ReviewArticle

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A Bibliometric Analysis of Post-Disaster Resilience Research in Nursing and Health Care, 2011–2025

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ABSTRACT

Background: Resilience after disasters is widely studied in nursing and health care, but the structure of this literature has not been mapped. This bibliometric study describes publication, citation, collaboration and keyword patterns in the field. **Methods:** The Web of Science Core Collection was searched on 12 October 2026 with a query using truncation that combined resilience, nursing and health workforce, and post-disaster terms. Of 186 records, 101 articles published between 2011 and 2025 remained after filtering and screening against explicit criteria; they were analyzed with Web of Science tools, Microsoft Excel and VOSviewer. **Results:** No eligible article appeared before 2013, and annual output ranged from one to six articles a year between 2013 and 2019. From 2020 onwards, 76 articles were published, with the highest annual count (21) in 2025; articles published in 2021 have received the most citations (504). Nursing was the leading Web of Science Category (42.6%), and the United States (28.7%), Australia (12.9%) and China (11.9%) contributed the most articles. No author published more than two articles, and the largest co-authorship component linked only two articles. Five keyword clusters covered mental health and stress, including COVID-19; preparedness and education; disaster nursing and management; response experiences; and earthquake-related trauma and recovery. **Conclusion:** Post-disaster resilience research in nursing and health care remains small, recent and fragmented, and it describes resilience more often than it tests ways to strengthen it. Intervention and longitudinal studies, multi-database analyses and broader international collaboration, particularly with highly vulnerable countries, are needed to guide how nurses are supported after disasters.

Keywords: Bibliometric Analysis; Disaster Nursing; Healthcare Workers; Post-Disaster; Resilience

INTRODUCTION

Disasters are becoming more frequent and costly: half of the 20 deadliest disasters with more than 20,000 deaths occurred after 2000, as did three quarters of the most expensive disasters recorded since 1975 (Peduzzi, 2019; Shen *et al*., 2023). Their burden is unequal. Mortality from floods, droughts and storms can be up to 15 times higher in highly vulnerable countries than in the least vulnerable ones (Birkmann *et al*., 2022). In low-income countries, the welfare loss per dollar of damage is about 67% larger, and recovery is slower (Middelanis *et al*., 2025). Resilience, the capacity of individuals, communities and systems to maintain or regain functioning after adversity, has therefore become central to disaster research. A resilient health system absorbs shocks, maintains essential services and adapts to future crises (Biddle *et al*., 2020; Kruk *et al*., 2015) and resilient hospitals recover more quickly after disasters (Talab *et al*., 2024). Nurses are the largest group in the health workforce and provide clinical care, coordination, community education and psychosocial support in every phase of disaster management (Kruger *et al*., 2025; Pires *et al*., 2026; Segev *et al*., 2025). Preparedness, communication, leadership and ethical decision-making are regarded as core disaster nursing competencies (Al Thobaity, 2024; Su *et al*., 2022).

Disaster work also strains nurses themselves. After the Wenchuan earthquake, health workers' resilience was associated with work experience, education and posttraumatic growth (Guo *et al*., 2022); disaster rescuers

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linked resilience to coping, social support and training (Mao *et al*., 2019), and front-line nurses in Wuhan described it as a dynamic process of managing stressors (Yuan *et al*., 2022). The concept has also been applied to organizations, for example through resilience toolkits for health workers (Ali *et al*., 2022a). This study therefore distinguishes individual (nurses, other health workers and survivors receiving care), community and organizational levels of resilience. Individual studies and reviews have addressed specific questions, including resilience in older survivors (Timalsina *et al*., 2022), organizational learning in hospitals (Ali *et al*., 2022b) and nurses' post-earthquake experiences (Kolaç *et al*., 2026). They synthesize selected outcomes but do not show how the field as a whole has developed or how it is structured.

Bibliometric analysis addresses such questions by quantifying output, citations and collaboration and by mapping the conceptual structure of a literature (Donthu *et al*., 2021). Previous bibliometric studies examined disaster resilience in general (Riyadh *et al*., 2024) and disaster nursing as a broad field (Emir *et al*., 2024; Terzi *et al*., 2026), but to our knowledge, none has focused on resilience in post-disaster nursing and health care. This study aimed to describe, for Web of Science Core Collection (WoSCC) indexed research published between 2011 and 2025, (1) publication and citation trends; (2) the most-cited articles, and the levels of resilience they address, Web of Science categories and journals; (3) productive institutions, authors and countries and their collaboration; and (4) keyword structure.

