and its associated factors among caregivers of older adults in the context of the COVID-19 pandemic.

METHOD

A cross-sectional, descriptive, analytical study of caregivers of older adults in a medium-sized city in southwestern Goiás, Brazil, was conducted between 2022 and 2023.

The target population comprised formal and informal caregivers of older adults with some degree of dependence who lived in the urban area of the city. Nonprobability purposive sampling was used because of difficulty accessing the caregiver population and due to restrictions imposed during the pandemic. Participants were referred by professionals from municipal public and private health-care services for older adults, and invitations were disseminated through social media platforms—Facebook, WhatsApp, and Instagram—and via email.

No formal sample-size calculation was performed because of the exploratory nature of the study and the lack of precise population data on caregivers in the city. The sample obtained was considered adequate for descriptive and bivariate analyses. However, small sample size was recognized as a limitation with regard to the generalizability of the findings.

The inclusion criteria were: being a formal or family caregiver of a dependent older adult for at least six months; being aged 18 years or older; and

living in the urban area of the city. The exclusion criterion was living in the rural area of the city.

Data were collected using an online questionnaire made available through Google Forms. Caregivers completed all instruments independently, without influence from the researchers. The following instruments were used:

a) Sociodemographic and caregiving characteristics questionnaire: developed by the researchers based on variables commonly investigated in studies of caregiver burden and on specific features of the COVID-19 pandemic context. The questionnaire included sociodemographic variables—sex, age, marital status, educational attainment, family income, and paid employment—caregiving characteristics—caregiver type, kinship to the older adult, co-residence, time as a caregiver, daily hours of care, reason for assuming the caregiving role, completion of a caregiving course or training, receiving help, and caregiving as the main occupation—caregiver health status—presence of disease, receiving health treatment, use of antidepressants or tranquilizers, previous diagnosis of a mental disorder, and the presence and intensity of pain—and variables related to the COVID-19 pandemic context—belonging to a risk group, living with a person belonging to a risk group, social distancing, decreased income, perceived threat to health, concern about the caregiver's own health and the older adult's health, access to information about the pandemic, and perceived increase in burden.

b) Zarit Burden Interview (ZBI-22): This instrument comprises 22 items assessing the caregiver–care recipient relationship, health status, psychological well-being, finances, and social life. Responses range from 0 (never) to 4 (always), except for the final item, which assesses the overall feeling of burden and ranges from 0 (not at all) to four (extremely). Total score ranges from 0 to 88 points, with higher scores indicating greater perceived burden. The validated Brazilian version of the instrument was used[6]. For dichotomous analysis, a cutoff score of ≥21 points was adopted to indicate the presence of burden[14].

Participants who met the inclusion criteria and agreed to take part accessed the online questionnaire link, where they were presented with the Informed Consent Form. After providing consent, respondents completed the sociodemographic questionnaire and the Zarit Burden Interview. Participation was voluntary, and anonymity and confidentiality of the information were guaranteed.

Data were stored and processed using statistical software. Descriptive analyses were performed, with categorical variables expressed as absolute and relative frequencies, and numerical variables as mean, standard deviation, median, and minimum and maximum values.

Numerical variables were analyzed as continuous variables for comparisons between groups. Daily hours of care were categorized ordinally in the bivariate analyses. The primary outcome was the presence of caregiver burden, defined as a score of ≥21 points on the Zarit Burden Interview, in accordance with the recommendation for the Brazilian version of the instrument[14].

For the bivariate analysis, Pearson's chi-square test and Fisher's exact test were used for categorical variables, and Student's *t* test and the Mann–Whitney test were employed for numerical variables, according to the distribution of the data. Crude prevalence ratios and 95% confidence intervals were calculated. A 5% significance level was adopted ($p \leq 0.05$).

