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RESEARCH ARTICLE (ORIGINAL)

Nursing Diagnoses in Informal Caregivers of Dependent Older Adults According to NANDA-I and Betty Neuman's Model

Diagnósticos de Enfermagem em Cuidadores Informais de Idosos Dependentes Segundo NANDA-I e Teoria de Betty Neuman

Diagnósticos de enfermería en cuidadores informales de personas mayores dependientes según NANDA-I y la teoría de Betty Neuman

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Abstract
Background: Nursing diagnoses are essential in clinical practice and should involve the patient, their family, and their primary caregiver.
Objective: To identify nursing diagnoses in informal caregivers of dependent older adults, in light of Betty Neuman's Systems Model and the NANDA-I taxonomy (2024–2026).
Methodology: A qualitative study was conducted with 12 caregivers of older adults, grounded in Neuman's Systems Theory. Data were collected in October 2023 through semi-structured interviews. The diagnoses were defined according to NANDA-I based on the identification of stressors.
Results: Intrapersonal, interpersonal, and extrapersonal stressors were identified, as well as factors related to protection and empowerment. The most frequent diagnoses were impaired comfort, risk for excessive caregiving burden, excessive caregiving burden, and readiness for enhanced health knowledge. Physical and emotional burden, lack of institutional support, and insufficient preparation for caregiving were evident.
Conclusion: Identifying these nursing diagnoses improves the understanding of caregivers' needs, guides nursing interventions aimed at strengthening lines of defense, and emphasizes the need for public policies that support informal caregivers.

Keywords: nursing; caregivers; family health; nursing diagnosis; elderly; caregiver burden

Resumo
Enquadramento: Os diagnósticos de enfermagem são essenciais na prática clínica e devem incluir, paciente, família e cuidador principal.
Objetivo: Identificar diagnósticos de enfermagem em cuidadores informais de idosos dependentes, à luz da Teoria de Betty Neuman e da taxonomia NANDA-I (2024-2026).
Metodologia: Estudo qualitativo, fundamentado na Teoria de Neuman, realizado com 12 cuidadores de idosos. Dados coletados em outubro de 2023, mediante entrevistas semiestruturadas. A partir da identificação dos estressores, definiram-se os diagnósticos de enfermagem conforme a NANDA-I.
Resultados: Participaram 12 cuidadores e identificados estressores intra, inter e extrapessoais, além de fatores relacionados à proteção e capacitação. Os diagnósticos mais frequentes foram: conforto prejudicado, risco de sobrecarga do stresse do cuidador, sobrecarga de stresse e disposição para conhecimento de saúde melhorado. Evidenciado sobrecarga física e emocional, ausência de suporte institucional e preparo insuficiente para o cuidado.
Conclusão: O reconhecimento desses diagnósticos amplia a compreensão das necessidades dos cuidadores, subsidia intervenções de enfermagem voltadas ao fortalecimento das linhas de defesa e reforça a urgência de políticas públicas de apoio ao cuidador informal.

Palavras-chave: enfermagem; cuidadores; saúde da família; diagnóstico de enfermagem; idoso; sobrecarga do cuidador

Resumen
Marco contextual: Los diagnósticos de enfermería son esenciales en la práctica clínica y deben incluir al paciente, la familia y el cuidador principal.
Objetivo: Identificar diagnósticos de enfermería en cuidadores informales de personas mayores dependientes, a partir de la teoría de Betty Neuman y la taxonomía NANDA-I (2024-2026).
Metodología: Estudio cualitativo, basado en la teoría de Neuman, con cuidadores de personas mayores. Datos recopilados en octubre de 2023, mediante entrevistas semiestructuradas. A partir de la identificación de los factores estresantes, se definieron los diagnósticos de enfermería según la NANDA-I.
Resultados: Participaron 12 cuidadores y se identificaron factores estresantes intra, inter y extrapersonales, además de factores relacionados con la protección y la capacitación. Los diagnósticos más frecuentes fueron: comodidad perjudicada, riesgo de sobrecarga de estrés del cuidador, sobrecarga de estrés y disposición para mejorar los conocimientos sobre salud. Se observó sobrecarga física y emocional, ausencia de apoyo institucional y preparación insuficiente para el cuidado.
Conclusión: El reconocimiento de estos diagnósticos amplía la comprensión de las necesidades de los cuidadores, respalda las intervenciones de enfermería orientadas al fortalecimiento de las líneas de defensa y refuerza la urgencia de políticas públicas de apoyo al cuidador informal.

