



Consideration of Nursing Care Demand for Families in Disaster: A Literature Review

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Abstract. This review aimed to examine the existing literature in English and Japanese on family needs during a disaster. We identified the necessary care for families by focusing on nursing activities and needs among patients and their families in each phase of the disaster. The databases searched in this review were Academic Search Premier, Medline, CINAHL, and *Igaku Chuo Zasshi*. Four keywords such as "disaster," "family," "nursing," and "nursing care demand" were searched both separately and in combination in Japanese and English languages. Results showed various specific nursing activities and needs for families, community, medical personnel (doctors, nurses, and care workers), and facilities (home-visit nursing office and hospital) in each disaster phase. In the pre-impact period, prevention, protection, and preparedness were emphasized. During the impact phase, primarily securing a place, assessing the environment, and providing psychological first aid for survivors and families were emphasized. The post-impact phase focused on the recovery of all aspects of the disaster's impact. In conclusion, the necessary care for families in each phase of disasters is to protect human life and security. Nurses should carry out disaster-response activities based on human life and safety. In addition, nurses should focus on family members who have health concerns before the disaster and build the family support system.

Keyword: nursing activities, nursing needs, families, disaster



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Introduction

In 2015, as many as 346 disaster-related events killed 22,773 people and affected 98.6 million (1). With disasters occurring at a higher frequency and posing more potent threats to people worldwide, the need to prepare nurses for emergencies has become inevitable. Nurses play particular roles in disaster preparedness and the long-term recovery phase, including triage, health and environmental management in shelters, and mental health care (2). Medical and nursing care are particularly crucial for families.

More than 150,000 patients need medical and nursing care at home in Japan (3). Many people who need medical care at home use medical equipment such as respirators, oxygen, and nebulizers. Consequently, there is a difficulty when the patients and their families evacuate, and, even after the evacuation, they are faced with challenges in acquiring electric power and human resources (4). In addition, people who have lost their families due to disasters can develop psychological problems and face obstacles in daily life. The incidence of Post-Traumatic Stress Disorder and depression increases among bereaved families (5).

Disasters could impact the health and daily living of not only patients but also their families. Based on the interaction of household, gender, and kinship networks, we recognize that the family as a unit is a critical pillar for understanding and predicting disaster behavior. Families can generate behavioral cues to prompt actions, some of which have become associated with disasters. Such behaviors are particularly critical before an actual disaster as they represent actions stemming from accumulated survival knowledge and education. Also, families promote resilience and increase the capacity for survival (6), initially, from actions taken during disasters; afterward, as a post-disaster resource to buffer the traumatic consequences of death and injury (7,8); and, in the longer term, as a means of maintaining the structural integrity of the family (9). Therefore, it is necessary to consider the family as a unit to protect and aid the family's well-being in all disaster phases.

Objectives

This review aimed to examine the existing literature in both Japanese and English and to identify the necessary care for families by focusing on nursing activities and needs among patients and their families in each phase of the disaster cycle.

Methods

Search strategy

The databases searched in this review were Academic Search Premier, Medline, and CINAHL. Four keywords—"disaster," "family," "nursing," and "nursing care demand"—were searched both separately and in combination in Japanese and English languages. In addition, four keywords—"saigai," "kazoku," "kango," and "kango juyō" which are corresponding Japanese words for the above four keywords—were searched both separately and in combination in the Japanese database search engine *Igaku Chuo Zasshi*.

Initially, 396 articles were selected, but only 59 (16 in Japanese and 43 in English) were analyzed for this review because the remaining 335 gave no reference to disaster, were newspapers, or were duplicates.

