sciendo

Vol. 17, No. 29, Year 2024
ISSN: 2286-2102
E-ISSN:2286-2552

AFTER GUNSHOT: A QUALITATIVE EVIDENCE SYNTHESIS ON COMMUNITY RECOVERY FROM MASS VIOLENCE

CAYLA BLEOAJA
University of Oxford, United Kingdom

DOI: 10.2478/eras-2025-0005

Abstract

Incidents of mass violence, defined as occurring in a public place with at least four fatalities and not related to domestic violence or other criminal activity, have left scars on the social psyche of communities that have survived and witnessed them. While their psychological ramifications are increasingly considered, little research has addressed social behavior in the aftermath on a community-level. This Qualitative Evidence Synthesis (QES) aims to address an identified gap in research with an examination of the mechanisms of communal resilience and healing after an incident of mass violence. The search strategy yielded 7,106 records, of which 5,897 were screened by title and abstract and 116 by full text. Communities largely engaged in three interconnected processes. First, they moved towards convergence through social support, shared identity, and public expression of grief. Secondly, they engaged in meaning-making through spirituality, positive reframing, and collective narratives. Lastly, they participated in acts of transfiguration through altruism, mobilization, and reconstruction. Implications for policy include moving beyond a medical model and utilizing internal community assets, strengthening collaborative networks that promote social cohesion, and investing in existing community assets and resources.

Keywords

mass violence, collective trauma, collective resilience, community healing

Introduction

Incidents of mass violence, such as school shootings or stabbing sprees, are increasingly prevalent in public consciousness. While much research concerns the characteristics of, factors associated with, and psychological responses to such events, less has considered how communities recover in their aftermath. This project aims to assess this literature and deliver a comprehensive overview of available evidence, analyze methodological concerns, highlight themes across findings, and identify questions for future study. It is interested in the mechanisms that precipitate the outcome of community resilience (CR).

Episodes of mass violence have received substantial media coverage and increased interest in research. In light of inconsistencies in researchers' definitions of mass violence incidents, this review operationalizes such acts as (1) occurring in a public place with (2) at least four fatalities and (3) not related to domestic violence, gang conflict, or other criminal activity (definition derived from Duwe et al., 2022). The public health consequences of mass violence are well-established. Adverse psychological outcomes can manifest in survivors, members of affected communities, and indirectly exposed populations (Lowe & Galea, 2015;

DOI: 10.2478/eras-2025-0005

Katsiyannis et al., 2022). Recent literature has called for research on community-based interventions that mitigate the adverse outcomes of such events (Abdalla et al., 2022).

Recommendations for healthcare responses to mass traumatic events concentrate on first-responder care services and psychological aid (Goolsby et al., 2022), where immediate and ongoing crisis interventions aim at mitigating micro and macro trauma responses by establishing safety, stability, and support (Doyle, 2022). However, the reach of psychological first aid interventions is often limited to survivors in the immediate aftermath of an event and does not address long-term harm or members of the community at large. Medical personnel themselves cite a lack of mental health support following such events (Winch et al., 2022), indicating the ongoing need for understanding and addressing the ensuing burden of collective harm. Research suggests that alternatives to relying on external psychological first aid should support the intuitive processes by which communities cope with and respond to incidents of mass violence (Abdalla et al., 2022). There is a lack of systematized evidence on community responses to mass violence. Existing reviews have assessed potential determinants (Wichaidit, 2022), psychological outcomes (Lowe & Galea, 2017), mental health recommendations (Gregory & Park, 2022), and the quality of empirical literature on mass shootings (Kim et al., 2021). This project responds to the paucity of systematized qualitative evidence and addresses the identified knowledge gap with a Qualitative Evidence Synthesis (QES) that examines collective mechanisms for communal healing.

This review will seek to answer the question ‘How do communities recover from traumatic incidents of mass violence?’, formulated in accordance with the SPIDER (Sample, Phenomenon of Interest, Design, Evaluation and Research Type) approach explicitly designed for qualitative reviews (Cooke, Smith & Booth, 2012) (see **Table A1**). Its specific objectives are: 1) to systematically review existing findings on effective interventions and mechanisms for community reparation after mass violence; 2) to identify and describe the practices and processes for healing engaged in by survivors and community members through examination of analytical themes; 3) to integrate the findings from the synthesis and relevant literature into a conceptual framework; and 4) to inform the design, implementation, and evaluation of post-tragedy community recovery pathways for future research.

SPIDER Category	**Description**
Sample	Participants are survivors or community members directly impacted by an incident of mass violence (not external crisis responders)
Phenomenon of Interest	Incidents of mass violence that occurred in public settings
Design	Studies using qualitative data collection (or mixed methods where the qualitative component can be separated)
Evaluation	The mechanisms for and outcomes of coping and recovery on a collective level
Research type	Primary or secondary (not systematic review)

Table A1. Systematic Review Question in SPIDER Format

DOI: 10.2478/eras-2025-0005

Materials and Methods

This project addresses the research question with a QES, which is a method of systematic review that synthesizes results from qualitative studies towards an application that extends beyond primary research (Flemming & Noyes, 2021). A QES is appropriate for questions about subjective understandings of policy programs or interventions (Noyes et al., 2019). Systematic reviews can take configurative or aggregative approaches, each which imply distinct intentions for search, quality assessment, and application (Gough et al., 2012). This review is primarily aggregative in that it aims for an exhaustive search, avoidance of bias, empirical findings, and instrumental use. It adopts some configurative elements in that it endeavors towards emergent concepts and generative theoretical contributions.

The search strategy was designed using the Cochrane '7S' component (sampling, sources, structured questions, search procedures, strategies and filters, supplementary strategies, and standards for reporting) (Booth 2016) and following the Peer Review of Electronic Search Strategies (PRESS) guidelines (McGowan et al., 2016). To balance concerns for both specificity and sensitivity, SPIDER categories and Boolean operators were exercised to make the search specific (see **Table A2**), and strategies such as appropriate MeSH terms, wildcards, truncation, and proximity searching were used to enhance sensitivity.