METHODOLOGY

Data Source

Data were retrieved from the Web of Science Core Collection (WoSCC), restricted to the Science Citation Index Expanded (SCIE) and Social Sciences Citation Index (SSCI) (Clarivate, 2026). A single database was used because merging exports from several databases creates duplicates and inconsistent author, affiliation and cited-reference fields that distort network analyses (Donthu *et al*., 2021).

Search Strategy and Data Retrieval

The search was run on 12 October 2026 in the WoSCC advanced search with the following query: ("resilien*") AND ("nurs*" OR "healthcare worker*" OR "health care worker*" OR "midwi*" OR "disaster nursing") AND ("post-disaster" OR "post disaster" OR "postdisaster" OR "aftermath"). The query was applied to the Topic field (title, abstract, author keywords and Keywords Plus); the wildcard nurs* retrieves nurse, nurses and nursing, and three spellings of post-disaster were included. The search was run by one author and repeated independently by a second author on the same day with identical settings; both runs returned 186 records.

Records were filtered by publication year (2011–2025; 15 removed), by document type "Article" (13 removed: five editorial materials, four early-access records, three book chapters and one proceedings paper) and by language (one Turkish article removed). All 157 remaining records were indexed in the SCIE or SSCI (Figure 1). Two reviewers independently screened their titles and abstracts against the criteria in Table 1 (Cohen's $\kappa = 0.87$) and disagreements were resolved by a third reviewer. A record was retained if it examined resilience, as the main construct or as a secondary outcome, of nurses, other health workers or health services, or of survivors studied from a nursing or health care perspective, in a post-disaster context. Resilience was regarded as the main construct when it was named in the title or was the stated primary aim, outcome or theoretical framework of the study, and as a secondary outcome when it was one of several variables examined (for example, a mediator, correlate or secondary end point). Only articles with resilience as the main construct were eligible for Table 3. After screening, 101 articles were retained. In line with the BIBLIO reporting guideline (Montazeri *et al*., 2023), the number of records removed at each stage is reported in Figure 1, and the lists of included and excluded records, with the reason for each exclusion, are available from the corresponding author on request.

Data Analysis and Visualization

Annual output, citations, Web of Science categories, journals, institutions, authors and countries were obtained with the WoSCC Analyze Results and Citation Report tools and tabulated in Microsoft Excel 2021. In Tables 4-8, items are ranked by number of articles and, for ties, in Tables 5, 6 and 8, by citations in descending order; authors in Table 7 are ranked by citations. Citations per year in Table 3 were calculated as total citations

divided by the number of years from publication to 2026, inclusive. Percentages refer to the share of the 101 articles. Because Web of Science Core Collection (WoSCC) assigns an article to every Web of Science category and country listed in the record, these shares can overlap.

Network Analysis

Co-authorship networks (authors and countries) and keyword co-occurrence were analyzed with VOSviewer version 1.6.20 using full counting (Van Eck & Waltman, 2010). For authors and countries, the minimum was one document, and the largest connected set of items was identified; it is mapped for countries and described in the text for authors, and countries outside this set are reported in the text. For keywords, all keywords (author keywords and keywords plus) that occurred at least three times were included, and no thesaurus file was applied. In the maps, node size reflects the number of documents or occurrences, colors indicate clusters and line thickness indicates link strength. In the density map, colors range from blue to yellow; the closer a color is to yellow, the more often a keyword occurs and the more closely it co-occurs with neighbouring keywords.

