

Journal of Arts and Social Sciences

https://ojs.jass.pk



Challenges Faced by Community Workers Dealing with Flood Victims in Pakistan, 2022

Summaira Liaqat*, Fareeha Anjum**, Samina Riaz***, Maryam Batool****

*MS Scholar, Department of Gender and Development Studies, Lahore College for Women University. summairaliagat55@gmail.com

**Lecturer, Department of Gender and Development Studies, Lahore College for Women University. fareeha.anjum@lcwu.edu.pk

*** Lecturer, Department of Gender and Development Studies, Lahore College for Women University. samina_riaz1@hotmail.com

**** Lecturer, Department of Gender and Development Studies, Lahore College for Women University. Maryam.khan@lcwu.edu.pk

ARTICLE INFO

Article history:

Submitted 19.08.2024 Accepted 23.11.2024 Published 31.12.2024

Volume No. 11 Issue No. II ISSN (Online) 2414-8512 ISSN (Print) 2311-293X DOI:

KEYWORDS: Community Worker's Challenges, Flood Victims, Flood Areas, Gender-Based Challenges and Disaster Relief Efforts

ABSTRACT

A qualitative study of gender-related barriers faced by male and female community workers during disaster response roles working with victims of flood in Pakistan in 2022. This study uses qualitative methodology by interviewing members from the community Workers to explore the complex experiences and insights of these workers. By conducting semi-structured interviews, the research uncovers unique male and female community worker challenges. Due to lack of resources and personal commitments, male participants struggle with logistics and coordination challenges. Disaster-affected areas often see the deterioration of hygiene and sanitation, leading to increased health and wellbeing concerns. On the other hand, female community workers face stigma, cultural barriers and navigates the fine line of psychological support. They also take responsibility for child-centred engagement as well as addressing genderspecific needs the results highlight the critical need for gender-sensitive disaster response strategies. Recognizing and addressing these gender-based challenges is essential for fostering inclusive and effective disaster relief efforts. By leveraging the insights derived from this study, policymakers and practitioners can formulate targeted interventions that acknowledge and cater to the distinct roles and responsibilities of male and female community workers in times of crisis.



Introduction

Torrential rains and a combined effect of riverine, urban, and flood events caused an unparalleled disaster in Pakistan between June and August 2022. Flooding caused by rain speeded up glacial melt and resulted in landslides that destroyed millions of homes and critical infrastructure, sinking entire towns and ruining livelihoods. According to preliminary estimates, floods will increase the national poverty rate by 3.7 to 4.0 percent, pushing between 8.4 and 9.1 million people into extreme poverty. As of the 11th of October, more than half of all districts in the country, or 94, have been recognized as having been "calamity struck." The provinces of Sindh, Baluchistan, and Khyber Pakhtunkhwa (KP) were home to the vast majority of these people. The natural calamity influenced 19 of the country's 25 districts that were classified as the poorest. The Post-Disaster Needs Assessment will aid in determining the number of resources required for recovery and reconstruction in addition to measuring the devastation and loss that has occurred as a result of the disaster. Even so, the country's recovery and rebuilding requirements are likely to surpass its available resources, necessitating aid from bilateral and multilateral partners, as well as philanthropists, if the country

is to reconstruct itself in a resilient and long-term manner. It occurs at a time when countries worldwide, such as Pakistan's partners and friends are also experiencing the consequences of global financial difficulties (Azad et al., 2013).

Numerous groups and organizations are involved in delivering various post-disaster services under multiple auspices, assumptions, and principles. Community workers also played important roles and duties in both the recovery and rescue stages, particularly in connecting victims' necessities with resources. Community workers from the public and private sectors, as well as from campuses, such as students and faculty from social work departments, have been largely involved in assisting victims. Early communication with local food banks and shelters, along with preparation for the coordination of community resources, helps to avoid long-term social, physical, and mental health issues that may arise in the aftermath of the catastrophe. In addition, community workers may be able to assist victims in obtaining financial assistance for the restoration of their homes as well as the replacement of other material losses. Volunteer initiatives that are managed by community workers may also assist in supplying the required skills and manpower to reconstruct communities and administer temporary shelters. This can be an important contribution (Chou, n.d.).

