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Pengalaman Hidup Koping dan Self-Care Agency pada Komorbiditas Hipertensi–Diabetes untuk Pencegahan Stroke

Lived Experience of Coping and Self-Care Agency in Hypertension–Diabetes Comorbidity for Stroke Prevention

Faridah Aini[1], Yunita Galih Yudanari[1], Gipta Galih Widodo[2]

[1] Undergraduate Nursing Program, Faculty of Health, Universitas Ngudi Waluyo, Indonesia
[2] Master of Nursing Program, Postgraduate Program, Universitas Ngudi Waluyo, Indonesia

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Abstract

Patients with hypertension–type 2 diabetes mellitus (T2DM) comorbidity carry a compounded risk of stroke, yet little is known about how they build and sustain self-care agency over time, particularly in collectivist societies. This study explored the lived experience of coping trajectories and self-care agency for stroke prevention among Indonesian patients with this comorbidity. An interpretative phenomenological analysis was conducted in a community health centre in Central Java. Twelve purposively sampled patients each completed two semi-structured interviews, 12 family caregivers completed one interview each, and the patients jointly took part in one focus group discussion. Data were analysed using Smith, Flowers, and Larkin's six-stage procedure, and reporting followed the COREQ checklist. Five superordinate themes emerged: (1) health crisis as the gateway to awareness; (2) family trauma as a double-edged sword; (3) a non-linear hyperdiscipline–lapse–recovery coping trajectory; (4) self-care agency anchored in relationships and spirituality; and (5) multilevel barriers requiring multimodal, non-judgmental education. Three insights are new: the role and proximity of earlier caregiving, rather than family history itself, determined whether family illness motivated or paralysed self-care; and patients reframed lapses as a normal part of adaptation. Self-care agency thus emerged as a fluctuating capacity mediated by relationships and faith rather than a fixed individual trait. Nurses should assess caregiving history and relational motivation, schedule

Corresponding author:
Faridah Aini
farida.aini29@gmail.com

booster education every three to six months that normalises lapses, and deliver repeatable, non-judgmental education in several formats.

Abstrak

Pasien dengan komorbiditas hipertensi–diabetes melitus tipe 2 (DMT2) memiliki risiko stroke yang berlipat, namun masih sedikit yang diketahui tentang bagaimana mereka membangun dan mempertahankan self-care agency dari waktu ke waktu, khususnya dalam masyarakat kolektivis. Penelitian ini bertujuan mengeksplorasi pengalaman hidup pasien dengan komorbiditas tersebut dalam membangun trajektori koping dan self-care agency untuk pencegahan stroke. Desain penelitian adalah interpretative phenomenological analysis di wilayah kerja puskesmas di Jawa Tengah. Dua belas pasien yang dipilih secara purposif masing-masing mengikuti dua wawancara semi-terstruktur, 12 anggota keluarga pendamping masing-masing mengikuti satu wawancara, dan seluruh pasien mengikuti satu diskusi kelompok terarah. Data dianalisis dengan enam tahap analisis Smith, Flowers, dan Larkin, dan pelaporan mengikuti daftar tilik COREQ. Lima tema superordinat teridentifikasi: (1) krisis kesehatan sebagai gerbang kesadaran; (2) trauma keluarga sebagai pedang bermata dua; (3) trajektori koping non-linier disiplin berlebih–kelengahan–pemulihan; (4) self-care agency yang berakar pada relasi dan spiritualitas; dan (5) hambatan multilevel yang membutuhkan edukasi multimodal dan tidak menghakimi. Temuan baru penelitian ini adalah bahwa peran dan kedekatan pengalaman merawat anggota keluarga, bukan sekadar riwayat penyakit keluarga, menentukan apakah riwayat tersebut memotivasi atau melumpuhkan perawatan diri; serta pasien memaknai kelengahan sebagai bagian wajar dari adaptasi. Self-care agency merupakan kapasitas yang berfluktuasi dan dimediasi oleh relasi serta keyakinan, bukan sifat individual yang menetap. Perawat perlu mengkaji riwayat pengalaman merawat dan sumber motivasi relasional pasien, menjadwalkan edukasi penguatan setiap tiga sampai enam bulan yang menormalkan kelengahan, serta memberikan edukasi berulang, tidak menghakimi, dan dalam berbagai format.

