

Exploring the Lived Experiences of Family Caregivers of Patients with Newly Diagnosed Stroke

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ABSTRACT

Stroke is a major cause of mortality and long-term disability and affects not only patients but also their families. Caring for a person with stroke creates a multidimensional and highly demanding experience for family caregivers. However, knowledge of caregivers' lived experiences remains limited, particularly within the cultural context and healthcare system of Iran. This study aimed to explore the lived experiences, challenges, and needs of family caregivers of patients with newly diagnosed stroke. This qualitative study used a descriptive phenomenological design. Participants were family caregivers of patients with newly diagnosed stroke who attended one of the hospitals affiliated with Iran University of Medical Sciences in Tehran Province during the first three months of 2025. Twelve primary family caregivers were selected through purposive sampling with maximum variation. Data were collected through in-depth semi-structured interviews and analyzed using Colaizzi's seven-step method. Lincoln and Guba's criteria of credibility, transferability, dependability, and confirmability were used to establish trustworthiness. Data analysis yielded six main themes: emotional burden of caregiving, caregiver burnout and strain, changes in individual and family life, caregivers' educational needs, support and supportive resources, and adaptation and hope. Despite substantial emotional, physical, and social challenges, caregivers gradually adapted by drawing on family support, support from the healthcare team, hope for recovery, and meaning-making in caregiving. Lack of specialized training and psychological support emerged as major barriers. Caring for a person with stroke is a multidimensional and dynamic process. Family caregivers require specialized education, psychological support, and supportive services to perform their caregiving role more effectively while protecting their own health and quality of life. These findings can provide a scientific basis for designing family-centered educational and supportive interventions tailored to caregivers' actual needs.

Keywords: Stroke; Family Caregiver; Lived Experience; Phenomenology; Caregiver Burden; Qualitative Research

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Introduction

Stroke is among the most consequential neurological disorders worldwide because of its high mortality, substantial risk of persistent disability, and extensive effects on patients, families, and healthcare systems. It results from an acute disturbance of cerebral circulation caused either by vascular occlusion, producing ischemic stroke, or by rupture of a cerebral vessel and intracranial bleeding, producing hemorrhagic stroke. Although advances in emergency medicine, neuroimaging, reperfusion therapy, intensive care, and rehabilitation have improved the management of acute stroke, the condition continues to impose a considerable global burden through premature mortality and long-term functional dependence.

Cerebrovascular disease remains a major cause of death, and pathological complications associated with stroke continue to account for substantial mortality across populations (1). Global epidemiological evidence likewise identifies stroke as one of the leading causes of death and disability, with its burden extending beyond acute hospitalization to years of rehabilitation, dependency, and reduced quality of life among survivors (2). Moreover, concern about stroke is no longer restricted to older populations. Recent epidemiological evidence suggests an increasing incidence of stroke among younger adults, with important implications for family structures, employment, caregiving responsibilities, and the long-term social and economic consequences of disability (3).

The clinical manifestations and consequences of stroke vary substantially according to its type, severity, vascular territory, lesion location, and individual patient characteristics. Contemporary stroke management therefore requires rapid diagnostic differentiation between ischemic and hemorrhagic events and the application of time-sensitive medical and neurological interventions (4). In ischemic stroke, advanced endovascular procedures, including vascular interventions and stenting in selected patients, demonstrate the increasingly specialized nature of modern stroke care and the importance of appropriate clinical selection and follow-up (5). At the same time, biomedical research continues to investigate innovative approaches to neurological recovery, including chemogenetic modulation as a potential strategy for improving post-stroke neural repair and functional restoration (6). Despite these developments, many survivors continue to experience motor weakness, impaired mobility, speech and communication difficulties, cognitive problems, swallowing disorders, sensory disturbances, and dependence in activities of daily living. Consequently, rehabilitation remains a central component of post-stroke management and typically requires coordinated interventions aimed at restoring function, reducing disability, preventing complications, and promoting the highest possible level of independence (7).

The consequences of stroke are not limited to motor and neurological impairment. Survivors may experience a broad range of psychological and emotional difficulties, including depression, anxiety, fear, adjustment problems, emotional instability, and changes in self-perception. These psychological effects can complicate rehabilitation and influence adherence, social participation, interpersonal relationships, and overall recovery (8). Recent evidence further indicates that depressive and anxiety symptoms constitute clinically important psychiatric manifestations among people who have experienced stroke, emphasizing the need to understand recovery as a multidimensional process involving both neurological and psychological health (9). Pain can also become an important and sometimes persistent post-stroke complication. The occurrence of post-stroke pain may vary according to neurological injury sites and related pathophysiological mechanisms, adding another layer of complexity to functional recovery and daily care requirements (10). Chronic pain has also been identified among stroke survivors during the first two years following the event, potentially contributing to sleep disturbance, reduced mobility, emotional distress, impaired rehabilitation participation, and increased dependence on others (11). Thus, the effects of stroke frequently encompass interacting physical, cognitive, emotional, and behavioral dimensions that shape not only the survivor's experience but also the responsibilities assumed by those who provide everyday care.

For many individuals, the period following hospitalization involves substantial dependence on informal or family caregivers. Family members may become responsible for medication management, feeding, hygiene, mobility assistance, positioning, transportation, medical appointments, rehabilitation exercises,

monitoring for complications, emotional reassurance, and coordination with healthcare professionals. In this respect, stroke can be understood not merely as an individual medical event but as a disruptive event affecting the entire family system. Integrative evidence on family experiences of stroke care indicates that families commonly encounter uncertainty, changes in roles, practical burdens, emotional strain, and the need to reorganize everyday life around the survivor's condition (12). Family members may suddenly move from being spouses, children, siblings, or other relatives into demanding caregiving roles for which they have received little or no preparation. This transformation is particularly significant during the early period after diagnosis, when families are simultaneously trying to understand the illness, cope emotionally with its sudden onset, communicate with healthcare professionals, and anticipate the requirements of continued care.

The family caregiver therefore occupies a central position in post-stroke recovery. Family-centered care recognizes that recovery does not occur exclusively within hospitals or rehabilitation institutions but is strongly influenced by the knowledge, behavior, resources, and coping capacities of the family environment. An integrative review of family-centered approaches to stroke rehabilitation has emphasized the contribution of family involvement to rehabilitation outcomes and the importance of incorporating caregivers into treatment planning, education, communication, and continuing care (13). Similarly, strategies that integrate caregiver support with home-based care may help maintain continuity after discharge and potentially reduce preventable hospital readmissions among stroke survivors (14). Such findings indicate that family caregivers should not be viewed merely as auxiliary helpers. Rather, they form an integral part of the post-stroke care system, particularly when patients have residual disability and require sustained assistance at home.