Category	Search terms
Sample	(community or neighborhood or local or city)
Phenomenon of Interest	AND (mass or shooting* or mass shooting or stabbing)
Design	AND (qualitative or interview* or "semi-structured" or semistructured or unstructured or "in-depth" or indepth or discussion)
Evaluation	AND (recovery or rehabilitation or healing or resilience or intervention)

Table A2. Standard Search Strategy, with Terms by Selected SPIDER Categories

The standard search was applied in 14 electronic databases, 10 of which were major bibliographic providers and 4 of which comprised grey literature, to supplement comprehensiveness and completeness (see **Table A3** for details). The search was supplemented by hand-searching reference lists.

Search	Provider, databases, and settings	Results
1.	**ProQuest Social Science Premium Collection,** includes Sociology Database, Applied Social Sciences Index and Abstracts (ASSIA), Sociological Abstracts, Political Science Database, Policy File Index, Worldwide Political Science Abstracts, Criminal Justice Database, Social Science Database and International Bibliography of the Social Sciences (IBSS).	4,722
	Standard search strategy. Extra settings: Anywhere except full text (NOFT) for all fields, limited to peer reviewed source types (scholarly journals, reports, books, other sources) and dissertations and theses.	

DOI: 10.2478/eras-2025-0005

2.	**SCOPUS** (includes most Embase references)	1,134
	Standard search strategy. Extra settings: limited to title, abstract and keywords.	
3.	**Web of Science Core Collection** (includes Social Sciences Citation Index, Global Health)	9
	Standard search strategy. Extra settings: limited to 'topic' (title, abstract, keywords), not restricted to any document type in particular.	
4.	**PubMed** (includes MEDLINE)	311
	Standard search strategy. Extra settings: free text terms limited to title and abstract, enabled PubMed's Automatic Term Mapping (to subject headings) and automatic explosion.	
5.	**Ovid**, for PsycInfo.	262
	Standard search strategy. Extra settings: limited to 'mp' (title, abstract, heading word, table of contents, key concepts, original title, tests and measures, mesh) and to peer-reviewed journals, books, or dissertation abstracts. Smart quotes replaced with straight quotes for search to run.	
6.	**EBSCO**, for MEDLINE and Sociology Source.	226
	Standard search strategy. Extra settings: searched using default option ('Select a field'), which searches anywhere except full text, and allowed option for platform to apply equivalent subjects to free text terms (expanders). Search in BEI limited to academic journals and books, search in CINAHL limited to Abstract, Book, Book chapter, Corrected article, Doctoral dissertation, Journal Article, Master's thesis.	
7.	**SAGE** Journals	22
	Standard search strategy. Extra settings: anywhere except full text (NOFT) for all fields, limited to book chapters, books, discussion papers, journal articles, journal articles (overseas), research reports, theses, theses (overseas), no available option to restrict languages, disabled options for automatic inclusion of spelling variants and form variants of search terms (added irrelevant terms).	
8.	**Scientific Electronic Library Online** (SciELO)	0
	Simplified version of standard search, adapted for simpler interface with no support for proximity searching.	
9.	**Science Direct**	96
	Simplified version of standard search, adapted for simpler interface with only three rows available and no proximity searching supported. Extra settings: searched in 'Words' (includes full text), language filter not included (because some results in relevant languages appeared not be categorized and did not appear if filters were applied).	
Total		**6,782**

Table A3. Bibliographic Providers and Databases Search

The process of study selection involved several phases (see **Figure 1**).

