Original Article

Caregivers' Experiences and Strategies for Fall Prevention in Older Adults: A Qualitative Study

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ABSTRACT

OBJECTIVE: To explore caregivers' demographic characteristics, their experiences and strategies in caring for older adults at risk of falls, and the factors influencing their preparedness.
METHODOLOGY: The qualitative design study using Focus Group Discussions (FGDs) was conducted in Banda Aceh, Indonesia, in September 2025. A total of 22 family caregivers and health caregivers who cared for older adults with fall risk in the community participated and were divided into several FGDs. The Appreciative Action and Reflection (PAAR) approach was applied to facilitate discussions. Data transcripts were analyzed using qualitative content analysis to identify major themes.
RESULTS: Five main themes emerged: falls frequently occurred at home, particularly in bathrooms, bedrooms, and terraces, and basic preventive measures were effective. Caregivers lacked training and support. Participants requested practical guidance, first-aid instructions, assistive devices, home modifications, and the MORPK model, which combines printed and digital tools with supervision and community support.
CONCLUSION: Caregiver preparedness in managing fall risk among older adults is shaped by knowledge, experience, environmental conditions, and access to support systems. Strengthening education, continuous training, and sustainable community support is essential to enhance fall-prevention efforts.

KEYWORDS: Caregiver, preparedness, fall risk, older adults, focus group discussions

INTRODUCTION

Falls among community-dwelling older adults remain a major public health concern because they contribute to injuries, disability, reduced quality of life, and increased caregiving burden. Globally, falls are one of the leading causes of morbidity and mortality in older populations, with approximately 37 million fall events annually requiring medical attention [1]. Older adults are particularly vulnerable due to age-related physical decline, chronic diseases, medication effects, and environmental hazards [2].

In Indonesia, recent studies have shown that the prevalence of falls among older adults remains high, with 29% of older adults reporting at least one fall in the previous year and 45% categorized as being at risk [3]. Local evidence from Banda Aceh further demonstrates significant contributing factors, including cognitive impairment, depressive symptoms, and unsafe home environments [4,5]. *These findings reinforce the multifactorial nature of fall risk in older adults.*

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Caregivers-both family members and health caregivers-play a central role in preventing falls by supervising daily activities, modifying home environments, and supporting mobility. However, studies indicate gaps in caregiver preparedness, including limited knowledge, inconsistent practices, and insufficient support systems [6,7]. Family dynamics and caregiving relationships also influence how fall-prevention strategies are implemented [8]**.** *Despite this evidence, research exploring caregiver preparedness in the local context remains scarce.*

In Banda Aceh, previous studies have primarily examined older adults' clinical risk factors rather than caregivers' readiness, strategies, or barriers. This gap underscores the need for qualitative exploration to deepen understanding of caregivers' experiences and contextual challenges. Such insights are essential for developing culturally appropriate, feasible, and sustainable fall-prevention interventions.

Therefore, this study was conducted to qualitatively explore caregivers' preparedness in caring for community-dwelling older adults at risk of falls in Banda Aceh and to identify factors influencing their readiness. Caregivers were recruited from 11 primary health centres, thereby ensuring diversity in demographic, socioeconomic, and environmental backgrounds.

METHODOLOGY

Study Design

This study employed a qualitative design, using focus group discussions (FGDs), to explore caregivers' preparedness to manage fall risk among community-

dwelling older adults. A total of 22 participants, consisting of family caregivers and health caregivers responsible for older adults at risk of falls within the community, were purposively recruited and divided into several FGD groups.

The discussions were facilitated using the Appreciative Action and Reflection (PAAR) approach, which emphasizes participants' experiences, strengths, and aspirations to foster a constructive dialogue. All FGDs were audio-recorded, transcribed verbatim, and subsequently analyzed using qualitative content analysis to identify key themes and patterns.

Data Collection: Data were collected through Focus Group Discussions (FGDs) conducted on September 8–10, 2025, at Aula Ibnu Sina, Banda Aceh City Health Office. These discussions were part of a broader doctoral study aimed at developing the MORPK (Model Rencana Penanganan Komprehensif; Comprehensive Care Plan Model) to strengthen caregiver preparedness in preventing falls among older adults.