This responsibility, however, can expose caregivers to considerable psychological, physical, social, and economic strain. Caregiver burden may arise from the intensity of the patient's dependence, duration of caregiving, behavioral or cognitive complications, insufficient respite, competing occupational and family responsibilities, and limited access to formal support. Evidence regarding factors associated with caregiver burden among those caring for post-stroke patients demonstrates that burden is a multidimensional phenomenon influenced by characteristics of both the patient and caregiver as well as by the wider caregiving context (15). Over time, caregiving demands may contribute to fatigue, sleep disruption, reduced social participation, occupational difficulties, financial concerns, emotional exhaustion, and deterioration in caregivers' own health. These effects are particularly important because the wellbeing of the caregiver and the wellbeing of the stroke survivor are interrelated. Prospective longitudinal evidence examining matched pairs of stroke patients and family caregivers indicates that health-related quality of life is shaped within this interconnected caregiving relationship rather than being solely an individual patient outcome (16).

Caregivers may be especially vulnerable when they are required to assume responsibility before they have acquired sufficient knowledge or practical skills. Stroke care at home can involve complex tasks such as safe patient transfer, prevention of falls and pressure injuries, medication administration, nutrition management, assistance with personal hygiene, monitoring of neurological symptoms, prevention of recurrent stroke, and support for rehabilitation activities. Family caregivers may also need to recognize changes that require urgent medical attention while simultaneously responding to the emotional reactions of the patient. Reviews of the challenges experienced by family caregivers in community settings show that

insufficient knowledge, psychological pressure, caregiving workload, limited resources, and difficulty adjusting to unfamiliar responsibilities frequently characterize their experiences (17). Consequently, caregivers' educational needs extend beyond receiving general information about stroke. They require practical, comprehensible, timely, and context-sensitive guidance that can be translated into everyday caregiving behaviors.

Importantly, caregiver needs are not static. They may change according to the stage of illness, the survivor's functional condition, and the transition from acute care to rehabilitation and home-based care. A phenomenological investigation structured around the Timing It Right framework showed that caregivers of disabled stroke patients have changing informational, emotional, practical, and supportive needs across different phases of caregiving (18). During the early period, caregivers may be primarily occupied with survival, diagnosis, prognosis, treatment decisions, and uncertainty. As discharge approaches, their attention often shifts toward practical caregiving tasks, rehabilitation, medication, safety, and the organization of home life. Later, long-term issues such as caregiver fatigue, financial pressure, social isolation, recurrent stroke prevention, and sustaining rehabilitation may become more prominent. This temporal perspective is especially relevant to caregivers of newly diagnosed patients because the earliest weeks of stroke can involve profound uncertainty at precisely the time when families are expected to absorb large amounts of medical information and prepare for new responsibilities.

The transition from hospital to home represents a particularly sensitive period in this process. Although discharge may signify medical stabilization, it can also transfer substantial responsibility from healthcare professionals to families. Caregivers must frequently manage this transition while still experiencing fear, uncertainty, and insufficient confidence in their ability to provide care. Systematic evidence concerning transitional care for stroke survivors and their caregivers highlights the importance of coordinated discharge preparation, continuity of information, caregiver involvement, and adequate support after hospitalization (19). Weaknesses in transitional care may leave families uncertain about rehabilitation procedures, medication use, warning signs, follow-up appointments, or strategies for managing functional limitations. Conversely, structured communication and caregiver preparation can help families develop greater confidence and continuity between institutional and home-based care.

The caregiving role also needs to be understood within the broader conceptual framework of chronic illness care. Informal caregivers frequently serve as the link connecting the patient with healthcare providers, household routines, community resources, and ongoing disease management. Their role may involve advocacy, decision support, emotional care, symptom observation, coordination, and direct assistance with daily activities (20). In stroke, these responsibilities may emerge abruptly rather than developing gradually, making adaptation particularly difficult. A person may become a primary caregiver within hours or days of the stroke without previous knowledge of neurological illness or caregiving practices. The suddenness of this transition distinguishes early stroke caregiving from some other chronic conditions and may intensify perceptions of shock, uncertainty, role overload, and loss of control.

At the same time, caregiver experiences cannot be reduced exclusively to burden and distress. Families can develop coping strategies, practical competence, resilience, meaning, hope, and new forms of interpersonal solidarity during the caregiving process. Qualitative evidence from Iran has described the experiences of family caregivers of stroke survivors as multifaceted, incorporating difficult psychological and

practical pressures alongside adaptation and resilience (21). Caregivers may reinterpret their responsibilities through affection, family commitment, moral obligation, reciprocity, or personal meaning. Some may experience strengthened relationships, greater appreciation of family bonds, or increased confidence as their caregiving skills develop. Such positive processes do not eliminate burden, but they demonstrate that caregiving is dynamic and that distress and adaptation may coexist. Understanding both dimensions is necessary if interventions are to support caregivers without portraying them solely as passive recipients of strain.

This multidimensional understanding has important implications for intervention. Evidence from systematic reviews suggests that interventions directed toward stroke patients and caregivers can influence outcomes such as quality of life, depression, and caregiver burden, although their effectiveness may depend on program characteristics, timing, and responsiveness to actual needs (22). Interventions that focus only on the patient's physical recovery may overlook caregiver distress, while interventions providing information without practical training may not sufficiently improve caregiver competence. Effective family support may therefore require a combination of education, skill development, psychological assistance, communication with healthcare providers, and mechanisms for mobilizing family and social resources. It is particularly important to identify needs from caregivers' own perspectives before developing interventions, because professionally assumed needs may not fully correspond to difficulties experienced in daily life.

These issues become even more salient during the newly diagnosed stage. Whereas long-term caregivers may gradually acquire skills and establish routines, caregivers in the first weeks and months following stroke are still attempting to make sense of the event and develop a workable caregiving role. They may simultaneously experience fear of recurrence, uncertainty concerning prognosis, inadequate knowledge of rehabilitation, concern about post-stroke pain and disability, and pressure to maintain ordinary family and occupational responsibilities. The complexity of stroke sequelae—including psychological symptoms (9), persistent pain (11), lesion-related pain patterns (10), and functional rehabilitation requirements (7)—can further increase uncertainty among inexperienced caregivers. At the same time, developments in acute and rehabilitative treatment (4, 6) mean that families may need to understand increasingly complex care pathways while preparing to provide sustained support outside the hospital.