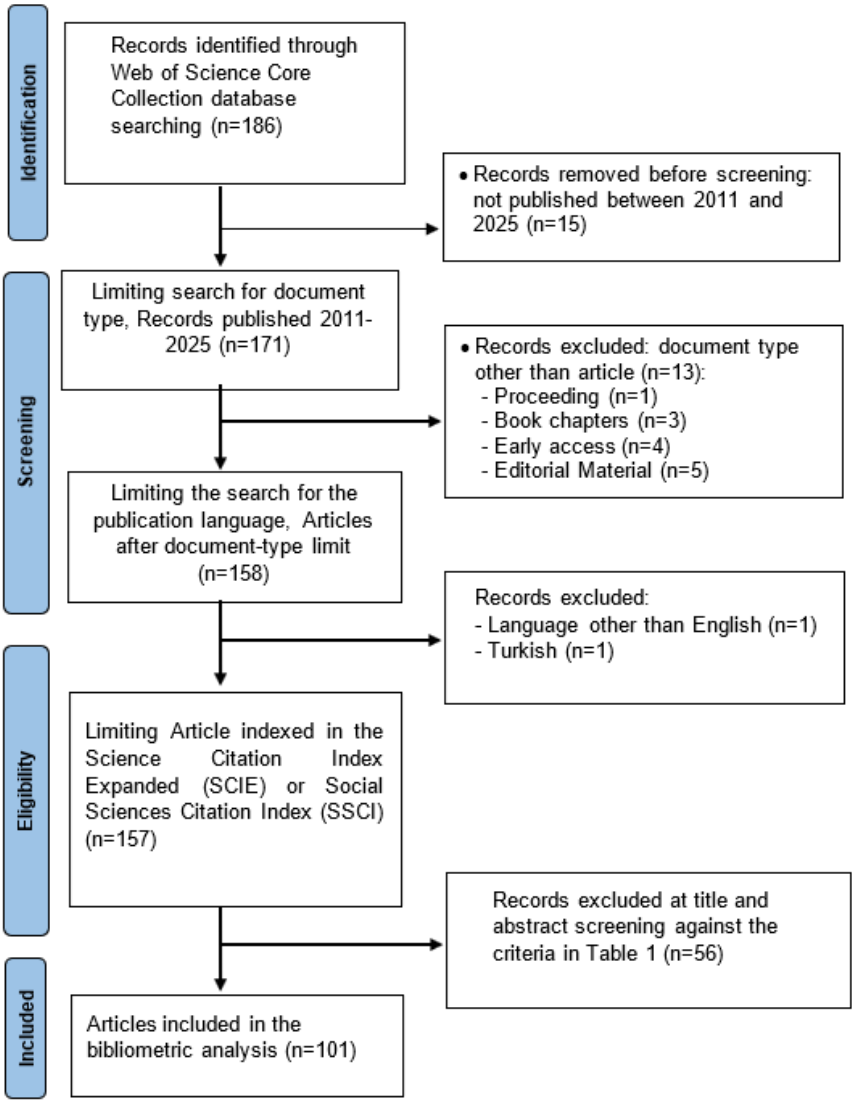


Figure 1: Flow of Record Identification, Filtering and Screening

Table 1: Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Study type	Records classified by WoSCC as "Article"	Other document types (proceedings papers, editorial material, book chapters, early -access records)
Publication period	2011-2025	Publication outside this period
Database	Indexed in Web of Science Core Collection (WoSCC)	Not indexed in WoSCC
Language	English-language publications	Non-English publications
Discipline coverage	Indexed in the SCIE or SSCI	Not indexed in the SCIE or SSCI
Relevance	Examines resilience (main construct or secondary outcome) of nurses, other health workers or health services, or of survivors from a nursing or health care perspective, after a disaster (natural, technological or public health emergency, including pandemics)	No resilience focus, no post-disaster context, or no nursing or health care perspective

RESULTS

Annual Distribution of Publications

Annual output and citations received by the articles of each publication year are shown (Table 2, Figure 2). No eligible article was published in 2011 or 2012. Between 2013 and 2019 the field produced one to six articles a year, 25 articles in total. Output then rose to seven articles in 2020, 11 in 2021 and 13 in 2022 and, after a fall to eight in 2023, reached 16 in 2024 and 21 in 2025. The 76 articles published from 2020 onwards make up about three quarters of the dataset. The citation column in Table 2 gives the citations received to date by the articles published in each year, not the citations received during that year. Articles from 2021 (504 citations) and 2020 (379 citations) have been cited most, whereas the 2025 articles have had less than two years to accumulate citations (131). Because the search was run in October 2026, the 2025 publication count is complete, but citation totals for recent years cannot be compared directly with those for older years.

Table 2: Publication Metrics in Post-Disaster Resilience

Year	Articles (n)	% of Articles	Citations to Date (Articles Published That Year)
2013	1	0.99	47
2014	4	3.96	105
2015	4	3.96	123
2016	2	1.98	32
2017	6	5.94	227
2018	4	3.96	71
2019	4	3.96	120
2020	7	6.93	379
2021	11	10.89	504
2022	13	12.87	230
2023	8	7.92	152
2024	16	15.84	275
2025	21	20.79	131

Note: % Percentage of the 101 included articles

Citation Trends

Table 3 lists the ten most-cited included articles in which resilience in a disaster or post-disaster context is the main construct, as defined in the Methods. Some records in the dataset have more citations but address related outcomes rather than resilience itself, for example a study of nurses' moral injury during COVID-19 (200 citations). The overview by Brooks *et al*. (2020) of resilience and post-traumatic growth in disaster-exposed organizations is by far the most cited (196 citations; 28 per year). The other nine articles have 19 to 46 citations each. They deal with resilience at the workforce level (Madrigano *et al*., 2017; Ali *et al*., 2022a), among nurses and nursing students (Grimes *et al*., 2020; Turner, 2015), in health systems and the nursing workforce after the 2011 Fukushima disaster (Fukuma *et al*., 2017; Hirohara *et al*., 2019) and among older survivors (Almazan *et al*., 2018). Raveis *et al*. (2017) addressed individual stress and collective trauma in the