A total of 22 participants took part, including family caregivers, Posyandu (Pos Pelayanan Terpadu) lansia volunteers, and home care workers from 11 primary health centers (Puskesmas; Pusat Kesehatan Masyarakat) across Banda Aceh. Participants were recruited through purposive sampling based on: (1) ≥6 months of caregiving experience, (2) residence within the Puskesmas catchment area, and (3) willingness to participate with written informed consent.

Each FGD was facilitated by a trained moderator, assisted by two qualitative note-takers. Two FGD groups were formed to allow deeper exploration of perceptions and experiences, and each session lasted 90–120 minutes**.** Data were collected through audio recordings, field notes, and observation sheets documenting verbal and nonverbal communication.

Before the FGDs, participants completed a brief demographic questionnaire collecting information on age, education, marital status, caregiving role, duration of caregiving, puskesmas affiliation, and monthly income. These demographic data were used to compare responses between FGD groups and to explore patterns in the findings.

Setting and participants**:** This study took place in Banda Aceh, Indonesia, and involved caregivers recruited from 11 puskesmas to ensure representation of diverse community backgrounds. The Aula Ibnu Sina was selected as the venue because it is a central coordination facility for elderly health programs.

Participants ranged in age from 26 to 59 and represented various caregiving relationships, including children, daughters-in-law, spouses, siblings, and community caregivers. Educational backgrounds varied from high school to diplomas and bachelor's degrees. Monthly income levels ranged from <IDR 1,000,000 (~USD 70) to >IDR 3,000,000 (~USD 210), reflecting a broad socioeconomic profile. Most participants had more than 5 years of caregiving experience, while others had between 6 and 12 months.

FGD Group 1 consisted of more experienced and higher-educated caregivers, while FGD Group 2 included younger or less experienced participants. This grouping structure was maintained to avoid dominance bias and to enhance comfort during discussions.

Population and Sample

A total of 22 participants were involved, including caregivers from *posyandu*, family members of older adults, and homecare workers from 11 *puskesmas* across Banda Aceh. Participants were recruited using purposive sampling based on the following criteria: (1) having at least six months of caregiving experience for an older adult, (2) residing within the catchment area of the respective *puskesmas*, and (3) willingness to participate fully in the FGD sessions.

Instrument

In addition, demographic data were collected through a brief questionnaire administered before the FGDs, including participants' age, highest level of education, marital status, relationship to the older adult, caregiving experience, affiliated puskesmas, and monthly income. These demographic data were used to compare findings across FGD groups and explore potential associations between demographic characteristics and participants' responses.

Data Analysis

Qualitative data were analyzed using qualitative content analysis, guided by the Participatory and Appreciative Action and Reflection (PAAR) approach. This approach was chosen to encourage active participation and positive engagement among caregivers during discussions, while allowing them to reflect on their real-life experiences in caring for older adults at risk of falls.

The analytical process was conducted in the following steps:

1- Participatory Engagement

FGDs were designed to ensure that each participant could freely share their experiences, perceptions, challenges, and expectations without pressure. The moderator used a topic guide with trigger questions (exploring caregiving experiences, caregiver roles, model needs, and ideas for MORPK development) and facilitated open group discussions to stimulate dialogue among participants.

2- Appreciative Inquiry

This approach emphasized identifying positive aspects of participants' experiences, such as effective fall-prevention practices, creative strategies already implemented at home, and innovative suggestions for MORPK. In this way, the analysis focused not only on deficits but also on caregivers' strengths that could be further enhanced.

3- Action and Reflection

During the discussions, participants were encouraged

to reflect on the actions they had taken to care for older adults, analyze their successes and barriers, and consider strategies for improvement. These reflections were captured and analyzed to identify patterns, intervention opportunities, and priorities for MORPK model development.

4- Qualitative Content Analysis

Audio recordings and field notes were transcribed verbatim. Meaning units (e.g., experiences of falls, training needs, availability of health facility support, and expectations for MORPK) were identified, condensed, coded, grouped into subcategories, and then abstracted into main categories. Categories from Group 1 and Group 2 were compared to explore similarities and differences in perspectives.