For the multivariable model, variables with $p<0.20$ in the bivariate analysis and recognized theoretical plausibility were selected, taking the sample size into account and avoiding the simultaneous inclusion of conceptually redundant variables. The variables "kinship to the older adult" and "caregiver type" were excluded from the model because they expressed the same construct. The variables "co-residence" and "receiving help with caregiving" were excluded because of possible collinearity with the other variables. The final model included the presence of pain, a previous diagnosis of a mental disorder, and social distancing. Poisson regression with robust variance was used, as this method is appropriate for estimating prevalence ratios in cross-sectional studies with common outcomes. Adjusted prevalence

ratios and 95% confidence intervals were calculated. Deviance, Pearson's chi-square statistic, and the Akaike information criterion were used to assess the fit of the final model.

Missing data were handled using complete-case analysis for each variable, without data imputation. The variable "age of the older adult" had missing data for 13 participants (24.1%), corresponding to formal caregivers who did not have access to this information. The variable was therefore analyzed based on the available cases (n=41). The other variables had no missing data.

To minimize selection bias, recruitment was conducted through multiple channels—referral by health professionals and social media—in an effort to increase the representation of different caregiver profiles. In addition, the use of an electronic form may have introduced selection bias because completion depended on internet access, possession of an electronic device, and some familiarity with digital technologies. This factor may have hindered the participation of caregivers with lower educational attainment, limited digital access, or less familiarity with online tools. Information bias was minimized through the use of standardized and validated instruments. The use of Poisson regression with robust variance allowed potential confounding variables to be controlled in the multivariable analysis.

Subgroup, interaction, and sensitivity analyses were not performed because of the small sample size. Given the nonprobability sampling design, the results were analyzed without sample weighting, and the estimates should be interpreted cautiously with regard to population representativeness.

This study was approved by the Research Ethics Committee of the Federal University of Jataí (UFJ), in accordance with Resolution No. 466/2012 of the Brazilian National Health Council, which establishes the guidelines and regulatory standards for research involving human subjects, and Resolution No. 510/2016 of the Brazilian National Health Council (CNS). CAAE: 45378321.6.0000.8155/ Opinion No.: 5.254.029.

Overall, 80 caregivers of older adults, referred by health-service professionals in the city and recruited through social media, were invited to participate. Twelve participants were excluded because they cared for non-dependent older adults or had provided care for less than six months, and 14 invitees failed to return the completed questionnaire. Thus, 54 caregivers fully completed the instrument and were included in the analysis.

USE OF ARTIFICIAL INTELLIGENCE

During manuscript preparation, artificial-intelligence tools were used exclusively to support writing, textual revision, and article and abstract organization. The tools used were ChatGPT by OpenAI, GPT-5.5 Thinking model, accessed in June 2026, and SciSpace Research Agent, accessed in May 2026. ChatGPT was used to assist with reviewing textual clarity and coherence, academically rewriting sections of the manuscript, organizing the Results section according to the tables, reviewing the Discussion and Conclusion, and adapting passages to ensure scientific language.

The prompts were limited to requests for writing support, textual revision, and manuscript organization, such as: "Revise this passage using scientific language while maintaining its original meaning"; "Rewrite this paragraph with greater clarity, academic formality, and consistency with the study objective"; "Assess the consistency among the objective, methods, results, and conclusion of the abstract"; "Revise the Discussion while maintaining an interpretation compatible with the cross-sectional design"; "Revise the Conclusion, including implications for care and suggestions for further study"; and "Adapt passages from the Methods to employ scientific language while preserving the information provided by the authors". All content produced with the assistance of these tools was critically reviewed by the authors for scientific coherence, consistency with the analyzed data, and methodological appropriateness.

DATA AVAILABILITY

The full dataset underpinning the study results is available upon request from the corresponding author.

RESULTS

The sociodemographic, health-related, and caregiving characteristics of the participants are presented in Table 1.

The distribution and classification of the corrected Zarit Burden Interview scores are presented in Table 2.