Palabras clave: enfermería; cuidadores; salud familiar; diagnóstico de enfermería; personas mayores; sobrecarga del cuidador

Introduction

Increased life expectancy, combined with the high prevalence of chronic diseases and disabling conditions, has intensified the demand for home-based care for dependent individuals. In this context, informal caregivers, who are typically family members or close friends, play a central role in daily care. They provide not only physical assistance and life-sustaining care (feeding, hygiene, mobility), but also emotional and social support that enables older adults to remain in their homes (Zarzycki et al., 2022). However, the lack of specific technical training and limited support from formal health services expose these caregivers to multiple challenges. In addition to performing basic care activities, they face emotional, social, and financial demands (Neto, 2021), which contribute to physical and psychological burden and increase the risk of health problems such as chronic pain, hypertension, anxiety, and depression (Lisboa et al., 2023).

The impact extends to caregivers' personal and professional lives, compromising economic income, restricting opportunities, and reducing time for self-care and leisure (Silva et al., 2022). Several studies point to these consequences (Sousa et al., 2021a; Fittipaldi et al., 2021; Zarzycki et al., 2022). Although research on the prevalence of nursing diagnoses in various populations and contexts has expanded globally (D'Agostino et al., 2024), there are still few studies focused specifically on informal caregivers. Moreover, while Betty Neuman's Systems Model views the person as an open system that is constantly interacting with intrapersonal, interpersonal, and extrapersonal stressors, its application to this specific group is still underexplored.

This study aims to address this gap by integrating Betty Neuman's Systems Model with the NANDA International (NANDA-I) taxonomy for 2024-2026 in a Brazilian context. This approach promotes scientific systematization, strengthens diagnostic practice in nursing, and enables more targeted interventions to meet caregivers' needs. Conducting his study in a country where public support policies are still incipient also broadens international understanding of the phenomenon and its specific sociocultural realities.

Thus, this study aimed to identify nursing diagnoses in informal caregivers of dependent older adults, in light of Betty Neuman's Model and the NANDA-I taxonomy (2024-2026).

Background

Informal caregivers are particularly vulnerable to the negative effects of prolonged caregiving, so it is essential to understand the factors that compromise their physical, mental, and social stability. Betty Neuman's Systems Model supports this analysis by understanding human beings as holistic systems in constant interaction with the environment and exposed to the action of internal and external stressors (Oliveira et al., 2024). These stressors are classified as: intrapersonal, related to internal factors such as emotions, beliefs, and health conditions; interpersonal, resulting from social and family interactions; and extrapersonal, related to financial resources and access to health services (Silva et al., 2022).

Despite its conceptual consistency, the application of this theoretical framework to informal caregivers is still scarce, especially when related to nursing diagnoses. This gap reinforces the need to deepen the analysis of the caregiver's experience, overcoming generic descriptions of burden and highlighting diagnoses capable of supporting systematic interventions.

Therefore, the integration between Betty Neuman's Systems Model and the NANDA-I taxonomy (2024-2026) makes it possible to identify nursing diagnoses linked to the caregivers' experiences in a structured way. This perspective differs from existing studies, which are largely limited to describing symptoms or consequences of caregiving without relating them to a formal diagnostic framework (Lourenço et al., 2021; Fittipaldi et al., 2021). By adopting this framework, this study contributes to filling gaps in the literature and broadening the understanding of the phenomenon in a Brazilian context that has yet to be fully explored.

Research question

Which nursing diagnoses can be identified in informal caregivers of dependent older adults, according to the NANDA-I taxonomy (2024–2026) and in the light of Betty Neuman's Systems Model?

Methodology

A qualitative and descriptive study (Pitanga, 2020) was conducted in a municipality in the interior of the state of São Paulo with informal caregivers of dependent older adults who attended a public health institution. The institution offers outpatient and home-based care activities, as well as health promotion activities through the Health Academy.

The sample was selected using a purposive convenience sampling method. It comprised informal caregivers of dependent older adults who met the following inclusion criteria: age ≥18 years, having been a caregiver for at least three months, and having the ability to understand and respond to the interview script. There were no exclusion criteria.

The search for new participants ended when data saturation was reached, meaning the information began repeating without adding new, relevant elements (Fontanella et al., 2008). Data saturation was reached in the 11th interview and was confirmed in the 12th interview. The two main researchers analyzed and discussed the data saturation criteria and reached a consensus. There were no refusals to participate.

