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Original Research

Spousal Caregiving in Stroke: Exploring Caregiver Strain and Marital Satisfaction Within Family Relationships

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ABSTRACT

Background: *Stroke caregiving remains a significant concern because the demands of long-term care may affect caregivers' physical and psychological well-being, as well as the quality of family relationships. However, limited evidence has explored how caregiver strain is associated with marital satisfaction among spouses caring for stroke patients, particularly within the Indonesian cultural context. Therefore, this study aimed to examine the relationship between caregiver strain and marital satisfaction among spouses caring for stroke patients.*

Methods: *This study employed a quantitative, descriptive correlation design. The selection of research samples was made using a purposive sampling technique, with a total of 62 respondents who met the inclusion criteria: spouses of stroke patients who care for their stroke-affected spouses and live in the same household. Data collection using the CGSQ-SF11 (Caregiver Strain Questionnaire-Short Form 11) questionnaire was employed to measure caregiver strain, and the Enrich Marital Satisfaction Scale was used to measure marital satisfaction.*

Results: *The univariate analysis showed that the mean caregiver strain score was 26.08 ± 5.003, while the mean marital satisfaction score was 60.71 ± 4.343. The Spearman rank correlation analysis demonstrated a negligible negative correlation between the variables (r=-0.053), with no statistically significant association observed (p=0.658).*

Conclusion: *This study found no significant relationship between caregiver strain and marital satisfaction among spouses caring for stroke patients. Future research should further investigate other factors that may contribute to marital satisfaction among spousal caregivers, such as coping strategies, social support, family functioning, and caregiver resilience with larger and more diverse samples.*

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INTRODUCTION

Stroke, or Cerebrovascular Accident (CVA), is one of the leading causes of death and disability worldwide, including in Indonesia. It occurs when the blood flow to the brain is disrupted, either by a blockage or rupture of blood vessels. Stroke is generally classified into two types: non-hemorrhagic stroke (ischemic), caused by a blockage in the blood vessels, and hemorrhagic stroke, which occurs when a blood vessel ruptures, leading to bleeding in the brain (Abbafati et al., 2020; Hickey et al., 2018). Stroke significantly impacts a patient's physical, emotional, and social well-being, often leading to mobility impairment, dependency on caregivers, and permanent disability (Khristiyani & Jitowiyono, 2024).

Globally, stroke is considered a major stressor, not only affecting the patient but also placing a heavy burden on family members, particularly the family caregivers. Caregivers often find themselves in a difficult situation, providing round-the-clock care for patients with varying levels of disability. This caregiving role is associated with significant emotional and physical strain, leading to caregiver fatigue, anxiety, depression, and social isolation, all of which can severely impact the caregiver's mental health and well-being (Daulay et al., 2022).

Stroke, as a stressor, can profoundly impact marital satisfaction, which is essential for the functioning and resilience of the family unit. Marital satisfaction refers to the emotional contentment and overall quality of the relationship between spouses. When one partner assumes the caregiver role, it often disrupts the balance of the relationship, diminishing communication, emotional support, and intimacy. Over time, these changes can lead to a decline in marital satisfaction, which in turn affects the family's ability to function adaptively in response to the stressors associated with caregiving. A marriage experiencing low satisfaction may struggle to maintain family resilience, which refers to the family's ability to cope with challenges and stay united in times of adversity (Gibbs et al., 2020; Karimi et al., 2019).

In this context, nurses play an important role in identifying caregiver strain and assessing family functioning as part of holistic stroke care. Beyond addressing the patient's physical recovery, nurses are responsible for providing education, emotional support, and appropriate referrals to help caregivers manage stress and maintain healthy family relationships. Understanding the relationship between caregiver strain and marital satisfaction can assist nurses in developing comprehensive nursing interventions, including caregiver support programs, psychosocial counseling, and family-based rehabilitation approaches to improve the quality of life of both stroke patients and their caregivers.

Although previous studies have extensively examined the burden experienced by stroke caregivers, limited research has explored how caregiver strain influences marital satisfaction, particularly among spouses who provide continuous care for stroke survivors. In Indonesia, cultural expectations regarding family responsibility and caregiving may shape the experiences of caregivers and their marital relationships. Therefore, investigating the relationship between caregiver strain and marital satisfaction is important to provide evidence for developing family-centered interventions that support both caregivers and stroke survivors.