INTRODUCTION

Stroke remains the second leading cause of death and the third leading cause of combined death and disability worldwide, and approximately 84% of its burden is attributable to modifiable risk factors (GBD 2021 Stroke Risk Factor Collaborators, 2024). In Indonesia, stroke prevalence was 10.9 per 1,000 population in the 2018 Basic Health Research survey and remained high in the 2023 Indonesian Health Survey (Ministry of Health of the Republic of Indonesia, 2019, 2024). This burden is sustained by the high and rising prevalence of its two principal metabolic drivers, hypertension and diabetes (International Diabetes Federation, 2021; World Health Organization, 2023).

Individuals living with both hypertension and type 2 diabetes mellitus (T2DM) represent a particularly high-risk group. In Indonesian population data, hypertension was associated with a 10.5-

fold higher odds of stroke (Zamzam et al., 2023), and diabetes with a 4.2-fold higher prevalence (Sofiana & Rahmawati, 2019). The two conditions share insulin resistance, sympathetic activation, inflammation, and endothelial dysfunction, which together accelerate cerebrovascular damage (Hinkle et al., 2022; Usui, 2023). Managing both conditions requires patients to combine multiple medications, dietary restrictions, activity demands, and self-monitoring, a cumulative burden that Indonesian patients describe as exhausting (Kurnia et al., 2025) and that primary care systems struggle to support (Hustrini et al., 2026).

Self-care agency, the acquired capacity to deliberately perform actions that maintain health, is a core construct of Orem's self-care deficit nursing theory (Alligood, 2022; Hartweg & Metcalfe, 2022). Contemporary self-care science stresses that self-care is shaped by experience, culture, and relationships (Matarese et al., 2018; Riegel et al., 2021). Nevertheless, research on Indonesian patients has largely measured adherence and its determinants, such as knowledge, social support, and self-efficacy (Rikmasari et al., 2025), rather than asking how patients themselves develop the capacity to care for themselves.

Coping with chronic illness is not static; within the transactional model, coping unfolds as repeated appraisal and reappraisal of stressors (Biggs et al., 2017), and chronic illness is a transition marked by disruption and reconstruction of routines (Larsen, 2019; Meleis, 2018). How this *coping trajectory* unfolds in hypertension–T2DM comorbidity, what triggers change, and what sustains or erodes agency remain unexplored. Existing Indonesian qualitative studies have examined single conditions, relied on single interviews, and rarely included family caregivers (Kurnia et al., 2025). To our knowledge, this is the first interpretative phenomenological study to triangulate repeated patient interviews, family-caregiver interviews, and a focus group to map the coping trajectory of this comorbidity in a collectivist, Muslim-majority setting. It makes three contributions: it identifies the turning points that initiate self-care, distinguishes how the *role* of prior family caregiving shapes its motivational effect, and shows how relational and spiritual anchors extend the individualistic view of self-care agency.

This study therefore aimed to explore the lived experience of patients with hypertension–T2DM comorbidity in developing coping trajectories and self-care agency for stroke prevention, drawing on patient, family-caregiver, and focus-group perspectives, to inform patient- and family-centred nursing assessment and education.

MATERIALS AND METHODS

Design

We used interpretative phenomenological analysis (IPA) (Smith et al., 2022). IPA suits this aim because it examines how people make sense of significant personal experiences over time through a double hermeneutic: participants interpret their experience, and the researchers interpret the participants' sense-making. Reporting follows the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong et al., 2007); the completed checklist is provided as a supplementary file.

Setting and participants

The study was conducted in the working area of the Ungaran Community Health Centre (Puskesmas), Semarang Regency, Central Java, Indonesia. Patients were eligible if they had a diagnosis of both hypertension and T2DM for at least 2 years; no prior stroke; partially controlled or uncontrolled disease (systolic blood pressure ≥130 mmHg and glycated haemoglobin [HbA1c] ≥7%) (American Diabetes Association, 2023); age 35–70 years; and the ability to communicate verbally. Exclusion criteria were cognitive impairment, an acute illness phase, and terminal comorbidity. For each patient, the co-residing or primary family caregiver was invited, giving 12 patients and 12 family caregivers (24 participants). Consistent with IPA's preference for a relatively homogeneous sample, participants were recruited through purposive sampling supplemented by snowball referral.