Although existing research has clarified the epidemiological burden of stroke, clinical management, rehabilitation, caregiver burden, family-centered care, transitional care, and the broader needs of family caregivers, a more detailed understanding of the immediate lived experience of family members caring for a person with a newly diagnosed stroke remains necessary. The early caregiving period represents a distinctive phase characterized by sudden role transition, emotional shock, uncertainty, intensive information needs, and preparation for continued care. Examining this period can help identify not only the burdens caregivers experience but also the resources through which they adapt, the educational content they require, the forms of psychological and professional support they consider most useful, and the ways family relationships are reorganized in response to illness. Such knowledge is particularly important for designing culturally responsive, family-centered interventions that begin early rather than waiting until caregiver strain has become chronic.

Accordingly, the aim of this study was to explore the lived experiences, challenges, educational and supportive needs, and processes of adaptation among family caregivers of patients with newly diagnosed stroke.

Methods and Materials

Study Design and Participants

This study used a qualitative descriptive phenomenological approach grounded in Husserlian philosophy, which seeks to return to “the things themselves” and to describe lived experience as accurately as possible while minimizing the influence of prior assumptions (Colaizzi, 1978). This approach was selected because it was closely aligned with the study objective: to explore the structure of family caregivers' experiences of stroke and to examine their emotional, cognitive, and relational components. Consistent with the principle of epoché, the researcher attempted to bracket personal assumptions and to attend directly to participants' accounts.

To ensure study quality, the four criteria proposed by Lincoln and Guba - credibility, transferability, dependability, and confirmability - were applied. For credibility, the researcher remained engaged with the data for more than five months, listened to the interviews repeatedly, and returned the analyses to participants; this process led to revisions in some statements. Data were coded by both the researcher and an independent coder, with 85% agreement between coders. Variation among participants, triangulation of data sources, and analysis of discrepant cases were also used to strengthen credibility. For transferability, a rich description of the research context, participant characteristics, and data-collection process was provided so that readers could judge the applicability of the findings to similar settings. For dependability, the research process, audio files, transcripts, field notes, and changes made during the study were fully documented. For confirmability, reflexive notes were maintained to help control presuppositions, and an external auditor reviewed and confirmed the overall analytic process.

The study population comprised family caregivers of patients with newly diagnosed stroke who attended one of the hospitals affiliated with Iran University of Medical Sciences in Tehran Province during the first three months of the Iranian year 2025. Purposive sampling with maximum variation was used to capture a broad range of experiences with respect to duration of caregiving, age, occupation, sex, and caregiver-patient relationship. Inclusion criteria were being the primary caregiver (at least four days per week), having a close family relationship with the patient, being older than 18 years, being able to read and write Persian, willingness to participate and provide written informed consent, and having more than two weeks but less than three months of caregiving experience. Exclusion criteria included withdrawal from the study at any stage; death of the patient or change in the primary caregiver; severe psychiatric disorders or cognitive impairments that could interfere with comprehension or implementation of the intervention; other diseases that might affect intervention outcomes; sudden changes in medical status such as prolonged hospitalization; failure to cooperate in intervention sessions or withdrawal before the end of the program (including absence from more than three educational sessions); and inability to complete the interview or provide sufficient information for analysis. Sample size was determined by data saturation, defined as the point at which new data no longer added novel information.

Data Collection Tools

The primary data-collection instrument was the in-depth semi-structured interview. Interview questions were developed based on the study objectives, a review of the literature, and expert opinion. During individual interviews, participants were invited to describe their overall experience of caring for the patient. Example questions included: “Tell me about the moment you realized that your loved one had experienced a stroke; how did you feel at that moment?” “What are you most worried about these days?” “How do you feel when you think about the patient's future and condition?” “Who carries most of the responsibility for the patient's care, and how do you experience this responsibility?” “How has continuous caregiving affected your physical energy and capacity?” and “What role do family members and people around you play in the caregiving process?”

Data Analysis

After the required approvals and the ethics code were obtained from the Ethics Committee of the Faculty of Psychology and Education, University of Tehran (IR.UT.PSYEDU.REC.1404.184), eligible participants were identified in person, received a complete explanation of the study purpose and procedures, and provided written informed consent. Data analysis followed Colaizzi's seven-step method (1978). First, the researcher repeatedly read the transcripts and listened to the interviews to develop an overall understanding of each participant's experience. Significant statements directly related to the phenomenon were then extracted. Next, explicit and implicit meanings were derived from these statements and formulated as conceptual codes. Similar meanings were organized into meaning clusters and major themes. These themes were then integrated into a comprehensive and coherent description of the phenomenon. The description was returned to participants so that they could comment on its accuracy and consistency with their lived experience. Finally, participant feedback was incorporated into the final description and the fundamental structure of the experience was articulated.

Findings and Results

This section presents findings from the semi-structured interviews with family caregivers of patients with newly diagnosed stroke. The analysis sought to identify different dimensions of the caregiving experience and to extract caregivers' educational needs. Analysis of 12 in-depth interviews yielded a set of themes and subthemes reflecting caregivers' lived experiences of confronting the illness, caregiving challenges, psychological and social consequences of caregiving, and educational needs.

Table 1. Demographic characteristics of study participants

No.	Participant code	Relationship to patient	Caregiver sex and age	Occupation	Duration of caregiving
1	P1	Sister	Female, 68 years	Homemaker	1 month
2	P2	Daughter	Female, 45 years	Accountant	20 days
3	P3	Son	Male, 43 years	Contractor	40 days
4	P4	Sister	Female, 53 years	Homemaker	24 days
5	P5	Daughter	Female, 37 years	Hairdresser	15 days
6	P6	Daughter	Female, 32 years	Teacher	90 days
7	P7	Son	Male, 23 years	Ride-hailing driver	1 week
8	P8	Son	Male, 33 years	Farmer	10 days
9	P9	Daughter	Female, 45 years	Employee	1 month

10	P10	Daughter	Female, 45 years	Online shop owner	22 days
11	P11	Spouse	Female, 50 years	Social activist	2 weeks
12	P12	Daughter	Female, 42 years	Homemaker	25 days

Twelve family caregivers participated: nine women (75%) and three men (25%), with a mean age of 43.08 years (range, 23-68 years). Daughters were the most frequent caregivers (n=6, 50%), followed by sons (n=3, 25%), sisters (n=2, 16.7%), and a spouse (n=1, 8.3%). Homemakers constituted the largest occupational group (n=3, 25%), while the remaining participants had diverse occupations, including accountant, contractor, hairdresser, teacher, ride-hailing driver, farmer, employee, online business owner, and social activist. Duration of caregiving ranged from approximately one week to three months.

