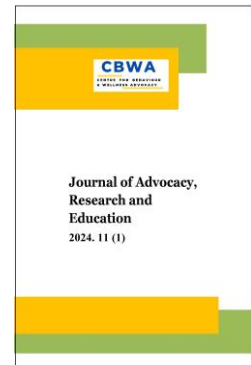




Publisher: Centre for Behaviour and Wellness
Advocacy, Ghana
Co-publisher: Cherkas Global University, USA
Has been issued since 2014
ISSN 2410-4981. E-ISSN 2508-1055
2024. 11(1): 15-22

DOI: 10.13187/jare.2024.1.15

Journal homepage:
<http://kadint.net/our-journal.html>



Economic Loss and Mental Health Experiences among Flood Disaster Victims in Ghana

Emmanuel Dziwornu  ^{a, *}

^aUniversity of Health and Allied Sciences, Ho, Ghana

Abstract

Disasters have become a common threat to many societies across the globe. There is a severe impact on developing communities as disasters tend to wash away the little gains they have made. These disasters will continue to occur, and their impacts will not cease to accompany them. Meanwhile, in developing countries like Ghana, little empirical information is recorded on the impacts disaster victims endure. Concerns for victims are short-lived, whereas the concerns of victims are largely ignored. As much as there are community-level effects, disasters leave significant individual impacts that deserve attention. Different domains of disaster impact exist: economic, social, and psychological. These need to be explored, especially in poor resource settings such as Ghana. This qualitative study used 13 victims of the 3rd June 2015 flood disaster with a fire explosion in Accra, Ghana, a disaster that claimed over 150 lives. The study employed a descriptive qualitative design to explore victims' economic and mental health experiences. It was found that victims lost their livelihoods, such as jobs, homes, and possessions. Psychological impacts such as anxiety, behavioural changes, and mood effects were also recorded. It is concluded that the struggles of disaster victims in Ghana are real and that there is a need for comprehensive investigation, intervention, and support for victims. The implications of the findings are discussed.

Keywords: disaster, economic loss, Ghana, mental health, victims.

1. Introduction

Disasters present diverse experiences, including economic impacts (Panwar, Sen, 2019). Mental health experiences are also common among disaster victims. It is possible that economic experiences can further exacerbate the mental health outcomes among the victims (Frasquilho et al., 2015). Unfortunately, little has been said about this subject within the Ghanaian context in particular and Africa in general. Economic loss is a significant concern in every sphere of life. Thus, the short-lived interest shown in the agony of disaster victims in Ghana (Dziwornu, Kugbey, 2015) leaves room for much to be desired.

When victims lose their livelihood to an unexpected event through no fault of theirs, it may have a long-term effect on them, including mental health concerns (Frasquilho et al., 2015). Meanwhile, floods are the most common disaster in Ghana, occurring on a perennial basis. Therefore, there is a need to explore how victims have been impacted economically and mentally to inform policy decisions and interventions (Makwana, 2019). The global prevalence of disaster victims continues to increase (Dolman et al., 2018; United Nations, 2015). This indicates that the

* Corresponding author

E-mail addresses: edziwornu@uhas.edu.gh (E. Dziwornu)

Received: 07 December 2023 Revised: 23 March 2024 Accepted: 25 March 2024

number of individuals with various concerns emanating from disasters globally is high. Sadly, this is expected to increase in African and Asian countries (EM-DAT, 2015). It is important to elicit the first-hand experiences of the victims through qualitative studies in order to appreciate their concerns. Using a descriptive qualitative approach, this study sought to answer the question of what economic and mental health experiences flood disaster victims endured.

2. Methods

Study design

The descriptive qualitative design was used for this study. It was aimed at recording and understanding the story of the victims of the disaster (Kim et al., 2017). This provided the basis for understanding the victims' experiences through their narratives. Their experiences explored include their economic losses and their mental health challenges. Victims in this study are those who survived a flood disaster that occurred on the 3rd of June 2015 in Accra, Ghana.