Research team and reflexivity

The research team comprised three nurse academics at Universitas Ngudi Waluyo. The first author (FA), who led data collection and analysis, is a female registered nurse and senior nursing lecturer, a doctoral candidate in nursing, and a certified Enterostomal Therapy Nurse with a clinical and teaching background in neurological and medical–surgical nursing. Because the team members are nurse educators who design stroke-prevention education, their professional orientation carried a risk of privileging knowledge deficit as the main barrier and of viewing family support as uniformly helpful. IPA does not require such fore-understandings to be bracketed out; instead, they were made explicit in a reflexive journal maintained throughout the study, which also documented analytical decisions, and were challenged during peer debriefing (Braun & Clarke, 2022; Olmos-Vega et al., 2023). This process made the team attentive to data that contradicted these expectations, such as the paralysing effect of family trauma and ambivalent family support.

Data collection and interview guide

Each patient completed two semi-structured in-depth interviews. The first interview elicited the illness narrative; the second revisited and deepened meanings identified in the first transcript. Each family caregiver completed one semi-structured interview. After preliminary cross-case analysis, all 12 patients took part in one focus group discussion (FGD), which was used to deepen and validate the cross-case interpretation. Data collection was conducted from 29 March to 18 May 2026. The semi-structured guide was developed from the study aim and the literature; its structure and sample questions are shown in Table 1, and the full guide is provided as a supplementary file. Interviews were conducted in Indonesian and transcribed verbatim, and the quotations reported here were translated into English by the authors.

Table 1. Structure of the Interview Guide With Sample Questions

Data source	Focus	Sample questions (probes in italics)
Patient interview 1	Illness narrative and turning points	"Could you tell me how you learned that you had both high blood pressure and diabetes?" "What happened that made you start taking your health seriously?" *Can you give an example? How did you feel then?*
Patient interview 1	Stroke risk and family history	"What does stroke mean to you?" "Has anyone in your family been ill with these conditions? What was your part in that?"
Patient interview 2	Coping over time	"Were there periods when caring for your health was easier or harder?" "When you relaxed your routine, what was happening in your life? What helped you to start again?"
Patient interview 2	Sources of agency	"Who or what keeps you going in caring for your health?" *What does that mean to you?*
Family caregiver interview	Caregiving role and support	"How do you take part in your relative's daily care?" "What is difficult about supporting him or her?"
Focus group	Validation and education needs	"Many people describe periods of strict discipline followed by periods of lapse. Does this match your experience?" "What kind of support or education from nurses would help you most?"

Sample adequacy: information power and data saturation

Consistent with the idiographic commitment of IPA, sample adequacy was judged primarily through information power (Malterud et al., 2016), supplemented by attention to saturation (Hennink & Kaiser, 2022). Information power was high because (a) the aim was narrow; (b) the sample was dense in specificity, as every patient lived with both conditions and uncontrolled risk; (c) the analysis was informed by established theory; (d) dialogue quality was strong, with two interviews per patient

allowing clarification and depth; and (e) the analysis combined within-case and cross-case strategies. Data collection and analysis proceeded concurrently, and the second interviews, the family interviews, and the FGD were used to test whether the developing themes were complete. In the FGD, participants recognised and elaborated the five superordinate themes, supporting meaning saturation. The team therefore judged the dataset sufficient to answer the research question.

Data analysis

Analysis followed the six stages of IPA (Smith et al., 2022): (1) reading and re-reading each transcript; (2) exploratory noting of descriptive, linguistic, and conceptual content; (3) formulating experiential statements; (4) clustering statements into personal experiential themes within each case; (5) repeating these steps case by case while preserving each participant's individuality; and (6) developing group experiential (superordinate) themes through cross-case analysis. Each patient's two interviews were analysed as one case. Family interviews and the FGD were then integrated through source triangulation to confirm, extend, or challenge the patient-derived themes. Data management, coding, and organisation were facilitated by NVivo software.

Trustworthiness

Trustworthiness followed Lincoln and Guba's (1985) criteria. Credibility was supported by source triangulation of patient interviews, family interviews, and the FGD; by prolonged engagement through repeated interviews; and by member checking, in which participants reviewed the preliminary interpretations and confirmed that they reflected their experiences (Creswell & Poth, 2018). Dependability and confirmability were supported by the reflexive journal and by peer debriefing with two senior qualitative nursing researchers experienced in phenomenology at three stages of analysis: initial coding, theme development, and cross-case analysis. Transferability was supported by a rich description of the setting, participants, and procedures (Polit & Beck, 2021).