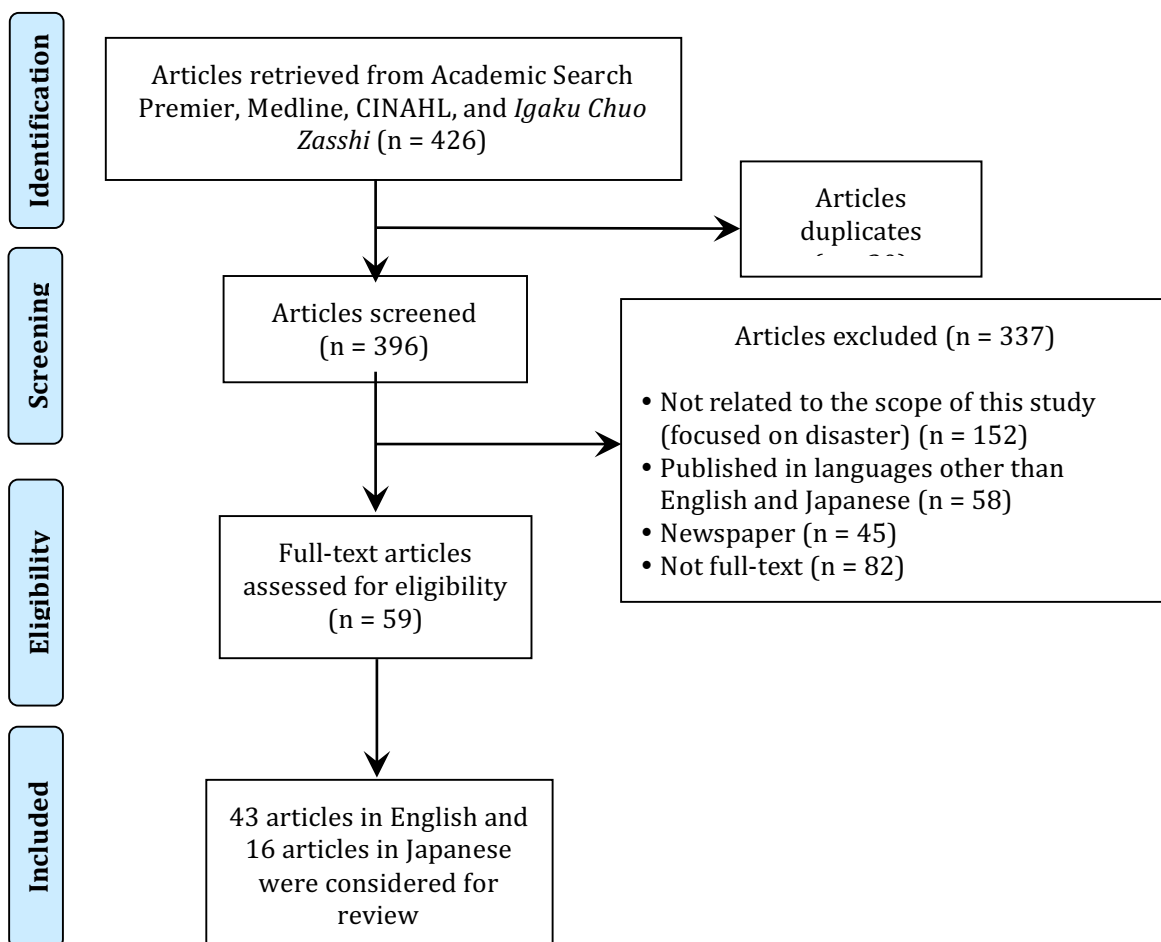


Figure 1. Flow diagram of the literature search and review process

Analysis methods

Fifty-nine articles (Table 1) were extracted using a matrix to organize research literature based on nursing activities and nursing needs.

Three significant phases characterize the life cycle of disaster: pre-impact, impact, and post-impact (10). In addition, the specific actions taken during these three phases, along with the nature and scope of the planning, will affect the extent of the illness, injury, and death that occurs (10). Thus, the authors refer to Veenema's concept to organize the findings from reviewed articles according to the three major phases. Once publication items were selected for review, inductive thematic analysis was undertaken to identify major themes relating to nursing activities and needs.

Terminology

We define 'nursing activities,' 'nursing needs,' and 'family' in this study as follows. Nursing activities are nursing care and interventions carried out by nurses for families in each disaster phase. Nursing needs are nursing care and interventions considered by nurses as necessary for families in each disaster phase. Families are those who recognize themselves as in relationships with high intimacy, such as fathers, mothers, and children.

