



Review Article

## Continuity of Care for Older Adults in Disasters: A Scoping Review on Resilience, Gaps, and Health System Preparedness

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### Article History

Received: June 6, 2026

Published: June 30, 2026

### Keywords

Older adults, continuity of care, disasters,  
resilience, scoping review

### Publisher

Neyshabur University of Medical Sciences

### ABSTRACT

**Background:** Due to their multidimensional care needs, older adults are highly vulnerable to disasters. However, the continuity of care for this population during crises has received relatively little attention. This review aimed to map and synthesis the existing evidence on continuity of care for older adults in disasters.

**Methods:** This was a scoping review conducted following the PRISMA-ScR guidelines and the JBI methodological framework (2020). A systematic search of PubMed, Scopus, WHO, and SID databases was performed using keywords related to aging, disasters, and continuity of care. Web of Science was not included due to institutional access limitations. Regardless their design, studies were considered eligible if published between 2015 to 2025 in Persian and English, and examined continuity of care for older adults (aged 60 years and above) in disaster settings. Data were synthesized using thematic analysis.

**Results:** The initial search yielded 1,365 records. After removing duplicates (n=39), 1,326 records were screened by title and abstract, of which 1,285 were excluded as irrelevant. The remaining 41 full text articles were assessed for eligibility, of which 32 were excluded with reasons (no relevance to continuity of care: 18 full text not available, 6 unclear population or 8 no age disaggregation). Finally, nine studies met the inclusion criteria. Four main themes emerged from thematic analysis: (1) barriers to accessing medications and chronic care; (2) challenges in emergency evacuation and transportation; (3) mental health needs and resilience; and (4) policy and health system gaps. Most of the included studies were descriptive, with few offering practical interventions.

**Conclusion:** The existing literature on continuity of care for older adults in disasters remains limited and fragmented. Major gaps include a lack of context-specific and practical interventions, insufficient age-disaggregated data, inadequate training for both personnel and older adults, and failure to integrate of age-sensitive approaches into disaster management. To address future research, a conceptual model of "care resilience for older adults in disasters" is proposed.

### Introduction

The rapid growth of the older adult population is one of the most significant demographic shifts of the 21st century. According to the World Health Organization, the global population aged 60 years and older will reach two billion by 2050(1). This demographic transition is occurring alongside a parallel and equally concerning trend: the increasing frequency and severity of complex disaster events, including climate-

amplified disasters (wildfires, hurricanes, floods), geophysical events (earthquakes), and human-made crises (2). The convergence of population aging and escalating disaster risk presents an unprecedented challenge to public health systems worldwide (3).

Iran exemplifies this dual challenge. The country is moving toward an aging population at a rate faster than the



global average, while simultaneously facing mounting pressures on its healthcare infrastructure due to economic constraints, rising costs, and increasing demand for chronic disease management (4). Reports indicate that Iran's health system is struggling with sustainability, with nearly 70 percent of insurance resources currently absorbed by medicine and equipment, and warnings that the system may soon be unable to manage the rising burden of non-communicable diseases (2). This fragile context makes the vulnerability of older adults during disasters a particularly urgent concern.

### Problem Statement and Knowledge Gap

Older adults are disproportionately vulnerable during crises due to several interconnected factors: the presence of multiple chronic conditions (hypertension, diabetes, cardiovascular diseases, cancer), mobility limitations, dependence on prescription medications, cognitive impairments, and the need for continuous, coordinated care (5,6). The probability of developing cancer doubles starting at age 60 years, and over 50% of adults aged 65 years and older have at least two chronic health conditions, making complex medication management and care continuity essential (3).

These pre-existing vulnerabilities are amplified in disaster contexts, where healthcare systems are disrupted, access to medications is interrupted, and social support networks are fractured (6). Evidence from recent disasters underscores this heightened vulnerability. Following the 2024 Noto Peninsula earthquake in Japan, over 241 deaths were classified as "disaster-related" caused not by direct physical trauma but by the worsening of chronic illnesses and the physical and mental stress of evacuation life. More than 90% of these victims were aged 70 years or older (5,7).