The interviews, which were scheduled in advance, took place in October 2023 at a location separate from the care environment to ensure privacy. After consent was

obtained, all interviews were audio-recorded, lasted between 60 and 120 minutes, and were conducted by the same researcher, a nurse and doctoral student with experience in qualitative research. The researcher had no prior connection with the participants except for occasional follow-up during two home visits.

A semi-structured script based on scientific literature on informal caregivers and Betty Neuman's Systems Model was used during the interviews. The script was pre-tested with two caregivers who did not participate in the study, which allowed for adjustments to be made to the clarity and sequence of the questions.

In addition to the interviews, the researcher kept a field diary in which she recorded her observations of verbal and nonverbal interactions, as well as her impressions of the caregivers' context. These records were triangulated with the verbatim transcripts, thereby enriching the qualitative analysis.

To characterize the older adults' degree of dependence, the Barthel Index, which has been validated in Brazil (Minosso et al., 2010), was used to enable a more rigorous description of the sample and comparison with other studies. Since Katz et al. (1963) developed the Activities of Daily Living (ADL) Index, which is a classic milestone in measuring functional dependence in older adults, the use of standardized instruments to assess functionality has been widely recommended in the literature.

The interviews were transcribed in full and subjected to content analysis using a thematic approach following the three stages proposed by Bardin (2020). During the pre-analysis stage, the researcher became familiarized with the data through an initial reading of all the material. In the data exploration stage, an in-depth reading of the material enabled the identification of preliminary codes and the categorization of stressors according to the levels proposed by Neuman (intrapersonal, interpersonal, extrapersonal, and protection/empowerment). In the data treatment and interpretation stage, nursing diagnoses were identified based on the NANDA-I taxonomy (2024–2026).

Two researchers performed the coding independently and subsequently validated it by consensus. It should be noted that no specific software was used for the qualitative analysis; the researchers performed the entire coding and categorization process manually. To ensure robustness, two nurses reviewed the identified diagnoses: one worked in geriatric care and the other worked in community health. This constituted a form of external validation.

The study was conducted in accordance with the ethical principles outlined in Resolution No. 466/2012 of the National Health Council. The project was approved by the Human Research Ethics Committee of the signatory institution (Opinion No. 6.014.665). All participants signed an informed consent form.

Results

The study included 12 caregivers of dependent older adults. The caregivers were eight daughters and four daughters-in-law, aged between 30 and 59 years (with a mean age of 44.5 years). All of them lived with the older adults. Five were married, four were single, two were divorced, and one was widowed. Two had left their jobs due to health issues, while the others had quit to dedicate themselves exclusively to caregiving. Seven families lived on an income of up to two minimum wages, four on three to four minimum wages, and one on six minimum wages. None received social benefits.

From a health perspective, seven participants rated their own condition as *fair*, three as *poor*, one as *good*, and one as *very bad*. They were all taking regular medication and reported various health issues, including anxiety ($n = 10$), hypertension ($n = 5$), depression ($n = 5$), back problems ($n = 4$), type 2 diabetes ($n = 4$), heart failure ($n = 1$), and hypothyroidism ($n = 1$).

The qualitative analysis revealed compromised stressors, organized according to Betty Neuman's Systems Model into four main dimensions: intrapersonal, interpersonal, extrapersonal, and protection/empowerment, as shown in Table 1.

Table 1

Stressors and protection/empowerment factors in informal caregivers according to Betty Neuman's Systems Model

Dimension	Stressors/Factors identified
Intrapersonal	Persistent pain; inability to prioritize self-care; physical and mental exhaustion; irregular sleep; exhaustion; sadness; difficulty coping.
Interpersonal	Caregiving burden; physical and emotional exhaustion; constant concern; relational anxiety; changes in family dynamics; difficulty adapting to new roles; Communication failures.
Extrapersonal	Lack of institutional support; barriers to accessing services; financial difficulties; lack of specific public policies.
Protection/Empowerment	Spiritual coping strategies; search for knowledge; willingness to improve care practices.

The most prevalent nursing diagnoses were associated with intrapersonal stressors, which refer to the caregiver's internal responses. These diagnoses are presented in Table 2.