DOI: 10.2478/eras-2025-0005

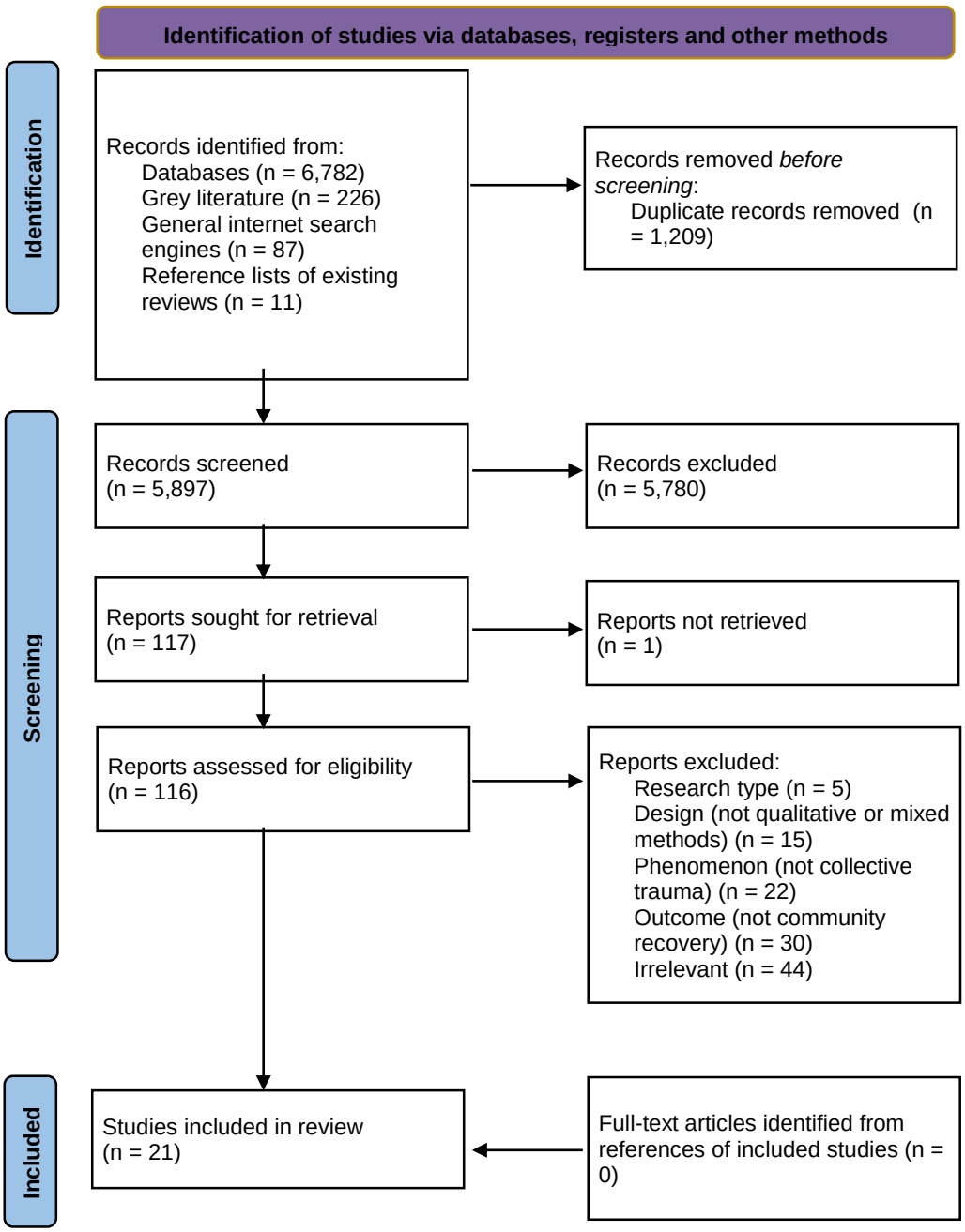

Figure 1. PRISMA (2020) Flow Diagram Summarizing the Identification and Screening Process, Adapted from Page et al. (2021)

All search results were first added to a reference manager (Zotero), merged in one collection, and cleaned to remove duplicates. They were then imported into a systematic review software (EPPI-Reviewer) and screened based on titles and abstracts, with reasons for exclusion recorded. The full text of each of the remaining studies was screened according to the predetermined inclusion/exclusion criteria (see **Table A4**). Studies that failed to comply with one criterion were excluded.

DOI: 10.2478/eras-2025-0005

SPIDER Categories	Inclusion Criteria	Exclusion Criteria
Sample	Communities that have been affected by instances of mass violence	Other school stakeholders (teachers, counsellors, etc.), parents or carers whose children are older.
Phenomenon of Interest	Incidents of mass violence occurring in public places, such as school shootings or stabbings	Acts of personal violence, such as assaults or homicides, or terrorist attacks using vehicles, chemicals, or biological/radioactive materials
Design and research type	Primary or secondary qualitative studies (or mixed methods where the qualitative component can be separated for analysis)	Not primary research, or only quantitative methods (e.g. surveys with close-ended questions). Reviews were not considered, but their primary studies were included if relevant.
Evaluation	Practices or processes engaged in by communities in the aftermath of the incident	Solely psychological assessment or intervention (e.g. reporting psychological impact or results of individual-level interventions such as therapy or medication)
Other Categories		
Practical issues	Study is retrievable.	Study is not retrievable.
Setting	No limitations. All countries or population included.	
Publication	Peer-reviewed publications. No commentaries or editorials.	

Table A4. Inclusion and Exclusion Criteria

The data was analyzed using reflexive thematic synthesis (Thomas & Harden, 2008), informed by application of the RETREAT criteria (Booth et al., 2018). The strengths and limitations of studies included in this review were evaluated by the Critical Appraisal Skills Program (CASP) checklist, in that a methodological assessment was conducted for each study and aggregated to calculate a quality grade, indicating the number of criteria met (see **Table A5**).

#	Theme type	Theme label	Number of contributing studies	Number of contributing high/medium quality studies	Change
1	**Analytical**	**Convergence**	**20**	**18/21**	**-2**
1.1	Descriptive	Social support	20	18/21	-2
1.1.1	Descriptive	Natural networks	14	12/21	-2
1.1.2	Descriptive	Collaborative partnerships	19	17/21	-2

DOI: 10.2478/eras-2025-0005

1.2	Descriptive	Shared identity	16	15/21	-1
1.2.1	Descriptive	Shared experience	18	17/21	-1
1.2.2	Descriptive	Solidarity	19	18/21	-1
1.2.3	Descriptive	Sense of belonging	9	8/21	-1
1.3	Descriptive	Public expression of grief	12	11/21	-1
1.3.1	Descriptive	Ritualization	13	11/21	-2
1.3.2	Descriptive	Memorialization	12	11/21	-1
2	**Analytical**	**Meaning making**	**15**	**14/21**	**-1**
2.1	Descriptive	Spirituality/faith	8	7/21	-1
2.2	Descriptive	Positive reframing	10	9/21	-1
2.2.1	Descriptive	Acceptance	9	8/21	-1
2.2.2	Descriptive	Gratitude	6	6/21	0
2.2.3	Descriptive	Optimism	8	7/21	-1
2.3	Descriptive	Collective narrative	14	13/21	-1
2.3.1	Descriptive	Recognition	16	15/21	-1
2.3.2	Descriptive	Remembrance	15	14/21	-1
2.3.3	Descriptive	Reconceptualization	11	10/21	-1
3	**Analytical**	**Transfiguration**	**13**	**11/21**	**-2**
3.1	Descriptive	Altruism	17	16/21	-1
3.2	Descriptive	Mobilization	16	15/21	-2
3.2.1	Descriptive	Access to resources	16	15/21	-1
3.2.2	Descriptive	Collective efficacy	12	11/21	-1
3.2.3	Descriptive	Social capital	14	13/21	-1
3.3	Descriptive	Reconstruction	9	9/21	0
3.3.1	Descriptive	Future-oriented discourse	9	9/21	0
3.3.2	Descriptive	Opportunity for learning	13	12/21	-1
3.3.3	Descriptive	Transformed spaces	7	7/21	0

Table A5. Summary of the Critical Appraisal Results Using the CASP Checklist

This framework of analysis was selected for its approach towards subjectivity, for its transparency in method, and for its theoretical flexibility, which allows for interpretation of findings from heterogeneous studies (Braun & Clarke, 2022). In each phase of analysis, Nowell et al.'s (2017) recommendations for credibility, transferability, and confirmability were followed in order to meet Lincoln & Guba's (1985) criteria for trustworthiness.

