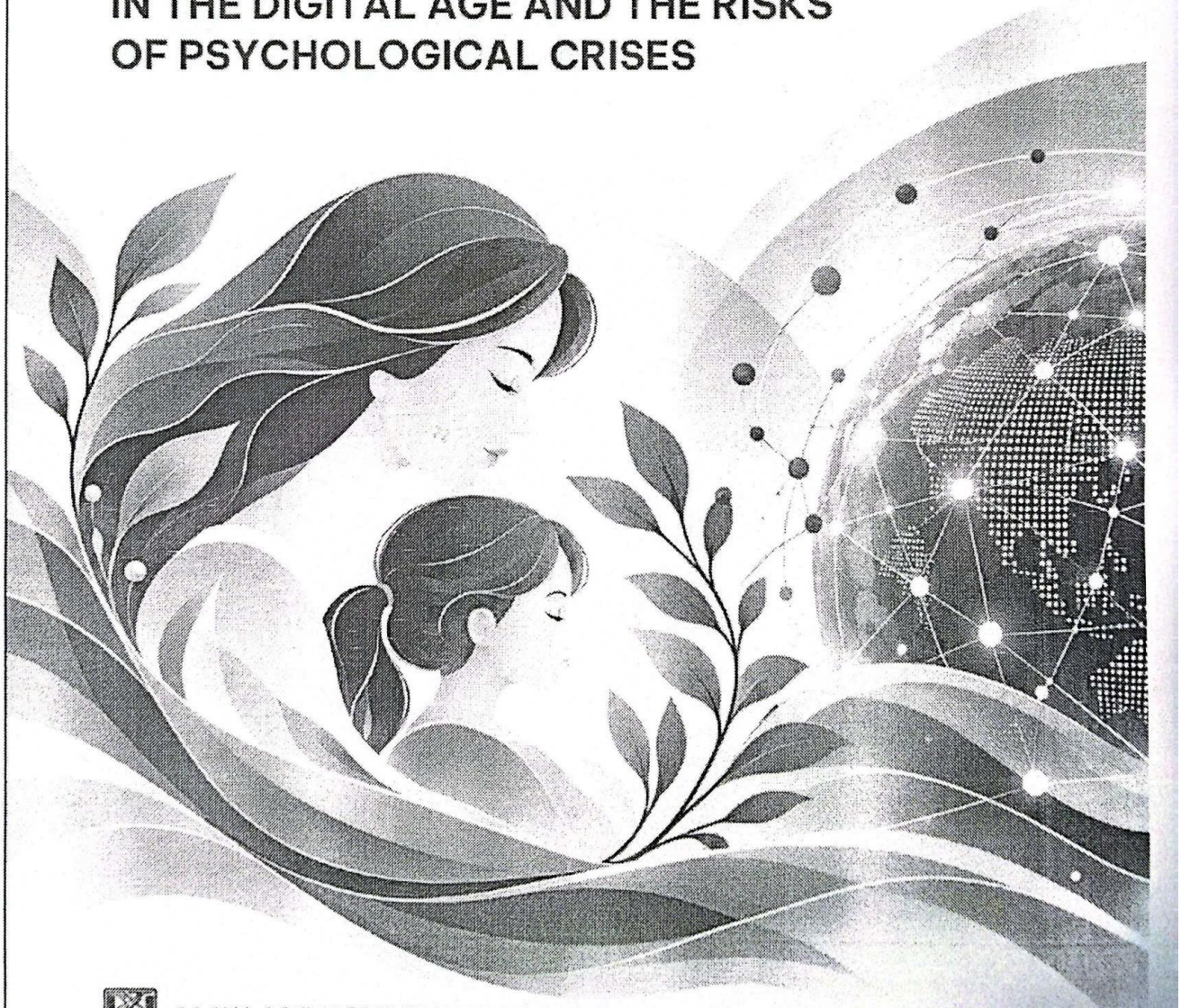
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PROCEEDINGS OF THE INTERNATIONAL SCIENTIFIC CONFERENCE