The bivariate analysis of factors associated with burden is presented in Table 3. A statistically significant association was observed between burden and variables related to the caregiver's relationship with the older adult, the organization of care, the caregiver's health status, and the context of the COVID-19 pandemic. Higher prevalences of burden were observed among caregivers who were related to the older adult, family caregivers, lived with the care recipient, received help with caregiving, had a previous diagnosis of a mental disorder, reported pain, experienced a decrease in income during the pandemic, lived with a person belonging to a risk group, and practiced social distancing. Conversely, caregiving as the main occupation and daily access to information on self-care and prevention were associated with lower prevalence ratios for burden.

Table 1. Sociodemographic, health-related, and caregiving characteristics of caregivers of older adults (N=54). Medium-sized city, Goiás state, Brazil, 2022-2023.

Categorical variables	n (%)
Female	45 (83.3)
Married	23 (42.6)
Secondary or higher	38 (70.4)
Engages in paid work	40 (74.1)
Family caregiver	31 (57.4)
Kinship to older adult	31 (57.4)
Co-residence with older adult	21 (38.9)
More than 8 daily hours of care	38 (70.4)
Receives help with caregiving	25 (46.3)
Caregiving as main occupation	21 (38.9)
Completed caregiving course or training	30 (55.6)
Presence of disease	29 (53.7)
Diagnosed mental disorder	12 (22.2)
Presence of pain	33 (61.1)
Social distancing	32 (59.3)
Decreased income during pandemic	27 (50.0)
Perceived increase in burden during pandemic	37 (68.5)
Caregiver burden	35 (64.8)

Numerical variables	Mean (SD)	Median (IQR)	Min.–max.
Caregiver age, years	48.6 (11.2)	48.0 (40.2–57.0)	23.0–72.0
Older adult age, years	78.9 (9.4)	81.0 (75.0–83.0)	60.0–103.0
Time as a caregiver, months	86.6 (97.2)	48.0 (32.2–105.0)	6.0–480.0
Family income, Brazilian reais	4,867.7 (7,634.2)	2,750.0 (1,744.5–4,000.0)	0.0–40,000.0

SD=standard deviation; IQR=interquartile range; min.=minimum; max.=maximum. Categorical variables are expressed as absolute and relative frequencies. Burden was defined as a score ≥21 points on the Zarit Burden Interview. *Data available for 41 participants.

Table 2. Distribution of Zarit Burden Interview scores and classification of burden among caregivers of older adults (N=54). Medium-sized city, Goiás state, Brazil, 2022–2023.

Indicator	Result
Zarit Burden Interview score (0–88)	
Mean (standard deviation)	26.4 (12.5)
Median (interquartile range)	26.5 (18.0-36.0)
Minimum–maximum	2-55
Four-level classification	n (%)
Little or no burden	19 (35.2)
Mild to moderate burden	29 (53.7)
Moderate to severe burden	6 (11.1)
Severe burden	0 (0.0)
Dichotomous classification (cutoff ≥21)	n (%)
No burden	19 (35.2)
Burden present	35 (64.8)

Table 3. Bivariate analysis of factors associated with burden, assessed using the Zarit Burden Interview, among caregivers of older adults (N=54). Medium-sized city, Goiás state, Brazil, 2022–2023.