Ethical considerations

Ethical approval was obtained from the Research Ethics Committee of Universitas Ngudi Waluyo (Approval No. 589/KEP/EC/UNW/2026). Research permission was granted by the Ungaran Community Health Centre. All participants provided written informed consent and retained the right to withdraw from the study at any time without penalty. Confidentiality was maintained through the use of pseudonymised codes: P1–P12 for patients, F1–F12 for their family caregivers (with F1 corresponding to the caregiver of P1), and FGD for statements obtained during the focus group discussion.

RESULTS

Participant characteristics

Twenty-four participants took part: 12 patients and their 12 family caregivers. The dataset comprised 24 patient interviews, 12 family interviews, and one FGD. Patients had a mean age of 51.5 ± 7.1 years, and most were women (66.7%). The mean duration of hypertension and diabetes was 7.4 ± 4.4 and 4.1 ± 2.1 years, respectively. Mean HbA1c was 8.8 ± 1.3%, and mean blood pressure was 169.5 ± 8.0/99.5 ± 3.2 mmHg. Eight patients (66.7%) were covered by national health insurance (BPJS Kesehatan) and/or private insurance (Table 2).

Table 2. Demographic and Clinical Characteristics of Patients With Hypertension–Diabetes Comorbidity (n = 12)

Characteristic	n (%) / mean ± SD
Age (years)	51.5 ± 7.1
Sex	

Characteristic	n (%) / mean ± SD
Female	8 (66.7)
Male	4 (33.3)
Education	
Junior high school	1 (8.3)
Senior high school	6 (50.0)
College/university	5 (41.7)
Occupation	
Farmer	3 (25.0)
Entrepreneur	3 (25.0)
Housewife	2 (16.7)
Retired	2 (16.7)
Lecturer	1 (8.3)
Tailor	1 (8.3)
Health insurance	
BPJS Kesehatan and/or private insurance	8 (66.7)
None	4 (33.3)
Duration of hypertension (years)	7.4 ± 4.4
Duration of diabetes (years)	4.1 ± 2.1
HbA1c (%)	8.8 ± 1.3
Systolic blood pressure (mmHg)	169.5 ± 11.15
Diastolic blood pressure (mmHg)	99.5 ± 5.52

Note. SD = standard deviation; BPJS = Indonesian National Health Insurance. Percentages may not total 100% because of rounding.

Overview of themes

Five superordinate themes, comprising 16 subthemes, were developed (Table 3). Figure 1 presents them as a conceptual framework: a health crisis initiates awareness; the appraised meaning of family illness history shapes the initial response; coping then fluctuates in a hyperdiscipline–lapse–recovery cycle; relational and spiritual anchors sustain agency through this cycle; and multilevel barriers act on every stage.

Table 3. Superordinate Themes, Subthemes, and Contributing Data Sources

Superordinate theme	Subthemes	Core meaning	Data sources
1. Health crisis as the gateway to awareness	1a Shock of an unexpected result or symptom 1b Recognising stroke risk 1c Turning point toward behaviour change	A sentinel event abruptly overturns the belief of being healthy.	P, F, FGD
2. Family trauma as a double-edged sword	2a Witnessing family illness or stroke 2b Emotional burden and worry 2c Motivation versus paralysis	Earlier family illness motivates or paralyses depending on the role and proximity of exposure.	P, F

Superordinate theme	Subthemes	Core meaning	Data sources
3. Non-linear coping trajectory	3a Hyperdiscipline and strict control 3b Lapse and its triggers 3c Guilt and self-blame 3d Recovery and normalising fluctuation	Coping cycles rather than progressing linearly.	P, FGD
4. Self-care agency grounded in relationships and spirituality	4a Love for children and family 4b Religious intention (*niat*) and prayer 4c Family as co-actor in daily care	Agency is sustained by affective bonds and faith, not by will alone.	P, F
5. Multilevel barriers and the need for multimodal, non-judgmental education	5a Individual barriers 5b Interpersonal barriers 5c Structural barriers 5d Preferred educational formats and stance	Individual, family, and system barriers call for varied, repeatable, non-judgmental education.	P, F, FGD

Note. P = patient interviews; F = family caregiver interviews; FGD = focus group discussion.