The primary contributing factors included interruption in medication access, disruptions in the transfer of medical information, inability to evacuate in time, and social isolation (3). Similarly, during the January 2025 Los Angeles wildfires, all but four of the 31 identified victims were aged over 65 or had a disability, with a median age of 76(8). These patterns are not isolated; after Hurricane Katrina, 71% of deaths occurred among adults aged 65 years and older, despite this group comprising less than 15% of the population (6).

Despite this clear and urgent need, a review of the existing literature reveals that most disaster management programs have paid insufficient attention to the continuity of care for older adults (8). The "continuum of care" for older adults during disasters encompassing medication access, medical information transfer, transportation, and psychosocial support is complex and involves numerous interdependent stakeholders (9). Yet, emergency planners often lack awareness of the vulnerability and complex care requirements of many older adults, and elder care stakeholders may not be actively integrated into community emergency management planning. This disconnect creates foreseeable gaps that place older adults at serious risk of injury or loss of life (10).

### Need for a Scoping Review

Despite the importance of this issue, no systematic study has yet mapped the breadth of literature on "continuity of care for older adults in disasters." Existing reviews either focus on the technical aspects of crisis management, examine specific disaster types in isolation, or consider older adults only as a

minor subgroup (6). A scoping review is particularly suited to this task, as it can map the volume and scope of existing studies, identify major knowledge gaps, and provide a foundation for developing operational frameworks without being limited to a narrow clinical question (7,11). Given the fragmented and interdisciplinary nature of the evidence, a scoping review offers the most appropriate approach to synthesize what is known and, critically, what remains unknown about maintaining care for older adults during disasters.

### Review Question and Objectives

This study aimed to address the following question: What evidence exists on the continuity of care for older adults in disasters, and what are the most important knowledge and practice gaps?" Specific objectives were to: (1) identify and categorize the challenges to continuity of care for older adults in disasters; (2) examine documented interventions and strategies; and (3) provide a map of research and operational gaps to guide future studies and policy development.

### Methods

#### Study Design

This scoping review was designed to map the existing literature on continuity of care for older adults in disasters. A scoping review is appropriate when the objective is to identify knowledge gaps, map the scope of the literature, and provide an overview of available evidence, rather than to answer a narrowly defined clinical question (11,12). The study followed the methodological framework proposed by Arksey & O'Malley (7) and further updates by the Joanna Briggs Institute (JBI, 2020) (13). The five stages of this framework are: identifying the research question; identifying relevant studies; selecting studies; charting the data; and collating, summarizing, and reporting the results. This review is reported according to the PRISMA Extension for Scoping Reviews (PRISMA-ScR) (14).

#### 1. Review Question (Population Concept Context Framework)

Following the PCC approach (15), the review question was structured as shown in Table 1. The final review question was: "What evidence exists regarding continuity of care for older adults in disasters, and what are the most important knowledge and practice gaps in this field?"

**Table 1.** PCC Framework for the Review Questions

| Component  | Description                                                                                                           |
|------------|-----------------------------------------------------------------------------------------------------------------------|
| Population | Older adults aged 60 years and above                                                                                  |
| Concept    | Continuity of care, resilience, disaster risk management, emergency preparedness                                      |
| Context    | Natural disasters (floods, earthquakes, storms, wildfires), pandemics, human-made crises (no geographic restrictions) |



## 2. Eligibility Criteria (Inclusion and Exclusion)

Eligibility criteria based on the PCC framework were defined as presented in Table 2 (15). Given the adoption of the Sendai Framework for Disaster Risk Reduction (2015)(16) and the significant increase in disaster-related research since that year, the 2015–2025-time frame was chosen to capture current and relevant literature. The 2015–2025-time frame was selected based on several considerations. First, 2015 was a pivotal year in disaster risk governance, marked by the adoption of the Sendai Framework for Disaster Risk Reduction 2015–2030(17), the Sustainable Development Goals (SDGs) (18), and the WHO Global Strategy on Ageing and Health (19), all of which collectively directed global policy and research attention toward the health of vulnerable populations, including older adults, in disaster contexts. Second, our preliminary literature scan confirmed that studies specifically addressing continuity of care for older adults in disasters have increased substantially since 2015, with very few relevant publications appearing before this year.