MENTAL HEALTH OF WOMEN AND CHILDREN

IN THE DIGITAL AGE AND THE RISKS OF PSYCHOLOGICAL CRISES



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CAREGIVING DURING HOSPITALIZATION AS A MENTAL HEALTH CHALLENGE FOR WOMEN: CAREGIVER BURDEN AND STRESS AMONG FEMALE FAMILY CAREGIVERS OF HOSPITALIZED PATIENTS

Pham Tien Sy[48], *Trinh Duy Khang*[49]

Abstract

Background: Women often assume the primary role in caring for hospitalized family members, exposing them to considerable psychological and financial challenges. However, evidence on caregiver burden and stress among female family caregivers in Vietnam remains limited. This study examined caregiver burden, perceived stress, their association, and factors associated with caregiver burden.

Methods: A cross-sectional study was conducted among 135 female family caregivers of hospitalized patients at the Hospital for Tropical Diseases in Ho Chi Minh City, Vietnam, between May and June 2026. Participants were recruited using convenience sampling. Caregiver burden and perceived stress were assessed using the Zarit Burden Interview (ZBI) and the 10-item Perceived Stress Scale (PSS-10). Data were analysed using descriptive statistics, Pearson's correlation, and multiple linear regression.

Results: Nearly half of the participants (49.6%) reported at least moderate caregiver burden, while 36.3% experienced moderate-to-high stress. Overall caregiver burden was positively correlated with perceived stress ($r = .570$, $p < .001$). Longer caregiving duration was significantly associated with greater caregiver burden, while older caregiver age, being the patient's mother, and lower household income showed marginal but non-significant associations with caregiver burden. Caregiving also imposed substantial economic consequences, 61.6% of women reduced or left work, 24.4% cut household expenditures, and 19.3% borrowed money or sold assets to cover treatment costs.

Conclusions: Hospital caregiving poses a significant mental health challenge for women. Integrating caregiver mental health screening with psychosocial and financial support into hospital services may help reduce caregiver burden and improve women's well-being.

Keywords: *female family caregivers; caregiver burden; perceived stress; hospitalized patients; women's mental health; hospital caregiving.*

1. Introdution

Family members play an indispensable role in supporting hospitalised patients, particularly in low- and middle-income countries where healthcare systems often rely on informal caregivers to provide continuous bedside care. Beyond offering emotional support, family caregivers frequently assist with feeding, personal hygiene, mobility, medication management, communication with healthcare professionals, and financial arrangements throughout the patient's hospital stay. These extensive responsibilities transform hospital caregiving into a demanding and often prolonged experience that extends well beyond routine family obligations. A growing body of evidence indicates that caregiving imposes a multidimensional burden encompassing physical, psychological, social, and economic domains (Sidamo et al., 2025; Seidel & Thyrian, 2019; Su & Fan, 2024). Studies conducted across diverse clinical settings, including cancer, chronic dermatological diseases, and neglected tropical diseases, consistently demonstrate that family caregivers experience disrupted daily routines, social isolation, financial hardship, and substantial caregiving demands, with many reporting moderate to high levels of

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caregiver burden (Mirsoleymani et al., 2017; Sari et al., 2018; Amoako et al., 2021; Sidamo et al., 2025; Elaidy et al., 2025). These findings suggest that caregiver burden is not confined to a particular disease but represents a widespread consequence of family involvement in patient care, highlighting the need to better understand its implications for caregivers' well-being.

The cumulative demands of hospital caregiving can substantially compromise caregivers' mental health. Continuous exposure to uncertainty regarding patients' prognosis, prolonged caregiving responsibilities, sleep disruption, financial pressures, and competing family and occupational obligations may exceed caregivers' coping resources, resulting in persistent psychological distress (Sidamo et al, 2025). Consequently, family caregivers have consistently been shown to experience elevated levels of perceived stress, anxiety, depression, emotional exhaustion, and reduced quality of life compared with the general population. Evidence from systematic reviews and studies across various clinical populations indicates that caregiver burden is positively associated with psychological distress, with caregivers reporting higher levels of burden also exhibiting greater stress, anxiety, and depressive symptoms (del-Pino-Casado et al., 2019; Bom et al., 2019; Liao et al., 2026). Although caregiver burden and perceived stress are conceptually distinct, they are closely intertwined. Caregiver burden reflects the multidimensional impact of caregiving on an individual's life, whereas perceived stress captures the extent to which caregiving demands are appraised as overwhelming or beyond one's coping capacity. Understanding the relationship between these two constructs is therefore essential for identifying caregivers who may be at increased risk of adverse mental health outcomes.