Therefore, many community workers voluntarily and from different organizations went to help flood victims. They have always been seen as uniquely qualified to assist the victims of trauma and loss, including those resulting from disasters. The goal of this study is to identify the issues and challenges that community workers face as a result of a large-scale disaster, as well as how community-based social service organizations have dealt with and are dealing with the disaster's consequences.

Literature Review

A particularly distinctive profession with a wide range of practice areas is community work practice. Given that it represents the voice of the voiceless and underprivileged community, it is especially important in rural regions. Community workers are involved with environmental concerns as a result of the broader scope of their job. The United Nations and the National Association of Social Workers have given them the mandate to protect the environment, while some derive their duty or responsibility from God (Kar, 2022).

A frequent natural calamity that has an impact on communities all across the world is flooding. Community workers play a crucial role in supporting and helping those impacted by floods and their families (Hafiz S Munawar et al., 2021).

However, reacting to floods may be difficult, and community workers may run across a number of challenges as they try to offer useful support. The purpose of this literature study is to investigate the difficulties that Pakistani community workers would have in 2022 when helping flood victims. The objective of this study is to identify recurrent themes and issues of concern in the current literature on the topic, in addition to possible solutions to these issues. This assessment aims to facilitate an understanding of the challenges faced by community workers following floods and provide guidance for practitioners involved with disaster response and recovery (Simonovic et al., 2021).

In addition, flood response workers were concerned for their safety, and stress and anxiety levels were high according to a similar study conducted in the United States. Responders stated that they were overwhelmed by the scale of the tragedy and the risks of their work (Mao et al., 2022).

We would need the right training and proper safety equipment to deal with safety problems.' This may involve access to personal protective equipment such as boots, gloves, and respirators and training on how to conduct work safely and what to do when hazards are encountered (Muzamil et al., 2022).

Communication may be a key obstacle to effective community response to flooding. But where community workers would want to talk to each other routinely to properly coordinate response efforts, share messages with flood victims, and relay accurate and timely updates to other response organizations and agencies, they can not under these conditions. Language barriers, difficulty in contacting flood victims and challenges to cooperation with other organizations and agencies were all communication problems identified in a study of the U.S. response to Hurricane Harvey. These limitations, according to the responders, compromised their support to the flood victims and coordination of emergent actions (Yusuf et al., 2022).

In this regard, a study of the response to the Indonesian floods showed that the difference between standard operating procedures and communication protocols between organized participants in the response made it difficult for community workers to communicate. Crisis response operations experienced paralysis and delays due to the lack of coordination among community workers, who often failed to communicate with other organizations and agencies (Sauray, 2023).

Conceptual Framework

Resilience theory, conceptualized, is a strength-based perspective on understanding why some individuals might be able to bounce back from life adversity. Clinical psychologist Dr. Norman Garmezy, the father of resilience research, is often credited.

According to resilience theory, how we respond to adversity rather than its actual characteristics is what matters most. But that's not all it does. It also aids in our ability to bounce back and even thrive after adversity (Ledesma, 2014). Community workers adapt their strategies when faced with unexpected challenges during flood response and recovery. This could include their capacity to maintain emotional well-being, cope with stress, and learn from experiences to improve future interventions.

Community workers fostering collaboration with local residents, government agencies, and non-profit organizations. Assess their ability to build and strengthen community networks, ultimately contributing to a more resilient and cohesive community in the aftermath of a flood. Additionally, community workers navigate resource constraints, both in terms of funding and personnel, showcasing their resourcefulness.

Research Questions

- What are the challenges faced by female and male community workers dealing with flood victims in 2022?
- What are the gender role constraints while dealing with flood victims?

Methodology

Research design

The research design was qualitative.

Sample

The sample of this research was those community workers who visited different flood areas for a different duration in Pakistan, 2022 and met the flood victims by themselves. The sample of this study consisted of five male and five female community workers.

Sampling technique

The sample was collected through purposive sampling.

Exclusion criteria

The community workers and volunteers who did not visit flooded areas by themselves were excluded.

Ethical Consideration

Before conducting the interview, permission has been taken from each participant. The main objective and purpose of this study were explained to the participants and assured that their personal information would be confidential.