Research has shown that a decrease in marital satisfaction due to caregiver strain can result in a breakdown in family functionality—the ability of the family to provide emotional support, manage household responsibilities, and maintain a harmonious

environment (Abualait et al., 2021). A dysfunctional family environment only intensifies the caregiving challenges, increasing stress for both the caregiver and the patient. On the other hand, preserving high marital satisfaction can help strengthen the family's ability to cope with caregiving challenges, promoting a healthier and more resilient family dynamic(Veronika & Afdal, 2021). Thus, understanding the relationship between caregiver strain and marital satisfaction is critical in identifying strategies to enhance family well-being, encourage family resilience, and implement effective interventions that support both the caregiver and the patient.

MATERIALS AND METHOD

Study Design and Setting

This study employed a quantitative research design using a cross-sectional correlational method to investigate the relationship between caregiver strain and marital satisfaction among couples caring for stroke patients. The correlational approach was chosen to identify the strength and direction of association between the independent variable (caregiver strain) and the dependent variable (marital satisfaction), without manipulating any of the variables. The study was conducted at Al Ihsan Hospital, Bandung, from December 2024 to January 2025, with a data collection period of two months.

Population and Sample

The sampling technique used was purposive sampling, which involves selecting participants who meet specific inclusion criteria relevant to the research objective. The inclusion criteria were couples in which one partner was providing care for a stroke patient, aged ≥18 years, able to communicate effectively, and willing to participate in the study. The exclusion criteria were participants with cognitive or communication impairments that prevented them from completing the study procedures or those who withdrew during data collection. The target population consisted of couples in which one partner was providing care for a stroke patient, with a total sample size of 62 respondents, determined using G*Power version 3.1.9.4 based on a correlation model with parameters $\alpha = 0.05$, power = 0.98, and an expected effect size ($r = 0.5$).

Research Variables and Measurements

The research framework was grounded in the conceptual relationship between caregiver strain and marital satisfaction. Demographic factors, including age, gender, marital duration, caregiving duration, educational level, occupation, income, and the presence of additional caregivers, were identified as potential confounding variables that might influence the relationship between the main study variables. The independent variable, caregiver strain, was defined as the perceived difficulty and emotional, physical, social, and financial burden experienced by caregivers in fulfilling their roles, measured using the Caregiver Strain Questionnaire–Short Form 11 (CGSQ-SF11) developed by (Brannan et al., 1997).

This instrument contains 11 negatively worded items assessed using a Likert scale, with higher scores indicating greater caregiver strain. The dependent variable, marital satisfaction, was defined as the subjective sense of happiness, fulfillment, and pleasure in one's marital relationship, measured using the ENRICH Marital Satisfaction Scale (Fowers & Olson, 1993), which consists of 15 items across multiple relationship domains. Both instruments used in this study have demonstrated high reliability and validity in

previous research, with Cronbach's alpha ranging from 0.88 to 0.96 for the CGSQ-SF11 and 0.86 for the ENRICH Marital Satisfaction Scale.

The use of these standardized tools ensures that the collected data are both consistent and representative of the constructs being measured. Furthermore, the operational definitions of each variable, as well as demographic data (age, gender, marital duration, caregiving time, education, occupation, and income), were clearly delineated in the research design to control for possible confounding effects. Through this methodological rigor, the study aims to provide empirical insights into how the burden experienced by caregivers of stroke patients may influence the overall quality and satisfaction of their marital relationship.

Data Collection Procedure

Before data collection, participants received an explanation regarding the study objectives, procedures, potential benefits, and confidentiality of their information. After providing informed consent, participants completed the caregiver strain and marital satisfaction questionnaires. The questionnaires were administered directly by the researchers and collected after completion to ensure data completeness.

Statistical Analysis

The data were analysed using SPSS software. A normality test was carried out using the Shapiro–Wilk test to determine the distribution of the data. As the data were not normally distributed, bivariate analysis was performed using the Spearman's rank correlation test. Spearman's rank correlation test was used to determine the relationship between the two research variables at a significance level of $\alpha = 0.05$.

Ethical Considerations

This study has been granted ethical approval by the Health Research Ethics Committee of Sekolah Tinggi Ilmu Keperawatan PPNI Jawa Barat, under approval number III/102/KEPK-SLE/STIKEP/PPNI/JABAR/XII/2024. Prior to data collection, all respondents were provided with an explanation of the aims, procedures and benefits of the study, as well as their right to participate on a voluntary basis. The confidentiality of respondents' identities and information was maintained throughout the research process, and respondents were free to withdraw at any time without any consequences.