DOI: 10.2478/eras-2025-0005

Results

The search strategy yielded 7,106 records from 14 databases. After removing duplicates, 5,897 titles and abstracts were screened and 5,780 removed based on the inclusion and exclusion criteria. After further removing one report that could not be retrieved, the remaining 116 records were screened by full text, excluding 95 of them. Twenty-one studies met the inclusion criteria, four of which were theses. More than half were published in the last five years and a third in the last two years, suggesting increasing interest in the topic. Of the studies, 14 were carried out in the United Sates, 3 in Finland, 2 in Norway, and 2 in Canada, reflecting limited diversity in geographical and cultural contexts. Regarding the phenomenon of interest, half of the acts of mass violence were school shootings, and the rest were mass shootings, excepting one bombing and one stabbing. Interview or open-ended survey questions were the primary form of data collection, followed by data mining of social media platforms or news sources and case study reports. Sample sizes ranged from one to 236 participants. Regarding methods of data analysis, 9 studies used content analysis, 8 used thematic analysis, one used interpretive phenomenological analysis, one used grounded theory, and one used enhanced critical incident techniques.

Of the studies included in this review, 14 are of high quality (67%), with six meeting all the CASP criteria, 5 are medium quality (24%), and 2 are low quality (9%). All of the included studies met the criteria for the appropriateness of a qualitative methodology, and almost all for the research aims, ethical issues, and value of the research. Studies more frequently did not meet the criteria for rigorous data analysis and reflexivity, which might stem from reporting challenges, since more than half the studies which met all the criteria were long-form theses. A sensitivity analysis showed no association between specific themes and study quality, such that excluding the two studies that scored 'low' in the critical appraisal process (Makol-Abdul et al., 2009; Santos Ferreira et al., 2015) did not result in any themes losing significant support (see **Table A6**).

Quality criteria	Alexander (2020)	Fast (2003)	Glasgow et al. (2016)	Guo (2017)	Hawke & Ness (2017)	Haeg (2011)	Kendi (2019)	McWhorter (2020)	Mears (2005)	Molina et al (2019)	Nurmi (2021)	Oliver (2021)	Pearce (2020)	Perrey (2020b)	Piercy et al. (2008)	Roark (2014)	Ryan & Hawdon (2008)	Schildkraut et al. (2020)	Turunen & Punamäki	Turunen et al. (2014)	Wilder (2018)
1. Was there a clear statement of the aims of the research?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
2. Is a qualitative methodology appropriate?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3. Was the research design appropriate to address the aims of the research?	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	?	Y	Y
4. Was the recruitment strategy appropriate to the aims of the research?	N	?	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	?	Y	Y
5. Was the data collected in a way that addressed the research issue?	N	N	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	?	Y	Y	Y	Y	N	Y	Y
6. Has the relationship between researcher and participants been adequately considered?	N	Y	Y	?	Y	?	Y	Y	Y	?	Y	?	?	N	Y	Y	?	?	?	?	Y
7. Have ethical issues been taken into consideration?	Y	?	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8. Was the data analysis sufficiently rigorous?	Y	N	Y	Y	?	Y	N	Y	Y	?	Y	Y	Y	N	N	Y	N	Y	N	?	Y
9. Is there a clear statement of findings?	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
10. How valuable is the research?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	?	Y
Number of 'Yes' (out of 10)	7	4	10	9	9	9	6	10	10	8	10	9	9	7	9	10	6	9	4	7	10
Overall quality	Med	Low	High	High	High	High	Med	High	High	High	High	High	High	Med	High	High	Med	High	Low	Med	High

Key
Y = Yes N = No ? = Insufficient information
High quality: 8-10 (minor methodological concerns)
Medium quality: 5-7 (moderate methodological concerns)
Low quality: 1-4 (major methodological concerns)

Table A6. Sensitivity Analysis Showing Changes in Themes when Excluding Low Quality Studies

DOI: 10.2478/eras-2025-0005

Line-by-line coding of included studies yielded 51 codes, from which 28 descriptive themes and 3 analytical themes emerged after an iterative process of reciprocal translation and synthesis (see **Table A7**).

Descriptive themes	**Descriptive themes**	**Sample Codes**
Meaning making	Spirituality	Sense of God
		Reliance on religious beliefs
		Yoga
		Meditation or contemplation
	Positive reframing	Possibility of greater purpose or meaning
		Sense-making
		Hopeful mindset or perspective
		Attitude of gratitude
		Acceptance of loss
		Modification of negative mental representations
	Collective narrative	Constructing a coherent narrative
		Open avenues for communication and connection
		Collective memory
		Collaborative process of storytelling
		Closure
Convergence	Social support	Engagement of the larger community
		Pre-existing network as primary source of support (e.g. friends)
		Strong family unit
		Inter- and intra- communal support
		Alliance with neighboring school
	Shared identity	Space to share one’s grief with others

DOI: 10.2478/eras-2025-0005

		Community of survivors
		Collective identification in solidarity
		Sense of connectedness and cohesion
		Staying in the community
	Public expression of grief	Formal and informal events (ceremony, vigil, memorial, etc.)
		Use of social media platforms and hashtags
		Artistic expression
		Recognition of victims and survivors
		Permanent memorial
		Commemoration of anniversary
		Visible symbols of remembrance
Transfiguration	Altruism	Grief projects
		Grassroot efforts to meet or mediate communal needs
		Volunteering
		Transforming the feeling of powerlessness into action
		Concrete acts of consolation and compassion
	Mobilization	Services providing additional sources of support
		Implementing psychosocial care at immediate and acute phases
		Availability of internal, external, or pooled resources
		Aftercare services at the community level
		Professionally led peer support group
		Accessibility to others (teachers, youth workers, church programs, etc.)
		Bonding, bridging, and linking
		Community leadership

DOI: 10.2478/eras-2025-0005

	Reconstruction	Staying in the community
		Public forum and active listening
		Engagement with post-crisis psychoeducative information
		Transforming the site of the tragedy
		Assessment and reflection on intervention efforts
		Community-based renewal discourse

Table A7. List of Analytical Themes, Descriptive Themes, and Sample Codes

Each study included in this review contributed to at least half of the analytical and descriptive themes (see **Table A8**). Across the studies, survivors and members of communities in which instances of mass violence occurred responded to the tragedy through three predominant sets of processes. In most cases, they first participated in expressions of community connectedness that promoted group cohesion and shared identity (Theme 1). These manifest acts were embedded in a more conceptual set of processes oriented around framing and narrative structures (Theme 2). In turn, these value-laden processes were organized in a practical dimension through prosocial behavior (Theme 3).

