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Kinship, Faith and Classroom Routines: An Integrative Review of Young Children's Emotional Resilience after Disasters in West Nusa Tenggara, Indonesia

MA Muazar Habibi

muazar.habibi@unram.ac.id

Mataram University: Universitas Mataram https://orcid.org/0000-0001-8771-5583

Jundu Muhammad Mufakkirul Islami

University of Mataram https://orcid.org/0009-0009-1896-125X

Systematic Review

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Kinship, Faith and Classroom Routines: An Integrative Review of Young Children's Emotional Resilience after Disasters in West Nusa Tenggara, Indonesia

M.A. Muazar Habibi (1)*, Jundu Muhammad Mufakkirul Islami (2)

(1,2) Faculty of Teacher Training and Education, Universitas Mataram, Mataram 83125, West Nusa Tenggara, Indonesia

*Corresponding author: muazar.habibi@unram.ac.id

ORCID: https://orcid.org/0000-0001-8771-5583

ABSTRACT

Background: Lombok and the wider province of West Nusa Tenggara (NTB), Indonesia, face recurring earthquakes, and the 2018 Lombok sequence displaced hundreds of thousands of people. How young children recover depends not only on clinical services but also on the families, faith communities and early childhood settings around them, resources that disaster psychology developed in Western contexts has tended to overlook.

Aim: This review examines what is known about the protective processes that support the emotional resilience of children aged 3–6 after disasters, with particular attention to Sasak kinship, Islamic religious coping and early childhood education in NTB.

Method: An integrative review drew on literature identified through structured searches of Google Scholar, PubMed, SciSpace and reference databases, covering empirical studies, reviews and foundational theory published in English or Indonesian. Evidence was appraised with reference to CASP and MMAT criteria and synthesised thematically across the levels of Bronfenbrenner's ecological systems theory.

Findings: Four themes emerged: (1) caregivers and extended kin as the first buffer against disaster stress; (2) Islamic practices and local traditions of mutual aid as sources of meaning, routine and solidarity; (3) early childhood settings as safe and predictable spaces when staff are prepared for trauma-informed practice; and (4) the alignment of supports across family, school, community and policy. Direct evidence on young children in Lombok remains limited; much of it comes from adolescents, adults, families or other disaster settings.

Implications: Disaster response in NTB should keep extended families together, recognise religious and community resources, and prepare early childhood educators for trauma-informed practice. Longitudinal and controlled studies with young children are needed to test these pathways.

Keywords: emotional resilience; early childhood; post-disaster recovery; trauma-informed pedagogy; religious coping; Sasak kinship; West Nusa Tenggara; Lombok earthquake

1. Introduction

Lombok, the main island of West Nusa Tenggara (NTB), lies in one of Indonesia's most seismically active zones. In 2018 a sequence of earthquakes struck the island, beginning on 29 July (Thoyibah et al., 2019) and culminating in a magnitude 7.0 event on 5 August (Sriyono et al., 2024). The earthquakes caused 564 deaths and forced 445,343 people into evacuation camps, many of them children (Saleh et al., 2022). Beyond physical destruction, the disaster disrupted schooling, family routines and the social fabric on which young children depend. Studies conducted afterwards

documented post-traumatic stress symptoms among adolescents (Wahab et al., 2021) and found that, while many children made positive emotional progress, a subset remained distressed and needed continued attention (Saleh et al., 2022).

Early childhood is a period of rapid neurobiological maturation, attachment consolidation and emerging emotion regulation (Shonkoff et al., 2012). Stress systems such as the hypothalamic–pituitary–adrenal axis are particularly malleable at this age, and prolonged, unbuffered adversity can leave lasting effects on health and development (Shonkoff et al., 2012). The Adverse Childhood Experiences study showed dose–response associations between childhood adversity and adult health outcomes, including depression and premature mortality (Felitti et al., 1998). Yet adverse outcomes are not inevitable. Resilience research shows that protective processes at individual, family, community and cultural levels can buffer the effects of disaster and support adaptive recovery (Cadamuro et al., 2021; Masten & Narayan, 2012).