Table 2

Nursing diagnoses related to intrapersonal stressors based on the reports of the informal caregivers of dependent older adults

Nursing diagnosis	Frequency (*n*)	Coding units
Impaired physical comfort	12	"I feel pain in my body all day long, it seems like I never really get to rest" (I1).
Chronic pain	10	"My back hurts every day, I don't even remember what it's like to be pain-free anymore" (I2).
Situational inadequate self-esteem	9	"Sometimes I think I'm not good enough to take care of him the way he deserves" (I3).
Excessive anxiety	9	"I'm always thinking about what can go wrong, I can't turn off my mind" (I8).
Ineffective sleep pattern	8	"I wake up several times during the night to check on her; I can't really rest" (I5).
Maladaptive coping	7	"There are days when I cry out of nowhere, I get nervous about small things" (I6).
Impaired decision-making	7	"I get overwhelmed by all the decisions I have to make, I'm afraid of making mistakes" (I7).
Excessive fatigue burden	7	"I don't even remember the last time I took care of myself, I just think about her all the time" (I11).
Risk for impaired spiritual well-being	7	"Sometimes I wonder why God put me in this situation, I've lost faith in a lot of things" (I4).
Risk for physical injury	6	"I almost fell trying to get him out of bed alone" (I9).
Risk for impaired human dignity	6	"Sometimes she yells at me, and I feel humiliated… Like I'm worthless" (I11).

Note. Coding units = Verbatim excerpts from the interviews. I = Interviewee.
Some caregivers have more than one compromised intrapersonal stressor.

Nursing diagnoses related to interpersonal stressors resulting from interactions between caregivers and older adults and their support networks significantly impact the level of stress experienced by caregivers. These stressors are presented in Table 3.

Table 3

Nursing diagnoses related to interpersonal stressors based on the reports of the informal caregivers of dependent older adults

Nursing diagnosis	Frequency (*n*)	Coding units
Impaired family processes	10	"I feel like I'm alone in this. No one in the family shows up to help" (I3).
Ineffective role performance	8	"Before I was a daughter-in-law Now, I feel like a nurse… I don't even know who I am anymore" (I1).
Impaired verbal communication	8	"I avoid talking about what I'm going through because I feel like no one understands or wants to hear about it" (I2).
Excessive caregiving burden	8	"It's too much responsibility for one person, I'm overwhelmed" (I5).
Disrupted family identity syndrome	7	"My life used to be about being a mother and working. Now, everything revolves around care… I lost who I was" (I10).
Impaired social interaction	7	"I don't leave the house anymore, I lost contact with my friends, my life stopped" (I10).
Risk for impaired family processes	3	"Any decision I make alone becomes a reason for conflict. It seems that no one wants to help; they only want to judge" (I8).

Note. Coding units = Verbatim excerpts from the interviews. I = interviewee.

As shown in Table 4, the nursing diagnoses associated with extrapersonal stressors resulting from external factors, such as institutional support and social networks, were also evident.

Table 4

Nursing diagnoses related to extrapersonal stressors of informal caregivers of dependent older adults

Nursing diagnosis	Frequency (*n*)	Coding units
Ineffective home maintenance behaviors	4	"She only earns a minimum wage, so she can't afford it, right, to buy everything she needs... Unfortunately, there are months when I have to choose which bills to stop paying so that she doesn't lack the basics" (I5).
Ineffective community health management	3	"If I need help, I don't know who to turn to. There is no support program" (I10).
Inadequate social support network	1	"Social networks helped me the most in the beginning to learn about this disease. I researched online how the disease evolved because I didn't receive direct clarification from professionals at first" (I08).

Note. Coding units = Verbatim excerpts from the interviews. I = interviewee.

Protection and Empowerment Systems for Caregivers

Finally, three fundamental aspects were identified to strengthen the resilience of caregivers, which are presented in Table 5.

Table 5

Nursing diagnoses related to protection/empowerment factors in informal caregivers of dependent older adults

Nursing diagnosis	Frequency (*n*)	Coding units
Readiness for enhanced health knowledge	11	"I always try to read more. I read everything I can to take better care of her." (I5)
Readiness for enhanced family coping	7	"When I'm feeling down, I play gospel music on my phone to try to cheer myself up [...] when I listen to the praises, it renews my energy." (I10)
Coping/stress tolerance	5	"There are times when I take a deep breath, pray, and ask for strength because I can't handle it alone." (I10)

Note. Coding units = Verbatim excerpts from the interviews; I = interviewee.