Sample Saturation

Saturation is reached when new data appeared to be redundant, as it did not provide any new themes, insights, or understanding to the research question. It's a judgment call made by the researcher, based on their perception of the data's depth and comprehensiveness. When saturation was reached, it implies that the data collected was sufficiently rich and that further data collection might not yield additional meaningful information. As empirical studies have attempted to quantify when saturation might be expected to be reached. For instance, Morgan et al. found that the first five to six interviews in a qualitative study often produce the majority of new information, and little new information is gained as the sample size approaches 20 interviews. Guest et al. found that in their study, 70% of all identified themes emerged in the first six interviews, and 92% within the first 12 interviews. These studies suggest that in many cases, a relatively small number of interviews or focus groups may be sufficient to reach saturation, especially in studies with relatively homogenous populations and narrowly defined objectives.

Table 3.1Demographic Profile of Participants

Participants	Gender	Profession	Work Experience	Visited Areas	Duration
Participant 1	Female	Volunteer work with an organization	5 years	Tando adam and Sanghad Khipro	October, 2022
participant 2	Male	Founder of organization	8 years	Tandoshah	August, 2022
Participant 3	Male	Founder Organization	6 years	Rojhan	July, 2022

Participant 4	Male	Founder of Organization	5 years	Balochistan (Bela, Lohi, Uthal, Rasul Baksh goth, Sakran, Hub) Sindh (Thatha)	August, 2022
Participant 5	Female	Co-founder of Organization	10 years	Jamshoro, Hyderabad	June, 2022
Participant 6	Male	Working with Organization	4 years	Vehova village, South Punjab	September, 2022
Participant 7	Female	Work Voluntarily	3 years	Larkana (refugee camp at a train station and a village near audio for two weeks)	October, 2022
Participant 8	Female	Founder of Organization	4.5 years	Rajanpur	September, 2022
Participant 9	Female	Work Voluntarily	5 years	Swat, Kalam, Malam Jaba	January, 2023
Participant 10	Male	Head of Organization	4 years	Thatha, Sujawal, Keti Bander, Jati	August- September, 2022

Data Collection Procedure

Data was collected through semi-structured interviews. Interviews were conducted through interview protocol. This research targeted the participants including males and females who were working to support flood victims by meeting them. A recording device was used for recording all interviews. The researcher contacted participants first to inform them and conducted interviews after their consent. The interview was taken in their convenient language.

Result

In this research, the researcher has interviewed male and female community workers. The main objective is to analyse the challenges male and female community workers faced during the 2022 flood while dealing with flood victims. Thematic analysis originated from the main and emerging themes. A total 10 of interviews were conducted 5 females and 5 males.

Themes such as work experience, challenges while visiting flood areas, community workers' behaviour and coping strategies to overcome the challenges were generated.

Table 4.1 *List of main themes and emerging themes extracted from the result*

Main Theme	Emerging Theme
Work Experience	Volunteer work
	Organization Buildup
Challenges While Visiting Flood Areas	Travelling
	Accommodation
	Fundraising
	Gender Role Constraints
	Bumpy roads
	Mugging fear
	Resources Utilization
	Flood Victims Behaviour
	Health Problems
	Language Barrier
Community Worker's Behaviour	Emotional Support
	Encouragement
	Financial Support
	Fostering Environment
Coping Strategies to Overcome the Challenges	Health Concerns
	Goods Distribution
	Community support
	Communication with the opposite sex
	Travel
Recommendations	Training
	Education
	Digital Marketing

Theme 1: Work Experience

In the present study, participants shared insights into their roles and experiences as community workers assisting the 2022 flood victims. Their narratives highlight various aspects of community engagement, motivation, selection of volunteer work, and the pursuit of self-motivation and empowerment.

Participant 2M

Participant 2M emphasized coordination and management in distributing relief supplies as a volunteer with the Red Crescent Society. He stated, "I have been working as a volunteer... my role has been to coordinate and manage the distribution of relief supplies..."

Participant 4M

Participant 4M, detailed his role in assessing needs and coordinating relief efforts. He said, "I am with a community-based organization... my major role was to assess the needs of flood-affected areas and coordinate relief...."