Much of the evidence on disaster mental health, however, comes from Western settings and clinical frameworks. Norris et al.'s (2002) review of research on disaster victims found that samples from developing countries were more severely affected than those from developed countries, while research in those settings remained comparatively scarce. Intervention models built on individual psychotherapy and nuclear-family support may fit poorly with collectivist societies in which extended kin, religious practice and community institutions organise everyday care.

NTB offers a clear example. The Sasak, the majority population of Lombok, live within extended family networks in which several generations often share childcare, labour and resources. Practices of communal eating (*begibung*), reciprocal food sharing (*saling jot*) and collective work (*gotong royong*) create dense social ties, and the restoration of *gotong royong* after the 2018 earthquakes has been documented as a form of post-disaster solidarity (Koopman, 2021). Traditional knowledge and faith-based organisations in Lombok have also been shown to support social capital and preparedness (Koopman, 2023). As in Indonesia as a whole, Islamic practice, including daily prayer (*salat*), Qur'anic recitation, remembrance of God (*dhikr*) and concepts such as trust in God (*tawakkul*), divine decree (*takdir*), patience (*sabr*) and gratitude (*syukur*), is woven into daily life. How these resources protect young children, rather than adults, has received little systematic attention.

This review addresses that gap. It aims to (1) identify protective processes for young children's emotional resilience after disasters at individual, family, community and cultural levels; (2) examine the place of Sasak cultural practices and Islamic religious coping; (3) consider the role of early childhood education settings and trauma-informed pedagogy; (4) map these processes onto Bronfenbrenner's ecological systems theory; and (5) derive recommendations for disaster preparedness, teacher preparation and community-based support in NTB. Rather than treating local knowledge (*kearifan lokal*) as a backdrop to imported interventions, the review asks what it contributes to children's recovery.

2. Conceptual Framework

2.1 Resilience as a Multisystem Process

Resilience is understood here as the capacity of a dynamic system to adapt successfully to disturbances that threaten its function, viability or development (Masten & Narayan, 2012). For children in disasters, adaptation depends on the resilience of interconnected systems, including families, schools, communities and policy sectors (Masten, 2021). Social-ecological accounts add that what counts as positive adaptation, and which resources support it, is shaped by culture and context (Ungar, 2011). Resilience is therefore treated as a process distributed across relationships and institutions rather than as a fixed trait of the child (Masten & Cicchetti, 2016).

2.2 Ecological Systems

Ecological systems theory locates the child within nested systems: the microsystem of immediate settings such as family and preschool, the mesosystem of links between those settings, the exosystem of settings that affect the child indirectly, such as community organisations and parents' workplaces, and the macrosystem of cultural values, beliefs and policies (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006). The chronosystem adds change over time, which in disasters includes the shift from emergency to recovery and reconstruction.

2.3 Attachment across Cultures

Attachment theory holds that secure relationships with caregivers give children a model of safety and a base for regulating emotion (Cassidy & Shaver, 2016). Cross-cultural research shows that the forms of secure attachment and the organisation of caregiving vary across societies (Keller, 2013; Rothbaum et al., 2000). In many communities children are cared for by several adults, a pattern of plural caregiving that can distribute trust across a network of relationships (Weisner, 2014). Research in Indonesia has examined attachment within this broader caregiving context (Zevalkink et al., 1999).

2.4 Religious Coping

Religious coping refers to the use of religious beliefs, practices and communities to understand and respond to stressful events (Pargament, 1997). Meta-analytic evidence associates positive religious coping with better psychological adjustment and negative religious coping, such as feeling punished by God, with poorer adjustment (Ano & Vasconcelles, 2005). Instruments developed for Muslim populations (Aflakseir & Coleman, 2011) and measures of religious and spiritual struggle (Exline et al., 2014) reflect this two-sided picture.

3. Review Approach

3.1 Design

The study was designed as an integrative review, an approach suited to combining empirical studies, reviews and theory on an emerging topic. Reporting was informed by the PRISMA 2020 statement where applicable (Page et al., 2021), but the review does not claim to be an exhaustive systematic review.