disaster workforce, and Lane and McGrady (2018) examined emergency preparedness as a source of nursing home resilience. None of the ten evaluates an intervention. By level, four articles addressed individual resilience (Turner, 2015; Almazan *et al.,* 2018; Brooks *et al.,* 2020; Grimes *et al.,* 2020), five addressed organizational or health system resilience (Fukuma *et al.,* 2017; Madrigano *et al.,* 2017; Lane & McGrady, 2018; Hirohara *et al.,* 2019; Ali *et al.,* 2022a), one addressed both (Raveis *et al.,* 2017), and none addressed community resilience.

Table 3: Ten Most-Cited Included Articles with Resilience in a Disaster Context as the Main Construct

Rank	Title	Authors and Year	Source	Citation per Year	Total Citations
1	Psychological resilience and post-traumatic growth in disaster-exposed organisations: overview of the literature	Brooks *et al*., (2020)	BMJ Military Health	28.00	196
2	Beyond Disaster Preparedness: Building a Resilience-Oriented Workforce for the Future	Madrigano *et al*., (2017)	International Journal of Environmental Research and Public Health	4.60	46
3	Resilience of Nurses in the Face of Disaster	Turner (2015)	Disaster Medicine and Public Health Preparedness	2.83	34
4	Preparedness and resilience of student nurses in Northern Queensland Australia for disasters	Grimes *et al*., (2020)	International Journal of Disaster Risk Reduction	4.43	31
5	Fukushima after the Great East Japan Earthquake: lessons for developing responsive and resilient health systems	Fukuma *et al*., (2017)	Journal of Global Health	2.80	28
6	Predicting patterns of disaster-related resiliency among older adult Typhoon Haiyan survivors	Almazan *et al*., (2018)	Geriatric Nursing	3.00	27
7	Enabling a Disaster-Resilient Workforce: Attending to Individual Stress and Collective Trauma	Raveis *et al*., (2017)	Journal of Nursing Scholarship	2.30	23
8	Healthcare Workers' Resilience Toolkit for Disaster Management and Climate Change Adaptation	Ali *et al*., (2022a)	International Journal of Environmental Research and Public Health	4.20	21
9	Determinants and supporting factors for rebuilding nursing workforce in a post-disaster setting	Hirohara *et al*., (2019)	BMC Health Services Research	2.50	20
10	Measures of emergency preparedness contributing to nursing home resilience	Lane & McGrady, (2018)	Journal of Gerontological Social Work	2.11	19

Figure 2 was drawn from the data in Table 2 and shows, for each publication year, the number of articles and the citations received to date by those articles.

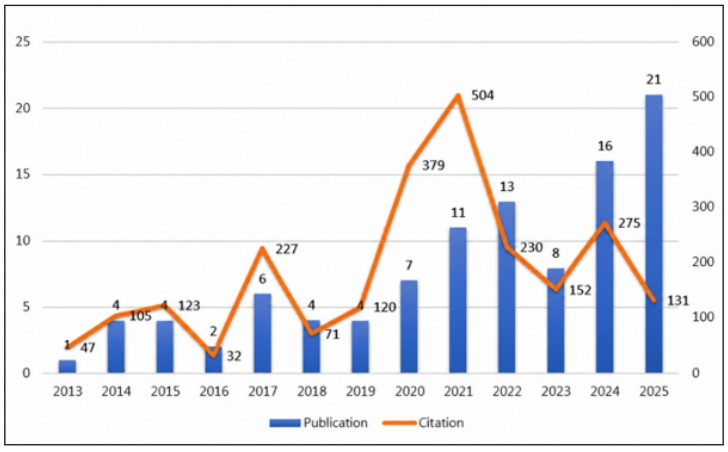


Figure 2: Annual Number of Articles and Citations to Date by Publication Year, 2013–2025

Web of Science Categories

Nursing was the most frequent Web of Science Category (43 articles; 42.6%), followed by Public, Environmental and Occupational Health (17; 16.8%), Emergency Medicine (13; 12.9%) and Psychiatry (7; 6.9%) (Table 4). Health Care Sciences and Services, Education, Health Policy and Services, Environmental Sciences, Social Work and Environmental Studies each accounted for two to five articles. After relevance screening, the dataset is therefore concentrated in nursing and in neighbouring clinical and public health fields, with only a small environmental-science component.