Participant 7F

This was one contribution to children's overall well-being, education and socialisation — Participant 7F, educator. "I'm a teacher at a local school where I organize educational activities and provide emotional support to displaced children," she said..."

Theme 2: Obstacles to Visiting Flood-Affected Regions

The respondents outlined challenges they faced while working in the flood-impacted areas. Logistical limitations, emotional temporary build; lack of resources, health issues, and public awareness and education issues to promote preparedness to minimize its effects.

Participant 2M

Participant 2M described some of the barriers they faced in reaching remote areas where road destruction and lack of transportation made accessing these regions challenging. "It's because of the state of the roads and lack of transportation that getting into remote areas has been a big challenge," he added..."

Participant 8M

Some skepticism was expressed by community members, for example participant 8M stated: "Getting community members to take preparedness seriously has been a challenge ... some are sceptical of the importance of being prepared for floods and other disasters..."

Participant 10M

Participant 10M highlighted health problems faced mainly by relief team members and aggressive behaviour of flood victims as major challenges they faced stating, "Health problems of team members is a challenge due to unclean water and unsanitary conditions...24/7 acting out of the people who were our flooding victims, this was the first time COVID happened..."

Theme 3: Behaviour of Community Workers

Participants reflected on their behaviour and approach to working with flood affected people. Themes included staying positive and empathetic, speaking clearly, offering psychological and emotional support, and using multiple communication channels.

Participant 2M

Participant 2M emphasized the importance of a peaceful and reassuring attitude with flood victims. He continued, "...we try to keep a calm, reassuring tone when speaking to people who are in the midst of a flood, who may be nervous and scared of the flood water. And — this is a big one — we try to express empathy and understanding..."

Participant 5F

Participant 5F revolved around empathy and building trust for flood victims. As she explained, "...I handle flood victims with sensitivity and empathy... building trust and a safe space to share their feelings is essential to giving them effective support..."

Participant 9F

We have to educate the victims about health and sanitation as mentioned by participant 9F "...we emphasize on giving information and educating on health and hygiene practices giving them knowledge empowers them and helps them to improve their well-being...."

Theme 4: Strategies to Weave through the Difficulties

The participants discuss their coping strategies to overcome such challenges they encountered while working with the flood victims. Strategies included searching for external training, leveraging online resources, building collaboration and focusing on communication and social media to raise awareness.

Participant 2M

Participant 2M stressed that they all need to seek for external training for skill-building and greater readiness. He said, "... we appreciate training from outside to improve our skills and knowledge... training

needs us so that we can be more prepared to face all challenges..."

Participant 6M

Emphasizing clear communication and organizing regular meetings helped Participant 6M cope with challenges. He stated, "...clear communication and regular meetings keep our team aligned and motivated... discussing challenges openly and finding solutions together keeps us resilient..."

Participant 8M

External guidance and mentorship played a role in helping Participant 8M cope with challenges. He stated, "...seeking guidance from mentors and experts outside our organization has been valuable... their insights and advice guide us in navigating complex challenges..."

Theme 5: Recommendations

Participants 1,2,3,4,5,6,7,8 and 10 emphasized the importance of training to manage natural disasters. Community workers have recommended the implementation of training programs for aspiring community workers in the future.

Gender-based Challenges

In the context of assisting flood victims, male and female community workers encounter distinct gender-based challenges. The following table delves into the specific obstacles faced by each gender.

Table 4.2

Challenges faced by male and female community workers

Challenges Faced by Male Workers.

Logistical Difficulties and Resource
Constraints

Scepticism and Preparedness

Coordination Complexities and
Balancing Commitments

Health and aggressive beahvior

Obstacles for Female Workers

Stigma and cultural barriers

Health and disease prevalence

Emotional toll and witnessing suffering

These gender-related issues provide a complete picture of what makes male and female community workers different to support flood victims. Reading the verbatim responses reveals the particular challenges for each gender in the context of disaster relief.

Coping strategies used by male and female community workers. External trainings, collaboration, effective communication and continuous learning are some important approaches that are being used to face the challenge of disaster relief work. This not only adds on to the effectiveness of the community workers but also upscales their vulnerability and challenges, too.