Variable	Burden n/N (%)	Crude PR (95%CI)	*p*
Female	30/45 (66.7)	1.20 (0.65-2.23)	0.704
Living with a partner	17/28 (60.7)	0.88 (0.59-1.30)	0.513
Education ≥ completed high school	24/38 (63.2)	0.92 (0.61-1.38)	0.694
Engages in paid work	24/40 (60.0)	0.76 (0.53-1.11)	0.331
Related to older adult	25/31 (80.6)	1.85 (1.13-3.05)	0.005
Co-resides with older adult	17/21 (81.0)	1.48 (1.02-2.16)	0.048
Completed caregiving course or training	20/30 (66.7)	1.07 (0.71-1.59)	0.750
Family caregiver	25/31 (80.6)	1.85 (1.13-3.05)	0.005
Receives help with caregiving	22/25 (88.0)	1.96 (1.28-3.01)	<0.001
Caregiving is main occupation	10/21 (47.6)	0.63 (0.39-1.02)	0.035
Receives health treatment	19/26 (73.1)	1.28 (0.86-1.90)	0.221
Presence of disease	21/29 (72.4)	1.29 (0.85-1.96)	0.208
Uses antidepressants or tranquilizers	12/15 (80.0)	1.36 (0.94-1.95)	0.147
Diagnosed mental disorder	11/12 (91.7)	1.60 (1.17-2.19)	0.039
Reported pain	27/33 (81.8)	2.15 (1.22-3.79)	0.001
Belongs to a COVID-19 risk group	14/21 (66.7)	1.05 (0.70-1.56)	0.820
Decreased income during pandemic	22/27 (81.5)	1.69 (1.10-2.60)	0.010
Lives with a person in a risk group	22/28 (78.6)	1.57 (1.02-2.42)	0.028
Social distancing	26/32 (81.2)	1.99 (1.17-3.37)	0.002
Daily access to information on self-care and prevention	17/34 (50.0)	0.56 (0.39-0.80)	0.003
Perceives health as more threatened	24/35 (68.6)	1.18 (0.76-1.85)	0.433
Fears for own health and older adult's health	32/47 (68.1)	1.59 (0.66-3.82)	0.226
Perceived increase in burden during pandemic	27/37 (73.0)	1.55 (0.90-2.66)	0.064

PR=prevalence ratio; 95%CI=95% confidence interval.

A comparison of the numerical variables according to the presence or absence of burden is presented in Table 4. No statistically significant differences were observed between the groups for any of the numerical variables analyzed.

The multivariable Poisson regression model with robust variance is presented in Table 5. Variables were selected based on the bivariate analysis and theoretical plausibility criteria, taking the sample size into account and avoiding the simultaneous inclusion of conceptually redundant variables or variables with possible collinearity. The final model included the presence of pain, a previous diagnosis of a mental disorder, and social distancing. After adjustment, burden remained associated with the presence of pain and social distancing. A previous diagnosis of a mental disorder was not statistically significantly associated with burden in the adjusted model. No additional subgroup, interaction, or sensitivity analyses were performed, owing to the small sample size.

Table 4. Comparison of numerical variables according to burden, assessed using the Zarit Burden Interview, among caregivers of older adults (N=54). Medium-sized city, Goiás state, Brazil, 2022–2023**.**

Variable	No burden	Burden present	*p*
Caregiver age, years	44.8 (11.4); median 45.0 (38.0-55.0)	50.6 (10.7); median 50.0 (41.0-60.5)	0.080
Age of older adult, years*	76.8 (12.9); median 75.0 (69.0-83.0)	79.9 (7.3); median 81.5 (77.0-83.0)	0.231
Time as caregiver, months	115.7 (134.3); median 48.0 (24.0-144.0)	70.8 (66.7); median 48.0 (36.0-84.0)	0.567
Daily hours of care (ordinal category)	4.3 (1.2); median 5.0 (4.0-5.0)	4.5 (1.0); median 5.0 (4.5-5.0)	0.405
Family income, Brazilian reais	2,820.6 (2,081.1); median 2,424.0 (1,860.0-3,568.0)	5,978.9 (9,216.5); median 3,000.0 (1,709.0-4,500.0)	0.242

*Data available for n=41 participants.

Table 5. Poisson regression model with robust variance for factors associated with burden, assessed using the Zarit Burden Interview, among caregivers of older adults (N=54). Medium-sized city, Goiás state, Brazil, 2022–2023.