Table 2. Main themes, subthemes, analytical definitions, and illustrative quotations from caregiver interviews

No.	Main theme	Subtheme	Analytical definition	Illustrative quotation
1	Emotional burden of caregiving	Shock and initial confrontation	The caregiver perceives the sudden onset of stroke as a shocking, unexpected, and crisis-inducing experience.	"When I came back, I saw that my husband could not move his hands. I was very frightened." (P11)
1	Emotional burden of caregiving	Anxiety and worry	The caregiver experiences persistent concern about the patient's condition, treatment course, and future caregiving.	"I have been under a great deal of psychological pressure." (P10)
1	Emotional burden of caregiving	Fear of the future	The caregiver worries about the patient's future, the possibility of recurrent stroke, and long-term consequences.	"I wish the golden time had not been lost." (P12)
1	Emotional burden of caregiving	Grief and longing	The caregiver experiences a sense of loss and longing for life before the illness and for what has changed.	"I miss my parents' home and the days before the illness." (P10)
2	Caregiver burnout and strain	Caregiver role strain	The ongoing responsibility for care is experienced as the main burden in the caregiver's life.	"Most of the caregiving burden is on me." (P10)
2	Caregiver burnout and strain	Physical fatigue	Continuous caregiving reduces the caregiver's physical energy and capacity.	"I have not been home for a week." (P11)
2	Caregiver burnout and strain	Psychological burnout	The caregiver experiences emotional exhaustion and persistent psychological pressure.	"My mind is always occupied." (P10)
2	Caregiver burnout and strain	Restriction of personal life	The patient's needs reduce the caregiver's opportunities for personal and social activities.	"All our attention is focused on caring for my mother." (P12)
3	Changes in individual and family life	Changes in family roles	The illness leads to redistribution of roles and responsibilities within the family.	"Our lives have completely changed around my mother's illness." (P12)
3	Changes in individual and family life	Lifestyle changes	The caregiver is compelled to change daily routines and habits.	"I only prepare food for my husband and then come back." (P11)
3	Changes in individual and family life	Greater family interdependence	The illness increases emotional dependence and mutual reliance among family members.	"I always try to give my mother hope." (P10)
3	Changes in individual and family life	Changes in family relationships	Illness-related changes affect the quality and pattern of family relationships; they may strengthen closeness and solidarity or, when responsibilities are unequally shared, increase strain and loneliness.	"My brothers and sisters help, but the main responsibility is mine." (P10)
4	Caregivers' educational needs	Home-care training	Caregivers need to learn practical skills for caring for the patient.	"I did not know exactly what I was supposed to do." (P11)
4	Caregivers' educational needs	Training about warning signs	Caregivers need to recognize warning signs and symptoms of recurrent stroke.	"I wish we had noticed sooner." (P12)

4	Caregivers' educational needs	Rehabilitation training	Caregivers need to learn ways to support recovery and functional improvement.	"I would hold her hand so she could walk." (P11)
4	Caregivers' educational needs	Stress-management training	Caregivers need skills to cope with the psychological pressures of caregiving.	"I had a severe panic attack." (P12)
5	Support and supportive resources	Family support	Family members provide support during the caregiving process.	"Family members take turns providing care." (P12)
5	Support and supportive resources	Lack of adequate support	Some caregivers perceive themselves as the only person responsible for care.	"There is no one except me." (P11)
5	Support and supportive resources	Healthcare team support	Caregivers receive support from professional healthcare services.	"I am very satisfied with the hospital services." (P12)
5	Support and supportive resources	Need for psychological support	Caregivers regard access to a psychologist as essential for managing the crisis.	"Having a psychologist available for family companions is very necessary." (P12)
6	Adaptation and hope	Hope for recovery	Despite difficulties, the caregiver remains hopeful about the patient's recovery.	"You will get better and we will all be together again." (P10)
6	Adaptation and hope	Learning from the illness experience	The caregiver uses the experience of illness to gain knowledge and prepare more effectively.	"I love learning." (P11)
6	Adaptation and hope	Meaning-making in caregiving	Caring for the patient is experienced as a valuable and meaningful responsibility.	"I never panicked because I had caregiving experience." (P11)
6	Adaptation and hope	Resilience and gradual adaptation	Over time, the caregiver adjusts to the reality of illness and the new role, reorganizes responsibilities, and regains the ability to continue caregiving through hope and flexibility.	"I always try to give my mother hope and tell her that she will get better." (P10)

Theme 1: Emotional Burden of Caregiving

The emotional burden of caregiving was one of the most important themes identified in participants' narratives. When faced with a family member's stroke, caregivers experienced a range of emotional reactions, including shock, anxiety, worry, fear, and grief. These reactions were most intense during the early days of the illness and continued as concerns about the patient's future and the consequences of stroke. The findings indicate that stroke affects not only the patient's health but also the psychological and emotional equilibrium of the family, exposing caregivers to substantial emotional pressure. This theme comprised four subthemes.

- **Shock and initial confrontation with the illness**

Shock resulting from the sudden onset of stroke was one of the earliest emotional reactions reported by caregivers. Many participants described the event as sudden and deeply distressing. Observing an abrupt change in the patient's physical condition and being placed in a crisis situation produced feelings of shock, confusion, and disbelief. This experience was generally most intense during the first hours and days of the illness. "When I came back, I saw my husband sitting in a corner and he could not move his hands. I was very frightened." (P11) "On the day of the stroke, we suddenly realized that my mother had become unwell..." (P12)

- **Anxiety and worry**

Anxiety and worry were among the most common experiences after the stroke. Concern about the patient's condition, the course of treatment, and their own ability to provide care caused many participants to experience considerable psychological pressure. In some cases, these concerns also affected daily

functioning and mental health. “I have been under a great deal of psychological pressure.” (P10) “I myself had a severe panic attack that day.” (P12)