RESULTS

Table 1. Demographic Characteristics of Spouses Caring for Stroke Patients (n = 62)

Variables	Mean±SD (Range)	n (%)
Age	55.35±6.049 (39-68)	
Gender		
Male		17 (27.4)
Female		45 (72.6)
Education Level		
Primary Education		59 (95.2)
Higher Education		3 (4.8)
Occupation		
Employee		28 (45.2)
Unemployee		34 (54.8)

Variables	Mean±SD (Range)	n (%)
Income		38 (61.3)
Under the regional minimum wage		23 (37.1)
Minimum Wage		1 (1.6)
Above Minimum Wage		
Age at Marriage	21.23±3.518 (14-30)	
Duration of Caregiving	2.26±1.280 (1-5)	
Length of Marriage	34.11±7.375 (19-54)	
Caregiving Hours		
<10 Hours		2 (3.2)
10-19 Hours		18 (29)
20-29 Hours		4 (6.5)
>30 Hours		38 (61.3)
Number of Children		
One		2 (3.2)
More Than One		60 (96.8)
Assistance in Caregiving		
None		18 (29)
Informal Caregiver		44 (71)

The demographic characteristics of spouses caring for stroke patients are shown in Table 1. The average age of the spouse caregivers was 55.35 ± 6.049 years, with a range from 39 to 68 years. This suggests that the caregivers in this study were generally in middle to late adulthood, a period where caregiving responsibilities may interact with other age-related health concerns. A clear majority of the caregivers were female, accounting for 72.6%. This is consistent with common caregiving patterns, where women, particularly wives, are often the primary caregivers in the household. The majority of caregivers (95.2%) had attained a primary education. This suggests that while the caregivers may not have formal higher education, many have at least completed the basic levels of schooling, which may influence their ability to manage caregiving tasks, access information, and communicate effectively with healthcare professionals.

In terms of occupation, 54.8% of the caregivers were housewives, and 56.5% of the caregivers were unemployed. These findings suggest that a substantial proportion of caregivers were primarily engaged in household duties, which may allow them to devote more time to caregiving but also may limit their financial independence or access to outside support. A notable 61.3% of caregivers earned less than the regional minimum wage (UMR), which reflects the economic challenges many caregivers face. Financial strain is a significant concern for caregivers, particularly those with lower incomes, as it may affect their ability to access necessary resources and services for both the patient and them.

The average age at marriage for caregivers was 21.23 ± 3.518 years, with a range between 14 and 30 years. This suggests that most caregivers married at a relatively young age, with a significant proportion having entered marriage in their late teens and early twenties. The average duration of caregiving was 2.26 ± 1.280 years, with caregiving periods ranging from 1 to 5 years. This reflects that many caregivers have been attending to their stroke-afflicted spouses for a few years, suggesting that caregiving is often an ongoing responsibility over extended periods. The average length of marriage among respondents was 34.11 ± 7.375 years, with a range from 19 to 54 years. This long duration

highlights that many caregivers had been in their marriages for several decades, implying that caregiving responsibilities are likely shaped by years of accumulated relationship history and commitment.

The duration of caregiving per week varied, with the most common category being caregivers who spent more than 30 hours per week on caregiving duties, comprising 61.3% of the sample. This indicates a high level of commitment and time investment in caring for the stroke patient, reflecting the intensive nature of stroke caregiving. A significant proportion of caregivers (96.8%) had more than one child. This suggests that many caregivers are supported by their children, who may assist in caregiving duties or contribute to family resources, helping to reduce the burden on the primary caregiver. 71.0% of caregivers reported having informal caregiving assistance, typically from family members such as children or other relatives. This indicates that caregiving is often a shared responsibility in the family, which may help alleviate some of the stress and burden faced by primary caregivers.

Table 2. Caregiver Strain Among Spouses Caring for Stroke Patients (n = 62)

Variabel	Mean±SD (Range)	r	p-value*
Caregiver Strain	26.08±5.003 (16-36)		
Marital Satisfaction	60.71±4.343 (49-73)	-0.053	0.684

* Spearman's rank correlation test

Caregiver strain and marital satisfaction were key variables measured in this study, providing insight into the psychological and relational dynamics of spouses caring for stroke patients. The average caregiver strain score was 26.08 ± 5.003, which suggests a moderate level of strain experienced by caregivers. While caregiving for a stroke patient can be emotionally, physically, and mentally demanding, the relatively moderate strain score indicates that many caregivers may have adapted to their caregiving role, managing their responsibilities over time.