3.2 Search Strategy

Searches were conducted between January 2024 and May 2025 in Google Scholar, PubMed and SciSpace, supplemented by the authors' reference libraries (Mendeley and Zotero). Four search strands were used: (1) the 2018 Lombok earthquake and community recovery; (2) early childhood emotional resilience after disasters in Indonesia; (3) trauma-informed pedagogy in early childhood disaster contexts; and (4) spiritual coping and resilience among Muslim children and Sasak communities. Reference lists of key sources were also examined.

3.3 Eligibility

Sources were eligible if they addressed children aged 3–6 years, or broader age ranges that included this period; concerned post-disaster settings, with emphasis on earthquakes and Indonesian or Southeast Asian populations; examined emotional resilience, protective factors, trauma recovery, coping, family support, cultural or spiritual practices, or trauma-informed pedagogy; and were peer-reviewed empirical studies, reviews or theoretical works published in English or Indonesian between 2000 and 2025. Seminal theoretical works published earlier were retained for foundational concepts. Studies focused exclusively on older children, adolescents or adults were used only where they illuminated family or community processes relevant to young children, and this is noted where it occurs. Opinion pieces without empirical or theoretical grounding were excluded.

3.4 Appraisal and Synthesis

Both authors screened sources and resolved disagreements through discussion. The methodological quality of empirical studies was considered using the CASP checklist for qualitative studies (Critical Appraisal Skills Programme, 2018) and the Mixed Methods Appraisal Tool for quantitative and mixed-methods studies (Hong et al., 2018); appraisal informed the weight given to each source rather than serving as an exclusion score. Synthesis followed a thematic approach (Braun & Clarke, 2006), and themes were organised across ecological levels (Bronfenbrenner, 1979).

4. Findings

The synthesis produced four themes. Table 1 summarises the protective processes identified at each ecological level, and the sections that follow discuss each theme.

Table 1. Protective processes for young children's post-disaster resilience by ecological level

Ecological level	Protective processes identified	Illustrative sources
Child	Emerging emotion regulation, supported by co-regulating adults and predictable routines	Shonkoff et al. (2012); Scheeringa & Zeanah (2001)
Microsystem: family and kin	Caregivers' own coping and calm; care distributed across extended kin; continuity of daily routines	Pfefferbaum et al. (2015); Weisner (2014); Wahab et al. (2021); Tauba et al. (2020)
Microsystem: early childhood setting	Safe, predictable spaces; trauma-informed teachers; play-based and social-emotional activities	Ko et al. (2008); Sun et al. (2024); Topal et al. (2025); Durlak et al. (2011)
Mesosystem	Consistent routines and messages across home and preschool; family engagement	Bronfenbrenner & Morris (2006); Oktari et al. (2018)

Ecological level	Protective processes identified	Illustrative sources
Exosystem	Mosques, faith-based organisations, NGOs and local services supporting families	Koopman (2023); Sriyono et al. (2024); Parrott, Lomeli-Rodriguez, et al. (2024)
Macrosystem	Islamic frameworks of meaning; Sasak traditions of mutual aid; disaster and education policy	Pargament (1997); Koopman (2021); Suprapto et al. (2020)
Chronosystem	Support sustained across recovery phases and transitions such as rehousing and school entry	Norris et al. (2008); Lai et al. (2017)

4.1 Caregivers and Kin as the First Buffer

Across the literature, the functioning of caregivers emerged as a central influence on young children's responses to disaster. Children's reactions are shaped by family and social factors, including parents' own distress, family routines and the availability of social support (Pfefferbaum et al., 2015). In early childhood this relational pathway is especially strong, because young children's post-traumatic responses are closely tied to the responses of the adults who care for them (Scheeringa & Zeanah, 2001). Evidence from Lombok is consistent with this pattern: among adolescents exposed to the 2018 earthquakes, excessive reactions of the accompanying adult during the earthquake predicted later post-traumatic stress symptoms (Wahab et al., 2021), and adult survivors described their families as a key source of strength in continuing their lives (Tauba et al., 2020).