- **Fear of the future and disease consequences**

Fear of the future was another important aspect of the caregiving experience. Many participants worried about the patient's recovery, the possibility of recurrent stroke, restoration of lost abilities, and long-term consequences. Uncertainty about the future and the lack of clarity regarding the course of treatment kept caregivers persistently occupied with future-oriented concerns. “I am employed; I am afraid of losing my job, and I really do not know how I am supposed to handle all these responsibilities.” (P10) “If I could wish for one thing, it would be that we had acted sooner and the golden time had not been lost.” (P12) “I always give my mother hope and tell her that she will get better, but I myself worry about the future.” (P10)

- **Grief and longing**

Grief and longing were also common experiences. Participants spoke about changes in living conditions, diminished family calm, and the contrast between their current situation and life before the illness. These emotions were often expressed as longing for the past, sadness about the patient's condition, and grief over changes in family life. “I miss my parents' home, when we would gather together and I felt at peace.” (P10) “I may look cold and indifferent, but I often cry when I am alone.” (P10) “I have not been home for a week; I only go to prepare food for my husband and then come back.” (P11)

Theme 2: Caregiver Burnout and Strain

Caregiver burnout and strain were among the most important consequences of caring for a person with stroke and were evident in many participants' narratives. Caregivers reported that responsibility for the patient, alongside family, occupational, and social duties, imposed substantial pressure. In some cases, this pressure led to physical fatigue, psychological distress, restricted personal activities, and feelings of helplessness. The findings suggested that the greater the patient's dependence and the longer the duration of caregiving, the more likely caregivers were to experience burnout. This theme comprised four subthemes: caregiver role strain, physical fatigue, psychological burnout, and restriction of personal life.

- **Caregiver role strain**

For many participants, assuming the caregiving role involved a strong sense of responsibility and continuous commitment. Many regarded themselves as the main person responsible for the patient. The need to remain available and the perceived responsibility for the patient's health required caregivers to devote a substantial proportion of their time and energy to care. In some cases, this responsibility was experienced as the primary burden in their lives. “Most of the caregiving burden is on me. My brothers and sisters help, but the main responsibility is mine.” (P10) “I cannot leave my mother. Nothing else matters to me.” (P10) “There is no one except me. I take care of him myself.” (P11)

- **Physical fatigue**

Continuous caregiving was associated with physical fatigue for some participants. Long periods in the hospital, constant attention to the patient's needs, and reduced opportunities for rest led caregivers to experience diminished energy and physical capacity. This fatigue was reported more often during the acute phase of illness. “I have not been home for a week. I only go to prepare food and then come back.” (P11) “Most of my time is spent in the hospital or beside my mother.” (P12) “I have put aside many of my daily activities.” (P10)

- **Psychological burnout**

In addition to physical fatigue, many caregivers described psychological exhaustion and burnout. Constant mental preoccupation with the patient's condition, treatment-related concerns, and caregiving responsibilities generated ongoing psychological pressure and emotional fatigue. Some participants described reduced concentration, restlessness, and mental turmoil. "I cannot concentrate and my mind is always occupied." (P10) "I am truly under pressure and feel burned out." (P10) "All I can think about is my mother's condition." (P12)

- **Restriction of personal life**

The illness of a family member altered caregivers' individual and social plans. Many participants reported having less time for personal needs, social activities, and daily routines. As a result, a substantial part of their lives became organized around caregiving. "All my life plans have been affected by this event." (P10) "Right now, the family's main focus is on caring for my mother." (P12) "Most of my time is spent looking after my husband." (P11)

Theme 3: Changes in Individual and Family Life

Changes in individual and family life were a prominent theme in participants' narratives. A family member's stroke was not perceived merely as a medical event but as a far-reaching crisis affecting daily routines, family relationships, individual roles, and family priorities. Caregivers explained that after the illness, a substantial amount of family time, energy, and decision-making became organized around the patient's care, and previous lifestyles changed. Four subthemes were identified: changes in family roles, lifestyle changes, greater family interdependence, and changes in family relationships.

- **Changes in family roles**

The onset of stroke led to redistribution of responsibilities and alteration of usual family roles. Many participants had to assume new responsibilities related to caregiving, treatment follow-up, household management, and emotional support in addition to their previous duties. In some families, the person who had previously played a central role in managing family affairs became a recipient of care, requiring other members to compensate for this change. "Our lives have completely changed around my mother's illness." (P12) "Most of the caregiving burden is on me, and I carry the main responsibility." (P10)

- **Lifestyle changes**

Participants described substantial changes in daily routines, lifestyle habits, and personal priorities. Continuous presence at the hospital, follow-up of treatment, and the need for ongoing care restricted many personal, social, and recreational activities. Some caregivers stated that most of their time and energy was devoted to the patient, leaving less opportunity to attend to their own needs. "I have not been home for a week, and I only prepare food for my husband and then come back." (P11) "I have put aside many of my daily activities." (P10)

- **Greater family interdependence**

Some participants explained that the illness increased emotional interdependence among family members. Shared concern about the patient, the need for mutual support, and efforts to maintain the patient's morale intensified emotional interactions within the family. Caregivers often saw themselves as responsible for instilling hope and calm in the patient and tried to preserve a supportive family environment

despite their own psychological strain. “I always try to give my mother hope and tell her that she will get better.” (P10) “All family members take turns caring for my mother.” (P12)

- **Changes in family relationships**

Illness-related changes also affected the quality of family relationships. Some caregivers described increased empathy and cooperation among family members, whereas others reported pressure arising from caregiving responsibilities, unequal participation, and feelings of being alone in carrying the burden. Thus, stroke could simultaneously create greater closeness or greater relational strain. “My brothers and sisters help, but the main responsibility is mine.” (P10) “At present, most family members are involved in care, and we take turns looking after her.” (P12)

Theme 4: Caregivers' Educational Needs

Caregivers' educational needs were among the most central themes emerging from the data. Participants repeatedly referred to insufficient knowledge and skills for caring for a person with stroke and stated that they often did not know how to respond to the new situation. The findings showed that, in addition to medical information, caregivers needed practical caregiving skills, crisis-management skills, strategies for preventing complications, and guidance on protecting their own mental health. This theme underscores the need for targeted educational programs that respond to caregivers' actual needs and included four subthemes: home-care training, training about warning signs and prevention of recurrent stroke, rehabilitation training, and stress-management and self-care training.