Table 4: Top 10 Web of Science Categories

Web of Science Categories	Articles (n)	% of Articles
Nursing	43	42.57
Public, Environmental & Occupational Health	17	16.83
Emergency Medicine	13	12.87
Psychiatry	7	6.93
Health Care Sciences & Services	5	4.95
Education, Scientific Disciplines	4	3.96
Health Policy and Services	4	3.96
Environmental Sciences	3	2.97
Social Work	3	2.97
Environmental Studies	2	1.98

Note: An article can be assigned to more than one category, so percentages do not sum to 100

Most Prolific Journals

The 101 articles appeared in many different journals, Table 5 lists the ten with the most articles, ranked by number of articles and then by citations. The International Journal of Disaster Risk Reduction published the most (8 articles; 7.9% of the dataset; 164 citations), followed by BMC Emergency Medicine, International Emergency Nursing and International Nursing Review with four articles each. Relative to its output, the International Journal of Environmental Research and Public Health received many citations (3 articles; 137 citations), mainly from one article on disaster nursing competencies and two on workforce resilience. Five of the ten journals are nursing or emergency nursing journals.

Table 5: Top 10 Journals by Number of Articles

Journal	Articles (n)	Citations	% of Articles
International Journal of Disaster Risk Reduction	8	164	7.92
BMC Emergency Medicine	4	117	3.96
International Emergency Nursing	4	91	3.96
International Nursing Review	4	52	3.96
International Journal of Environmental Research and Public Health	3	137	2.97
Journal of Advanced Nursing	3	62	2.97
Disaster Medicine and Public Health Preparedness	3	53	2.97
Journal of Emergency Nursing	3	53	2.97
BMC Nursing	2	59	1.98
BMC Public Health	2	5	1.98

Note: % = Percentage of the 101 included articles

Most Prolific Organizations

No institution contributed more than three articles (Table 6). Six institutions had three each: Fukushima Medical University, Hong Kong Polytechnic University, Indiana University System, Kerman University of Medical Sciences, Sichuan University and the University System of Ohio. Kerman University of Medical Sciences had the highest citation count (142), largely from studies of Iranian nurses' disaster response. With counts this small, the ranking shows where the research was carried out rather than which institutions lead the field.

Table 6: Top 10 Institutions by Number of Articles

Institution	Articles (n)	Citations	% of Articles
Kerman University of Medical Sciences	3	142	2.97
Hong Kong Polytechnic University	3	116	2.97
University System of Ohio	3	85	2.97
Indiana University System	3	73	2.97
Fukushima Medical University	3	68	2.97
Sichuan University	3	37	2.97
Flinders University	2	42	1.98
Harvard University	2	35	1.98
Griffith University	2	33	1.98
Canakkale Onsekiz Mart University	2	12	1.98

Note: % = Percentage of the 101 included articles

Most Productive Authors

No author published more than two articles (Table 7, ranked by citations), so productivity counts cannot identify leading researchers. Among the authors with two articles, the highest citation counts belonged to Jamileh Farokhzadian (Kerman University of Medical Sciences, Iran; 102 citations) and Olivia Wai Man Fung (Hong Kong Polytechnic University; 89 citations), whose work includes a systematic review of resilience among disaster rescue workers. Several listed authors are co-authors of the same papers, such as the two authors from the University of Coimbra, which further limits what these counts show.

Table 7: Authors with the Most Articles

Author	Country of Affiliation	Affiliated Institution	Articles (n)	Citations	% of Articles	References
Jamileh Farokhzadian	Iran	Kerman University of Medical Sciences	2	102	1.98	Farokhzadian *et al*., (2024a, 2024b)
Olivia Wai Man Fung	China	Hong Kong Polytechnic University	2	89	1.98	Loke & Fung (2014); Mao *et al*., (2022)
Yun Hu	China	Shanghai Jiao Tong University	2	53	1.98	Su *et al*., (2022); Wang *et al*., (2024)
Gillian Catherine Scrymgeour	Australia	University of Tasmania	2	45	1.98	Scrymgeour *et al*., (2016, 2020)
Min-Huey Chung	Taiwan	Taipei Medical University	2	42	1.98	Chen *et al*., (2015); Laksmita *et al*., (2020)
Hamidreza Khankeh	Iran	University of Social Welfare and Rehabilitation Sciences	2	39	1.98	Akbari *et al*., (2018); Pourvakhshoori *et al*., (2017)
Gulnur Akkaya	Türkiye	Canakkale Onsekiz Mart University	2	12	1.98	Akkaya *et al*., (2025); Parlak *et al*., (2025)
Ayse Gul Parlak	Türkiye	Kafkas University	2	12	1.98	Akkaya *et al*., (2025); Parlak *et al*., (2025)
Maria Cristina Canavarro	Portugal	Universidade de Coimbra	2	8	1.98	Vitorino *et al*., (2024, 2025)
Catarina Vitorino	Portugal	Universidade de Coimbra	2	8	1.98	Vitorino *et al*., (2024, 2025)

Note: % = Percentage of the 101 included articles

Collaborations among Authors

Co-authorship links between authors were sparse. The largest connected set contained 12 authors from only

two articles, a scoping review of nursing skills across disasters (Su *et al*., 2022) and a study of nurses' work environments during public health emergencies (Wang *et al.*, 2024), joined by one shared author (Yun Hu). Because this component reflects a single shared author rather than a collaborative network, it is not shown as a figure. All other authors formed small, separate groups, which indicates little sustained collaboration in the field.