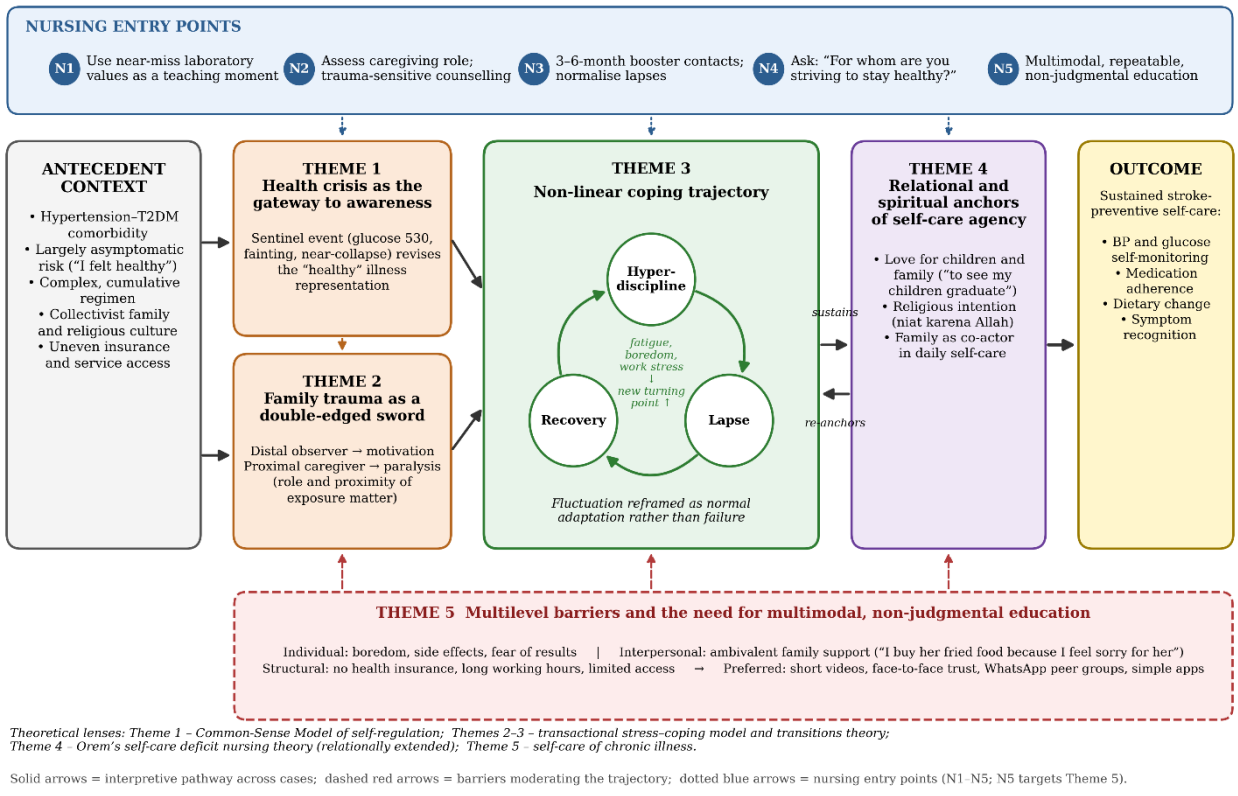

Figure 1. Conceptual Framework of Coping Trajectory and Self-Care Agency Development in Patients With Hypertension–Type 2 Diabetes Comorbidity for Stroke Prevention

This conceptual framework was developed from the qualitative findings and represents potential pathways for strengthening stroke-preventive self-care. The proposed outcomes, including blood pressure and glucose monitoring, medication adherence, dietary modification, and symptom recognition, were not quantitatively evaluated in this study. The effectiveness of the proposed framework requires further empirical testing.

Theme 1. Health crisis as the gateway to awareness

Most patients had regarded themselves as healthy until a sentinel event abruptly overturned that belief. The event took the form of an unexpectedly extreme laboratory value, a collapse in public, or a near-accident while driving:

> *"I checked at the pharmacy, the result was 530… I immediately felt weak in the knees."* (P1)
> *"I fainted. Suddenly… I remember I wanted to buy tofu, then everything went black."* (P2)
> *"Suddenly my head felt dizzy… my vision was blurry."* (P10)

These embodied events, rather than earlier advice, were what patients identified as the moment they began to recognise their risk of stroke and to change their behaviour.