- **Home-care training**

Many participants stated that after discharge, they assumed responsibility for a large proportion of the patient's care despite lacking sufficient knowledge and skill. They repeatedly mentioned the need for training in patient transfer, routine care, prevention of secondary complications, and management of potential problems. “I did not know exactly what I was supposed to do, and I was worried that I might make a mistake.” (P11) “We learned most things ourselves through trial and error.” (P10)

- **Training about warning signs and prevention of recurrent stroke**

One major concern was the possibility of recurrence and caregivers' inability to recognize warning signs in time. Participants believed that better knowledge of danger signs could help them respond more rapidly and appropriately during emergencies. This educational need was directly associated with reduced anxiety and a greater sense of control. “I wish we had recognized the symptoms sooner and the golden time had not been lost.” (P12) “I wanted to know what signs might indicate that the condition was getting worse.” (P10)

- **Rehabilitation training**

Participants expressed a need for education about rehabilitation exercises, ways to increase patient independence, and methods to facilitate recovery. Many wanted to play a more active role in rehabilitation but lacked sufficient information. They considered practical, home-based instruction essential. “I would hold her hand so she could walk, but I was not sure whether I was doing it correctly.” (P11) “I wished someone would teach us how we could help the patient improve.” (P12)

- **Stress-management and self-care training**

Some participants noted that education focused almost entirely on the patient while caregivers' own needs received less attention. They believed that in order to continue providing effective care, caregivers needed to learn how to manage stress, cope with psychological pressure, and maintain their own physical and mental

health. This need was especially evident among those who carried the main caregiving responsibility. “I myself had a severe panic attack that day, and I really did not know how to control myself.” (P12)

Theme 5: Support and Supportive Resources

Support and supportive resources were another major theme. Caregivers explained that the quality and amount of support received could play a decisive role in their adaptation to caregiving. Support was experienced at family, professional, and social levels. Conversely, lack of adequate support intensified caregiving pressure. This theme comprised family support, lack of adequate support, healthcare team support, and need for psychological support.

- **Family support**

Support from family members was one of caregivers' most important coping resources. Participants explained that involvement of other family members in care, emotional support, and sharing of responsibilities reduced caregiving pressure. A family support network helped caregivers feel less lonely and helpless. “Family members take turns caring for my mother.” (P12) “If my brothers and sisters did not help, tolerating the situation would be much harder for me.” (P10)

- **Lack of adequate support**

A shared experience among some caregivers was that the caregiving responsibility had fallen almost entirely on them. These participants complained of insufficient practical or emotional support and often felt that they were the only person responsible. This experience was associated with increased psychological pressure and burnout. “There is no one except me, and I have to do everything myself.” (P11) “Sometimes I feel that the entire responsibility is on my shoulders.” (P10)

- **Healthcare team support**

Analysis of participants' narratives showed that the healthcare team played an important role in reducing worry and increasing a sense of security. Receiving information, having questions answered, and experiencing supportive interactions with healthcare professionals facilitated better adaptation. “I was satisfied with the hospital services and with the explanations they gave us.” (P12) “When the physician explained the situation, we felt calmer.” (P11)

- **Need for psychological support**

Participants believed that caregivers, as well as patients, need psychological support. Emotional pressure related to the illness, anxiety, fear, and burnout led some participants to regard counseling and psychological services as necessary. “I think having a psychologist available for family companions is very necessary.” (P12) “Sometimes I only needed someone to listen to my worries.” (P10)

Theme 6: Adaptation and Hope

Adaptation and hope were the final theme identified and reflected caregivers' efforts to adjust to new circumstances and maintain a positive outlook toward the future. Despite emotional and caregiving pressures, many participants attempted to cope with the situation, preserve hope, and play an active role in the patient's recovery. This theme indicates that caregivers experience not only hardship but also capacities for resilience, growth, and adaptation. It comprised hope for recovery, learning from the illness experience, meaning-making in caregiving, and resilience and gradual adaptation.

- **Hope for recovery**

Hope for the patient's recovery was one of the most important psychological resources for caregivers. Despite numerous worries and challenges, participants tried to maintain a positive outlook regarding treatment and recovery. This hope supported their motivation to continue caregiving and often helped strengthen the patient's morale. "I always tell my mother that she will get better and that we will be together again like before." (P10) "As long as there is hope, a person can keep going." (P12)

- **Learning from the illness experience**

Some participants reported that the experience of illness motivated them to learn more about stroke, caregiving, and health-related issues. They attempted to use the situation as an opportunity to increase their knowledge and preparedness. Gaining new knowledge and skills strengthened their sense of mastery and confidence in caregiving. "I love learning, and I tried to learn everything I needed to know about the illness." (P11) "This experience taught me many things about caregiving and health." (P10)

- **Meaning-making in caregiving**

Some caregivers did not view caring for the patient solely as an imposed duty; instead, they saw it as a valuable and meaningful responsibility. Emotional attachment, family commitment, and satisfaction from helping the patient gave caregiving personal meaning and value. This perspective played an important role in tolerating caregiving difficulties and sustaining motivation. "I cannot leave my mother, and I see this as my responsibility." (P10) "I have never regretted caregiving because I feel that I am doing the right thing." (P11)

- **Resilience and gradual adaptation**

The narratives showed that many caregivers gradually became able to adjust to the new circumstances. Although shock, anxiety, and psychological turmoil dominated the early phase, over time they developed strategies for managing the situation and continuing care. This adaptation helped them gain a greater sense of control and cope with caregiving pressure. "At first it was very difficult, but gradually we learned how to cope with the situation." (P12) "After a while, I was able to adjust myself to the new circumstances." (P10)

Discussion and Conclusion

The present qualitative phenomenological study explored the lived experiences of family caregivers of patients with newly diagnosed stroke and revealed six interconnected themes: emotional burden of caregiving, caregiver burnout and strain, changes in individual and family life, caregivers' educational needs, support and supportive resources, and adaptation and hope. These findings indicate that caring for a family member during the early period following stroke is not a single-dimensional responsibility but a complex and evolving experience involving emotional shock, physical and psychological strain, disruption of ordinary family life, urgent learning needs, dependence on formal and informal support, and gradual development of coping and adaptation. In the present study, caregivers were primarily women, with daughters representing the largest caregiving group, and caregiving duration ranged from approximately one week to three months, underscoring that the findings relate specifically to the newly diagnosed and early post-stroke period. The six themes therefore portray caregiving as a dynamic process that begins with crisis and uncertainty and may gradually progress toward greater competence, meaning, and hope.