Table 1. Research Literature-Based On Nursing Activities and Nursing Needs

Code	Author	Nursing Activities	Nursing Needs
E1	Houston <i>et al.</i> (11)	<ul style="list-style-type: none"> •Fostering disaster preparedness education •Provides coping and resilience strategies •Describes opportunities for disaster assistance and services •Crisis counseling and assistance program 	Public disaster communication intended to foster coping and resilience and ameliorate maladaptive child disaster reactions
E-2	Arao <i>et al.</i> (12)	<ul style="list-style-type: none"> •Be present at the patient's deathbed in place of his/her family." •Prepare a place for families to say their final goodbyes after the patient's death 	<ul style="list-style-type: none"> •Enhancing the self-care ability of cancer patients in ordinary situations so that they can be more self-sufficient in disaster situations. •Creation of a suitable location for dying patients and their families and the dement of grief care strategies in disaster situations
E-3	Rehnsfeldt (13)		<ul style="list-style-type: none"> • understanding of survivors' life after the disaster
E-4	Mason <i>et al.</i> (14)	To support the reunion of the family became separated.	<ul style="list-style-type: none"> •To protect the safety and life of the family, it provides secure accommodation •Psychological counseling should be available for all patients, families
E-5	Baker <i>et al.</i> (15)	<ul style="list-style-type: none"> •Providing education information in a personal and one-to-one intervention •Social workers, pediatricians, and other health care providers are as a trusted source for information on topics such as child development and safety 	<ul style="list-style-type: none"> •Social workers, pediatricians, and other health care providers may be in a unique position to encourage at-home disaster preparedness as they are seen as a trusted source for information on topics such as child development and safety
E-6	Clettenberg <i>et al.</i> (16)	Ongoing trauma information for students and parents	

Code	Author	Nursing Activities	Nursing Needs
E-7	Hunter-Revell <i>et al.</i> (17)	To coordinate during the response phase may include the provision of water, food, generators, and medication delivery.	
E-8	Kristensen <i>et al.</i> (18)		<ul style="list-style-type: none"> •Service providers in long-term that consider health, social, and religious •Services for high-risk groups such as parents with child losses •Information and special services beyond the immediate crisis management stage among the bereaved family
E-9	Fluke <i>et al.</i> (19)	Protect and promote the well-being of children, constitute a protective environment for children	
E-10	Berry <i>et al.</i> (20)	<ul style="list-style-type: none"> •Sustained family support in cooperation with experts •Disaster mitigation education for children and families 	
E-11	Barry <i>et al.</i> (21)	Focuses on the life of each individual, consciously listen to the story of the family	
E-12	O'Sullivan <i>et al.</i> (22)		Institutional and personal support mechanisms for obtaining food, and necessities, such as masks and gloves to protect family members at home, as effective means to facilitate coping
E-13	Datar <i>et al.</i> (23)	Support of breastfeeding in the event of a disaster to protect the child and her mother	
E-14	Felix <i>et al.</i> (24)	<ul style="list-style-type: none"> •Family therapy and family counseling to help the reconstruction of the family •Long-term counseling and life support against to the bereaved family and provide information about family planning 	
E-15	Proctor <i>et al.</i> (25)	Primary care for PTSD of children and families	<ul style="list-style-type: none"> •Providing the familiar re-establish routines •Assistance for a child to feel safe