Population and sample

This study was conducted in Accra, the capital city of Ghana, specifically at the Kwame Nkrumah Circle among the victims of the 3rd June 2015 flood disasters in Accra. This disaster was unique in the history of disasters in Ghana because of an explosion of a fuel station at the Kwame Nkrumah Circle, which claimed over 150 lives in the capital city. Three (3) contacts were established during a meeting of the victims' leadership to select the participants, where their grievances were discussed. The three contacts agreed to participate in the study and served as a point of reference to other victims. In total, 13 participants were selected for the study using the snowball technique (Sarfo et al., 2022). This sample size was used because the study prioritised richness of information over number of participants (Pietkiewicz, Smith, 2014; Sarfo et al., 2021) while being guided by Creswell (1998) who argued that a sample size of five (5) to 25 is recommended for a qualitative study. There were seven males and six females. All participants interviewed were Christians. These are presented in the table 1 below.

Table 2.1. Demographic Information of Participants

Participant	Age	Gender	Occupation	Religion
1	36	Female	Health worker/student	Christian
2	44	Female	Trader	Christian
3	38	Female	Trader	Christian
4	48	Female	Trader	Christian
5	37	Male	Herbalist	Christian
6	63	Female	Not working	Christian
7	60	Male	Transport owner / driver	Christian
8	47	Male	Driver	Christian
9	42	Male	Civil servant	Christian
10	30	Male	Trader	Christian
11	67	Female	Retired	Christian
12	32	Male	Civil servant	Christian
13	43	Male	Teacher	Christian

Inclusion and Exclusion Criteria

The study participants were included or excluded on the following basis: an individual must be a victim of the 2015 flood disaster in Accra at Kwame Nkrumah Circle, Alajo, Kaneshie, Malam and New Town (all communities are around the disaster zone and were affected), be 18 years and above, and be in Accra at the time of the study. An individual was not qualified to participate in the study if they were currently on admission/treatment for any chronic or terminal illness not caused by the disaster, they currently suffer significant memory loss and a significant psychiatric condition.

Data Collection Tool

A semi-structured interview guide was developed and used for data collection. This asked questions about what economic experiences they had uncounted due to the disaster and what mental health impacts they had experienced from the disaster. The guide consisted of prompts and

questions for follow-ups. Meanwhile, there was room for follow-up questions depending on the responses given by participants. This provided the in-depth information required for the study. Two independent Professors with expertise in qualitative study reviewed the guide for appropriateness before it was used.

Data collection procedure

Participants were contacted either via phone or in person. When they agreed to participate in the study, a date was set together for the interview. The majority of them were interviewed in their homes. However, Five participants were interviewed in their workshops due to their schedules. All participants signed a consent form indicating their agreement to participate in the study. Data was collected using the semi-structured interview guide. Interviews were conducted one-on-one and audiotaped with the consent of participants. Interviews lasted 50 to 60 minutes.

Data processing and analysis

Each audiotaped interview was named distinctively to avoid overlapping information. The researchers all transcribed the tapes verbatim. Tapes of interviews with participants who used local expressions in the course of the interview, those who answered some questions in their local language to express themselves well and those who were interviewed in a local language (in this case, Twi) were transcribed verbatim and translated by a professional translator at the Department of Linguistics, University of Ghana, Legon. Transcribed and translated scripts were reviewed for spelling, punctuation and correctness of the transcriptions, along with the audio tape by the researcher and two other experts in qualitative data analysis for clarity of the information they contained. The data was organised using Atlas. ti and analysed using thematic analysis. The data was organised into themes, subthemes, and main study objectives.

3. Results

Two main themes emerged from the analysis: economic losses and mental health impacts. The economic losses had two subthemes: loss of jobs and loss of homes and properties. Mental health impact had three subthemes, namely mood, anxiety, and behavioural change experiences. The main themes and their subthemes are presented below with corresponding quotes. The themes were carefully named to reflect the participants' information and satisfy the research objectives.

Theme 1: Economic losses

This theme describes the economic impact of the disaster on victims. Participants lost their jobs, shops, and their homes and possessions. There were participants whose cars were submerged, burnt and washed away, rendering them jobless since the car was their source of livelihood. Some had their houses burnt, flooded, or broken down, with all possessions in the house condemned. Therefore, The two subthemes are loss of job, and loss of home and property.