Caregiving structures, however, differ across cultures. Whereas much attachment research has focused on the mother–child dyad, plural caregiving arrangements distribute trust across several adults (Weisner, 2014), and research in Indonesia has examined attachment within such wider caregiving contexts (Zevalkink et al., 1999). In Sasak households, grandparents, aunts, uncles and older siblings commonly share childcare. Such redundancy may protect young children when a parent is injured, bereaved or overwhelmed, because another familiar adult can maintain care and routine. Sasak traditions of communal eating, reciprocal food sharing and collective work extend this support beyond the household, and the rapid restoration of *gotong royong* after the 2018 earthquakes illustrates how such traditions mobilised help for displaced families (Koopman, 2021). Direct evidence linking intact kin networks to lower distress among young children in Lombok, however, has yet to be produced.

The implication is that family-centred response, including keeping families and kin together during evacuation, supporting caregivers' mental health and maintaining routines, is likely to benefit young children indirectly as well as directly (Pfefferbaum et al., 2015).

4.2 Faith Practices and Local Traditions

Religious practice was a prominent resource for disaster-affected communities in Lombok. Sociological work describes how Muslims in Lombok responded to the 2018 earthquakes through collective religious activities and religious interpretation of the disaster (Suprapto et al., 2020), and adult survivors reported drawing closer to God through prayer and religious acts to find peace of mind (Tauba et al., 2020). Several interventions built on these resources. Spiritual counselling for earthquake victims in Lombok was followed by lower anxiety scores in a one-group pre-post study (Thoyibah et al., 2019); reflective, intuitive reading of Surah Al-Fatihah reduced post-traumatic anxiety compared with a control group (Nurwardani et al., 2022); and

Islamic-based family resilience training (ISTIFAR) was associated with improved family coping, resilience and preparedness, with slight declines over six months (Sriyono et al., 2024).

These findings fit the broader literature, in which positive religious coping is associated with better adjustment (Ano & Vasconcelles, 2005) and religious frameworks help people make meaning of stressful events (Pargament, 1997). Islamic concepts such as *tawakkul*, *takdir*, *sabr* and *syukur* offer families a way of interpreting a disaster as a test to be endured rather than a random catastrophe, while prayer schedules and recitation restore a rhythm to disrupted days. Religious coping is not uniformly protective, however: spiritual struggles, such as feeling punished by God, are associated with greater distress (Exline et al., 2014), and fatalistic readings of disaster may discourage preparedness.

For young children, the evidence suggests that the protective effect of religious coping operates largely through caregivers. When parents and kin cope adaptively, they model calm, offer coherent explanations and keep caregiving stable. Children's own participation in simple prayers, listening to recitation or joining communal activities may add ritual structure and a sense of belonging, but studies that examine these mechanisms in children aged 3–6 are still lacking.

4.3 Early Childhood Settings as Safe and Predictable Spaces

Early childhood settings can serve as protective environments after disasters when they restore routine, offer physical safety and are staffed by adults prepared to recognise and respond to distress. Trauma-informed care emphasises safety, trustworthiness, collaboration and cultural responsiveness across child-serving systems (Ko et al., 2008), and these principles have been adapted for early childhood educators through relationship-based approaches (Nicholson et al., 2019). Predictable routines and safe classrooms help children regulate stress (Perry, 2009; Souers & Hall, 2016), and teachers who understand trauma can identify children who need further support (Jennings, 2019). A scoping review of trauma-informed interventions in early childhood education and care found growing but still limited evidence for such programmes (Sun et al., 2024).

Several strategies recur in the literature. Social-emotional learning programmes improve children's social and emotional skills and behaviour (Durlak et al., 2011); mindfulness-based activities in schools show benefits for stress and resilience (Meiklejohn et al., 2012; Zenner et al., 2014); and warm teacher–child relationships in the early years predict later school outcomes (Hamre & Pianta, 2001). Play-based approaches have the most direct evidence for young disaster-affected children: a randomised controlled trial of a therapeutic play programme for preschool children after the 2023 earthquakes in Türkiye evaluated its effects on psychosocial well-being (Topal et al., 2025), and a meta-analysis of psychosocial interventions after disasters found benefits for children and adolescents (Brown et al., 2017). In Indonesia, an ADDIE-based, play-oriented disaster education model using interactive media has been developed and tested with children aged 5–6 in Palu (Humaedi et al., 2025).