Previous studies suggest that female caregivers are more likely to encounter chronic stressors while having fewer coping resources and lower levels of perceived social support than their male counterparts (del-Pino-Casado et al., 2012). A recent systematic review and meta-analysis involving more than 14,000 family caregivers found that women reported significantly higher caregiver burden than men across different cultural settings, with the greatest disparities observed in Asian countries (Duangjina et al., 2025). Female caregivers are also more likely to report poorer physical and mental health outcomes, including sleep deprivation, chronic fatigue, poorer health-related quality of life, and greater use of health services than non-caregivers and, for some outcomes, male caregivers (Larrañaga et al., 2008). The consequences of caregiving extend beyond health. Women often reduce or discontinue paid employment, experience income loss, have less time for self-care and social participation, and face diminished access to social protection benefits (García-Calvente et al., 2004). Caregiving imposes substantial hidden costs on women and should be recognised as an important women's health and gender equity issue.

Several sociological perspectives help explain why women often experience greater caregiving burden and its associated consequences. Gender role theory suggests that women are traditionally expected to assume primary responsibility for domestic work and family care, while the gendered division of labour positions caregiving as a normative female role rather than a shared family responsibility (Martin, 2000). In Vietnam, these expectations remain deeply embedded in family life. Studies have consistently shown that women undertake the majority of household tasks, including cooking, cleaning, shopping, childcare, and caring for sick family members (Đỗ Thị Bình et al., 2002). More recent evidence from a national research project on gender equality and sustainable development

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reported that Vietnamese women spend 2.87 times more time on unpaid care and domestic work than men and continue to assume primary responsibility for childcare and family care (Trần Thị Minh Thi, 2025). When a family member is hospitalised, caregiving responsibilities are therefore more likely to fall on women. For women who are already managing domestic and occupational responsibilities, hospital caregiving may represent an additional layer of role demands rather than a standalone responsibility. This accumulation of demands may intensify caregiving burden and reduce opportunities for rest, recovery, and self-care, thereby contributing to greater perceived stress. Thus, gender-role expectations provide a conceptual basis for understanding why women may experience both greater caregiving burden and elevated stress when caring for hospitalised family members.

Despite women's central role in providing family care in Vietnam, evidence on caregiver burden and perceived stress among female family caregivers of hospitalised patients remains limited. This study aimed to examine caregiver burden and perceived stress among female family caregivers of hospitalised patients in Vietnam. Specifically, the study sought to: (1) describe the levels of caregiver burden and perceived stress; (2) examine the association between caregiver burden and perceived stress; and (3) identify socio-demographic and caregiving-related factors associated with caregiver burden. The findings are expected to contribute to the limited evidence on the mental health and caregiving burden of female caregivers in hospital settings and inform the development of appropriate psychosocial support strategies.

2. Methods

2.1. Participants and procedure

A cross-sectional survey was conducted between May and June 2026 among female family caregivers of patients receiving inpatient treatment at the Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam. Participants were recruited using convenience sampling. Eligible participants met the following inclusion criteria: (1) they were female caregivers providing direct care to a hospitalised patient during the study period; (2) they were a family member of the patient (e.g., daughter, wife, mother, grandmother); (3) they were able to read and understand the questionnaire; (4) they had no mental disorders that could impair cognitive functioning; and (5) they voluntarily agreed to participate in the study. All caregivers who met the eligibility criteria and were encountered by the research team during the recruitment period were invited to participate. Eligible caregivers were approached in the hospital wards during regular working hours, primarily in designated waiting areas for patients' caregivers. The research team explained the study purpose, eligibility criteria, confidentiality procedures, and participants' right to withdraw at any time without consequences. Participation was entirely voluntary, and informed consent was obtained from all participants before questionnaire administration. The refusal rate was estimated to be approximately 5%, primarily because some caregivers expressed personal reservations or had competing personal commitments. Five questionnaires were excluded because participants discontinued the survey before completion. A total of 135 female caregivers were included in the final analysis.