5- Triangulation and Member Checking

To ensure credibility, two independent researchers separately coded the data, and discrepancies were discussed until consensus was reached. Member checking was performed with selected participants to confirm that the interpretation of findings accurately reflected their perspectives.

Through the PAAR approach, the analysis not only revealed challenges but also highlighted community-driven solutions, such as existing caregiver accompaniment practices, ideas for digital fall risk screening, and participants' willingness to collaborate in the development of the MORPK model. This participatory and appreciative analysis provided a strong foundation for designing an intervention model that is contextually relevant and feasible for implementation.

Ethical Statement

This study received ethical approval from the Health Research Ethics Committee of the Faculty of Medicine, Universitas Syiah Kuala (Approval Number: 182/EA/FK/2025). Before data collection, all research procedures, objectives, potential benefits, and risks were thoroughly explained to prospective participants both verbally and in writing. Participants who met the inclusion criteria were asked to sign a written informed consent form as an indication of their voluntary participation. They were also informed of their right to refuse or withdraw from the study at any time without any consequences.

All personal data was treated with strict confidentiality and used solely for research purposes. Participant identities were anonymized and replaced with unique codes in transcripts, field notes, and research reports. The FGDs were conducted in a safe and comfortable setting, ensuring participants' privacy throughout.

This research adhered to the ethical principles of health research, including respect for persons, beneficence, non-maleficence, and justice.

RESULTS

Characteristics of Respondent **(Table I)**

The data on the characteristics of the respondents in this study are:

Table I: Characteristic Respondents

Characteristics	F	%
Age (Years)		
26-35	8	36.4
36-45	7	31.8
46-59	7	31.8
Education		
Hight school	13	59.1
Bachelor's degree	9	40.9
Marital status		
Married	20	90.9
Widowed	2	9.1
Puskesmas Area		
Meuraxa	2	9.1
Jaya Baru	2	9.1
Batoh	2	9.1
Lampaseh	2	9.1
Banda Raya	2	9.1
Jeulingke	2	9.1
Kuta Alam	2	9.1
Lampulo	2	9.1
Baiturrahman	2	9.1
Kopelma Darussalam	2	9.1
Ulee Kareng	2	9.1
Relationship to Older Adult		
Child	12	54.5
Son/Daughter in law	6	27.3
Sibling	1	4.5
Spouse	1	4.5
Homecare worker	2	9.1
Caregiving of Experience (Years)		
<1	3	13.6
1-3	10	45.5
>5	14	63.6
Monthly Income (IDR)		
< 1.000.000	14	63.6
1.000.000-2.000.000	6	27.3
2.100.000-3.500.000	3	13.6

Note: *Puskesmas = Primary Health Centre. FGD = Focus Group Discussion. Income categories follow the local socioeconomic classification used by Banda Aceh health authorities.*

A total of 22 participants took part in the FGDs, consisting of family caregivers, Posyandu caregivers, and homecare staff from 11 Puskesmas in Banda Aceh City. Participants' ages ranged from 26 to 59 years. The majority had a high school education (≈68%), while the remainder had a diploma (D3) or a bachelor's (S1) degree (≈32%), and most were married. Monthly income ranged from <IDR 1,000,000 (~USD 70) to >IDR 3,000,000 (~USD 210). About 55% of participants had cared for older adults for more than five years, while the rest had less than one year of experience. Caregiving relationships included children, in-laws, spouses, close relatives, and Posyandu caregivers.

Distinct demographic differences were observed between the two FGD groups. Participants in Group 1 were generally older, more experienced, and had higher education levels (D3/S1), whereas participants in Group 2 tended to be younger, mostly high school graduates, and had shorter caregiving experience.

Themes and Key Findings

1. Falls among Older Adults

Most participants reported that older adults had experienced falls at home, particularly in the bathroom, bedroom, and terrace. Preventive measures were still basic, such as assisting older adults while walking and keeping floors non-slippery. Participants emphasized the need for household-based fall-prevention interventions.