Code	Author	Nursing Activities	Nursing Needs
E-16	Beaton <i>et al.</i> (26)	<ol style="list-style-type: none"> ① Optimize and enhance preparedness within systems serving families and children. ② Promote community efficacy and resilience ③ Identify available resources ④ Assess impact of the event ⑤ Inform and educate public ⑥ Facilitate referral to clinicians for timely evaluation and treatment and other services ⑦ Reduce the effect of primary and secondary events ⑧ Identify unmet needs ⑨ Reestablish normalcy ⑩ Investigate longer-term event effects ⑪ Formulate policy 	<ul style="list-style-type: none"> • Public health workers need to be trained to recognize adverse mental and behavioral health outcomes following a disaster in children and families and to make appropriate and timely referrals. • Public health workers may also benefit from training in basic crisis counseling techniques such as PFA
E-17	Trudeau <i>et al.</i> (27)	Children and family care at the time of conflict and disaster are changing the approach by age.	<ul style="list-style-type: none"> • Providing pediatric nursing care • Outpatient follow-up for post-operative
E-18	Danna <i>et al.</i> (28)	<ul style="list-style-type: none"> • Securing any identification needed to return to work after the disaster. • Create on-site access to donations of uniforms, school supplies, diapers, clothing, and food for employees and their family • Providing assistance during emergency financial planning, including access to the emergency financial assistance offered by employers or professional organizations. 	<ul style="list-style-type: none"> • Nurses should prepare family members for absent or sporadic communication • Making decisions regarding staffing is a crucial and emotional component in planning for an impending disaster
E-19	Kayama <i>et al.</i> (29)	Family and children's mental care	
E-20	Pfefferbaum <i>et al.</i> (30)		Needed content on early childhood or coping and resilience.

Code	Author	Nursing Activities	Nursing Needs
E-21	Finkelstein <i>et al.</i> (31)	<ul style="list-style-type: none"> ① Wash hands frequently with hot water and soap for at least 30 seconds and dry thoroughly, particularly after shaking hands or coughing ② Try not to touch your face with your hands. ③ Practice careful bathroom etiquette. ④ Avoid direct hand contact with surfaces that are likely to be contaminated ⑤ Hold meetings via telephone and e-mail when possible. 	Health officials at all levels should publicize all of the NPIs mentioned in this article as examples of actions that individuals can take to prepare for an influenza pandemic.
E-22	De-Soir <i>et al.</i> (32)		To understand the possible psychological
E-23	Nelms (33)		<p>Three major components of such preparation</p> <ul style="list-style-type: none"> ① A solid plan ② Appropriate equipment ③ Practice and implementation.
E-24	Jakeway <i>et al.</i> (34)	<ul style="list-style-type: none"> • Mitigation; Conduct community education activities to increase awareness about preventing heat stroke • Preparedness; Conduct training, drills, and exercises related to care of special needs persons • Response; Deploy staff to shelters after a hurricane, under local and/or state emergency response plans • Recovery; Participate in restoring community services after a flood 	Describe the public health role in responding to a range of likely emergencies
E-25	Fernandes <i>et al.</i> (35)	Health management of regular health screening and vaccinations children and families due to being carried out from before the disaster	Providing health promotion during transition conditions after a disaster

Code	Author	Nursing Activities	Nursing Needs
E-26	Dirkzwager <i>et al.</i> (36)	To assess the stress situation, confirmation of sleep disorders and gastrointestinal symptoms	<ul style="list-style-type: none"> • Post-disaster interventions should focus on psychological problems • Healthcare worker should focus on physical health consequences among young disaster victims
E-27	Mack <i>et al.</i> (37)	<ul style="list-style-type: none"> • Increase awareness of the importance of self-preservation in times of emergency. • Foster a sense of empowerment by providing the knowledge, tools, and encouragement necessary to prepare a disaster kit. • Create a useful teaching tool to be used during a group teaching session Teach how to create a preparedness kit that is within the financial means of the target population 	Nutritious snacks were provided to parents, children, child care providers, and guests.
E-28	Lai <i>et al.</i> (38)		Nurses should be acknowledged in assessing children's and adult's disaster responses because of differences in subjective experiences of parents and children.
E-29	Elliot <i>et al.</i> (39)		<ul style="list-style-type: none"> • Healthcare providers have the potential to interact with military nurses who have experienced deployment and war Nurses prepare to interact and support returning veteran nurses. • Nurses must integrate new knowledge and experiences for developing PTSD
E-30	Felix <i>et al.</i> (40)	Provide information to the families that are having economic problems	
E-31	Doohan <i>et al.</i> (41)		Helping survivors' family members by providing emotional support