Subtheme 1: Loss of job: participants had their shops where they traded destroyed by the flood. Some had the cars they use for commercial activities damaged. This caused their job loss. The loss of their job appears to have completely redefined their state, and some perceive that they have been reduced to nothing. Some who previously imported goods into the country and sold have now resorted to selling sachet water. Below are some of their narratives.

"...I am into business; I import things. My customer is in Italy, and one is in the USA. They send me things, such as a mattress, television, fridge and other things. I cleared them; I do supply to my customers in Bogoso, Goaso, Prestea, and Tarkwa... Now I sell pure water; my ice chest is behind you" (Participant 2, female, 44 years)

Some victims have a hard time making a living because their source of livelihood has been severely affected.

For example, some participants said,

"...Since then, we have been through hardship. We don't get money to do anything"
(Participant 3, female, 38 years).

Others also indicated;

"...I sleep outside, those are my things. My bags, sponge, everything is inside. I sleep in front of Vienna City." (Participant 2, female, 44 years).

Another added,

"...it has cost me my children's schooling" (Participant 6, female, 63 years).

Subtheme 2: Loss of home and property: Participants lost their properties in the disaster. Some lost their homes, clothing, cars, shops, and other belongings. For some, it was all their lifetime possession that they had lost. Due to this, some participants find it difficult to resettle. Some sleep outside because they are unable to raise funds to rent an apartment.

Some participants who lost properties said,

"...We lost everything. We didn't pick anything from that house. But you know people even came and robbed the few things that remained" (Participant 1, female, 36 years).

"...I lost all my possessions. My electronic devices, wardrobe, the building even had cracks" (Participant 5, male, 37 years).

"...Well, we lost a lot of material things. Our clothes, cars and many things" (Participant 12, male, 32 years).

Psychological impact

This theme captures the psychological experiences of victims over the years due to the disaster they experienced. This encompasses three subthemes: mood, anxiety, and behavioural change experiences.

Subtheme 1: Anxiety experiences: Long after the disaster, participants still expressed feelings of uneasiness and fear about the event and related situations. They reported nightmares and uncomfortable memories about the event. Some participants expressed anxiety over the location of the disaster, as shown in the following narratives;

"...I stopped going to Circle or passing there. I remember one day, I was going to Accra from Achimota; I used 37 (another route) instead of Circle. It makes my heart beat. But this year, I managed to go there like three times" (Participant 10, male, 30 years).

"...Eei, I get scared when I see it [i.e. the Circle fuel station], I panic. After we were discharged from the hospital, I didn't want to come here. I came and stood at an area and decided boldly to come; if not, the fear would be there forever. So, I came with boldness and courage, but sometimes I get frightened with goose bumps" (Participant 4, female, 48 years).

"...I still use Circle to work and back. When I get there at first, it scares me. Right now, it annoys me" (Participant 12, male, 32 years).

Some participants also indicated that they experience anxiety at specific times, such as towards night and during rain.

"...I get panics, when I am sleeping or walking around and when it's getting to evening" (Participant 3, female, 38 years).

Another said, *"...I am better now, but whenever it rains, my fears and anxieties resurge"* (Participant 5, male, 37 years)

"...When it is about to rain, I remember that day. It often keeps me awake, especially if the rain falls at night. Aha! And also, I don't know, when I go upstairs, I remember the incident a lot. It looks like it is happening again. Fortunately, my room is downstairs, so I avoid the top as much as possible" (Participant 11, female, 67 years).

One participant expressed his experience of nightmare as follows:

"...I always dream about it. It's like the thing is happening again. I fear at night because of the dreams. Even during the day, sometimes, I dream about it. When I have the dream, and I wake up, then I become 'basaa' (i.e. disturbed)" (Participant 8, male, 47 years)

Subtheme 2: Behavioural changes: this includes information on some negative changes in the behaviour of victims following the disaster. This includes changes in sleep, eating and physical activities. Below are some extracts from their narratives;

"...I can't sleep. I lie down like that, then I open my eyes. I don't feel fine now" (Participant 3, female, 38 years).

"...Currently, I do not sleep so well; I wake up at 2 am and can't go back to bed. Whereas I sleep better outside" (Participant 4, female, 48 years).