#	Theme type	Theme label	Alexander (2018)	Fast (2003)	Glasgow et al. (2016)	Gon (2017)	Hawke & Neas (2017)	Herg (2011)	Kendli (2019)	McWhierter (2020)	Mears (2005)	Mullins et al (2019)	Nurmi (2021)	Oliver (2021)	Pearce (2020)	Pearce (2020b)	Perry et al. (2008)	Rourk (2014)	Ryan & Hawdon (2008)	Schildkraut et al. (2020)	Turunen & Punamaki (2014)	Turunen et al. (2014)	Weiner (2018)
1	Analytical	Convergence	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y
1.1	Descriptive	Social support	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1.1.1	Descriptive	Natural networks	Y	Y					Y		Y	Y	Y	Y			Y	Y	Y		Y	Y	Y
1.1.2	Descriptive	Collaborative partnerships	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
1.2	Descriptive	Shared identity	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y		Y				Y	Y	Y	Y	Y
1.2.1	Descriptive	Shared experience	Y	Y	Y	Y	Y	Y		Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y
1.2.2	Descriptive	Solidarity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y		Y	Y	Y	Y	Y	Y
1.2.3	Descriptive	Sense of belonging	Y			Y	Y	Y				Y		Y						Y	Y		Y
1.3	Descriptive	Public expression of grief		Y	Y		Y	Y	Y	Y		Y	Y		Y	Y		Y				Y	
1.3.1	Descriptive	Ritualization		Y			Y	Y	Y	Y		Y	Y		Y	Y		Y	Y		Y	Y	
1.3.2	Descriptive	Memorialization		Y	Y		Y	Y		Y			Y		Y	Y	Y	Y				Y	Y
2	Analytical	Meaning-making	Y	Y		Y	Y	Y		Y	Y			Y	Y		Y	Y	Y			Y	Y
2.1	Descriptive	Spirituality/faith	Y		Y				Y	Y				Y			Y				Y		Y
2.2	Descriptive	Positive reframing	Y	Y		Y				Y	Y			Y			Y	Y	Y				Y
2.2.1	Descriptive	Acceptance		Y			Y	Y		Y	Y			Y			Y		Y				Y
2.2.2	Descriptive	Gratitude	Y		Y	Y					Y			Y									Y
2.2.3	Descriptive	Optimism	Y			Y			Y	Y				Y								Y	Y
2.3	Descriptive	Collective narrative		Y			Y	Y		Y	Y		Y		Y		Y	Y	Y	Y	Y	Y	Y
2.3.1	Descriptive	Recognition		Y		Y	Y	Y	Y	Y	Y		Y		Y		Y	Y	Y	Y	Y	Y	Y
2.3.2	Descriptive	Remembrance	Y	Y		Y	Y	Y		Y	Y		Y		Y		Y	Y		Y	Y	Y	Y
2.3.3	Descriptive	Reconceptualization	Y	Y			Y	Y					Y				Y	Y	Y	Y	Y	Y	
3	Analytical	Transfiguration			Y	Y			Y		Y	Y		Y		Y	Y	Y	Y	Y	Y	Y	
3.1	Descriptive	Altruism		Y	Y	Y				Y	Y	Y				Y	Y	Y	Y	Y	Y		
3.2	Descriptive	Mobilization	Y	Y	Y	Y		Y	Y		Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	
3.2.1	Descriptive	Access to resources	Y		Y	Y		Y	Y	Y	Y	Y		Y		Y	Y		Y	Y	Y	Y	Y
3.2.2	Descriptive	Collective efficacy			Y			Y	Y			Y				Y	Y	Y	Y	Y	Y	Y	Y
3.2.3	Descriptive	Social capital	Y		Y	Y			Y		Y	Y		Y		Y	Y	Y		Y	Y	Y	Y
3.3	Descriptive	Reconstruction				Y	Y		Y		Y	Y		Y				Y		Y		Y	
3.3.1	Descriptive	Future-oriented discourse				Y	Y		Y		Y	Y		Y				Y		Y		Y	

Table A8. Contribution of Individual Studies to Descriptive and Analytical Themes

Discussion

This Qualitative Evidence Synthesis (QES) addressed the question ‘How do communities recover from traumatic incidents of mass violence?’. The findings integrate and

DOI: 10.2478/eras-2025-0005

extend existing literature to construct an enhanced conceptualization of the mechanisms for community resilience and healing.

The picture that emerges from the findings reported in the previous section is one in which incidents of mass violence are events of profound cultural symbolism. They are not solely a violation of the individual and collective quotidian life, but also of their coherent narratives. The violence that intrudes upon the social consciousness is senseless and unjustifiable, threatening structures of meaning by transcending the immediate act and enacting violence simultaneously against the bodies of victims, minds of witnesses, and organization of society itself. It is mass violence in every sense. Across the contexts of included studies, the social wounds of such events manifested as insulation, incoherence of identity, and social disintegration. Communities addressed these injuries by processes of convergence, meaning-making, and transfiguration.

The most obvious finding to emerge from the review is the significance and prevalence of social support, solidarity, and public expressions of grief. In Themes 1.1, 1.2, and 1.3, survivors and community members demonstrate a crisis is a test of the community as a structural-social unit. Despite the attack on their cohesion, communities responded, almost as if intuitively, in motions towards connectedness. The richness of data substantiating the roles of natural networks and collaborative partnerships indicate the preventative and reparative value of relationships, which are the vehicle by which the affected can be collectively attended to, such that, in antithesis to the trauma, their grief is met with receptivity and solidarity. A resilient community is socially connected. These results integrate recent supporting research on spirituality (Lalani et al., 2021), social support (Drury et al., 2022), solidarity (Vine & Greenwood, 2021), group membership (Haslam et al., 2022; McNamara et al., 2021), shared experience (Bradshaw & Muldoon, 2019), social grieving (Prickett & Timmermans, 2022; Power, 2018), memorials (Wagoner & Bresco, 2022), and rituals (Burrell & Selman, 2022; Cardoso et al., 2020; Wojtowiak et al., 2021).