Code	Author	Nursing Activities	Nursing Needs
E-32	Westhoff <i>et al.</i> (42)	<ul style="list-style-type: none"> •Family planning initiatives should be a component of disaster mitigation planning •Interventions to promote self-efficacy and better communication skills could increase comfort in negotiating condom use •Highlights the importance of implementing preventive measures to protect women from sexual violence. 	Disaster planning should include training individuals who are receptive to the knowledge, attitudes, and skills to build health services coordinators.
E-33	Mace <i>et al.</i> (43)	<ul style="list-style-type: none"> •Basic pediatric first aid equipment and guidelines •Infant formulas •Special formulas •Oral hydration fluids •Child-appropriate snacks and foods •Diapers and other supplies for infant hygiene including disposal systems The alcohol-based hand cleaning solution •Charts with pictures of infectious diseases with rashes •Games and other distractions for children •Cooling/heating system with carbon monoxide monitoring capability •Secure transportation within the shelter and the medical care and resources system 	
E-34	Wai Man Fung <i>et al.</i> (44)	<ul style="list-style-type: none"> •Disaster survival skills training •Disaster survival information pamphlets for the public •Disaster management protocol in the workplace •Disaster survival skills on the internet •Disaster drill and education 	Develop education programs for disaster preparedness planning for the community

Code	Author	Nursing Activities	Nursing Needs
E-35	Vigil <i>et al.</i> (45)		Health service providers consider the regular assessment of social factors, adolescents' well-being, parental and parenting stress, family communication patterns, and subjective experience of parental support.
E-36	Hafstad <i>et al.</i> (46)		<ul style="list-style-type: none"> •Support for children's post-trauma coping •Raising a metaphorical scaffold around the children to support their development
E-37	Sloand <i>et al.</i> (47)	Breastfeeding education and guidance while monitoring the infants' growth	<ul style="list-style-type: none"> •Nurses must be prepared to address the unique and specific needs of children •Nurses with pediatric expertise to improve the care that children receive in such circumstances •Developing creative solutions in a resource-poor environment, including tying IV bags to trees, using branches as splints, and creating traction using bricks from collapsed buildings
E-38	Dorn <i>et al.</i> (48)	Construction of victims support system as the primary care to the victims' families.	Clarifying the psychologic mechanisms that link trauma and health
E-39	Reid <i>et al.</i> (49)	Support of the formation of family relationships to promote the individual recovery	
E-40	Busaspathumrong <i>et al.</i> (50)	Held counseling sessions for children and families who lost family and friends at home	<ul style="list-style-type: none"> •Developing educational skills and computer for survivors and the public •Identifying community resources and transferring the information using technology

Code	Author	Nursing Activities	Nursing Needs
E-41	Fordham <i>et al.</i> (51)	Public health and safety planning, education and outreach to parents of children with developmental disabilities <ul style="list-style-type: none"> • Talking with an expert about making a specific emergency plan for the family • Visiting an emergency shelter 	Develop effective family preparedness plans and connections to local emergency management and responders <ul style="list-style-type: none"> • Improving formal disaster knowledge and skills
E-42	Arbon <i>et al.</i> (52)	Advance meeting with emergency management officials (fire, police or other first responders) <ul style="list-style-type: none"> • Emergency planning discussion with school • Emergency planning discussion with the service provider 	<ul style="list-style-type: none"> • Nurses should be actively encouraged to develop a family and personal disaster plan
E-43	Cicero <i>et al.</i> (53)	A family disaster plan including disaster drills, a child-specific disaster kit, and contingency planning.	<ul style="list-style-type: none"> • Improving the knowledge of pediatric disaster preparedness which is required of emergency and primary care practitioners • Care for children in the event of parental illness, injury, or death.
J1	Kikuchi <i>et al.</i> (54)	Creating of home care recipient brochure for bedridden persons and alone persons <ul style="list-style-type: none"> • Visit consultation to the house of patients with high medical needs for disaster reduction by disaster volunteers 	
J2	Sasaki <i>et al.</i> (55)	<ul style="list-style-type: none"> • Creating a place for a visiting nursing station working in the same area to discuss disaster countermeasures practices • Provision of a place to meet disaster volunteers at a meeting place 	
J3	Masuda <i>et al.</i> (56)	<ul style="list-style-type: none"> • Safety education and safety measures of staff as advance measures to nurture nurses who can respond flexibly for purpose • Preparation and simulation assuming the occurrence of an earthquake 	