For those experiencing eating-related changes:

"...Eating, it is the worst of it all. Sometimes I can be stressed and forget whatever I am doing. I don't even feel like eating" (Participant 2, female, 44 years),

"...As for food, I can eat a little. When I am eating, I don't feel its taste, especially when I remember that I have nowhere to sleep" (Participant 3, female, 38 years).

Regarding physical activities, some participants reported a loss of energy and zeal or motivation. One participant said the following;

"...I wasn't enjoying myself and the things I used to do in the past, and it also impacted my work. Because now even waking up and preparing for work became a challenge" (Participant 1, female, 36 years).

Subtheme 3: Mood experiences: this describes the emotional feelings such as sadness, depression, loss of interest by victims of the disaster and anger. Some said they cried, felt sad and lost interest in activities.

One of the participants responded that;

"...I wasn't enjoying myself and the things I used to do in the past" (Participant 1, female, 36 years).

Largely, these experiences underscore depressive symptoms among the victims. Below are some other quotes from other participants;

"...My brother, it is tough for me. If not my wife, hmmm. If it were some women, they would have left me. I have been crying aaa. I feel really sad" (Participant 8, male, 47 years),

"...I was thinking a lot. I still think but not like last year... I was getting angry too. The only thing is that I try not to offend the children" (Participant 9, male, 47 years).

A victim who was physically deformed by the disaster shared how difficult it is for him in public places. His ordeal affects the children, and he indicates that his children's friends will mock them when he turns up at the children's school. This is what he said;

"...I can be very sad because my children, when they say their parents should come to PTA (Parent-Teacher Association) meetings, I can't go again because their friends will laugh at them" (Participant 8, male, 47 years).

He also lamented how the general public add to his pain.

"...It's not easy, my brother. If I go and join a trotro, people don't want to sit on the seat with me. Meanwhile, I didn't bring this upon myself. But the thing is that the people don't know what happened to me. No, I look very scary. When I see people's reactions, I start to cry. I can't hold the tears. Hmmmm." (Participant 8, male, 47 years).

4. Discussion

The experiences of disaster victims are important when considering the support to offer them, thereby guiding interventions that will benefit victims. This study found significant economic and psychological experiences of disaster victims in Accra, Ghana, with important implications for clinical, socio-economic and political interventions. The victims lost their livelihood. This can present a long-term impact that can translate into other effects (Frasquilho et al., 2015). This disaster took over 150 lives, some of which may be the economic backbones for their families. Meanwhile, the disaster destroyed the resources to deal with the post-disaster effects. Some had to depend on the benevolence of others to survive for a long time before things were restored. Some have suffered permanent physical disabilities that could render them unable to walk, work and socialise.

Lindell and Prater (2004) reported that natural disasters cause massive property damages or losses. As a result, victims usually become homeless (Paidakaki, 2012). As the result of this study showed, some participants reported that they have been sleeping outside in front of shops for some time now because the disaster has destroyed their houses, and they are currently unable to rent a place to stay. Apart from homes, jobs were lost. Victims had their workshops destroyed completely. People had their goods destroyed, and their monies burnt up in the explosion. A participant reported that she used to import goods and sell them, but now she sells sachet water. This has significant implications for psychological health among victims (Frankenberg et al., 2008).

These effects may also affect national economic activities (Klomp, 2016). The government was compelled to foot the medical bills of victims who were hospitalised due to the disaster. To date, victims expect and demand compensation for their losses from the government. Immediately after a disaster, the government also needed to reconstruct affected roads, bridges, and monuments. In Ghana, the NADMO becomes overstretched during disasters since victims tend to require relief items beyond expectation. Since many people get affected by disasters, their jobs and earnings get affected, translating into poor savings, a decrease in gross domestic product, and related economic indicators (Brei et al., 2018; Klomp, 2016; Ladds et al., 2017).