The average marital satisfaction score was 60.71 ± 4.343, indicating a moderate level of satisfaction in the marital relationship. This suggests that, despite the challenges of caregiving, many spouses in this study reported maintaining a reasonable degree of satisfaction in their marriages, which may be linked to strong relational commitment and effective coping mechanisms. The p-value between caregiver strain and marital satisfaction was found to be 0.684 ($p > 0.05$), indicating no significant relationship between the two variables.

The significant relationship between caregiver strain and marital satisfaction indicates that caregiver strain was not statistically associated with marital satisfaction in this study. This finding suggests that the relationship between caregiving burden and marital satisfaction may be influenced by various factors that were not examined in the current study. Further research is needed to explore other potential factors that may contribute to marital satisfaction among couples caring for stroke patients.

DISCUSSION

Regarding the average age of caregivers, which includes older adults and geriatric caregivers, the finding itself contrasts with previous research, such as that by Ismail & Safrudin (2020), which suggests that older caregivers experience more strain due to age-related physical and emotional challenges. However, the caregivers in this study did not report feeling a high level of burden despite their relatively older age. This finding may

indicate that age alone does not necessarily determine perceived caregiver burden. Previous studies have suggested that caregiver burden can be influenced by various factors, including caregiving duration, coping ability, social support, and available resources rather than age alone (Makanjuola & Ngcobo, 2025).

Further research is needed to explore factors contributing to caregiver burden among older caregivers.Caregiver burden has been shown in previous studies to act as a significant mediator between caregiver satisfaction and the experience of stressful caregiving conditions (López-Martínez et al., 2025). Explained that individuals continuously engage in cognitive assessment, evaluating both the potential consequences of stressful situations and their perceived capacity to manage them - greater caregiving satisfaction can foster a more positive cognitive evaluation of these challenges-diminishing perceived burden and alleviating its impact on the caregiver's psychological distress. The ability of caregivers to adjust to their roles over time may explain the absence of significant emotional strain, even in older age groups.

The average age at marriage for caregivers in this study was in their twenties. Early marriage is often associated with more robust communication and mutual emotional and physical well-being, which in turn can foster a healthier caregiving experience, characterized by lower stress, greater satisfaction with the caregiving role, and better outcomes for both partners (Kamali et al., 2020). Despite the relatively young age at marriage, the caregivers in this study did not report feeling significantly burdened by their caregiving responsibilities, suggesting that factors such as relationship quality and early communication skills may play a larger role in reducing caregiving strain.

The duration of caregiving in this study ranged from 1 to 5 years. This is consistent with findings from Ardiati et al., (2022), which found that caregivers often report increased stress and fatigue over time. Despite the length of caregiving, however, caregivers in this study did not report significant emotional strain, which could indicate that these caregivers had developed effective coping strategies and maintained a positive relationship with their partners, helping to mitigate the negative impacts of long-term caregiving. (Huo & Kim, 2023; Kamali et al., 2020)(Kamali et al., 2020).

The results of the length of marriage among respondents suggest that the caregivers had been married for many years before assuming the caregiving role. Previous research has shown that long-term marriages are often associated with higher levels of marital satisfaction, especially when supported by spirituality and religion, commitment, sexual relationship, communication, children, love and attachment, intimacy, and conflict resolution approach (Karimi et al., 2019).

Additionally, long-term marital commitment plays a crucial role in maintaining the core foundations of the relationship during challenging times. Meanwhile, elements such as intimacy contribute significantly to the development of marital identity and overall satisfaction. The longevity of marriages in this study may have helped caregivers manage the demands of caregiving more effectively by drawing on years of emotional support, shared experiences, and a commitment to mutual well-being. The caregiving hours reported by caregivers revealed that they provided more than 30 hours of care per week. This high level of commitment to caregiving often leads to physical exhaustion, particularly when caregivers are unable to take breaks or have respite from caregiving duties, which aligns with earlier studies suggesting that full-time caregiving can lead to caregiver fatigue (Fallah et al., 2023; Nurrandi & Putri, 2021; Putri et al., 2022). Other factors, such as emotional resilience, social support, and practical caregiving experience, likely played a significant role in the caregivers' ability to manage their responsibilities.

The study found that most caregivers were female, which aligns with previous studies that highlight the predominance of female caregivers for stroke patients. (Apriliyanti et al., 2022). Research consistently shows that women constitute the overwhelming majority of informal caregivers for stroke survivors. In a large Pakistani sample, women shouldered most family caregiving duties across the life cycle and reported higher stress levels than male caregivers (Shekhani, 2024). Greek investigation showed that 68 % of caregivers were female and that female gender was linked to lower perceived support but higher burden (Kavga et al., 2022). This may reflect cultural norms in which women, particularly wives, are expected to care for their spouses during times of illness; thus, these gender roles may influence the caregiving dynamics, with women bearing a disproportionate share of caregiving responsibilities.