**Table 2.** Inclusion and Exclusion Criteria Based on the PCC Framework

| Criterion        | Include                                                                                                     | Exclude                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Study type       | Original research, reviews (scoping, systematic, narrative), case reports, qualitative/quantitative studies | Editorials, opinion pieces, books, theses, pre-prints                               |
| Population       | Older adults aged $\geq 60$ years (no restrictions on gender, race, or country)                             | No age-specific reporting for older adults (mixed age groups without separate data) |
| Concept          | Disaster management + continuity of care/resilience/medication preparedness                                 | Disasters without reference to older adults or care                                 |
| Publication year | 2015–2025                                                                                                   | Before 2015                                                                         |
| Access           | Full-text available in English and Persian                                                                  | Abstract only                                                                       |

## 3. Information Sources and Search Strategy

### Databases

A systematic search was performed in four databases: PubMed, Scopus, SID (Scientific Information Database), and WHO/IRIS. Although Web of Science was not included due to institutional access limitations, Scopus—as a multidisciplinary database—covers a substantial proportion of journals that are indexed in ISI and has been widely used in combination with PubMed in previous scoping reviews.

### Search Strategy

The search strategies for each database are detailed in Table 3.

### Selection of Sources of Evidence (Screening)

Screening was performed independently by two reviewers in three stages:

- Stage 1 (Title screening): Articles clearly unrelated to the topic were removed.
- Stage 2 (Abstract screening): Abstracts were assessed for the three concepts: older adults, disasters, care.
- Stage 3 (Full-text screening): Full-text articles were assessed against the eligibility criteria.

Disagreements between the two authors were resolved through discussion and, if necessary, consultation with a third reviewer. The screening process is summarized in Figure 1 (PRISMA-ScR flow diagram). The initial search across databases yielded 1,365 records. After removing 39 duplicates, 1,326 records underwent title and abstract screening. Of these, 1,285 were excluded for the following reasons: lack of relevance to continuity of care ( $n=892$ ), inappropriate population (non-elderly or no age disaggregation) ( $n=312$ ), and irrelevant language (other than Persian/English) ( $n=81$ ). The remaining 41 full-text articles were assessed for eligibility. At this stage, 32 articles were excluded: 18 had no relevance to continuity of care upon full-text review, 6 were not available in full text, and 8 had unclear population or no age disaggregation. Ultimately, 9 studies met the inclusion criteria.”

## 4. Data Charting Process

A data extraction form was designed based on JBI guidance. Data were extracted independently by two reviewers and entered in Microsoft Excel. The Summary of Key Findings are listed in Table 4.

## 5. Synthesis of Results

Due to the nature of a scoping review, no critical appraisal of included studies was performed(20). The extracted data were synthesized using thematic analysis. The thematic analysis followed six steps: familiarization with the data (reading and re-reading the articles); generation of initial codes; identification of recurring patterns and themes; review of themes; definition and naming themes; and preparation of the final report. The main themes are presented in a conceptual figure in the Results section.

## 6. Ethical Considerations

As this study is a systematic review of published literature, ethical approval was not required.

## Results

### Overview of Included Studies

A total of nine studies met the inclusion criteria, comprising scoping reviews, systematic reviews, and narrative reviews. Of these, six were systematic (scoping or systematic reviews) and three were narrative reviews.

Notably, despite our broad eligibility criteria that included all study designs, no original studies met the inclusion criteria. This finding itself underscores the scarcity of primary empirical research in this area and highlights a critical knowledge gap. Most studies were published between 2022 and 2025. Geographically, the included studies originated from the United States, Canada, Europe, China,



Iran, Germany, as well as international studies focusing on low- and middle-income countries (LMICs).

### Main Themes Identified

Thematic analysis of the included studies revealed four main themes concerning continuity of care for older adults in disasters.