2.2. Ethical consideration

The study protocol was approved by the University of Sciences, Hue University. Following a review of the relevant study documents, the administration of the Hospital for Tropical Diseases in Ho Chi Minh City approved and permitted the study to be

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conducted at the hospital. Written informed consent was obtained from all participants before enrolment. Participants were informed that their participation was voluntary, their responses would be kept strictly confidential, and they could withdraw from the study at any time without any consequences.

2.3. Measures

2.3.1. Sociodemographic characteristics

Sociodemographic information was collected using a self-developed questionnaire. The questionnaire included information on participants' age, relationship to the patient, educational level, monthly household income, duration of caregiving, and whether the patient was diagnosed with HIV. These variables were selected based on the characteristics of the patient population receiving treatment for tropical diseases and evidence from previous studies conducted internationally and in Vietnam indicating that sociodemographic and caregiving-related characteristics may be associated with caregiver burden (Sari et al., 2018; Duangjina et al., 2025; Nguyen Thi Hong Nhung et al., 2025). Detailed sociodemographic characteristics of the participants are presented in Table 1.

Table 1. Sample sociodemographic characteristics

Socio-demographic		N	%
Age		Mean (std): 44.3 (12.99)	
Relationship to the patient	Mother	50	37
	Wife	38	28.1
	Child	25	18.5
	Sibling	10	7.4
	Other	12	8.9
Duration of caregiving	< 1 week	78	57.8
	1–2 weeks	31	23.0
	2–4 weeks	18	13.3
	> 4 weeks	8	5.9
Educational level	Lower secondary school or below	85	63.0
	High school	24	17.8
	College/University or above	26	19.3
Monthly household income	< VND 3 million/month	49	36.3
	VND 3 to <5 million/month	23	17.0
	VND 5 to <10 million/month	34	25.2
	VND 10 to <15 million/month	23	17.0
	≥ VND 15 million/month	6	4.4

2.3.2. Caregiver burden

Caregiver burden was assessed using the 22-item Zarit Burden Interview – ZBI (Zarit et al., 1980) . The validated Vietnamese version translated by Nguyễn Bích Ngọc was used in this study. Responses are rated on a five-point Likert scale ranging from 0 (never) to 4 (nearly always). Total scores range from 0 to 88, with higher scores indicating greater caregiver burden. Based on the recommended cut-off scores, caregiver burden can be

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classified as little or no burden (0–20), mild to moderate burden (21–40), moderate to severe burden (41–60), and severe burden (61–88) (Nguyễn Thanh Bình et al., 2014).

In the present study, the ZBI was analysed across six domains for descriptive purposes, following the classification used in previous Vietnamese studies (Nguyễn Thị Hồng Nhung et al., 2024; Trần Viết Lực et al., 2023): physical burden (Items 10, 16, and 18), emotional burden (Items 3, 4, 5, 7, and 9), financial burden (Item 15), social burden (Items 6, 11, 12, and 13), patient dependency (Items 1, 2, 8, 14, and 17), and self-criticism (Items 19, 20, and 21). This six-domain classification was used to describe specific aspects of caregiver burden and was not intended to establish or validate a six-factor structure of the ZBI.In the present study, the ZBI demonstrated excellent internal consistency, with a Cronbach's alpha of .91.

2.3.3. Perceived Stress Scale

Perceived stress was assessed using the 10-item Perceived Stress Scale (PSS-10) developed by Cohen and Williamson (1988). The PSS-10 measures the extent to which individuals perceive their lives as unpredictable, uncontrollable, and overwhelming during the previous month. Responses are rated on a five-point Likert scale ranging from 0 (never) to 4 (very often). Scores for Items 4, 5, 7, and 8 are reverse-coded. Total scores range from 0 to 40, with higher scores indicating greater perceived stress.