Theme 2. Family trauma as a double-edged sword

Every patient reported a family history of diabetes, hypertension, stroke, or death from related complications, but its effect differed. For patients who had observed a relative's illness from a distance (e.g., P1, P9, P11, P12), the history motivated discipline and higher agency. For P3 and P7, who had been direct, long-term caregivers, including caring for a parent for nine years and witnessing a parent's death after stroke, the same history appeared to paralyse rather than motivate:

> *"My only strength is the fear of repeating my father's fate. But strangely, that fear is also what paralyses me."* (P3)

Theme 3. Non-linear coping trajectory: hyperdiscipline–lapse–recovery

Patients described coping as a recurring cycle rather than steady progress. A phase of hyperdiscipline followed the crisis:

> *"I even stopped eating rice completely."* (P12)

After several months, fatigue, boredom, or work pressure led to a lapse:

> *"I'm tired, selling from morning until night, I don't have time to exercise."* (P3)

Recovery was triggered by a new turning point, such as a poor laboratory result or exposure to another person's stroke:

> *"HbA1c 14, I cried all night."* (P12)
> *"I saw a video of a young woman with a stroke… I immediately got goosebumps."* (P9)

In the FGD, patients came to see these fluctuations as normal, which appeared to ease feelings of guilt and failure:

> *"I used to feel like a failure because I went up and down. Now I know that's normal."* (FGD)

Theme 4. Self-care agency grounded in relationships and spirituality

Self-care agency did not arise from individual motivation alone. Patients most often named love for their children and a religious intention (*niat karena Allah*, "intention for the sake of God") as their main sources of strength:

> *"I remember sitting on the edge of my bed… looking at my children's photos on the wall… if you take your medication, you can see your children graduate."* (P1)
> *"My intention is for Allah and for family."* (P2)

Family caregivers' accounts corroborated the central place of family support and companionship in sustaining patients' daily self-care.

Theme 5. Multilevel barriers and the need for multimodal, non-judgmental education

Barriers operated at three levels: individual (boredom, medication side effects, and fear of results), interpersonal, and structural (lack of health insurance and long working hours). Family support was sometimes ambivalent:

> *"Once in a while I buy her fried food because I feel sorry for her."* (F12, husband of P12)

Patients wanted education in several formats: short, repeatable videos, described as being "like a teacher who never gets angry"; face-to-face sessions to build trust; WhatsApp peer-support groups; and simple applications with large buttons and no complicated log-in. Above all, patients asked for a non-judgmental stance:

> *"Don't judge me. I know I'm not disciplined. But there are reasons: fear, being busy, not having money. I want nurses to be friends, not judges."* (P8)

Cross-case pattern

Across cases, higher self-care agency (P1, P9, P10, P11, P12) co-occurred with having dependent children, health insurance, and distal exposure to family illness, whereas lower agency (P3, P7) co-occurred with having no children or weaker relational bonds and with intense, proximal caregiving experience. These patterns are descriptive and do not imply causation.

DISCUSSION

This study shows that, for Indonesian patients with hypertension–T2DM comorbidity, self-care agency for stroke prevention is not a fixed trait but a fluctuating capacity that emerges from the interaction of an embodied health crisis, the appraised meaning of family illness, a cyclical coping trajectory, relational and spiritual anchors, and the responsiveness of the surrounding education environment (Figure 1). Below, we discuss how each element extends existing theory.

Health crisis as a turning point in illness representation

The sentinel-event pattern is consistent with the Common-Sense Model of self-regulation, in which illness representations are formed mainly from concrete, salient experiences rather than abstract risk information (Hagger et al., 2017). Because hypertension and early diabetes are often asymptomatic, patients maintained a healthy identity until an objective event forced its revision. Risk education given before such an event may therefore have limited experiential purchase, and nurses can use near-miss laboratory values as structured teaching moments.

Role and proximity of family trauma

Qualitative syntheses show that family history shapes lay perceptions of risk (Walter et al., 2004), but they do not explain why the same history mobilises some patients and immobilises others. Our findings suggest that the role and proximity of exposure, distal observer versus sustained hands-on caregiver, differentiate these effects. This fits evidence that sustained family caregiving produces considerable emotional strain and role exhaustion (Neller et al., 2024), which may generalise into avoidance of one's own illness tasks. A family-history assessment limited to "what illness runs in your family" is therefore insufficient.