### Theme 1: Barriers to Access to Medication and Chronic Care

Most studies highlighted disruptions in older adults' access to prescription medications and chronic care during crises. Yuliwulandari et al.(16) reported six main needs among older adults: mobility limitation, restricted access to medication, communication barriers, and limited social support. Zhu et al.(21) described disruptions in routine and continuous care

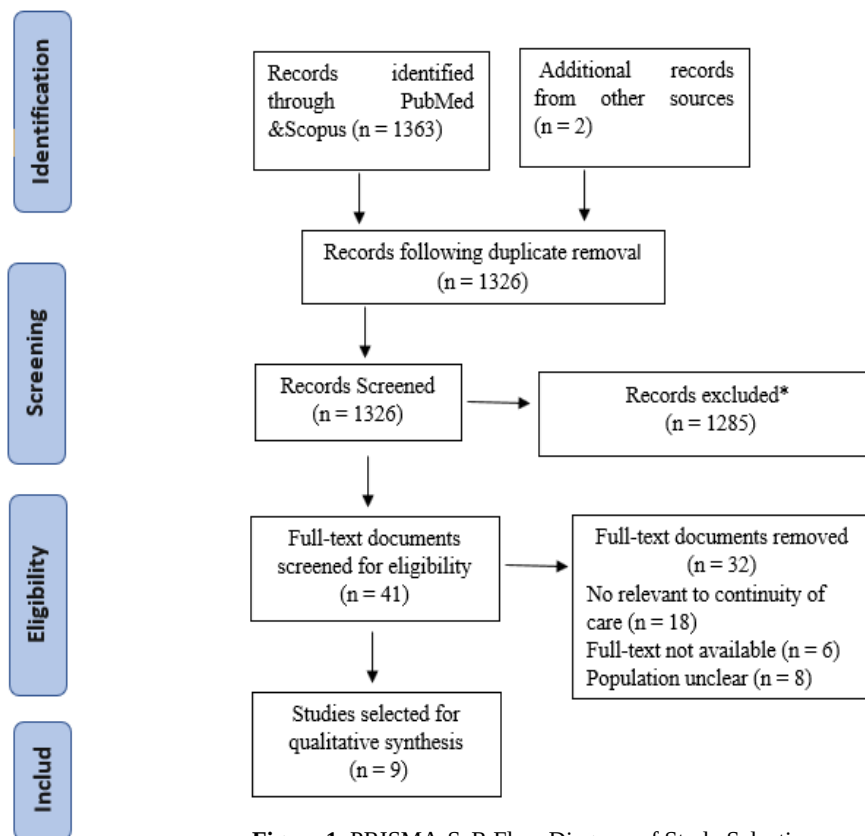


Figure 1. PRISMA-ScR Flow Diagram of Study Selection

during the COVID-19 pandemic, and proposed strategies such as home medication delivery and virtual care. In their systematic review, Van Boetelaer et al.(22), identified non-communicable diseases (NCDs) and mental health as the most

important health concerns among older adults in humanitarian crises. Reporting barriers included lack of healthcare access, medication shortages, and age discrimination.

Table 3. Search Strategy for Different Databases

| Database       | Search Query                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PubMed/Medline | ((("Aged"[Mesh] OR "elderly"[tiab] OR "older adults"[tiab] OR "aging"[tiab] OR "geriatric"[tiab]) AND ("Disasters"[Mesh] OR "natural disaster"[tiab] OR "emergencies"[Mesh] OR "crisis"[tiab] OR "earthquake"[tiab] OR "flood"[tiab] OR "hurricane"[tiab] OR "wildfire"[tiab]) AND ("Continuity of care"[Mesh] OR "medication"[Mesh] OR "health services accessibility"[Mesh] OR "preparedness"[Mesh] OR "resilience"[tiab] OR "disaster planning"[Mesh])) AND (2015/01/01:2025/12/31[pdat]) |
| Scopus         | (TITLE-ABS-KEY (elderly OR aged OR "older adults") AND TITLE-ABS-KEY (disaster OR emergency OR crisis OR earthquake OR flood) AND TITLE-ABS-KEY ("continuity of care" OR medication OR preparedness OR resilience))                                                                                                                                                                                                                                                                          |
| SID            | "elderly" OR "older adults" OR "aged") AND ("disaster" OR "crisis" OR "earthquake" OR "flood" OR "emergency") AND ("continuity of care" OR "preparedness" OR "medication" OR "resilience")                                                                                                                                                                                                                                                                                                   |





### Theme 2: Evacuation and Transportation Challenges

Using the STEPS framework (Spatial, Temporal, Economic, Physiological, Social), Matsuo et al. (9) analyzed evacuation and transportation barriers for older adults in disasters such as wildfires, floods, and storms. Their findings highlighted four

main areas of concern: immediate evacuation barriers, prolonged transportation disruptions, logistical challenges related to preparedness and future planning, and inconsistent, inaccessible communication.