Implementation remains the main obstacle. Disaster preparedness has not yet been optimally integrated into Indonesian early childhood education (Handayani et al., 2025), and early childhood educators in Lombok have stressed the importance of disaster education in their settings (Mujiburrahman et al., 2020). Indonesian preschools already organise accommodations within tight limits on staff and materials, as qualitative evidence on provision for children with

special needs shows (M. A. M. Habibi et al., 2026), and these limits shape what is feasible after a disaster. Teachers themselves may be affected by the disaster: research after the 2018 Central Sulawesi earthquake and tsunami found that teachers saw themselves as agents of community resilience while needing psychological training and support (Parrott et al., 2025), and a one-day workshop for disaster-affected teachers improved their perceived capacity to support students (Parrott, Lomeli-Rodriguez, et al., 2024). Schools and communities that work through collaborative networks are better placed to sustain such support (Oktari et al., 2018), and sustained programmes are needed because children's symptom trajectories after disasters vary over time (Lai et al., 2017).

4.4 Alignment across Ecological Levels

The fourth theme concerns how protective processes interact. Resilience after disasters emerges from interactions across individual, interpersonal, group and intergroup levels rather than from any single factor (Cadamuro et al., 2021), and reviews of indicators of resilient children in disasters likewise span individual, family and community domains (Mohammadinia et al., 2018). Research with teachers, caregivers and students in Indonesia shows that each group conceptualises community resilience in its own terms, and that these perspectives complement one another (Parrott, Bernardino, et al., 2024); work with adolescents and their caregivers similarly highlights group-specific aspects of resilience (Lomeli-Rodriguez et al., 2025).

For young children in NTB, the synthesis suggests a chain of mutually reinforcing supports. Material help from mosques, community organisations and local agencies (exosystem) can reduce caregivers' stress, which allows them to remain emotionally available (microsystem) and, in turn, supports children's regulation. When preschools use familiar religious practices, local songs and Sasak traditions (macrosystem), children may experience continuity between home and school (mesosystem). Misalignment can weaken these supports, for example when imported interventions conflict with local caregiving norms or religious values, or when schools reopen while families remain in temporary shelters. Because recovery unfolds through emergency, early recovery, reconstruction and long-term adaptation (Norris et al., 2008), support for young children needs to continue through transitions such as rehousing and school entry (Lai et al., 2017; Peek et al., 2018).

5. Discussion

5.1 Contributions

The review makes three contributions. First, it brings Sasak kinship and mutual aid into conversation with attachment and social support theory, suggesting that plural caregiving may offer young children redundant sources of security when disaster disrupts the household (Weisner, 2014; Keller, 2013). Rather than assuming that the nuclear family is the natural unit of recovery, disaster response in NTB can treat extended kin as part of the caregiving system. Second, it situates Islamic religious coping within an evidence base that includes Lombok-specific interventions (Nurwardani et al., 2022; Sriyono et al., 2024; Thoyibah et al., 2019), while noting that most of this evidence concerns adults and families rather than young children. Third, it uses ecological systems theory to show why isolated interventions are unlikely to suffice and why

coordination across family, preschool, community and policy matters (Bronfenbrenner, 1979; Ungar, 2011).

5.2 Implications for Policy and Practice in West Nusa Tenggara

The synthesis points to actions for the National and Regional Disaster Management Agencies (BNPB and BPBD NTB), early childhood education authorities and community organisations, summarised in Table 2.