This work highlights the need for tailored approaches and the deve-lopment of gender-specific targeted programme solutions to address the challenges of male and female community workers to provide the much-needed disaster response/humanitarian assistance. Awareness and minimization of these challenges can help organizations and policymakers develop an enabling environment for community

workers that is better suited to designing effective and impactful disaster relief interventions. The challenges of the community in the context of a natural disaster and the strategies to overcome the situation have been explained in depth by the senses of the knowledges of the interviewees with different perspectives.

Discussion

These findings shed light on the roles, experiences, challenges behaviour, and coping strategies of the field workers who provided support to the victims of the floods of 2022 in Pakistan. In their accounts, the contributors detail the nuanced process of engaging with communities, the challenges of responding to disaster and how they overcame hurdles to support flood-affected communities.

The stories shared by the participants highlight the variety of roles that community workers have in responding to disasters. Participant 2M's emphasis on coordination and management relates to existing work which points out the importance of efficient logistical support in relief distribution (Smith et al., 2018). However, ensuring such, therefore, what makes it possible is to coordinate and organize the distribution of relief supplies. In the same vein, the participation of Participant 3F with a local women group corresponds to the community-led initiatives as per Ager et al.,(2016) who advocates that existing social structures and networks must be effectively used to improve disaster willingness and recovery process. Community organizations and organizations are well aware of local needs and are often able to better respond to community drivers in the ongoing disaster.

The focus on the psychological and emotional support again, as illustrated in Participant 5F, is key to disaster response trumpeted in the literature. The enduring psychological effects of disasters on survivors are well-known (Norris et al., 2008). Counselling and emotional support is an integral part of the recovery process, as well as overall wellness. The emphasis on focusing on education and emotional well-being for children by Participant 7F cut across the work of Kellett and Wilkin (2017) on the vulnerabilities of children in disasters contexts.

The formidable difficulties presented to the participants while working in flooded areas are a reminder of the many complexities involving disaster response. Smith et al., (2020) illustrated the important imaginable hoops of well being care package distribution impeded as Participant 2M describes, to remote communities affected following disasters with infrastructure damage. Effective relief distribution is highly dependent on the state of functional transportation networks that can be severely compromised in the aftermath of disasters. Participant 5F's experience with stigma and cultural barriers aligns with findings by Fernandez et al., (2018) that highlight the need for cultural sensitivity in mental health provision. Various cultural beliefs and practices affect how people conceptualize and address psychological health.

The difficulties faced by Participant 8M in promoting preparedness because of scepticism in their community echoed the work of Peek et al., (2017), which emphasised the need to build trust in communities and address misconceptions. The perception of disaster risks and preparedness measures can substantially affect people's willingness to prepare in disaster-prone communities. How do we combat scepticism and create a ground swell of interest in preparedness?

The participants employed strategies for effective communication and engagement with victims of previous floods that are consistent with the principles in disaster response. As stated with Participant 4M, the importance of clear communication and addressing specific needs echo the humanitarian principles put in place by UNICEF (2019). Clear communication is critical to successful disaster response so that relief organizations understand the unique case of each community and can provide interventions tailored to community needs. Participant 5F's emphasis on creating empathic and trusting relationships aligns with the research of Peek et al. (2017) about trust building in the disaster context. Building trust has a vital role in enabling cooperation and collaboration between relief organizations and affected communities.

The way that participants coped is in line with known efforts that build resilience in disasters. As noted by Participant 2M, looking for external training for skillsets is related to the concepts of preparedness and adaptive capacity (Waugh et al., 2016). We train their community workers, who help them to respond well to disasters. Building collaboration and sharing ideas, a theme from participants 4M and 6M, aligns with research such as that by Comfort et al., (2017), that highlights the role of collaborative networks in supporting effective disaster response. And collaboration brings actors together so that they can share resources, and apply best practices and collectively solve common challenges even if they are not surmountable by the individual actor.

They shed light on the multiple and complex dimensions of 'community' work in the context of disaster response. These accounts correlate with previously published literature, highlighting many common themes including the need for coordination, psychological support, education, communication, and partnership. These principles and practices help to reinforce a more effective and holistic response and

recovery to disasters, and through this recognition community workers can help to integrate these principles and practices into our future responses to disaster. Ongoing research in crisis aversion and emergency response strengthens our knowledge and ability to better assist such communities.