What emerges from this review is the importance of a unified identity as a stabilizing force by which a community becomes the stage for so-called private emotions and makes mourning a political act (e.g. Ntontis, 2018; Kearns et al., 2017; Bradshaw et al., 2016; Haslam et al., 2009). The capacity to grieve is an essential marker of a healthy society: it transforms individual pain into collective pain to allow for moral recognition of and entering into solidarity with the suffering person. Delgado et al. (2015, 220) observe the political consequences of a society's failure to grieve: "Unable to mourn, it cannot perceive those losses it shares in common; it cannot see the particular wounds that demand its collective response. It chooses the wrong objects, and in the process, a less public, less common life. The society that grieves, however, is the society that can perceive what has been lost. In mourning, it comes to discover those objects that are worthy of its love. By making the wounds of victims its common concern, such a society be-comes more genuinely public. It becomes a better people".

The role of public grieving through ritualization and memorialization is supported by existing literature (Jackson & Usher, 2015; Norton & Gino, 2014; Gurler & Ozer, 2013). A new contribution of this review is the conceptual framework in which the trauma becomes (1) a public conversation meant to engage as wide an audience as possible and (2) facilitative of the features essential to both a healthy society and individual, including relatedness, unity, cohesion, cooperation and collaboration, and self-expression.

This review contributes to a conceptualization of a traumatic experience as one that cannot be integrated into the existing narrative structure, and in which healing is a process in which individuals must assert a meaning-making role. The findings indicate this meaning-making is accomplished through spiritual/religious, positive, or narrative reframing. Previous studies confirm the favorable functions of religiosity/spirituality (Escobar, 2021; Park, 2020),

DOI: 10.2478/eras-2025-0005

individual-level processes like acceptance, gratitude, and optimism (Henson et al., 2021; Malhotra & Chebiyan, 2016; Prati & Pietrantoni, 2009), and community-level processes of recognition, remembrance, and reconceptualization (Woodley, 2022; Davidson, 2016; Harju, 2015). This review also attests to the role of meta-narratives in mediating identity (Stapleton & Wilson, 2017; Kaminer. 2006).

Trauma unavoidably intrudes into the public consciousness; moreover, the findings of this review suggest it must be permitted to do so. Across the studies, mass violence precipitated a narrative rupture, and in its aftermath, self-expression took on a normative social force. Because individual identity is structured in part by social identification, the personal process of reconstructing one's own beliefs and worldview after traumatic events is dependent on and reflective of the wider group membership. This perhaps accounts for the discursive significance and affective resonance of mass violence, as evidenced most clearly in the findings from social media. Multiple studies indicated the need for negotiating narratives in public and private spheres; in many contexts, members of the larger community were positioned as facilitators, through mediums such as social media, by which macro-narratives reconstitute and reproduce themselves in adaptation to the reality of the trauma. This affirms the idea that shared memory and values make collective social practices possible (e.g. Brown et al., 2012).

These findings suggest that shared narratives confront the divorce between the individual and collective which often perpetuates trauma. A possible explanation is that the politics of witnessing informs identity in that it redefines a victim as a survivor and a bystander as an ally by presenting a symbolic repository of stories that demand to be attended to, acknowledged, and assimilated. In this way, the pathological effects of trauma are not necessarily an inevitable outcome, but rather a by-product of its contested meaning and assigned significance. Trauma, then, becomes much more than a private and internalized experience. Through the vehicle of collective action, it can open possibility for social change (e.g. Menon & Allen, 2021; Lehrner & Allen, 2008), and the social construction of victimhood becomes an explicit declaration of identity and community.

Themes 3.1, 3.2, and 3.3 indicate the salience of action and location. While unattended trauma can produce isolation and division within communities, it also provides opportunities for altruism, mobilization, and reconstruction. These are components of a resilient community that offer a context for expression of and engagement with collective wounds. Previous literature is consistent with the roles such processes play in post-traumatic growth (Attree et al., 2011; Tedeschi et al., 2014; Poulin et al., 2009). The notion that these dimensions of transfiguration emerge from pre-established shared identity and shared meaning is a new contribution of this review.

First, findings confirm a positive association between collective identification and community engagement found in literature (Guerrero et al., 2021; Miyazono & Inarimori, 2021; Vignoles et al., 2021; Fowler & Kam, 2007). The pattern of altruism in the included studies supports the parochial behavior hypothesis, in which individuals favor members of their own group (Aksoy et al., 2021). This relationship shows that such actions emerge from shared identity and shared meaning. It points to a need to work with existing community assets rather than drawing wholly on outside resources (Martinez et al., 2012). Altruism is both a result of and brings about long-term investment in the community.

Secondly, mobilization emerges from pre-existing social network structures between and within communities. Previous research on CR has shown that individual and civic resilience derives from both internal (Eachus, 2014) and external resources (Magis, 2010). Literature on social mobilization has also found positive associations with the formation of community coalitions (Tedrow et al., 2012), ongoing internal communication (Phiri et al., 2022), intra-organizational infrastructure (De Weger et al., 2018; Griffith et al., 2008), and the use of virtual

DOI: 10.2478/eras-2025-0005

connective platforms (Caperon et al., 2021). It is clear that successful mobilization in the aftermath of a disaster is grounded in significant community efforts and contexts.

Lastly, the findings intimate that reconstruction is related to the physical resilience of a place. Most survivors reported that staying in their community assisted in their healing, which suggests that support within a familiar environment is the backbone of resilience (Oliver, 2021). Mears (2005, 196) pointed to this in saying that "the most positive forms of response address the school community's need to reclaim a sense of place that supports positive beliefs about personal security and identity, to trust the intentions of those providing assistance, and to recover from the disconnection caused by such an assault". A community is both psychological and physical, and physical restoration is a significant contributing component of post-traumatic growth (Eachus, 2014).