Variable	Adjusted PR	95%CI	p
Reported pain	1.73	1.02-2.91	0.041
Diagnosed mental disorder	1.43	0.99-2.06	0.055
Practiced social distancing	1.76	1.11-2.79	0.016

PR=prevalence ratio; 95% CI=95% confidence interval; AIC=Akaike information criterion; df=degrees of freedom. Model adjusted for presence of pain, previous diagnosis of a mental disorder, and social distancing. Model fit: deviance/df=0.47; Pearson chi-square/df=0.33; AIC=101.46.

DISCUSSION

This study identified a high prevalence of burden among caregivers of older adults during the COVID-19 pandemic, with 64.8% of participants obtaining a score of ≥21 points on the Zarit Burden Interview. In the adjusted multivariable analysis, the presence of pain and social distancing remained independently associated with burden, partially confirming the study's initial hypothesis.

The prevalence of burden identified was higher than that reported in Brazilian studies conducted before the pandemic, which reported rates ranging from 40% to 60%.[1,7] This finding supports the hypothesis that the pandemic context intensified caregiver burden, as also indicated by the subjective perception of increased burden reported by 68.5% of participants. International studies conducted during the pandemic also documented increased burden, anxiety, and depressive symptoms among caregivers of older adults, attributing these outcomes to social isolation, reduced access to support services, and fear of infection[12,13,15,16].

The predominance of female caregivers (83.3%) and informal caregivers (57.4%) observed in this study is consistent with other studies identifying women as the main providers of care for dependent family members[1,2,17,18]. This pattern reflects social and cultural norms that assign women the role of caregivers, which may result in role overload and impairment of physical and mental health in this group[2].

The presence of pain emerged as an independent risk factor for burden in the adjusted model. Chronic pain is recognized as a disabling condition that compromises quality of life and functional capacity; it may interfere with the performance of caregiving activities and intensify the perception of burden[19]. A Brazilian study identified an association between musculoskeletal pain and burden among caregivers of older adults, highlighting the need for appropriate assessment and management of this condition[20]. Recent studies also indicate that educational interventions targeting the management of low back pain may reduce pain symptoms and contribute to improvements in caregiver burden, perceived social support, and quality of life[21, 22].

The higher prevalence of burden among caregivers who reported social distancing suggests that reduced social interaction may be associated with a worsening of subjective caregiving burden. This finding highlights the impact of social distancing, which, although necessary to reduce virus transmission, resulted in isolation, reduced social and family support, limited access to health and support services, and increased caregiver responsibility[9,10,23]. Studies conducted during the pandemic found that caregivers in isolation had higher levels of stress and burden[13,24]. Reduced support networks and the inability to share caregiving responsibilities may have intensified caregivers' physical and emotional burden[13].

In the bivariate analysis, an association was observed between burden and variables related to the caregiver's relationship with the older adult, such as kinship and co-residence. Informal caregivers and those who live with the older adult tend to experience greater burden because of greater emotional proximity, continuous responsibility, and difficulty establishing boundaries between the caregiving role and other family roles[25,26]. However, these variables did not remain in the multivariable model because of conceptual redundancy and possible collinearity with the variables selected for the final model.

In addition, the higher prevalence of burden among caregivers who reported receiving help with caregiving may reflect greater complexity of the care situations. This finding may be explained by the fact that caregivers who receive help may be caring for older adults with a higher degree of dependence or greater care complexity, which would justify both the need for support and the higher burden[27]. Alternatively, the help received may be insufficient or inadequate and may not effectively relieve perceived burden[28].

Regarding the caregiver's health conditions, a previous diagnosis of a mental disorder was significantly associated with burden in the bivariate analysis but did not retain statistical significance in the adjusted model. This result suggests that the relationship between mental disorder and burden may be mediated by other variables, such as the presence of pain. Some studies have shown that

caregivers with a history of mental disorders are more vulnerable to burden and adverse mental-health outcomes[29,30].

In addition, the decrease in income during the pandemic was associated with burden, reflecting the economic impact of the health crisis on families. Financial insecurity may intensify stress and caregiver burden, particularly when there is a need to purchase medications, supplies, and health services for the older adult[31].