For descriptive purposes, PSS-10 scores were categorised as low (0–13), moderate (14–26), and high (27–40), based on cut-off ranges commonly used in previous studies (Abdulah & Mohammed, 2020; Vo et al., 2023). These categories were used to describe levels of perceived stress and were not intended to indicate clinical diagnoses.

The Vietnamese version of the PSS-10 validated by Dao et al. (2017) was used in this study. In the present study, the PSS-10 demonstrated acceptable internal consistency, with a Cronbach's alpha of .77.

In addition to the Zarit Burden Interview, participants were asked a separate question regarding the financial consequences of caregiving: "How has caring for the patient affected your financial situation?" Participants could report whether caregiving had resulted in (1) reducing or leaving work to care for the patient, (2) reducing other household expenditures to meet hospital-related expenses, and/or (3) borrowing money or selling assets to finance treatment. Participants could select more than one response option.

3. Results

Table 2. Levels of caregiver burden among female family caregivers (N = 135)

Caregiver burden level	n	%
Little or no burden	68	50.4
Mild to moderate burden	51	37.8
Moderate to severe burden	11	8.1
Severe burden	5	3.7
Total	135	100.0

Table 2 presents the distribution of caregiver burden among female family caregivers. More than one-third (37.8%) experienced a mild-to-moderate burden, while 8.1% reported a moderate-to-severe burden and 3.7% reported a severe burden. Overall, 49.6% of participants experienced caregiver burden.

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Table 3. Descriptive statistics of overall caregiver burden and its domains among female family caregivers (N = 135)

Caregiver burden domain	Mean	Std	Min	Max	Rank
Financial burden	1.50	1.47	0,00	4.00	1
Self-criticism	1.25	1.25	0,00	4.00	2
Patient dependency	1.22	1.03	0,00	4.00	3
Emotional burden	1.04	.78	0,00	3.60	4
Physical burden	.83	.76	0,00	3.00	5
Social burden	0.55	.87	0,00	3.75	6
Overall caregiver burden	22.73	16.63	0,00	77.00	

Note. Domain scores are item-average scores, calculated as the mean of the items within each domain to allow comparison across domains with different numbers of items.

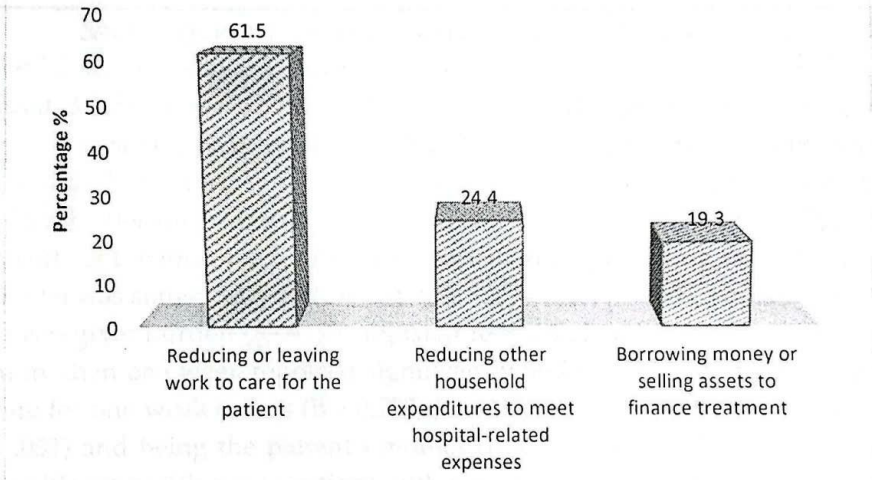


Figure 1. Financial consequences of caregiving reported in response to a separate multiple-response question among female family caregivers (N = 135)

Table 3 presents the descriptive statistics for overall caregiver burden and its six domains. Among the six domains, financial burden had the highest mean score (M = 1.50, SD = 1.47), followed by self-criticism (M = 1.25, SD = 1.25), patient dependency (M = 1.22, SD = 1.03), emotional burden (M = 1.04, SD = 0.78), physical burden (M = 0.83, SD = 0.76), and social burden (M = 0.55, SD = 0.87). These findings suggest that financial burden was the most prominent aspect of caregiver burden among female family caregivers. In addition to the ZBI-based assessment of caregiver burden, participants were asked a separate question about the financial consequences of caregiving. More than three-fifths of participants (61.5%) reported reducing or leaving work to care for the patient. In addition, 24.4% reported reducing other household expenditures to meet hospital-related expenses, and 19.3% reported borrowing money or selling assets to finance treatment. Because participants could select more than one response, these percentages do not sum to 100%.