Code	Author	Nursing Activities	Nursing Needs
J4	Kawauchi <i>et al.</i> (57)	Explain and confirm the medical condition to the family as a support system for in-home mentally disabled at the time of a large-scale disaster	<ul style="list-style-type: none"> • Investigation of guidance method to allow people with mentally disabled at home and their families to evacuate safely to evacuation centers • Securing communication means to secure the safety of people with mentally disabled at home and their families • Mentally disabled at home, and their families can obtain information by themselves after the disaster • Securing an environment where people with mentally disabled at home and their families can safely live after the disaster • Securing a medical environment that mentally disabled people and their families can utilize after the disaster
J5	Ichinose <i>et al.</i> (58)	Implementation of individual guidance takes into consideration the nursing care environment for each family member, the distance to the evacuation center and the presence or absence of moving means as measures against disasters for the patient and their family	
J6	Taneda <i>et al.</i> (59)		<ul style="list-style-type: none"> • Families wanted nursing care for children concerned that their care for children would become disappointing to arrange their living standards • Instruction and countermeasures about preparation for protecting family safety and security • Implementation and procedures of the workshop to protect family safety and security

Code	Author	Nursing Activities	Nursing Needs
J7	Oshio <i>et al.</i> (60)	Study on safety confirmation method for ALS patients and their families living at home	
J8	Ishii <i>et al.</i> (61)		<ul style="list-style-type: none"> • Secure fixing method of the medical device Establish the method of contacting hospitals and suppliers in the event of a disaster • Measures and corresponding at the time of the medical care of children necessary disaster at home
J9	Kawahara <i>et al.</i> (62)	<ul style="list-style-type: none"> • Preparation of a disaster response manual in visiting the nursing station as a countermeasure for the needy person • Creation of a disaster response brochure in collaboration with a patient as a countermeasure for a support person in disaster at a visiting nursing station • Emergency drills for home care patient and their families as countermeasures for disaster support personnel at a visiting nursing station 	
J10	Kanazawa <i>et al.</i> (63)	Creation of a pamphlet aimed at taking early action at the time of disaster for dialysis patients and families	
J11	Niinuma <i>et al.</i> (64)	Health education as health self-care management support for families	
J12	Fukushima <i>et al.</i> (65)	Collaboration with patients, families and other organizations in the process of creating disaster manuals	

Code	Author	Nursing Activities	Nursing Needs
J13	Iimori <i>et al.</i> (66)	Establishment of a system and means for communication to patient and families as disaster countermeasures at visiting nursing stations	
J14	Mizushima <i>et al.</i> (67)	<ul style="list-style-type: none"> •Preparation of user safety confirmation list •Making a patient's disaster map •Instructed the users not to place things in high places •Creating a communication network for each family member 	
J15	Watanabe (68)		•Correspondence to children at the time of disaster
J16	Kaburaki <i>et al.</i> (69)	Secure safety and mental care for family members near rescue activities	

Results

This review revealed various nursing activities and needs that differed for families, community, medical personnel (doctors, nurses, and care workers), and facilities (home-visit nursing office and hospital) across disaster phases. Therefore, the authors separately enumerated nursing activities and nursing needs for families, community, staff, and facilities and organized them into the following sections.

1. Pre-impact phase

The first phase of the disaster cycle was defined as pre-impact. This phase emphasized prevention, protection, and preparedness.