### Theme 3: Mental Health Needs and Resilience

Several studies addressed the psychosocial dimensions of continuity of care in older adults. Madani Hosseini et al.(23)emphasized the importance of early warning systems, strengthened infrastructure, sustainable urban planning, and access to healthcare services for promoting resilience in older adults. Lozano-Montoya et al.(24) showed that exposure to extreme heat, air pollution, flooding, and infectious diseases outbreaks increase the risk of hospitalization and mortality in older adults. Similarly, Omari et al. (25) reported a high burden of mental health conditions (depression, anxiety, PTSD) among older adults in crisis-affected areas.

### Theme 4: Policy and Health System Gaps

All included studies pointed to shortcomings in exiting policy and health systems. Sohrabzadeh and Möckel(26), in a

comparative study of Iran and Germany, categorized older adults' needs and capacities into four domains: vulnerability, capacities, assessment, and intervention. They identified a lack of training for nursing home personnel and poor risk perception among older adults as key gaps. from the perspective of older adults themselves, Canevelli et al.(27) found that management of chronic conditions and functional impairments were the main drivers of care needs. They reported environmental barriers (e.g., access to information, transportation) and social factors (e.g., inadequate support networks, social isolation, financial constraints) as major challenges. A conceptual model of care resilience for older adults in disasters is presented in Figure 2.

### Description of Figure 2

Figure 2 represents a conceptual model of care resilience for older adults in disasters and illustrates three levels of determinants. Individual factors (e.g., mobility limitation and medication dependence) interact with system factors (e.g., continuity of access to medications and effective transfer of medical information) and environmental/policy factors (e.g., resilient infrastructure and age-sensitive early warning systems). The interaction among these three levels determines the success of maintaining continuity of care for older adults during crises. This proposed model requires validation in future research.

**Table 4.** Summary of Key Findings from Included Studies

| Row | First Author, Year     | Key Findings                                                                                                                                                                                     | Identified Gaps                                                                      |
|-----|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1   | Yuliwulandari (2024)   | Six main needs: mobility limitation, restricted access to medication, communication barriers, limited social support                                                                             | Most elderly are not well prepared for disasters                                     |
| 2   | Matsuo (2025)          | STEPS framework (Spatial, Temporal, Economic, Physiological, Social) for evacuation barriers                                                                                                     | Need for disaggregated data and public-private coordination                          |
| 3   | van Boetzelaer (2025)  | NCDs and mental health as key needs; barriers: lack of access, medication shortages, age discrimination                                                                                          | Limited studies from LMICs and conflict zones                                        |
| 4   | Zhu (2022)             | Disruption of routine and continuous care during COVID-19; solutions: home medication delivery, virtual care                                                                                     | Need for high-quality data-driven guidelines                                         |
| 5   | Madani Hosseini (2024) | Strategies: early warning systems, resilient infrastructure, sustainable urban planning, healthcare access                                                                                       | Need for robust risk metrics and vulnerability mapping                               |
| 6   | Lozano-Montoya (2026)  | Extreme heat, air pollution, flooding, and infectious diseases increase hospitalization and mortality                                                                                            | Need to integrate climate risk assessment into geriatric care                        |
| 7   | Sohrabzadeh (2024)     | Four domains: vulnerability, capacities, assessment, intervention                                                                                                                                | Lack of personnel training and poor risk perception among older adults               |
| 8   | Al Omari (2024)        | High burden of mental health conditions (depression, anxiety, PTSD); limited access to routine care due to cost barriers                                                                         | Gaps in mental health research, chronic diseases, and locally tailored interventions |
| 9   | Canevelli (2025)       | Management of chronic conditions and functional impairments as key drivers of care needs; environmental barriers (access to information, transportation) and social issues (isolation, finances) | Lack of attention to older adults' own perspectives                                  |