In terms of occupation, most caregivers were housewives. This finding indicates that caregiving responsibilities were primarily carried out by individuals who were not engaged in formal employment. However, occupation alone does not determine the caregiving experience, as caregiver burden may also be influenced by other factors, such as caregiving duration, patient dependency level, social support, and available resources. However, this may also limit their ability to access social support or engage in paid employment, which may contribute to financial strain. (Barzallo et al., 2024).

Some caregivers reported earning below the regional minimum wage, which reflects the economic challenges faced by many caregivers. Financial strain is a well-documented issue among caregivers. (Heriyanto et al., 2022)Many caregivers in this study relied on financial support from their children, which eased their economic burden and allowed them to continue providing quality care. Previous research has highlighted that unemployment or staying at home may contribute to financial stress, which can potentially impact caregiving quality. Despite this, many caregivers in this study were able to provide proper care without formal employment, which suggests that factors like personal resilience, social networks, and the availability of informal support (such as children or relatives) may help mitigate financial strain. (Poco et al., 2025; Socci et al., 2024).

Regarding children, almost all of the caregivers had more than one child, which aligns with research indicating that having multiple children can provide additional support, both in terms of caregiving and financial resources(Husni et al., 2024). The presence of children may alleviate the burden on primary caregivers, as they can assist with caregiving tasks and contribute financially, reducing the stress and strain experienced by the main caregiver. In terms of additional caregiving support, caregivers reported receiving help from informal caregivers, such as children or other family members. This finding is consistent with earlier studies, suggesting that informal caregivers can significantly reduce the burden on primary caregivers (Shekhani, 2024). The presence of informal support helps maintain caregivers' well-being and ensures that caregiving responsibilities are shared, thus reducing stress and contributing to a more balanced caregiving experience(Ardiati et al., 2022).

The study found that caregiver strain was lower than expected. This finding differs from previous studies reporting that caregivers of stroke patients often experience substantial emotional, physical, and financial strain (Sardar et al., 2022). One possible explanation may relate to the cultural context of caregiving in Indonesia, where family involvement and responsibility toward ill family members remain strong values. In many Indonesian families, caregiving is commonly perceived as a moral obligation and an expression of love and commitment toward spouses and family members. This cultural

perspective may influence how caregivers perceive and respond to caregiving responsibilities, potentially reducing the perceived burden despite the challenges experienced. However, caregiver strain is a complex phenomenon influenced by multiple factors, including social support, family involvement, patient dependency level, caregiving duration, and available resources, which should be explored further in future studies.

However, the relatively low caregiver strain observed in this study may reflect the caregivers' ability to adapt to their caregiving roles over time. This adaptation could be due to the support systems in place, including the presence of informal caregivers and family support, which helped caregivers manage the demands of caregiving. Caregiving for a spouse with a chronic illness typically lowers marital satisfaction (King et al., 2021). However, in this study, caregivers reported relatively high marital satisfaction, suggesting that despite the challenges of caregiving, the caregivers maintained a strong emotional connection with their spouses. This could be attributed to mutual respect, emotional commitment, and shared coping strategies, which helped preserve marital satisfaction even in the face of caregiving stress.

The bivariate analysis between caregiver strain and marital satisfaction reveals no significant relationship. This finding contrasts with previous studies (Husni et al., 2024) This suggests prolonged caregiving increases strain and reduces marital satisfaction. However, in this study, caregivers reported high marital satisfaction despite the caregiving burden, which suggests that factors other than caregiver strain—such as emotional commitment, effective communication, and external support—may play a more significant role in maintaining marital satisfaction.

CONCLUSION

This study provides new insights into the relationship between caregiver strain and marital satisfaction among couples caring for stroke patients. Unlike previous studies that have primarily focused on the psychological and physical burden experienced by stroke caregivers, this study specifically examines whether caregiver strain is associated with marital satisfaction within the context of spousal caregiving. The findings showed that caregiver strain was not significantly related to marital satisfaction, suggesting that the impact of caregiving burden on marital relationships may vary depending on individual and family circumstances. These findings contribute to a broader understanding of caregiver experiences and highlight the importance of considering family and relational aspects in stroke caregiving interventions. Further research is needed to explore other factors that may influence marital satisfaction among caregivers, including social support, coping mechanisms, and family functioning.

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