In total, 21 articles related to nursing activities were extracted. In this review, the scope of the family included both patients and their families. The family was considered as a unit to protect and aid in the family's well-being in all disaster phases. The following nursing activities for families were identified: (i) creating a manual, (ii) prevention measures, (iii) first aid toolkits and emergency medical system, (iv) disaster drills and education, (v) disaster psych education for children and their families, (vi) individual responses, and (vii) self-health care management and family support. Meanwhile, the nursing activity for the community was identified as social networking to protect the family in the community. The nursing activity for medical personnel was identified as disaster training. The nursing activity for the facility was identified as a safety confirmation method for families.

Eleven categories related to nursing needs were identified from 17 articles. Nursing needs for families were as follows: (i) ensuring children's safety, (ii) developing knowledge to protect family safety and security, (iii) guidance and measures related to stockpiles, (iv) ensuring the means of information-collecting, and (v) ensuring the medical environment. Nursing needs for the community were identified as (i) communications, (ii) securing the environment for living safely, and (iii) method to safely evacuate mentally ill persons and their families. Nursing needs for medical personnel were (i) counseling psychology training programs and (ii) emergency preparedness and response plans. Finally, the nursing need for the facility was identified as maintaining the medical environment (Table 2).

2. Impact phase

The second phase of the disaster cycle was defined as impact. This phase emphasized securing a place, assessing the environment, and providing psychological first aid for survivors and families.

In total, three articles were retrieved. From the contents of the three articles, four categories were extracted related to nursing activities. Nursing activities for families were identified as (i) care provision, (ii) providing a safe environment to ensure peace of mind, (iii) supporting the reconstruction of the family, and (iv) ensuring safety. Furthermore, four categories relating to nursing needs were identified from four articles. The nursing needs for families were aid and empowerment. The nursing need for community was providing a safe environment to ensure the family's peace of mind. Finally, nursing needs for medical personnel were identified as (i) mental care for the family and (ii) infection control (Table 3).

3. Post-impact phase

The post-impact phase was emphasized as the recovery of all aspects of the disaster's impact. In total, 20 articles relating to nursing activities in the post-impact period were retrieved. From these 20 articles, nine events in nursing activities for families, community, and medical personnel were found. Nursing activities for families were (i) mental health care for children and their families, (ii) support for family rebuilding, (iii) protection and safety for children and their families, (iv) protection for women and children, (v) breastfeeding support, and (vi) health checkup of children and their families. Next, nursing activities for the community were identified as (i) inter-professional health collaborative for family support and (ii) ensuring the lifeline and medications. Finally, the nursing activity for medical personnel was disaster simulation to increase collaborative efforts with other disciplines.

Nine nursing needs were identified from 17 articles. Nursing needs for families were identified as (i) understanding of children and their families' lives after the disaster, (ii) providing for family reunification, (iii) providing nursing care for children and parental support, and (iv) disaster training for patients at home. The nursing need for the community was creating an environment for living safely. Next, nursing needs for medical personnel were identified as (i) health promotion and psychological care, (ii) long-term health self-care management, and (iii) communication and coordination between medical doctors and families. Finally, the nursing need for the facility was information and specialized services for the immediate crisis management stage (Table 4).

Table 2. Nursing Activities and Nursing Needs in Pre-Impact Phase

Targets	Nursing Activities	Article Code	Nursing Needs	Article Code
Person and family	Creating a manual	E27,J1,J3,J5,J9,J10	Ensuring children's safety	E1,E20,E41,J6,J8,J15
	Prevention measures	J3,J7	Developing knowledge to protect family safety and security	E5,E16,E42,E43,J6,J15
	First aid toolkits and emergency medical system	E33	Guidance and measures related to stockpiles	E23,J6
	Disaster drills and education	E1,E27,E34,E43,J9	Ensuring the means of information collecting	J4,J15
	Disaster psychoeducation for children and families	E1,E18		
	Individual responses	J2,J5,J10	Ensuring the medical environment	J4,J8,J15
	Self-health care management and family support	E18,E41,J11		
Community	Social networking to protect the family in the community	E42,J2	Communications	E1,E18,J4,J8
			Securing the environment for living safely	E18,E21,E23,E27,J4,J15
			Method to safely evacuate at home mentally ill persons and their families	J4
Medical personnel	Disaster training for medical personnel	E16,E21,E24,J3	Counseling psychology training programs	E16,E18,E20
			Emergency preparedness and response plans	E24,E27,E34,E41
Facility	Safety confirmation method for families	E18,J4,J7,J13,	Maintaining the medical environment	E18,E23