Table 2. Recommendations for disaster preparedness and early childhood support in NTB

Domain	Recommended actions
Disaster preparedness and response	Prioritise family reunification and keep extended kin networks together during evacuation and shelter placement; design temporary shelters for extended families; provide prayer spaces, religious leaders and Qur'anic materials within emergency infrastructure; train response personnel in culturally responsive communication and trauma-informed practice.
Early childhood education	Require trauma-informed pedagogy training for preschool and kindergarten teachers in disaster-prone areas; develop social-emotional learning materials that draw on Islamic values and Sasak practices; establish screening and referral pathways; build disaster preparedness modules into early childhood programmes.
Teacher preparation and support	Provide pre-service and in-service training in trauma-informed practice, emotion coaching and play-based support; establish peer support and supervision for teachers in affected areas; support teachers' own well-being to prevent secondary traumatic stress.
Community-based support	Strengthen partnerships among schools, mosques, community organisations and mental health services; recognise traditional mutual aid in policy and resource allocation; engage religious leaders (*tuan guru*, *ustadz*) as partners in psychosocial support; offer caregiver programmes addressing parental mental health and parenting.

Teacher preparation deserves particular attention. Research and development work on environmental education for Indonesian preservice early childhood teachers (M. Habibi et al., 2026) shows how socio-environmental content can be built into initial teacher education, and the same route could be used to prepare future teachers for disaster and resilience work before they enter the classroom.

5.3 Limitations and Future Research

Several limitations apply. First, as an integrative review, the study does not report study counts or a PRISMA flow diagram and should not be read as exhaustive. Second, direct evidence on children aged 3–6 in Lombok is thin; much of the Lombok evidence concerns adolescents, adults or families, and some of the intervention evidence comes from other disaster settings. Third, most available studies are qualitative, cross-sectional or uncontrolled, which limits causal inference; several Lombok intervention studies used one-group or small-sample designs (Thoyibah et al., 2019). Fourth, outcome measures and intervention protocols vary widely, and few assessment tools have been validated for young Indonesian children or for constructs such as Islamic religious coping.

The review also did not systematically examine possible harms. Reliance on spiritual coping might delay clinical treatment for children with severe symptoms; overly structured programmes might crowd out free play; family-centred approaches might overlook conflict or violence within families; and community-based programmes might exclude families who do not fit dominant cultural or religious norms. Sasak society and Islamic practice are themselves diverse, varying by

socioeconomic status, education, urbanisation and religiosity, and findings from Lombok may not transfer to other ethnic groups or disaster types.

Future research should follow children from disaster exposure through school entry; test culturally adapted, play-based and teacher-delivered interventions in controlled designs; develop and validate assessment tools for young Indonesian children; and examine costs, scalability and sustainability, including task-sharing with teachers, community volunteers and religious leaders. Data-driven classification of educational indicators across Indonesian provinces, such as the cluster classification applied to illiteracy data by Arifin et al. (2021), could also help identify districts where disaster exposure and educational disadvantage overlap and where investment in early childhood resilience is most needed.

6. Conclusion

This integrative review suggests that young children's emotional resilience after disasters in NTB rests less on individual traits than on the relationships and institutions around them. Caregivers and extended kin form the first buffer, Islamic practice and Sasak traditions of mutual aid provide meaning, routine and solidarity, and early childhood settings can offer safe and predictable spaces when teachers are prepared and supported. These resources work best when they are aligned across family, school, community and policy.

For disaster-prone regions such as NTB, the practical message is to build on existing cultural strengths rather than import clinical models wholesale: keep families together, recognise religious and community resources, and prepare early childhood educators for trauma-informed practice. The evidence for these pathways among children aged 3–6 remains incomplete, and longitudinal and controlled research is needed. Strengthening the relational and institutional contexts of young children, rather than focusing only on treating individual symptoms, offers a culturally grounded basis for protecting the next generation from the psychological toll of future disasters.

Declarations

Competing interests: The authors declare no competing interests.

Data availability: No new data were generated. All sources analysed are cited in the reference list.

Declaration of generative AI use: During the preparation of this manuscript, the authors used Claude (Anthropic) for language editing, reference verification and checking consistency between in-text citations and the reference list. The authors reviewed and edited all content and take full responsibility for the manuscript.

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