The first major finding was the emotional burden of caregiving, reflected in shock, anxiety and worry, fear of the future, and grief and longing. Participants described the onset of stroke as sudden and destabilizing,

particularly during the first days after diagnosis, when they confronted abrupt changes in the patient's physical condition and uncertainty about survival, recovery, and long-term disability. This finding is consistent with evidence showing that stroke produces profound psychological consequences that extend beyond the patient to the wider family system. Devereux and Berns emphasized that stroke commonly generates substantial psychological effects requiring assessment and treatment, while Li et al. demonstrated that depression and anxiety constitute important psychiatric manifestations associated with stroke (8, 9). Although these studies primarily address psychological consequences surrounding the patient, the present findings demonstrate that similar emotional processes may occur among family caregivers who must rapidly adapt to the crisis. The caregiver is required to remain emotionally available to the patient while simultaneously managing personal fear, uncertainty, and anticipatory grief. Such emotional duality may explain why caregivers can outwardly maintain hope while privately experiencing persistent anxiety and sadness.

Fear of the future was particularly salient in caregivers' accounts and was related to uncertainty regarding recovery, recurrence, disability, employment, and the long-term consequences of caregiving. This finding is understandable in light of the broad and unpredictable consequences of stroke. Stroke remains a major cause of mortality and disability internationally, and its consequences may involve persistent neurological impairment, functional dependence, psychiatric symptoms, and recurrent health problems (1, 2). The growing incidence of stroke among younger adults also increases the possibility that caregiving may disrupt employment, parenting, financial planning, and long-term family roles (3). Moreover, post-stroke pain can complicate recovery and contribute to continuing uncertainty regarding the patient's future. Systematic evidence indicates an association between particular stroke injury sites and the occurrence of post-stroke pain, while chronic pain may remain clinically relevant during the first two years following stroke (10, 11). For newly involved caregivers who lack experience with these possible trajectories, uncertainty itself can therefore become a major source of psychological strain.

The second finding concerned caregiver burnout and strain, including caregiver role strain, physical fatigue, psychological burnout, and restriction of personal life. Participants reported that continuous responsibility for care consumed considerable time and energy, limited personal activities, and produced persistent mental preoccupation with the patient's condition. These findings are strongly supported by the broader caregiver literature. Ryś and Bąk identified caregiver burden after stroke as a multidimensional outcome influenced by caregiving demands and patient-related characteristics (15). Israfil et al. similarly showed that family caregivers of stroke survivors commonly confront multiple challenges in community settings, including insufficient knowledge, physical demands, emotional pressure, and inadequate support (17). Targan and Roberts also emphasized that family caregivers in chronic illness frequently carry responsibilities extending beyond direct physical care to coordination, emotional support, symptom monitoring, and communication with healthcare professionals (20). The present findings add that such responsibilities may become particularly burdensome when they arise suddenly, before caregivers have had time to adjust to the role or acquire necessary skills.

Physical fatigue and psychological burnout appeared to reinforce one another. Long periods spent at the hospital, constant vigilance, reduced opportunities for rest, and the need to maintain other family and occupational responsibilities contributed to exhaustion. Caregivers also reported concentration difficulties,

continuous mental involvement, and the sense that ordinary life had become secondary to the patient's needs. Such findings correspond with evidence that caregiver burden can directly influence both caregiver health and the quality of the caregiving relationship. Seok and Lee demonstrated that health-related quality of life in stroke is meaningfully associated with characteristics of both patients and family caregivers, highlighting the interconnected nature of their wellbeing (16). Similarly, interventions directed toward stroke survivors and caregivers have been shown to affect quality of life, depression, and caregiver burden, suggesting that caregiver strain should be considered a clinically relevant outcome rather than an unavoidable private consequence of family responsibility (22). Thus, the present findings support the need to assess caregiver wellbeing from the early stages of stroke rather than waiting until chronic burden becomes established.

The third theme, changes in individual and family life, demonstrated that stroke reorganized roles, routines, priorities, and relationships across the family. Participants described changes in household responsibilities, disruption of personal activities, increased dependence among family members, and altered patterns of family interaction. Importantly, these changes were not uniformly negative. Some caregivers experienced unequal distribution of responsibilities and loneliness, whereas others described stronger emotional ties, greater cooperation, and increased family solidarity. This dual pattern is consistent with Normalia and Irwan's integrative review, which showed that family experiences of caring for patients with stroke include substantial hardship but also processes of adaptation and relational reorganization (12). Mendrofa et al. likewise emphasized that family-centered care can contribute positively to stroke rehabilitation outcomes by actively involving relatives in recovery and care planning (13). Accordingly, stroke may destabilize the family system while simultaneously creating opportunities for stronger collaboration when responsibilities are shared and supportive relationships are available.

The findings further suggested that the family should be viewed not merely as a background context for recovery but as an active component of rehabilitation. Modern stroke rehabilitation emphasizes restoration of function, prevention of complications, and maximization of independence, processes that often continue well beyond acute hospitalization (7). Although advances in stroke care, including intensive-care management and specialized vascular interventions, can improve survival and acute clinical outcomes, many patients still require prolonged assistance after discharge (4, 5). Emerging therapeutic approaches such as chemogenetic modulation also illustrate the continuing evolution of strategies for neurological recovery, yet their development does not diminish the practical importance of daily family support in rehabilitation (6). The present findings therefore reinforce the idea that changes in family structure and functioning should be assessed as part of the broader rehabilitation process.

The fourth major theme was caregivers' educational needs, which included home-care training, recognition of warning signs, rehabilitation training, and stress-management and self-care education. Participants repeatedly reported uncertainty about what they should do and concern that they might provide care incorrectly. This finding closely corresponds with Wang et al., who demonstrated through a phenomenological study that family caregivers of disabled stroke patients have substantial informational and practical needs that change across different phases of care (18). Israfil et al. likewise identified lack of knowledge and preparation as central challenges among community-based stroke caregivers (17). These findings indicate that caregiver education should not be limited to generic disease information. Rather, it

should address practical skills directly relevant to daily care, such as safe mobility assistance, medication management, prevention of complications, recognition of recurrent stroke symptoms, rehabilitation support, and management of caregiver stress.

The need for rehabilitation training was especially important because family caregivers often become directly involved in maintaining mobility and encouraging functional recovery. Evidence supporting structured stroke rehabilitation demonstrates that repeated and coordinated rehabilitation activities are fundamental to functional improvement (7). Yu et al. further emphasized the importance of integrated support and home-care strategies delivered by family caregivers in preventing hospital readmissions among stroke survivors (14). These findings support the experiences of participants who wanted to contribute actively to the patient's recovery but were uncertain whether they were using appropriate methods. Accordingly, education should be competency-based and practical rather than solely informational. Caregivers may benefit from demonstration, supervised practice, written or audiovisual guidance, and accessible follow-up after discharge.