The unique contribution of this review lies in positioning community connectedness and meaning-making as partially mediating, and explaining, these components. The framework of analytic themes suggests that the articulating of grief stories (Theme 1) and construction of meaning (Theme 2) play a role in motivating community restoration. These findings suggest that community resilience emerges from transforming trauma through symbolic negotiation, by which it is inscribed with compelling meaning. It is possible, therefore, that trauma, when embraced, can ultimately become restorative.

The TRANSFER approach was incorporated throughout the research process to assess transferability and maintain no substantial difference between the context of the review question and contributing data (Munthe-Kaas et al., 2020). This involved identifying factors that could affect transferability in the research question, extracting relevant data on transferability factors, and synthesizing data for assessment. Transferability was further supplemented by establishing a need for QES, assessing relevance of studies to review context, and applying GRADE-CERQual to evaluate certainty of evidence in the findings (see **Table A9**).

The included studies represent 13 cities across 4 countries (United States, Canada, Finland, and Norway). As such, these findings could reasonably generalize to subgroups and settings in the regions covered and in other Western high-income countries. Generalization beyond this context is implausible. The methodology of this project was consistent with its aim to assist clinicians, policy makers, organizations, and community leaders to make informed decisions contributing to individual and population health.

Summary of review finding		**Studies**	**Methodological limitations**	**Coherence**	**Adequacy**	**Relevance**	***CERQual assessment***
1	**Convergence**	**20/21**					**High**
1.1	Social support	20/21					**High**
1.1.1	Natural networks	14/21					**High**
1.1.2	Collaborative partnerships	19/21					**Moderate**
1.2	Shared identity	16/21					**High**
1.2.1	Shared experience	19/21					**High**
1.2.2	Solidarity	19/21					**High**
1.2.3	Sense of belonging	9/21					**Low**
1.3	Public expression of grief	12/21					**High**

DOI: 10.2478/eras-2025-0005

1.3.1	Ritualization	13/21					**High**
1.3.2	Memorialization	12/21					**High**
2	**Meaning making**	**15/21**					**High**
2.1	Spirituality/faith	8/21					**Low**
2.2	Positive reframing	9/21					**Moderate**
2.2.1	Acceptance	9/21					**Moderate**
2.2.2	Gratitude	6/21					**Moderate**
2.2.3	Optimism	8/21					**Low**
2.3	Collective narrative	14/21					**High**
2.3.1	Recognition	16/21					**High**
2.3.2	Remembrance	15/21					**High**
2.3.3	Reconceptualization	11/21					**Moderate**
3	**Transfiguration**	**13/21**					**High**
3.1	Altruism	17/21					**Moderate**
3.2	Mobilization	16/21					**High**
3.2.1	Access to resources	16/21					**High**
3.2.2	Collective efficacy	12/21					**Moderate**
3.2.3	Social capital	14/21					**Moderate**
3.3	Reconstruction	9/21					**High**
3.3.1	Future-oriented discourse	9/21					**Moderate**
3.3.2	Learning opportunity	13/21					**Moderate**
3.3.3	Transformed spaces	7/21					**Low**
Key				No concerns	Minor concerns	Moderate concerns	Serious concerns

Table A9. Summary of GRADE-CERQual Assessment Results

DOI: 10.2478/eras-2025-0005

Strengths and Limitations of this Review

This review demonstrates several strengths in the quality and rigor of reporting. First, it adhered to the most current standards and guidelines for QES: CQIMG, PRISMA, RETREAT, STARLITE, GRADE-CERQual, ENTREQ, and TRANSFER. Secondly, it prioritized data credibility by pursuing (1) comprehensiveness in the search (e.g. use of sensitive filters and grey literature databases, hand-searching reference lists, extensive screening), (2) transparency in collecting and appraising the data, and (3) clarity in method (e.g. terms explicitly defined [see **Tables A1-4**], criteria consistently applied [see **Tables A5-9**]). Thirdly, dependability and confirmability were enhanced by use of electronic data management, an audit trail, and reflexive measures. This project aimed to minimize bias, provide reproducibility, and demonstrate complete reporting.

Several limitations to this review must be acknowledged. First, only one reviewer was involved in the screening, appraisal, and coding processes, when two reviewers are generally recommended for reliability (Stoll et al., 2019). Second, despite efforts to mitigate publishing bias through extensive searches and sensitivity analysis, relevant studies may not have been identified. This may account for the lack of studies outside Western countries and in languages other than those included in this study. Lastly, the quality of this review reflects that of the represented studies. One concern is whether the data collection methods of included studies failed to capture accurate results or whether studies with different methodologies yield different findings. However, the studies demonstrated thematic consistency across heterogeneous contexts, and those studies employing data mining methods did not result in substantively disparate findings.

Implications for Policy and Practice

This review finds that collective resilience derives from the protective power of human connection in individual, interpersonal, and institutional dimensions. Its applications entail positioning communities to organically sustain their health and healing. Building community resilience is a local activity. Policy and practice should aim to evolve beyond the present construct for addressing collective trauma through a medical model towards an orientation aware of the attitudes, beliefs, and behaviors operating at the individual level; the social networks and norms at an interpersonal level; the resources and access available to workplaces, businesses, and neighborhoods on an organizational level; and the policies, practices, and interventions implemented on a systems level. Practical recommendations are offered below.

A resilient community is one in collaborative pursuit of policies and practices that support families and address the systemic failings that burden them. Local governments and initiatives should prioritize social cohesion, reinforcing a tangible sense of community and common purpose around which leadership is tightly organized. Findings demonstrate the critical value of community identity and interconnectedness, which can be fostered and facilitated by (1) collective engagement strategies, (2) evaluation approaches that incorporate community members, and (3) inter-agency networks across early care and education settings, clinical settings, organizations and businesses, churches, law enforcement, and families. Policies should seek to promulgate a common language and understanding of resilience-informed beliefs and norms, and demonstrate an abiding commitment to edification and evaluation. Oliver (2021) further showed that the availability of resources was more precise when policies were unambiguously defined.