Conclusion

The accounts of the participant contribute a deeper understanding of the experiences, roles, challenges, behaviours, and coping strategies of community workers who are helping 2022 flood survivors in Pakistan. Their narratives echo fundamental principles of disaster response, emphasizing the importance of coordination, psychological assistance, education, good communication, and cooperation. This study also highlighted that some special privileges are given to girls such as completion of task at a flexible time according to their convenience and also they are treated in a protective honourable way. Hands-on community outreach, logistics tracking, and leveraging the local networks were critical parts of their jobs. The need for psychological and emotional support also became apparent as a basic necessity for holistic recovery alongside emphasis on children's well-being. Doubt and stigma, on top of resource constraints, made that hard. These community workers embraced effective communication, trust building, and empathy as approaches to help these communities. Coping mechanisms included seeking external training, inter departmental collaboration and innovative ways of communicating. Their dedication contributes to disaster resilience, offering insights for future initiatives. In closing, the experiences shared by these community workers reflect the unwavering commitment and resilience necessary for successful disaster response and recovery. Their contributions exemplify the power of collective action and compassion during times of crisis.

Limitations

- This study based on ten participants as it is a small sample size which is insufficient to cover all
 research details and maybe we have missed wider range of experiences and prospectives that will
 exist across larger population.
- As per future concerns, avenue for vast exploration should be organised to research more comprehensive challenges faced by each participant of research in regard to contributor's geographical location and corresponding weather circumstances.

Recommendations

Education

- Researchers recommend implementing an age-appropriate educational program that imparts essential knowledge and skills to children from a young age, enabling them to confidently confront and manage natural disasters. The program should include interactive activities, engaging storytelling, and hands-on exercises that teach children about various types of natural disasters, their potential impacts, and the appropriate safety measures to take. Moreover, integrating practical drills, like mock evacuation exercises, can help familiarize children with emergency procedures and foster a sense of preparedness. Collaborating with educators, child psychologists, and disaster management experts will ensure that the curriculum is tailored to children's cognitive and emotional development. By instilling a culture of awareness and readiness from a young age, we can empower children to respond effectively and stay resilient in the face of natural disasters.
- Short courses or summer courses should be offered by higher education institutes related to disaster management, community work and natural calamities.

First Aid

- First aid management strategies for disaster management employees involve a systematic approach to handle emergencies during disasters. These employees are often part of organized response teams and have training and resources beyond basic first aid skills.
- Employees require a high level of coordination, skill, and dedication. Disaster management employees are trained to adapt to various scenarios and work under extreme conditions to provide the best possible care in the wake of a disaster.
- First Aid training should implemented as a compulsion in all higher education institutes.

Disaster Management Training

- Increased work efficacy of team by delivering detailed training to improve individual disaster management skills and cultivate strong communication abilities.
- Trained men and women of government and non-governmental organizations for disaster management to promote gender dynamics for healthy working environment.
- One of the major issues faced by disaster management worker is the unequal allocation of assistance because of lack of collaboration among institutions and coordination of various private and

government institutes, as a result few areas receive double assistance by multiple organizations and others left without support. To mitigate this issue, we should design a digital platform that registered all data of NGOs and victim areas.

Relevant Model

• The Government of Pakistan should create a system like *Sahana Disaster Management Platform* designed by Sri Lanka.