Discussion

The results of this study are consistent with Betty Neuman's Systems Model, pointing to the multiplicity of stressors that impact the physical, emotional, social, and spiritual health of informal caregivers. Identifying NANDA-I diagnoses transforms these experiences into specific needs and guides interventions aimed at improving caregivers' ability to adapt and cope.

The observed sociodemographic characteristics reflect a widely documented pattern: caregiving responsibilities predominantly fall on direct family members, who are often women (daughters or daughters-in-law). These caregivers provide unpaid care and often experience physical and emotional exhaustion when caregiving overlaps with other activities (Zarzycki et al., 2022; Neto, 2021). Although the study group does not include the increasingly common situation of older adults caring for other older adults, socioeconomic vulnerability persists. Low-income families take on complex burdens without support from effective public policies, thus reproducing the scenario described in the literature (Zarzycki et al., 2022; Lacerda et al., 2021).

In Brazil, many women leave the workforce to become full-time caregivers for their families (Ceccon et al., 2021). In Spain, approximately 85% of family caregivers are women who receive no remuneration or institutional support (Ripa, 2019). A study conducted in Catalonia estimated that these caregivers would earn an average gross salary of €2,782 per month if they were paid, highlighting the precarious nature of this work (Fabiani et al., 2024). In contrast, Portugal has implemented the Main Informal Caregiver Support Allowance, offering financial and social support (Instituto de Segurança Social, 2025). These

international disparities underscore the urgent need for Brazil to implement public policies that recognize the economic and social impact of informal care.

According to Betty Neuman's Systems Model, the decrease in family income and lack of full-time dedication are stressors that can destabilize the individual and the family system. Additionally, protection and empowerment systems have proven to be fragile. Caregivers take on complex responsibilities without formal preparation or adequate support from health networks, which increases their emotional and physical burden.

The lack of structured public policies, continuous training, and multiprofessional monitoring makes informal caregivers more vulnerable to disease. A survey of informal caregivers in a municipality in Minas Gerais, a state in Brazil's Midwest region, found that many caregivers perceive a lack of adequate guidance, abandonment by health institutions, and isolation (Lacerda et al., 2021). These factors expose the fragility of existing public policies and the insufficiency of effective government strategies aimed at training and providing continuous support for informal caregivers.

Frequent diagnoses, such as impaired physical comfort, ineffective sleep patterns, and fatigue, reflect the physical and mental strain of dedicating oneself fully to caregiving. According to Neuman (Oliveira et al., 2024), these conditions suggest a decrease in the body's ability to resist and maintain balance, thereby increasing vulnerability to illness. Other studies confirm the link between sleep deprivation and chronic pain, as well as higher rates of anxiety and depression among caregivers (Marques et al., 2024; Silva et al., 2023).

The low situational self-esteem also affects caregivers' self-perception, hindering effective coping. These findings reinforce the need for interventions that value the caregiver's role, promote safe listening spaces, and encourage self-care practices.

Diagnoses such as impaired family processes, ineffective role performance, and Impaired social interaction reflect the fragility of support networks and the impact of interpersonal overload. According to Neuman's Systems Model, these tensions weaken emotional lines of defense, thereby increasing the risk of burnout. Studies conducted in Brazil and abroad support this association, demonstrating that family conflicts and lack of shared responsibilities are predictors of caregiver overload and burnout (Sales de Brito et al., 2022; Brites et al., 2024). Without family support, caring for someone can be a lonely task that increases feelings of abandonment. According to the literature, therapeutic groups and mental health interventions can reduce depressive symptoms and encourage adaptive coping mechanisms (Nascimento, 2021).

Additionally, a study investigating the relationship between family functioning and burnout risk in informal and formal caregivers revealed that caregivers of older adults with dementia face additional challenges related to older adults' neuropsychiatric symptoms. These challenges significantly increase caregivers' vulnerability to burnout (Brites et al., 2024).

This study also revealed that family dysfunction correlates with higher burnout levels, reinforcing the need for strategies that promote social support and healthier family bonds. These findings also underscore the vulnerability of caregivers in the face of external factors such as the absence of institutional and government support, ineffective public policies, and limited financial resources (Brites et al., 2024). Without adequate support, caregivers may reach a state of extreme burnout, which can have significant repercussions on their physical and mental health.