Conversely, daily access to information about self-care and prevention was associated with lower burden, suggesting that access to quality information may help reduce anxiety and the perception of burden. Health-education strategies and guidance for caregivers are recognized as effective interventions for reducing burden[32,33].

In the area of public policies for caregivers of older adults, a contrast can be observed between international experiences and the Brazilian reality. In OECD countries[34], caregiver support is provided through measures such as financial benefits, flexible working arrangements, legal protection, respite services, and integration between health and social care. In Brazil, although the National Health Policy for Older Adults[35] recognizes the importance of caregiver support, this recognition has not yet translated broadly into actions specifically directed at this group. State support is fragmented, diluted within routine service practices, and insufficient in view of the demands assumed by families[2]. Thus, by demonstrating the high prevalence of burden among the caregivers evaluated and its association with health-related conditions and the pandemic context, the findings reinforce that this phenomenon should not be interpreted merely as an individual consequence of caregiving. It should also be understood in light of the fragility of public long-term-care policies and the limited recognition of caregivers as rights holders entitled to social protection and health care.

The present study has some limitations that should be taken into account when interpreting the results. The cross-sectional design precludes the establishment of causal relationships between the variables studied, making it impossible to determine the temporality of the observed associations—particularly whether pain and social distancing preceded or were aggravated by burden.

The nonprobability sample and small sample size may limit the generalizability of the findings. Moreover, the potential selection bias resulting from recruitment through social media and professional referrals may have led to an overestimation of the prevalence of burden, as more burdened caregivers may be more likely to actively seek support networks and health services. Conversely, caregivers experiencing greater burden may have had less time to answer the online questionnaire, which could also have led to underestimation.

The use of a digital form may have excluded caregivers with lower educational attainment or less familiarity with digital technologies, introducing additional selection bias. The results are more directly generalizable to caregivers of dependent older adults in medium-sized cities situated in the interior of Brazil who have sociodemographic profiles similar to that of the participants in this study. Extrapolation to large urban centers, rural populations, or periods outside the pandemic context calls for caution.

Despite these limitations, this study contributes to knowledge on caregiver burden in the context of the COVID-19 pandemic, particularly in a medium-sized city in the interior of Brazil, a setting that remains underexplored in the literature. The findings highlight the need for public policies and interventions targeting caregiver support, including pain assessment and management, psychosocial support, guidance on coping strategies, and the strengthening of support networks, especially in contexts of health crises.

CONCLUSION

The prevalence of burden among caregivers of older adults in the context of the COVID-19 pandemic was high, attaining 64.8% of participants. The presence of pain and social distancing remained independently associated with burden in the adjusted

model. These findings highlight the need for support strategies that consider caregivers' health conditions, particularly pain management, as well as the psychosocial repercussions arising from health-crisis contexts.

The findings reinforce the need for public policies targeting caregiver support, including timely access to health services, caregiving guidance, psychosocial support, and the strengthening of formal and informal support networks. These strategies are important for promoting caregiver health and well-being and improving the quality of care provided to older adults. Longitudinal studies with larger samples and in different geographic contexts are recommended to monitor the evolution of burden over time and examine the temporality of the associations identified. Furthermore, qualitative and intervention studies can contribute to a deeper understanding of the subjective caregiving experience and help evaluate the effectiveness of strategies aimed at pain management, reducing social isolation, and strengthening actions carried out within Primary Health Care.

AUTHORSHIP

- Mariana Rodrigues Ferreira: Investigation; data curation; data analysis and interpretation; writing—original draft.
- Danilo Lopes Assis: Conceptualization; resources; data analysis and interpretation; approval of the version to be published.
- Virgínia Oliveira Chagas: administration; formal analysis; conceptualization; data curation; methodology; data analysis and interpretation; writing—original draft; writing—review and editing.

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