Most Productive Countries

The United States contributed the most articles (29; 28.7%) and citations (779), followed by Australia (13; 12.9%; 228 citations), China (12; 11.9%; 282 citations), Türkiye (11; 10.9%; 137 citations) and Japan (9; 8.9%; 216 citations) (Table 8). Iran (7; 6.9%; 240 citations), Saudi Arabia (6; 5.9%; 123 citations), Taiwan (4; 4.0%; 83 citations), England (3; 3.0%; 209 citations) and Portugal (3; 3.0%; 25 citations) contributed three to seven articles each. Citation counts did not follow article counts. China and Japan received more citations than Australia despite publishing fewer articles, and Iran's seven articles received more citations (240) than Australia's 13 articles (228). England had the highest number of citations per article (209 citations from three articles; about 70 per article), and Portugal had the lowest (25 citations from three articles; about 8 per article).

Table 8: Top 10 Countries by Number of Articles

Country	Articles (n)	Citations	% of Articles
USA	29	779	28.71
Australia	13	228	12.87
China	12	282	11.88
Türkiye	11	137	10.89
Japan	9	216	8.91
Iran	7	240	6.93
Saudi Arabia	6	123	5.94
Taiwan	4	83	3.96
England	3	209	2.97
Portugal	3	25	2.97

Note: % = Percentage of the 101 included articles

Collaboration between Countries

International research collaborations were mapped using VOSviewer based on collaboration network data (Figure 3). Japan and Türkiye exhibited the highest number of connections with other countries (total link strength= 5), followed by USA (link strength=4), Iran (link strength=3), and China (link strength=1). The co-authorship network across countries revealed three distinct clusters. Only five countries appeared in the connected network, so international collaboration was limited. The other five of the ten most productive countries (Australia, Saudi Arabia, Taiwan, England and Portugal) were not part of this connected set and therefore do not appear in Figure 3.

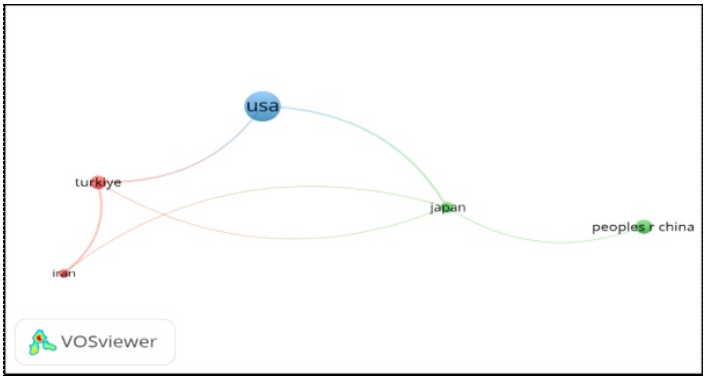


Figure 3: Collaboration Networks among Countries Contributing to Research on Post-Disaster Resilience

Keywords

Co-occurring keywords in studies on post-disaster resilience were mapped using VOSviewer (Figures 4 and 5). Five distinct keyword clusters were identified. The first cluster included terms such as *burnout, covid-19, depression, impact, mental health, qualitative research, resilience, and stress.* The second cluster consisted of *disaster preparedness, education, knowledge, management, nursing, perceptions, and scale*. The third cluster encompassed *disaster, disaster management, disaster nursing, disasters, nurse, and preparedness.* The fourth cluster included *disaster response, emergency, experiences, mental-health, and nurses*. The fifth cluster consisted of *earthquake, health, posttraumatic-stress-dis, and recovery. ("Posttraumatic-stress-dis" is the truncated Keywords Plus form of "posttraumatic stress disorder").*

The most frequently co-occurring keywords were *nurses* (link strength=105), *resilience* (link strength= 88), *preparedness* (link strength= 72), *disaster* (link strength= 65), and *disaster nursing* (link strength= 44). Because resilience and nurses were part of the search query, their high link strength partly reflects the search strategy rather than a research trend.