2. Caregiver Knowledge and Training

The majority of participants had never received training on managing older adults who fall. Knowledge of fall risk screening (manual or digital) was also very limited. Group 1, with higher education and more experience, was more familiar with fall risk factors than Group 2.

3. Perception of Caregiver Role and Health Facility Support

Caregivers and family members were recognized as the primary actors in assisting older adults at risk of falling, but they felt insufficiently prepared in terms of knowledge and skills. Support from puskesmas and village authorities was considered suboptimal, limited to general counseling. Major barriers included a lack of training, time, financial constraints, and limited access to supporting facilities.

4.Need for Practical Guidance and the MORPK Model

Participants expressed a strong need for practical guidance or an easy-to-use model for daily care. Desired content included first aid for falls, use of assistive devices, home modifications, and fall risk screening. Most participants agreed on the importance of fall risk screening and were willing to use digital applications or paper-based tools.

5. Expectations for the MORPK Model

Participants hoped that the Comprehensive Care Plan Model (MORPK) would be developed using simple language, supported by images or videos, and provided in a combined format of printed modules, guidebooks, and digital applications. Key proposed components included risk assessment, preventive measures, first aid guidelines, reporting mechanisms, and community support. Participants emphasized the importance of engaging caregivers and family members through training, supervision, and periodic guidance.

Characteristics of Respondent (Comparison between Group 1 and Group 2)

The analysis showed that demographic differences influenced response patterns: Group 1 demonstrated a better understanding of fall risk factors, were more prepared to receive digital guidance, and preferred a more comprehensive model. Group 2 required basic guidance, face-to-face training, and concrete examples before adopting digital formats. These differences highlight the need for a flexible MORPK design with staged implementation tailored to caregivers' readiness levels.

Topic Guide for FGD **(Table II)**

The topic guide for FGD in this study is:

Table II: Topic Guide for FGD

Focus Group Sessions	Topics
September 8	Exploration of the condition and experience of caring for older adults, as well as challenges faced regarding fall risks
September 9	Perceptions of caregiver roles, readiness, support from health facilities, and caregiving barriers, as well as participants' needs and expectations regarding training, fall risk screening, practical guidance, and the MORPK Model from a demographic perspective
September 10	Discussion on the development of the MORPK Model, including format, key components, and strategies for engaging caregivers/families

FGD Results **(Table III)**

The FGD Results – Caregiver Readiness to Care for Older Adults at Risk of Falling in this study are:

DISCUSSION

The findings of this study show that caregiver demographic characteristics—particularly age, education level, caregiving experience, and relationship with the older adult—play a significant role in shaping their preparedness for fall prevention. Caregivers in productive age groups and with higher educational backgrounds tended to demonstrate a better baseline understanding of fall risk factors. However, most participants in this study had secondary-level education and limited exposure to formal fall prevention training, which contributed to variability in their knowledge and preparedness. This indicates that demographic factors influence not only the level of understanding but also the confidence and consistency of caregivers in performing fall-prevention actions.

The overall discussion begins with a general interpretation of the findings, followed by a more detailed explanation of each theme. This approach aligns with qualitative research standards that emphasize moving from broader insights to specific thematic explanations.

Caregivers reported preventive strategies such as removing hazardous objects, improving lighting, supervising mobility, and reminding older adults to use assistive devices. While these actions were helpful, the strategies remained reactive and were not integrated with a structured, evidence-based fall risk assessment. Limited access to guidelines, training, and supportive resources further contributed to