## Discussion

### Summary of Main Findings

This scoping review aimed to map the existing evidence on continuity of care for older adults in disasters. A total of

nine studies met the inclusion criteria, including six systematic reviews (scoping or systematic reviews) and three narrative reviews. Thematic analysis led to the identification of four main themes: (1) barriers to accessing medications and chronic care; (2) evacuation and transportation challenges; (3) mental health needs and resilience; and (4)



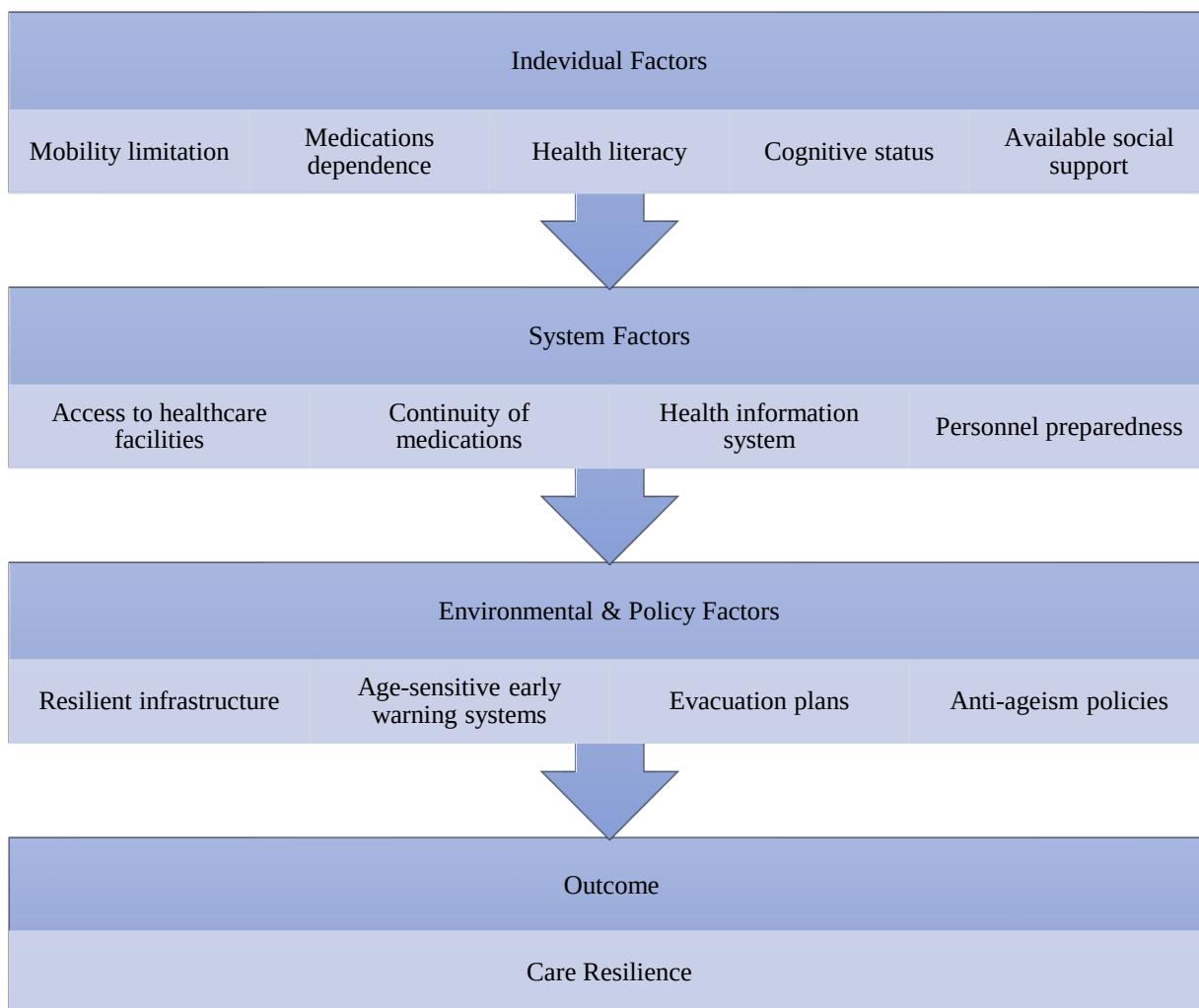
policy and health system gaps. The main finding of this study is that the literature on continuity of care for older adults in disasters is very limited and fragmented. Despite a comprehensive search of two major databases (PubMed and Scopus) and one Persian database (SID), only nine relevant studies were identified. This finding itself reveals an important knowledge gap: although the vulnerability of older adults in disasters is well-recognized, there is little systematic evidence on how to maintain continuity of care for them during crises.