The fifth theme concerned support and supportive resources. Family support, support from healthcare professionals, lack of adequate support, and the need for psychological services were central to caregivers' experiences. Participants who received help from relatives described lower pressure and greater ability to cope, whereas those who felt solely responsible for care reported increased loneliness and strain. These findings are consistent with family-centered models of stroke care, which emphasize the importance of incorporating relatives into communication, decision-making, rehabilitation, and discharge planning (13). Veronese et al. also demonstrated that the transition from hospital to home is a critical period during which both stroke survivors and caregivers require coordinated information, preparation, and continuity of support (19). Because newly diagnosed caregivers are often learning their role while simultaneously coping with crisis, the quality of professional communication may substantially influence their confidence and emotional stability.

The findings also highlight the importance of psychological support for caregivers themselves. Participants explicitly expressed a need for access to psychological consultation and opportunities to discuss fears and emotional pressure. This need is consistent with the broader evidence on the psychological effects of stroke and the interdependence of patient and caregiver wellbeing (8, 16). Furthermore, family caregivers may become so focused on the patient that their own psychological symptoms remain unrecognized until exhaustion becomes severe. Intervention studies suggest that supportive strategies can improve quality of life and reduce caregiver burden and depressive symptoms (22). Therefore, psychological support should not be conceptualized as an optional service reserved for severely distressed caregivers; rather, it may represent an integral component of comprehensive stroke care.

The sixth theme, adaptation and hope, demonstrated that caregiving was not exclusively characterized by strain. Participants described hope for recovery, learning from the illness experience, finding meaning in caregiving, and gradually developing resilience and greater confidence. These findings are particularly consistent with Pourhasan and Vasli's qualitative investigation in Iran, which described the caregiving experience as multifaceted and characterized by both stress and resilience (21). Normalia and Irwan similarly demonstrated that families progressively reorganize their lives and develop strategies for dealing with the realities of stroke care (12). The present study extends these observations by showing that adaptation may

begin even within the first weeks and months after diagnosis. Caregivers initially dominated by shock and uncertainty may gradually increase their knowledge, reorganize responsibilities, and develop a stronger sense of mastery.

Meaning-making also appeared to strengthen caregivers' ability to continue providing care. Some participants viewed caregiving as a meaningful responsibility grounded in emotional attachment and family commitment rather than solely as a burden. This interpretation may partially explain why severe caregiving demands can coexist with hope and persistence. Family caregivers therefore should not be conceptualized simply as individuals exposed to stressors but as active agents who interpret, learn from, and adapt to their circumstances. The role of professional services should consequently include strengthening existing adaptive resources rather than focusing only on deficits. Providing timely information, reinforcing caregivers' competence, facilitating shared family responsibility, and acknowledging caregivers' efforts may support this transition from uncertainty toward greater adaptation.

Overall, the six themes form an integrated account of early stroke caregiving. Emotional burden and uncertainty appear to characterize the initial response to the illness; continuous caregiving responsibilities may then produce physical and psychological strain and reshape individual and family life. Educational preparedness and access to supportive resources can either intensify or reduce these pressures, while hope, learning, meaning-making, and family cohesion can facilitate adaptation. This interpretation is consistent with contemporary literature emphasizing caregiver needs, transitional care, family-centered rehabilitation, and multidimensional caregiver burden (13, 15, 18, 19). The distinctive contribution of the present study lies in its focus on caregivers during the newly diagnosed stage, when responsibilities are unfamiliar and emotional reactions remain intense. The findings therefore suggest that the earliest post-stroke period represents an important window for caregiver assessment, education, psychological support, and family-centered intervention.

Several limitations should be considered when interpreting the findings of this study. First, the study employed a qualitative phenomenological design with a relatively small purposively selected sample of 12 family caregivers, and therefore the findings are intended to provide depth of understanding rather than statistical generalizability. Second, participants were recruited from hospitals affiliated with Iran University of Medical Sciences in Tehran Province; consequently, their experiences may not fully represent caregivers living in rural areas, other regions of Iran, or healthcare systems with different resources and discharge practices. Third, the findings were based on participants' self-reported experiences and recollections and may therefore have been influenced by emotional state, recall, and willingness to disclose personal difficulties. Fourth, caregiving experience ranged from approximately one week to three months, meaning that participants were at somewhat different points within the early caregiving trajectory. Finally, the cross-sectional nature of the interviews prevented examination of how the identified themes, particularly burnout, educational needs, family relationships, and adaptation, change over longer periods of caregiving.

Future studies should employ longitudinal qualitative designs to follow family caregivers from acute hospitalization through discharge, early home care, rehabilitation, and longer-term adjustment so that changes in caregiving experiences can be identified over time. Studies involving larger and more diverse samples from different provinces, rural and urban areas, socioeconomic groups, and healthcare settings would also improve understanding of contextual differences in caregiver needs. Comparative studies could

examine experiences according to caregiver relationship, gender, employment status, severity of patient disability, stroke type, and availability of family support. Mixed-method research could combine phenomenological findings with validated measures of caregiver burden, anxiety, depression, resilience, quality of life, and caregiving self-efficacy. Future research should also develop educational and psychological interventions directly from the identified needs and evaluate their effectiveness through randomized or quasi-experimental designs, particularly with respect to caregiver burden, self-efficacy, mental health, patient rehabilitation, and hospital readmission.

Healthcare organizations should incorporate systematic caregiver assessment and preparation into routine stroke care beginning during hospitalization rather than waiting until discharge or the development of severe caregiver strain. Nurses, physicians, rehabilitation professionals, and psychologists should provide caregivers with structured, practical education on home care, medication management, mobility assistance, prevention of complications, warning signs of recurrent stroke, rehabilitation exercises, stress management, and self-care. Discharge planning should include opportunities for caregivers to practice essential skills and receive clear written or audiovisual guidance as well as a reliable mechanism for asking questions after returning home. Psychological screening and counseling should be available for caregivers experiencing intense anxiety, grief, exhaustion, or difficulty adapting to the caregiving role. Family meetings may also be used to distribute responsibilities more equitably and strengthen support networks. Finally, family-centered stroke services should recognize caregivers as active members of the rehabilitation team and simultaneously as individuals with their own health, educational, emotional, and social needs.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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