Table III: FGD Results

Theme	Key Findings	Participant Quote/Summary Statement	Implications
Falls among older adults	Most participants reported that older adults had fallen at home (bathroom, bedroom, terrace)	"Often, elderly parents fall in the bathroom or when getting up from bed."	Household-based fall prevention interventions are needed.
Need for a care model	Participants expressed a strong need for an easy-to-use model	"We need a clear model so we can care for older adults correctly."	MORPK can serve as an innovative community-based care model.
Training in fall management	Participants had never received training on managing older adults who fall	"We have never been taught how to handle an older adult who falls."	Caregiver and family training programs are required.
Exploration of conditions and experience	Most participants are accustomed to daily care but face challenges such as limited time, skills, and facilities. They are aware of risk factors like slippery bathrooms and weak physical condition of older adults. Preventive efforts are still basic, such as assisting with walking and keeping floors non-slippery.	"We care for elderly parents every day, but often get confused if they fall in the bathroom."	Practical home-based guidelines and increased knowledge of fall risk factors are needed.
Perception of caregiver role	Family/caregivers play the main role in accompanying older adults but feel insufficiently prepared in terms of knowledge and skills. Support from health centers or village government is limited to general counseling. Main barriers: lack of training, time, cost, and access to supporting facilities.	"We need further training from the health center to know how to handle falls."	Strengthening structural support and regular caregiver training is needed.
Participants' needs and expectations	Participants emphasized the need for practical knowledge on first aid for falls, use of assistive devices, and home modifications. Most agreed that fall risk screening is important and are willing to use digital applications or paper-based tools. They expect easy-to-use practical guidance or models and regular training.	"We want to know first aid and fall screening methods so we are not late in responding."	Fall risk screening programs via apps and printed modules tailored to needs are necessary.
Knowledge of how to care for older adults who fall	Participants did not know emergency handling steps when older adults fall	"When an elderly parent falls, we are confused and afraid of lifting incorrectly."	Practical guidelines and simple SOPs are required.
Fall risk screening (non-digital and digital)	Participants were unfamiliar with fall risk screening methods, both manual and digital	"We have never heard of fall risk screening, especially using a phone."	Education and simple training on screening are needed.
Discussion on MORPK Model development	Participants wanted a simple model with easy-to-understand language, supplemented with images/ videos. A combined format of printed modules, guidebooks, and digital applications was considered most suitable. Key components: risk assessment, prevention steps, handling procedures, and community support mechanisms. Caregivers/families are involved through training, supervision, and periodic guidance.	"The model should not be complicated; it must be easy to understand with images or an app."	MORPK should be designed to be simple, multimodal, with caregiver/family involvement.
Participants' expectations of MORPK	Participants hope that MORPK will facilitate care and fall prevention for older adults	"If there is a model, we will feel more confident."	MORPK should be developed according to field needs.

inconsistent implementation. These findings are consistent with previous studies stating that demographic factors, caregiver burden, and access to social support directly influence caregiving readiness and preventive behavior. Studies show that caregivers often recognize fall risk but may lack the technical skills to implement preventive strategies effectively due to informational and resource constraints [9,10].

The unique contribution of this study lies in demonstrating that differences in demographic profiles between FGD Group 1 and Group 2 shaped variations in caregivers' responses and strategies**.** More experienced and better educated caregivers demonstrated stronger comprehension and more proactive preventive behaviours, whereas younger or less experienced caregivers relied more on intuition or trial-and-error methods. This highlights how demographic differences create unique patterns of preparedness, which is a distinctive finding of this research**.**

These findings emphasize the need for a community-based fall prevention model tailored to caregiver backgrounds. Structured, simple, and accessible training—especially when delivered through digital screening tools—can strengthen caregivers' capacity to recognize risk early and act accordingly.

The discussion is presented according to the five major themes identified:

1. Caregivers' Understanding of Fall Risk

Caregivers generally understood that older adults are at risk of falling due to weakness, balance problems, chronic illness, or environmental hazards. This aligns

with findings from the study *"Carers' Concern for Older People Falling at Home"*, which reported that caregivers often have basic awareness of fall risk, though their technical understanding varies. However, this study found that awareness alone does not guarantee effective preventive action, especially when caregivers lack structured knowledge, formal training, or supportive resources. This indicates that knowledge alone is insufficient to ensure readiness to prevent falls.

2. Preventive Strategies and Fall Management

Caregivers employed several strategies, including modifying the home environment, supervising daily activities, promoting safe mobility, and ensuring the use of assistive devices. These actions are consistent with World Guidelines for Falls Prevention and Management for Older Adults, which emphasize environmental modification and multidomain interventions.