Collaboration between entities on organizational and interpersonal level should orient towards creating the context for healthy children and families, for instance, by promoting community norms for strong relational ties or embedding social and emotional learning into

DOI: 10.2478/eras-2025-0005

education. Parenting resources, networking opportunities, and other health promotion strategies can be sourced internally to strengthen local assets and sustain community-wide efforts towards engagement. This project finds such an approach most generative of community health and healing, as evidence-based treatments - although found to be effective (Sciarrino et al., 2020) - are limited in impact and feasibility due to the extensive professional training required to implement and sustain. In contrast, the recommended initiatives draw upon a community's existing resources to achieve population health outcomes.

Implications for Future Research

Future research can build on this review's findings of this project through (1) qualitative evaluations of communities that have adopted the earlier recommendations and (2) quantitative evidence of how such approaches mitigate the burden of psychological first aid following an incident of mass violence. This projects demonstrates the value of and need for continued research on the integration and implementation of real-world application of community-based interventions, especially considering cultural or contextual differences.

Conclusions

This QES contributes to existing research on mass violence by synthesizing communities' experiences of repair and recovery. A new contribution is the configuration of emerging themes in a conceptual framework that captures their interrelationships and the analytical themes derived from them. Incidents of mass violence can precipitate one of two cycles: cultural destruction or cultural reconstruction. Unacknowledged and unaddressed trauma produces ongoing processes of harm. Too often, the traumatic is rationalized away or reinterpreted in ways that make it invisible when it demands to be recognized and addressed in the menace of its incomprehensibility. Trauma demands to be seen, and it demands to be felt, and it demands to be grieved. The pressure should not be solely on public health infrastructure to address such incidents: the findings of this review position collective trauma not only as a sociological issue, but as a political, educational, technological, and economic issue as well. These findings have implications for policy, practice, and future research.

REFERENCES

Alexander, B. (2020). God and guns: Faith as a resource for healing from a school shooting. *Social Work and Christianity, 47*(2), 65–85. https://doi.org/10.34043/swc.v47i2.97

Attree, P., French, B., Milton, B., Povall, S., Whitehead, M., & Popay, J. (2011). The experience of community engagement for individuals: A rapid review of evidence. *Health and Social Care in the Community, 19*(3), 250–260. https://doi.org/10.1111/j.1365-2524.2010.00976.x

Fast, J. D. (2003). After Columbine: How people mourn sudden death. *Social Work, 48*(4):484-91. Doi: 10.1093/sw/48.4.484. PMID: 14620105.

Glasgow, K., Vitak, J., Tausczik, Y., & Fink, C. (2016). Grieving in the 21st Century: Social media's role in facilitating supportive exchanges following community-level traumatic events. Proceedings of the 7th 2016 *International Conference on Social Media and Society, 4,* 1-10. https://doi.org/10.1145/2930971.2930975

Hawke, A., & Ness, O. (2017). Rituals that helped heal a nation after a terror attack. *Scandinavian Psychologist, 4*(6). https://doi.org/10.15714/scandpsychol.4.e6

Høeg, I. M. (2015). Silent actions: Emotion and mass mourning rituals after the terrorist attacks in Norway on 22 July 2011. *Mortality, 20*(3), 197-214.

Kendil, N. (2019). Quand il faut donner du sens au non-sens du trauma » L'intervention psychologique auprès des victimes de la fusillade du 29 janvier 2017 à Québec – dimension multiculturelle. *Mosaïque, 44*(1), 11–30.

McWhorter, Christine (2022). VB strong: How local news stations created a platform for a community to mourn victims of a mass shooting. *Atlantic Journal of Communication, 30*(3), 263-77.

DOI: 10.2478/eras-2025-0005

Mears, C. L. (2008). *Experiences of Columbine parents: Finding a way to tomorrow* [Thesis]. University of Denver.

Nurmi, J. (2012). Making sense of school shootings: Comparing local narratives of solidarity and conflict in Finland. *Traumatology*, *18*(3), 16–28. https://doi.org/10.1177/1534765611426787

Oliver, M. C. (2021). *Perceptions about lived experiences cultural, spiritual, public policies, and environmental, and their effect on resilience in a specific US community after a mass shooting* [Thesis]. Northcentral University.

Pearce, J. S. (2020). Lafayette strong: A content analysis of grief and support online following a theater shooting. *Illness, Crisis and Loss*, *28*(4), 299–320. https://doi.org/10.1177/1054137317742234

Piercy, F., Banker, J., Traylor, R., Krug, S., Castanos, C., Cole, E., Ciafardini, A. J., Jordal, C., Rodgers, B., Stewart, S., & Goodwin, A. (2008). A Virginia Tech MFT ethics class reflects on the shootings at Virginia Tech. *Journal of Marital and Family Therapy, 34*(2), 210–226. https://doi.org/10.1111/j.1752-0606.2008.00070.x

Roark, C. (2014). *Tragedy club: The longitudinal evolution of the Columbine community* [Thesis]. University of Colorado Boulder.

Ryan, J., & Hawdon, J. (2008). From individual to community: The "framing" of 4-16 and the display of social solidarity. *Traumatology, 14*(1), 43–51.

Schildkraut, J., Sokolowski, E. S., & Nicoletti, J. (2021). The survivor network: The role of shared experiences in mass shootings recovery. *Victims and Offenders, 16*(1), 20-49. doi: 10.1080/15564886.2020.1764426

Turunen, T., & Punamäki, R. (2014). Psychosocial support for trauma-affected students after school shootings in Finland. *Violence and Victims, 29*(3), 476–491. doi:10.1891/0886-6708.vv-d-12-00059

Turunen, T., Haravuori, H., Pihlajamäki, J. J., Marttunen, M., & Punamäki, R.-L. (2014). Framework of the outreach after a school shooting and the students perceptions of the provided support. *European Journal of Psychotraumatology, 5*(1). https://doi.org/10.3402/ejpt.v5.23079

Weiser, A. (2018). *From the perspectives of school staff: The helpful and hindering factors of recovery from a school crisis* [Thesis]. Antioch University.