Table 3. Nursing Activities and Nursing Needs in Impact Phase

Targets	Nursing Activities	Article Code	Nursing Needs	Article Code
Person and family	Care provision	E2	Aid the empowerment	E2
	Providing a safe environment for peace of mind	E2		
	Supporting the reconstruction of family	E4		
	Ensuring safety	J16		
Community			Providing a safe environment for family peace of mind	E2,E4
Medical personnel			Mental care to family	E4,E22
			Infection control	E12

Table 4. Nursing Activities and Nursing Needs in Post-Impact Phase

Targets	Nursing Activities	Article Code	Nursing Needs	Article Code
Person and family	Mental health care for children and their families	E6,E11,E15,E17,E19,E26,E40	Understanding of children and their families' life after a disaster	E3,E8,E15
	Support for family rebuilding	E14,E30,E32,E38,E39	Providing family reunification	E15,E29
	Protection and safety for children and their families	E9	Providing nursing care for children and parental support	E15,E17,E28,E35,E36,E37
	Protection for women and children	E32		
	Breastfeeding support	E13,E37	Disaster training for patients at home	E32
Health checkup of children and their families	J11			
Community	Interprofessional health collaborative for family support	E10,J12	Creating an environment for living safely	E2,E36,E37
	Ensuring the lifeline and medications	E7		
Medical personnel	Disaster simulation to increase collaborative efforts with other disciplines	E10,J14	Health promotion and psychological care	E25,E26,E29,E31,E35,E36,E38
			Long-term health self-care management	E2
			Communication and coordination between medical doctors and families	E10
Facility			Information and specialized services for the immediate crisis management stage	E2,E8,E40

Discussion

The articles reviewed confirmed the nursing activities and needs for each disaster phase. Nursing activities and needs emphasized in the pre-impact period are prevention, protection, and preparedness. In disaster nursing, preparation and countermeasures for those who need consideration in the event of disasters are essential to protect and aid the health and well-being of survivors and their families. Another important aspect is the comprehensive care approach used to aid patients and their families after a disaster. Many families lose their daily routines in the event of an emergency. Sanitation and waste removal and protection against further severe injuries and diseases become essential (7). Disaster nurses must evaluate hygiene practices, provide care according to family needs, and attend to people's health and living while preventing infectious and disaster-related diseases.

In the immediate impact phase, Acute Stress Reaction is common, and families experiencing it are best helped by activities designed to normalize their daily experience (70-72). A disaster nurse should immediately address daily living needs for survivors and return them to their usual activities as swiftly as possible.

The post-impact phase becomes a reality, and the people who experienced the disaster must now face permanent losses and lifestyle changes that become stable features in their lives. Hence, nurses must aid family members in rebuilding their lives so that they can return to society and form a new community. Furthermore, nurses must use social resources to enable families to survive using their capabilities.

Limitations

The main limitation of this review is that the identified articles were restricted to research conducted and published between 2006 and 2016. This limits generalization to research done before 2006 that may have had significantly more dealings with disaster. Additionally, it may be prudent to view systematic reviews from specific geographic regions with greater caution. Systematic reviews should be considered to be a means of finding a robust and sensible answer to a focused research question, but not as an end in themselves.

Conclusion

The aim of care for families in each phase of a disaster is to protect human life and security. This review clarified that attention must be directed to the protection of life families' needs. Therefore, nurses should carry out activities based on safety, human life, and security. Nurses should also focus on family members who have special needs before the disaster and build the family support system. It is essential to identify patients and their families. They have difficulty adapting to catastrophic events and provide the necessary services to help them heal and achieve a more peaceful and healthy existence.

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Author Contributions

All authors have made substantive intellectual contributions to this manuscript and have given final approval for this manuscript to be published.

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