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Table 4. Multiple linear regression analysis predicting caregiver burden among female family caregivers

Independent Variables	*B*	*SE*	β	*t*	*p*	VIF
Constant	.215	.232		.929	.355	
Age of caregivers	.010	.005	.170	1.890	.061	1.239
Caring for a patient with HIV[a]	.251	.157	.139	1.602	.112	1.154
Relationship to the patient[a]	.227	.128	.145	1.778	.078	1.014
Duration of caregiving[a]	.355	.133	.230	2.675	.008	1.135
Household income during the previous three months[a]	.148	.133	.096	1.112	.268	1.147

Note. Dependent variable: Overall caregiver burden. B = unstandardised regression coefficient; SE = standard error; β = standardised regression coefficient; VIF = variance inflation factor. Model summary: R = .44, R^2 = .20, adjusted R^2 = .16, F(5, 128) = 6.01, p < .001.

[a] Dummy coded variables (reference category = 0): Caring for a patient with HIV (0 = No, 1 = Yes); Relationship to patient (0 = Other, 1 = Mother); Duration of caregiving (0 ≤ 1week, 1 = >1 week); Household income (0 = ≤ 10 million VND, 1 = > 10 million VND). Table 4 presents the results of the multiple linear regression analysis predicting caregiver burden. The overall model was statistically significant, F(5, 128) = 6.01, p < .001, explaining 20% of the variance in caregiver burden (R^2 = .20, adjusted R^2 = .16). Family caregivers who provided care for more than one week reported significantly higher caregiver burden than those providing care for one week or less (B = 0.355, β = .230, p = .008). Caregiver age (B = 0.010, β = .170, p = .061) and being the patient's mother (B = 0.227, β = .145, p = .078) showed marginally significant positive associations with caregiver burden. Caring for a patient with HIV was not significantly associated with caregiver burden (p = .112).

Table 5. Levels of perceived stress among female family caregivers (N = 135)

Perceived stress level	n	%
Low stress	86	63.7
Moderate stress	47	34.8
High stress	2	1.5
Total	135	100.0

Table 5 presents the distribution of perceived stress among female family caregivers. Most participants (63.7%) reported low perceived stress. Moderate perceived stress was reported by 34.8% of participants, while only 1.5% experienced high perceived stress. Overall, 36.3% of participants reported moderate-to-high levels of perceived stress.

Table 6. Correlations between caregiver burden and stress among female caregivers (N = 135)

Variable	1	2	3	4	5	6	7	8
1. Caregiver burden	—							
2. Physical burden	.710**	—						
3. Emotional burden	.861**	.517**	—					

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Variable	1	2	3	4	5	6	7	8
4. Financial burden	.555**	.434**	.436**	—				
5. Social burden	.824**	.552**	.633**	.254**	—			
6. Patient dependency	.831**	.532**	.667**	.285**	.683**	—		
7. Self-criticism	.724**	.388**	.585**	.502**	.515**	.370**	—	
8. Stress	.570**	.471**	.479**	.490**	.337**	.417**	.490**	—

Note. $N = 135$. *Pearson correlation coefficients are reported.* $p < .01$ *(two-tailed).*

Table 6 presents the correlations between caregiver burden and perceived stress. Overall caregiver burden was moderately and positively correlated with perceived stress ($r = .570$, $p < .001$). All caregiver burden domains were also significantly correlated with perceived stress ($p < .001$). Financial burden and self-criticism showed the strongest correlations ($r = .490$ for both), whereas social burden showed the weakest ($r = .337$). These findings further highlight financial burden as an important dimension of caregiver burden among female caregivers.