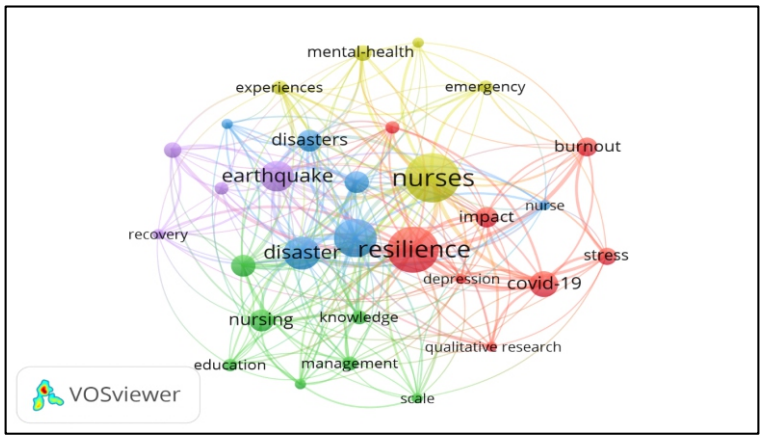


Figure 4: Network Visualization of Keyword Co-Occurrence

The density visualization (Figure 5) shows where keyword use is concentrated. The highest density lay in a single central zone around resilience, nurses and disaster, which extended towards earthquake and disasters. COVID-19 formed a separate, smaller hotspot at the right of the map, with burnout and stress at its edge. Density was lowest at the periphery, where recovery, scale, qualitative research, emergency and experiences appeared, indicating that these topics have been studied less often.

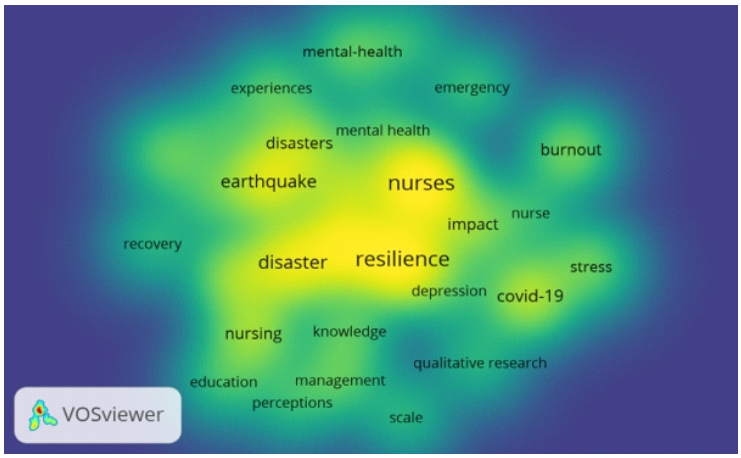


Figure 5: Density Visualization of Keyword Co-Occurrence

DISCUSSION

This study mapped 101 WoSCC articles on resilience after disasters in nursing and health care published between 2011 and 2025. The field is small and recent: about three quarters of the articles appeared from 2020 onwards. The rise coincides with the COVID-19 pandemic, and COVID-19, burnout and stress belonged to the largest keyword cluster, so part of the growth probably reflects research on health workers' mental health during the pandemic (Liu *et al*., 2023). Terzi *et al*., (2026) also found that output in the wider disaster nursing literature peaked in 2021. Citations were concentrated in a few articles. The most-cited resilience article was a literature overview of disaster-exposed organizations (Brooks *et al*., 2020), and the other highly cited articles addressed the resilience of the workforce, nursing students, health systems and older survivors (Table 3). The literature thus treats resilience at several levels: among the ten most-cited articles, four addressed individual resilience, five organizational or health system resilience and one both, whereas none addressed community resilience. A similar distinction between levels is made in research on health system resilience (Biddle *et al*., 2020). The absence of community-level studies among the most-cited work is notable, because nurses also strengthen community capacity in disaster-prone areas (Sofyana *et al*., 2024). Because these levels are measured with different concepts and instruments, studies at one level cannot simply be generalized to another.

The production and collaboration indicators describe a fragmented field. No author or institution contributed more than three articles, and the largest co-authorship component linked only two articles through one shared author. Most articles came from the United States, Australia, China, Türkiye and Japan. Several of these countries experienced major disasters during the study period, and studies from such settings, for example after the 2011 Great East Japan Earthquake, are well represented in the dataset (Fukuma *et al*., 2017; Hirohara *et al*., 2019). The data cannot show why these countries lead, however. None of the ten most productive countries is a low-income country, although disaster mortality is highest in highly vulnerable countries (Birkmann *et al*., 2022). Low international co-authorship has also been reported for disaster nursing research (Terzi *et al*., 2026), and in this dataset Australia, the second most productive country, had no co-authorship links with the connected group of countries.