### Comparison with Existing Literature

The findings are consistent with previous studies highlighting the vulnerability of older adults in disasters. Lynch and Merdjanoff (2023)[3] also reported that older adults are especially vulnerable to disasters because of their multifaceted care needs. However, the present review extends beyond simply confirming vulnerability, offering a framework of specific barriers to continuity of care at three levels: individual (mobility limitation, medication dependence, health literacy), system (access to services, information transfer), and social

(inadequate support networks, social isolation, age-related discrimination). The study by Matsuo et al.(9), with its STEPS framework (Spatial, Temporal, Economic, Physiological, Social), contributes significantly to analyzing evacuation barriers for older adults. Our review suggests that this framework can be extended to continuity of care: for example, "physiological barriers" include the need for ongoing medications, while "social barriers" include loss of contact with the primary care physician.

At the international level, studies by Van Boetzelaer et al.(22) and Omari et al.(25) show that the situation may be even more critical in low- and middle-income countries (LMICs). Medication shortages, age-related discrimination by health personnel, and inadequate infrastructure for supporting older adult during humanitarian crises create additional challenges. Likewise, the comparative study by Sohrabizadeh and Möckel(26) in Iran and Germany also found similar gaps in personnel training and risk perception among older adults, even in countries with different health systems.



**Figure 2.** Conceptual Model of Care Resilience for Older Adults in Disasters

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personnel training and risk perception among older adults, even in countries with different health systems.

### **Main Identified Gaps**

Based on our findings, four main gaps in current knowledge and practice were identified:

**Gap 1:** Lack of practical, locally tailored interventions. Most included studies described problems and needs rather than providing operational models. Yuliwulandari et al. (16) explicitly states that "no country has good disaster preparedness for older adults." Canevelli et al. (27) also emphasizes that the voices of older adults themselves are ignored in intervention design.

**Gap 2:** Lack of age-disaggregated data. Matsuo et al. (9) showed that the most disaster registration systems did not disaggregate data by age. This made the specific needs of older adults (especially subgroups aged 80+, with dementia, or with mobility disabilities) invisible.

**Gap 3:** Weak training and preparedness of personnel and older adults themselves. Sohrabizadeh and Möckel (26) pointed to a lack of specialized training for nursing home personnel and poor risk perception among older adults. Zhu et al. (21) also emphasize that despite the existence of strategies like home medication delivery and virtual care, high-quality, data-driven guidelines remain scarce.

**Gap 4:** Failure to integrate an age-sensitive approach into disaster management. Lozano-Montoya et al. (24) and Madani Hosseini et al. (23) both underscored the importance of integrating climate risk assessment and aging into national planning. Currently, many disaster management programs are "age-blind" and treat older adults as a homogeneous group.

### **Proposed Conceptual Model**

In this model, care resilience is conceptualized as the overarching outcome- the capacity of the health system, community, and individual to maintain continuity of care during and after disasters. Continuity of care refers to the specific components (access to medications, transfer of medical information, safe evacuation, and social support), while care resilience refers to the systemic capability to preserve these components despite disruptions. Based on the synthesis of findings from the included studies and the integration of the four main themes, we propose a conceptual model of "care resilience for older adults in disasters" (Figure 2). This model is a novel framework derived inductively from the review findings and has not been previously published. It is intended to guide future research and policy development, and requires empirical validation in subsequent studies. This model comprises three levels:

**Level 1 – Individual factors:** mobility limitation, medication dependence, health literacy, cognitive status, available social support.