Source: National Emergency Operation Center, Sahana Disaster Management System

References

- Ager, A., Bailey, C., & Mckee, K. (2016). A Qualitative Comparative Analysis of Well-Being during Disaster Recovery. *Social Indicators Research*, 129(2), 777-797.
- Azad, A. K., Hossain, K. M., & Nasreen, M. (2013). Flood-induced vulnerabilities and problems encountered by women in northern Bangladesh. *International Journal of Disaster Risk Science*, 4(4), 190–199. https://doi.org/10.1007/s13753-013-0020-z
- Chou, Y.-C. (n.d.). Social Workers Involvement in Taiwan's 1999 Earthquake Disaster Aid: Implications for Social Work Education. http://nbn-resolving.de/urn:nbn:de:0009-11-3959
- Comfort, L. K., Ko, K., & Zagorecki, A. (2017). Resilience and Volunteering: A Review of Possibilities and Evidence. *Nonprofit and Voluntary Sector Quarterly*, 46(5), 917-941.
- Fernandez, A., Tan, K. A., & Knaak, S. (2018). Intersectionality in Mental Health: A Systematic Review of the Literature. *International Journal of Mental Health Systems*, 12(1), 28.
- Kar, N. (2022). Disaster Mental Health in India: A Long Journey Ahead (pp. 312–332).
- Kellett, J. B., & Wilkin, K. L. (2017). Children's Experiences of Disaster: A Review of Child-Centered Empirical Research. *Child Development Perspectives*, 11(3), 166-172.
- Landström, C., Becker, M., Odoni, N., & Whatmore, S. J. (2019). Community modelling: A technique for enhancing local capacity to engage with flood risk management. *Environmental Science & Policy*, 92, 255–261. https://doi.org/https://doi.org/10.1016/j.envsci.2018.11.009
- Ledesma, J. (2014). Conceptual Frameworks and Research Models on Resilience in Leadership. *SAGE Open*, 4(3). https://doi.org/10.1177/2158244014545464
- Mao, X., Hu, X., & Loke, A. Y. (2022). A Concept Analysis on Disaster Resilience in Rescue Workers: The Psychological Perspective. *Disaster Medicine and Public Health Preparedness*, 16(4), 1682–1691. https://doi.org/DOI: 10.1017/dmp.2021.157
- Munawar, Hafiz S, Khan, S. I., Anum, N., Qadir, Z., Kouzani, A. Z., & Parvez Mahmud, M. A. (2021). Post-Flood Risk Management and Resilience Building Practices: A Case Study. In *Applied Sciences* (Vol. 11, Issue 11). https://doi.org/10.3390/app11114823
- Muzamil, S. A., Zainun, N. Y., Ajman, N. N., Sulaiman, N., Khahro, S. H., Rohani, M. M., Mohd, S. M., & Ahmad, H. (2022). Proposed Framework for the Flood Disaster Management Cycle in Malaysia. *In Sustainability* (Vol. 14, Issue 7). https://doi.org/10.3390/su14074088

- National Emergency Operation Center, Sahana Disaster Management System. Retrieved from http://sahana.neoc.gov.np/sahana
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness. *American Journal of Community Psychology*, 41(1-2), 127-150.
- Peek, L., Tomicic, T., & Van Zomeren, M. (2017). Organizational and Collective Coping: Skills, Knowledge, and Training. *In Building Resilience to Trauma: The Trauma and Community Resiliency Models* (pp. 201-218). Routledge.
- Saurav, N. (2023). Humanitarian logistics challenges in disaster relief operations: A humanitarian organisations' perspective. *Journal of Transport and Supply Chain Management*, 16(1), 691. https://doi.org/10.4102/jtscm.v16i0.691
- Simonovic, S. P., Kundzewicz, Z. W., & Wright, N. (2021). Floods and the COVID-19 pandemic—A new double hazard problem. *WIREs Water*, 8(2), e1509. https://doi.org/10.1002/wat2.1509
- Smith, D. I., Callahan, E. K., Kusuma, P., & Elkan, C. (2018). Optimizing the Humanitarian Supply Chain. *ACM Transactions on Management Information Systems* (TMIS), 9(3), 1-19.
- Smith, M., Sucher, K., Aqeel, T., & El-Zaart, A. (2020). Disaster Relief Operations and Their Strategic Design. *Production and Operations Management*, 29(5), 1167-1185.
- UNICEF. (2019). Humanitarian Action for Children 2020: Redefining the Humanitarian-Development Nexus. *United Nations Children's Fund*.
- Waugh, W. L., Streib, G., & Sirgy, M. J. (2016). Disaster and Emergency Management: Concepts, Strategies, and Tools. Springer.
- Yusuf, H., Fahrudin, F. I., Fahrudin, A., Huraerah, A., & Wanda, K. G. A. (2022). The model of community empowerment in fire forest disaster prevention in Indonesia. *Technium Sustainability*, 2(1 SE-Articles), 38–45. https://doi.org/10.47577/sustainability.v2i1.5605.