A longitudinal study conducted in the United Kingdom demonstrated that the intensity of home-based care is negatively associated with caregivers' psychological well-being, particularly when social support is limited (Zhang & Bennett, 2024). The same study showed that caregivers of elderly people with Alzheimer's disease, gender, and the burden of multiple responsibilities directly influence stress levels and coping strategies, affecting the quality of care provided (Zhang & Bennett, 2024).

According to Betty Neuman's Systems Model , extrapersonal stressors such as financial difficulties and a lack of government support can compromise the stability of the caregiver's system. In Brazil, where formal support is still in its infancy, it is crucial to propose accessible and feasible strategies to address these challenges. One effective alternative is family rotation of care tasks. By distributing responsibilities among different family members, even for short periods, the primary caregiver is given time to rest and recover, reducing their physical and emotional burden. Including informal caregivers in community networks and volunteer initiatives, such as religious groups, neighborhood watch programs, and local associations, is a viable strategy to mitigate the effects of caregiver burnout. These networks often provide emotional support and, in certain contexts, practical help, such as temporary assistance with care tasks.

In addition to social support, simple home modifications, such as installing grab bars and using appropriate shower chairs and mattresses, can reduce the physical effort required of caregivers, helping to prevent pain and injury. Caregiver well-being is closely associated with the intensity of care, the environment in which care is provided, and the quality of interpersonal relationships. These factors underscore the importance of integrated formal and informal support strategies (Zhang & Bennett, 2024).

Given the importance of community support and environmental adaptations, continuous training plays a fundamental role in reducing the burden experienced by informal caregivers. A phenomenological study found that inadequate training increases the risk of emotional and physical overload (Sousa et al., 2021b), reinforcing the importance of accessible training. Combining psychosocial interventions, such as therapeutic groups, conversation circles, mental health-promoting activities, and educational materials with simple home environment adaptations (e.g., grab bars, adequate mattresses, and appropriate chairs) can enhance protective factors and mitigate the physical and emotional burden on caregivers. Although still incipient, public initiatives can mitigate the financial impact. One option is to see information

about available support at Social Assistance Reference Centers (*Centros de Referência de Assistência Social*; Felix et al., 2024).

Despite the difficulties, positive outcomes emerged. For example, there was an increased willingness to improve health knowledge and stress tolerance, which demonstrates the importance of seeking information and using spiritual coping strategies. These findings align with those of a study that identified spirituality as a protective resource (Neto, 2021). However, these resources tend to emerge spontaneously rather than systematically, which limits their effectiveness. This underscores the importance of health training programs for caregivers that can transform individual strategies into structured competencies.

In summary, the integration of NANDA-I diagnoses with Betty Neuman's Systems Model was useful in translating caregivers' experiences into clinical categories that support more structured interventions. This study emphasizes the need for specific public policies and care practices that acknowledge informal caregivers as recipients of care, thereby expanding social protection and promoting more sustainable and humane home-based care.

Conclusion

The findings of this study demonstrate that informal caregivers of dependent older adults face multiple intra-personal, interpersonal, and extrapersonal stressors. These stressors can be translated into nursing diagnoses that prevent physical, emotional, social, and spiritual burden. Integrating Betty Neuman's Systems Model with the NANDA-I taxonomy allowed understanding how these factors compromise caregivers' coping ability and adaptive capacity while revealing their potential for resilience. Future studies in different sociocultural contexts and with complementary methodologies could further explore the diagnoses identified in this study, thereby increasing the robustness of the evidence.

Additionally, the results support recommendations in three areas: care, community, and policy. In the care domain, nursing interventions should promote self-care, emotional support, and ongoing training. Community-based actions can strengthen local support networks and reduce social isolation. At the policy level, strategies that recognize and value the role of informal caregivers, including financial support, social protection, and multi-professional monitoring, are essential to promoting more sustainable and humanized home-based care.

The limitations of this study include the focus on a single municipality and the collection of data at a single point in time, which makes it impossible to monitor changes over time. Although qualitative analysis involves an inherent degree of subjectivity, this was mitigated by independent coding carried out by two researchers and consensus on the definition of analytical categories. Additionally, reviewing the diagnoses with two nurses who are experienced in elderly and community health provided an additional form of external validation, ensuring a more rigorous interpretation of the findings.

Theses/Dissertation

This article derives from the thesis entitled "*Intervenção de enfermagem fundamentada na teoria dos sistemas de Betty Neuman: implicações no cotidiano do cuidador informal*", presented at the State University of Maringá, in 2025.

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