Normalising a non-linear trajectory

The hyperdiscipline–lapse–recovery cycle is consistent with the transactional view of coping as iterative appraisal and reappraisal (Biggs et al., 2017) and with transitions theory, which frames chronic-illness adaptation as a non-linear passage of disruption and reconstruction (Meleis, 2018). The distinctive contribution here is the patients' own reframing of fluctuation as normal rather than as moral failure, which appeared to reduce shame. This challenges intervention models that assume a single linear adherence trajectory and supports booster contacts timed to anticipate lapses.

Relational and spiritual self-care agency

Orem's theory conceptualises self-care agency primarily as an individual capability (Alligood, 2022; Hartweg & Metcalfe, 2022). In this collectivist context, agency was actualised through love for children and religious intention, suggesting that operative agency is relationally and spiritually mediated. This is consistent with an Orem-based, family-involved nurse-led programme in Thailand that improved self-care agency and clinical outcomes in patients with diabetes and comorbidities (Meekaew et al., 2025). Our findings add *for whom and why* patients sustain self-care, which assessment can capture with a simple question: "For whom are you striving to stay healthy?"

Multilevel barriers and non-judgmental education

The barriers identified mirror those reported by Indonesian primary care providers (Hustrini et al., 2026) and by patients with T2DM (Kurnia et al., 2025). Patients' preference for repeatable,

multimodal education is consistent with evidence that web- and app-based programmes improve blood pressure, HbA1c, and adherence in people at high risk of stroke (Kim et al., 2026) and with the feasibility of integrated digital platforms for hypertension and diabetes care (Bae et al., 2025). The explicit request for a non-judgmental relationship suggests that perceived stigma around non-adherence, not only knowledge deficit, actively hinders self-care, supporting calls for motivational, non-blaming communication as a core nursing skill (Riegel et al., 2021).

Implications for nursing practice and stroke prevention

These findings concern the modifiable behaviours that underpin stroke prevention: blood pressure and glucose self-monitoring, medication adherence, dietary change, and symptom recognition. Because this is a qualitative study, it does not show a reduction in stroke incidence; rather, it informs the design of prevention education. Four implications follow. First, risk assessment should elicit both family illness history and the patient's caregiving role within it, offering trauma-sensitive counselling to former proximal caregivers. Second, self-management education should be delivered in booster cycles every three to six months that explicitly normalise lapses. Third, a relational-motivation question should be used to individualise counselling. Fourth, education should combine short videos, face-to-face contact, peer groups, and simple applications, delivered without judgment.

Limitations

This study has several limitations. First, it was conducted at a single Puskesmas in Central Java, and the patient sample was predominantly female, relatively well educated, and mostly insured; transferability to rural, less educated, or uninsured populations should be judged with caution. Second, the coping trajectory was reconstructed from participants' retrospective narratives across two interviews rather than observed longitudinally, so recall bias and retrospective sense-making may have shaped the cycle described. Third, the researchers' identity as nurse academics may have encouraged socially desirable accounts of adherence, although several participants openly described lapses. Fourth, conducting the FGD with the same patients may have encouraged conformity to emerging group views; the FGD was therefore used to check and deepen, not generate, themes. Fifth, translation from Indonesian may have lost culturally specific nuance, particularly in religious expressions such as *niat*. Finally, the cross-case associations between agency and children, insurance, or caregiving exposure are descriptive and require testing in larger studies.

CONCLUSION AND RECOMMENDATIONS

Conclusion

For patients with hypertension–T2DM comorbidity, stroke prevention is experienced as a dynamic, relational, and emotionally charged process rather than a matter of individual compliance. Self-care agency is constructed through an embodied health crisis, the appraised meaning of family illness history, a non-linear coping trajectory, and relational and spiritual motivation. Family history motivates when exposure was distal but can paralyse when it involved sustained caregiving, and lapses are a normal part of adaptation rather than a sign of failure.

Recommendations

Nursing assessment for this population should map relational sources of motivation and the role of prior family caregiving, and education should be delivered in three-to-six-monthly booster cycles that normalise fluctuation and combine several formats without judgment. At the policy level, the findings support wider health-insurance coverage for low-income, self-employed people and strengthened community-based chronic disease programmes such as Prolanis. Future research should use longitudinal and mixed-methods designs to follow coping trajectories prospectively and should test interventions that target caregiving-trauma proximity, family support, and relational motivation in the development of self-care agency.

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