The five keyword clusters fall into three broad themes. The first is the mental health of health workers and survivors, with stress, burnout, depression and post-traumatic stress linked to COVID-19 and earthquakes (clusters 1 and 5). The second is preparedness, education, knowledge and disaster management (clusters 2 and 3), which also dominates disaster nursing research more broadly (Al Thobaity, 2024; Labrague *et al*., 2018). The third is nurses' experience of disaster response (cluster 4), studied mostly with qualitative designs (Farokhzadian *et al*., 2024b; Kolaç *et al*., 2026). Terms for interventions, program evaluation or long-term service recovery did not appear among the mapped keywords. The literature therefore describes resilience and its correlates more often than it tests ways to strengthen it.

Two priorities follow for nursing practice and education. The prominence of preparedness and education terms shows that existing work has concentrated on readiness before a disaster, and training programmes have improved nurses' disaster competencies (Farokhzadian *et al*., 2023) and community preparedness (Sofyana *et al*., 2024). Recovery after the event, including the mental health of nurses who have worked in disasters, has received less attention, although stress, burnout and post-traumatic stress were among the frequent keywords. Nursing managers and educators could therefore add psychological support and recovery to disaster training, and researchers could evaluate such programs. These suggestions are drawn from publication patterns and need to be tested in empirical studies.

Limitations

This study has several limitations. The dataset was small (101 articles) and came from a single database, so work indexed only in Scopus or PubMed was missed and WoSCC covers fewer journals from low- and middle-

income countries. Because the query required the term post-disaster or one of its variants, studies that described the post-disaster period in other words, such as recovery after an earthquake, may not have been retrieved. Relevance screening and the classification of resilience as a main or secondary construct involved judgment, although two reviewers applied explicit criteria independently and only English-language articles were included. Citation counts favur older articles, and articles from 2024 and 2025 have had little time to be cited. The search terms dominated the keyword network, because no thesaurus file was applied, singular, plural and hyphenated variants of the same keyword (for example, disaster and disasters, or mental health and mental-health) appear as separate nodes and may have split some clusters. Co-citation and thematic-evolution analyses were not performed, and bibliometric indicators describe publication patterns without assessing the quality or clinical impact of the studies. Some included articles addressed resilience only as a secondary outcome, which broadens the dataset beyond studies in which resilience is the main construct.

Future Scope

Intervention research is the main gap: none of the ten most-cited articles evaluated an intervention (Table 3), so resilience and psychological support programs for nurses and other health workers after disasters need evaluation in randomized or quasi-experimental trials with follow-up beyond the acute phase. Prospective cohorts could show how resilience, stress and burnout change from the acute phase to long-term recovery, which cross-sectional and qualitative designs cannot capture. Studies should state whether they address resilience at the individual, community or organizational level and use instruments validated for that level; community-level resilience in particular needs more attention. Multi-country research involving highly vulnerable and low-income settings, and studies linking workforce resilience to service continuity and patient care, would make the evidence more representative. Future bibliometric studies could combine several databases, apply a keyword thesaurus and add co-citation and thematic-evolution analyses.

CONCLUSION

The major outcome of this review is the first map, to our knowledge, of post-disaster resilience research in nursing and health care. The field is small, recent and fragmented: three quarters of the 101 articles appeared from 2020 onwards, citations are concentrated in a few papers, and no author or institution has yet built a sustained body of work. Research centers on three themes, namely the mental health of health workers and survivors, disaster preparedness and education, and nurses' experiences of disaster response, while intervention and longitudinal studies remain scarce. Disaster training for nurses should therefore address recovery and psychological support after the event, not preparedness alone. Intervention trials, longitudinal designs and collaboration with highly vulnerable countries are now needed to establish how the resilience of nurses and health services can be strengthened after disasters.

CRediT Authorship Statement

W.A.: Conceptualization, Methodology, Data Curation, Formal Analysis, Visualization and Writing Original Draft. **A.Y.:** Supervision, Validation, Writing And Review. **F.A.T.:** Methodology, Investigation, Validation, Writing, Review and Editing. **R.Y.:** Data Curation, Investigation, Review and Editing. All authors read and approved the final manuscript.

AI Assistance Declaration

During the preparation and revision of this manuscript, the authors used Claude (Anthropic) for grammar correction, language polishing and the restructuring of selected passages. The tool was not used to retrieve or analyze data, generate results or figures, or draw conclusions. The authors thoroughly reviewed and edited all AI-assisted output to ensure its accuracy, clarity and integrity, checked every reference against its original source, and take full responsibility for the final manuscript.

Conflict of Interest

The authors declare that they have no conflicts of interest related to the publication of this study.

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