4. Discussions

This study examined caregiver burden, perceived stress, their association, and factors associated with caregiver burden among female family caregivers of hospitalised patients in Vietnam. It contributes to the limited evidence on caregiver burden and mental health among female family caregivers in Vietnam, a context in which women continue to assume primary responsibility for family caregiving. Four main findings emerged. First, nearly half of the participants experienced at least moderate caregiver burden, and more than one-third reported moderate-to-high perceived stress. Second, caregiver burden was moderately and positively correlated with perceived stress. Third, financial burden emerged as the most prominent dimension of caregiver burden and showed one of the strongest correlations with perceived stress. Finally, longer caregiving duration was independently associated with greater caregiver burden, while caregiver age, being the patient's mother, and lower household income showed similar trends. Overall, these findings suggest that hospital caregiving represents an important mental health challenge for women and underscore the need for integrated psychosocial and financial support for female family caregivers.

The present study found that both caregiver burden and perceived stress among female family caregivers were generally at moderate levels. These findings are broadly consistent with previous studies conducted in Vietnam among caregivers of different patient groups, which also reported moderate levels of caregiver burden (Khúc Huyền Trang et al., 2021; Nguyễn Thị Hồng Nhung et al., 2024). However, the prevalence of moderate-to-severe caregiver burden in the present study was lower than that reported in some Vietnamese studies. For example, studies among caregivers of patients with heart failure (Vũ Đình Tuyên & Nguyễn Thị Thúy Hường, 2026) and caregivers of critically ill patients admitted to intensive care units (Đỗ Thị Thảo & Nguyễn Thị Hồng Anh, 2026) found that nearly 80% of caregivers experienced at least moderate caregiver burden. This difference may be related to variations in patients' clinical conditions. Caregivers of critically ill patients or those with advanced chronic diseases often face greater uncertainty, higher caregiving demands, and increased emotional strain, which may contribute to a heavier caregiving burden.

One of the most notable findings of this study is that financial burden, as measured by the financial domain of the ZBI, had the highest mean score among the six

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caregiver-burden domains. Separately, participants also reported several economic consequences of caregiving through a separate question, as presented in Figure 1. More than three-fifths of participants reported reducing or leaving work to provide care, one-quarter reduced household expenditures, and nearly one-fifth borrowed money or sold assets to meet hospital-related expenses. These findings indicate that caregiving places substantial economic pressure on female caregivers and their families. Similar findings have been reported in other low- and middle-income countries, where families often bear a considerable share of healthcare costs and financial burden is a common component of caregiver burden (Amoako et al., 2019; Duangjina et al., 2025). A recent Vietnamese study also found that caregivers with lower household income experienced significantly greater caregiver burden than those with higher incomes (Đỗ Thị Thảo & Nguyễn Thị Hồng Anh, 2026). Women may be particularly vulnerable to these financial pressures because caregiving often disrupts their employment and reduces household income (Navaie-Waliser et al., 2002; García-Calvente et al., 2004). This situation may be even more pronounced in Vietnam, where family members commonly remain in hospital to provide continuous bedside care. Women frequently assume this role while continuing to manage household responsibilities, resulting in lost earnings and additional expenses for transportation, accommodation, meals, and other hospital-related needs. Rising healthcare costs in Vietnam may further exacerbate these financial pressures (Trường Thịnh, 2024). These findings underscore the need for financial assistance and social protection policies to reduce the economic burden experienced by female family caregivers. Consistent with previous studies, caregiver burden was moderately associated with perceived stress (Cheng & Feng, 2025; Gheiasi et al., 2026). This association can be interpreted in light of the Transactional Model of Stress proposed by Lazarus and Folkman (1984), which conceptualises stress as arising from individuals' appraisal of environmental demands in relation to their available coping resources. From this perspective, caregiving demands across different areas of daily life may be perceived as stressful when they are considered difficult to manage with available resources. An important finding of the present study is that financial burden and self-criticism showed the strongest associations with perceived stress. Financial burden may reflect concerns about treatment costs, reduced household income, and uncertainty regarding the family's financial security. Self-criticism may indicate persistent feelings of guilt or believing that one is not doing enough despite considerable caregiving efforts. These two dimensions therefore represent both external and internal sources of stress. This relationship may be particularly relevant in Vietnam, where women continue to undertake most unpaid domestic work and spend substantially more time on family care than men (Đỗ Thị Bình et al., 2002; Trần Thị Minh Thi, 2025). When hospital caregiving is added to these existing responsibilities, caregiving demands are likely to accumulate further, increasing women's vulnerability to psychological stress.