Available social support is categorized as an individual factor because it refers to the individual's perceived access to trusted helpers within their social network, rather than the structural availability of community-based support systems. This

distinction aligns with the literature, where perceived social support is conceptualized as a personal psychological resource, whereas structural support belongs to the environmental/policy level.

**Level 2 – System factors:** access to healthcare facilities, continuity of medications, health information system, personnel preparedness.

**Level 3 – Environmental and policy factors:** resilient infrastructure, age-sensitive early warning systems, evacuation plans, anti-ageism policies. The interaction among these three levels will determine the degree of "care resilience" of older adults against disasters. This model requires validation in future research.

### **Strengths and Limitations**

This review has several strengths. To the best of our knowledge, this is the first scoping review specifically mapping the evidence on continuity of care for older adults in disasters, thereby addressing a previously unmapped gap in the literature. A comprehensive and systematic search was performed across four databases (PubMed, Scopus, SID, and WHO) in two languages (English and Persian), following the PRISMA-ScR guideline and the JBI (2020) methodological framework, which ensures rigor and reproducibility. The inclusion of studies from diverse geographic settings (USA, Canada, Europe, China, Iran, Germany, and LMICs) and different disaster types (natural hazards, pandemics, humanitarian crises) enhances the breadth and applicability of the findings. Additionally, the proposed conceptual model of "care resilience for older adults in disasters" offers a practical and theoretical contribution to guide future research and policy development. However, several limitations should be acknowledged. The small number of included studies (n=9), while reflecting the emerging state of the field, may limit the transferability of the findings to other contexts. Most included studies were reviews (scoping, systematic, or narrative), with few original studies providing primary data. The search was limited to English and Persian language publications, so relevant studies in other languages may have been missed. Finally, because of the nature of a scoping review, no critical appraisal of the included studies was performed [14].

### **Conclusion**

This scoping review mapped the existing evidence on continuity of care for older adults in disasters. Findings from nine relevant studies show that, despite the recognized vulnerability of older adults during crises, the literature in this field is very limited, fragmented, and largely descriptive. Four main themes emerged as the most important dimensions of continuity of care for older adults in disasters were: barriers to accessing medication and chronic care; evacuation and transportation challenges; mental health needs and resilience; and policy and health system gaps. It was also found that most disaster management programs lack an age-sensitive approach and treat older adults as a homogeneous



group without attention to their specific care needs. Practically, this review indicates that health policymakers and disaster managers should pay special attention to three key areas: (1) ensuring continued access to prescription medications and chronic care during crises; (2) designing evacuation and transportation protocols related to the mobility and cognitive needs of older adults; and (3) strengthening preparedness through training nursing home personnel and older adults themselves for disasters. Theoretically, a conceptual model of "care resilience for older adults in disasters" with three levels (individual, system, and environmental/policy) is proposed as a foundation for future research. However, this model requires validation in experimental and interventional studies.

Overall, the findings demonstrate that the field of "continuity of care for older adults in disasters" is an emerging area with significant knowledge gaps. The scarcity of original studies, the lack of age-disaggregated data in disaster registration systems, and the absence of context-specific and practical interventions are among the most important gaps requiring further investigations.

### Recommendations for Future Research

Based on the identified gaps, the following recommendations for future research are made:

**Development and validation of practical interventions** for continuity of care for older adults in disasters (e.g., emergency prescription systems, smart medication go-bags, evacuation protocols for older adults with dementia).

**Conduct of original studies with primary data** in different countries, especially low- and middle-income countries and regions prone to recurrent disasters.

**Design and implementation of age-disaggregated data systems** in disaster management, particularly for vulnerable subgroups of older adults.

**Qualitative studies to capture the experiences of older adults themselves regarding** their care needs and priorities during crises.

### Acknowledgement

The authors declare that no funding was received for the preparation of this manuscript. During the drafting and revision process, an AI-assisted language tool was used for grammar refinement and language improvement. All content, analysis, interpretation, and final decisions are the sole responsibility of the authors, who take full accountability for the accuracy, integrity, and originality of the work.

### Funding

This research received no specific grant.

### Ethical approval

This study is a scoping review of previously published literature and does not involve primary data collection from human participants or animals. Therefore, ethical approval and informed consent were not required.

### Conflict of Interests

The authors declare no conflicts of interest.

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