Furthermore, studies on care partners' involvement in fall prevention underscore that fall prevention behaviors are multidimensional, covering mobility assistance, safety supervision, health management, and coordination of services. The findings of this study corroborate this literature, but also highlight unique local challenges: caregivers relied heavily on personal judgment due to a lack of access to structured tools, demonstrating the need for systematic support to optimize their strategies.

3. Perception of Caregiver Role and Health Facility Support

Participants consistently perceived caregivers—particularly family members—as the primary actors responsible for assisting older adults at risk of falls. However, most caregivers described themselves as inadequately prepared due to limited knowledge, minimal technical skills, and the absence of structured training. Support from community health centres and village authorities was deemed insufficient, as existing programs focused primarily on general health counselling rather than fall-specific prevention initiatives. Key barriers identified included time constraints, financial limitations, and restricted access to assistive devices or home-based fall prevention resources. These findings align with previous studies indicating that insufficient caregiver competence and weak primary care support contribute to higher fall risk among older adults [13-15].

4. Need for Practical Guidance and the MORPK Model

Participants expressed a strong need for structured, practical, and user-friendly guidance that could be implemented in daily caregiving. They highlighted essential components, including first-aid procedures for fall events, appropriate use of assistive devices, environmental modifications, and standardized fall risk screening. The majority preferred a simple, visually appealing model that was accessible in both print and digital formats. These preferences support the development of the MORPK Model as a comprehensive care guide tailored for caregivers. Similar evidence suggests that integrating visual aids, simplified checklists, and digital tools increases caregiver adherence and improves fall-prevention behavior [10-12,16].

5. Expectations for the MORPK Model

Participants expressed clear expectations for the MORPK model, emphasizing the need for a tool that is practical, comprehensive, and accessible for daily caregiving. They preferred a model presented in simple language, supported by visual materials such as illustrations or short instructional videos, and delivered through blended formats, including printed modules, guidebooks, and digital applications. The proposed components included a structured fall risk assessment, preventive action plans, guidance on environmental modifications, step-by-step first-aid instructions, and a mechanism for documenting and reporting fall events.

Participants also stressed the importance of ongoing training, regular supervision, and periodic follow-up from health professionals to ensure the model is effectively implemented. These expectations align with current evidence showing that caregiver-friendly models—designed with clear instructions, visual aids, and integrated digital tools—significantly improve adherence to fall-prevention practices and enhance caregiver confidence in managing fall risks [17-20].

The findings indicate that the MORPK Model should function not only as an educational resource but also as a practical decision-support tool that guides caregivers through daily tasks, monitors changes in risk, and facilitates communication with health facilities.

CONCLUSION

Caregiver readiness to prevent falls in older adults is influenced by both individual (knowledge, skills, experience) and environmental (support, resources) factors. Readiness is limited when caregivers understand fall risks but lack structured support. Improving readiness requires targeted education, ongoing training, and access to fall-prevention resources. Digital-based fall risk screening can help with early detection and informed decision-making. Effective prevention requires collaboration among healthcare providers, families, technology developers, and local authorities to ensure safer environments and reduce fall incidence.

FGD Conclusions

1. High Home Fall Incidence: Falls occurred most often in bathrooms, bedrooms, and terraces.
2. Caregiver Knowledge Gaps: Caregivers lacked formal training, first aid knowledge, and fall-risk screening skills.
3. Limited Support: Health facilities and local authorities provided insufficient support due to time, financial, and resource constraints.
4. Need for Guidelines: Participants requested simple SOPs, practical tools, and guidance in print

and digital formats.

5. MORPK Model Expectations: The model should use clear language, illustrations, or videos to cover risk assessment, prevention, fall management, and community support, with proper training and supervision.

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Data Sharing Statement: The corresponding author can provide the data proving the findings of this study on request. Privacy or ethical restrictions bound us from sharing the data publicly.

AUTHOR CONTRIBUTION

Iskandar: Designed the study, developed the FGD guide, and conducted data collection and analysis.
Kamil H: Offered additional input regarding methodology and analysis
Rahayuningsih EM: Provided conceptual guidance, methodological advice, and a critical manuscript review
Yani M: Offered additional input regarding methodology and analysis.
All authors developed the idea and carried out the research.

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