Longer caregiving duration was independently associated with greater caregiver burden. This finding is consistent with previous studies conducted in Vietnam and other settings, which have also identified prolonged caregiving as an important factor associated with caregiver burden (Nguyễn Thị Hồng Nhung et al., 2025; Chakraborty et al., 2023). Longer caregiving may expose caregivers to sustained physical, emotional, and financial demands, thereby increasing the overall burden of care. However, Đỗ Thị Thảo and Nguyễn Thị Hồng Anh (2026) found no significant association between caregiving

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duration and caregiver burden among caregivers of patients in an intensive care unit, possibly reflecting differences in patient populations and caregiving contexts. Although caregiver age and being the patient's mother did not reach the conventional level of statistical significance in the present study, all showed similar trends. Previous studies have likewise reported greater caregiver burden among close family members, particularly mothers and spouses (Nguyễn Thị Hoài, 2023; Đỗ Thị Thảo & Nguyễn Thị Hồng Anh, 2026). These findings should be interpreted with caution and warrant further investigation in studies with larger sample sizes.

5. Implications for practice

Previous intervention studies have demonstrated that psychosocial interventions can effectively reduce caregiver burden and improve the mental health of family caregivers (Nguyễn Ngọc Ánh & Đỗ Thị Khánh Hỷ, 2021). In this regard, the present study offers specific empirical evidence to help guide more targeted interventions for female family caregivers in hospital settings.

Directly derived from our empirical findings, two primary actionable recommendations emerge. First, healthcare providers should prioritize routine screening and assessment for female caregivers identified in our model as being at higher risk, specifically those providing longer-term care (>1 week), caring for close family members (such as mothers), or facing financial hardship. Second, because financial burden emerged as a prominent dimension of caregiver burden strongly associated with stress, targeted interventions should extend beyond emotional support to incorporate practical assistance, financial counseling, and navigation of available health insurance and social welfare resources.

Extending these findings to broader policy and institutional considerations, hospitals in Vietnam should also give greater attention to the systemic needs of family caregivers. Improving hospital infrastructure, such as providing appropriate resting areas and basic amenities, complements direct psychological support. Together, combining these findings-based targeted interventions with broader facility-level enhancements will help reduce caregiver burden, promote psychological well-being, and ensure the sustainability of family caregiving during hospitalization.

6. Strengths and limitations

This study has several strengths. It is among the few studies in Vietnam to focus specifically on female family caregivers of hospitalised patients while examining both caregiver burden and perceived stress. It also explored multiple dimensions of caregiver burden, allowing identification of financial burden as a particularly prominent concern.

Several limitations should also be acknowledged. The cross-sectional design precludes causal inference. Participants were recruited using convenience sampling from a single hospital, which may limit the generalisability of the findings. All measures relied on self-report, introducing the possibility of reporting bias. Finally, because only women were included, the findings cannot be directly compared with male caregivers.

7. Conclusion

This study contributes to the limited evidence on caregiver burden and mental health among female family caregivers of hospitalised patients in Vietnam. Nearly half of the participants experienced at least moderate caregiver burden, and more than one-third reported moderate-to-high perceived stress. Caregiver burden was moderately associated with perceived stress. Financial burden is the most prominent dimension of caregiver

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burden and was one of the factors most strongly associated with perceived stress. Longer caregiving duration was associated with greater caregiver burden, while caregiver age, being the patient's mother, and lower household income showed similar trends.

These findings suggest that hospital caregiving represents an important mental health challenge for women in Vietnam. Female family caregivers should be recognised as a population at increased risk of caregiver burden and psychological distress. Routine screening for caregiver burden and mental health, together with psychosocial support, financial assistance, and caregiver-friendly hospital services, may help reduce the negative consequences of caregiving and improve the well-being of women who provide care for hospitalised family members.

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