Indeed, victims expressed the psychological impacts of the disaster on their lives. The psychological impacts associated with disasters are extensively demonstrated in the literature. For the current study, mood disturbances, anxiety-related effects and behavioural problems were reported. These reports are in tune with Haqqi (2006), Griensven et al. (2006), Chung and Kim (2010), and Hussain et al. (2011). The American Psychiatric Association (APA) reported that survivors usually experience anxiety, depression, hypersensitivity, and insomnia (APA, 2013). Victims in this study reported most of these distresses. They felt depressed, cried a lot, were anxious, unable to sleep, had high interpersonal sensitivity, and had poor appetite. This distress has implications for victims' suicidality (Guo et al., 2017; Kolves et al., 2013). Orui and Harada (2014) noted that suicidal implication of disasters is high among females on the whole. Another group that may be of concern in this instance is those with higher losses during the disaster. Fang and Chung (2019) reported higher psychological impacts among these groups compared to those with fewer losses. For example, a victim who loses the whole family, house, cars and shops in the disaster will be more psychologically distressed compared to one who loses only a shop. This must be of concern to policymakers and therapists. In this regard, resources must be harnessed to assist such victims in dealing with their ordeals.

5. Implications of study findings

There are implications for policy, practice and research regarding disaster survivors in Ghana and Africa. Generally, Ghana's disaster management policy is too physical and short-lived, and it has very little budget for disaster interventions. The mental health component is largely missing in managing disaster-related effects in Ghana. The government needs to redesign the disaster policy by making psychiatric and psychological components for disaster-related interventions mandatory. Mental health research on disaster is lacking in Ghana. The academic and scientific community must turn to this subject to make information available to the government and clinicians. The government should not only provide short-term economic relief for victims. There must be a deliberate attempt to re-establish victims economically. This will, in turn, avert any long-term mental health and socio-economic impacts victims will live with (Makwana, 2019).

6. Limitations of the study

There are some limitations associated with the current study. One of these limitations is that the best design would have been a longitudinal design. It would have been beneficial to follow the victims over a long enough period to understand the dynamics of their challenges and how the various factors played out, especially regarding how they have coped over the years. Also, the study excluded victims below the age of 18. This means that there is still a population of victims whose information is missing in the knowledge about experiences after the disaster in Ghana. Under 18 victims are a significant unit of the disaster population. They are also deemed vulnerable. Therefore, they need to be studied in this regard.

7. Conclusion

Victims of disasters endure significant challenges. Unfortunately, little attention is paid to this population in Ghana and Africa in general. There is limited knowledge of what happens with this population, and this can seriously impede policy and intervention. Victims suffer economic impacts from disasters. They experience psychological impacts as well. These two could possibly be linked to poor economic circumstances, which can affect one's mental health and vice versa. Policy decisions must be well considered for this situation since disasters are not choices people make.

8. Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Ethics Committee for Humanities (ECH) of the University of Ghana, Legon (Approval No. ECH 084/17-18). The study also adhered to the relevant ethical guidelines and regulations in accordance with the Helsinki declarations. All participants signed a written informed consent form approved by the Ethics Committee for Humanities (ECH) of the University of Ghana, Legon.

Consent for publication

Not applicable.

Availability of data and materials

Not applicable.

Conflict of interest statement

The author reports no conflicts of interest.


Funding

Not applicable.

9. Acknowledgements

I am grateful to all participants for their contributions. I also thank the Centre for Behaviour and Wellness Advocacy for their free professional editing services following the acceptance of this paper.

Authors' ORCID

Emmanuel Dziwornu  <https://orcid.org/0000-0003-4637-2371>

References

- APA, 2013** – American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders: DSM-V*. 2013. 991. DOI: <https://doi.org/10.1176/appi.books.9780890425596.744053>
- Beri et al., 2018** – *Brei, M., Mohan, P., Strobl, E.* (2019). The impact of natural disasters on the banking sector: Evidence from hurricane strikes in the Caribbean. *The Quarterly Review of Economics and Finance*. 72: 232-239. DOI: <https://doi.org/10.1016/j.qref.2018.12.004>
- Dolman et al., 2018** – *Dolman, D.I., Brown, I.F., Anderson, L.O., Warner, J.F., Marchezini, V., Santos, G.L.P.* (2018). Re-thinking socio-economic impact assessments of disasters: The 2015 flood in Rio Branco, Brazilian Amazon. *International Journal of Disaster Risk Reduction*. 31: 212-219. DOI: <https://doi.org/10.1016/j.ijdr.2018.04.024>
- Dziwornu, Kugbey, 2015** – *Dziwornu, E., Kugbey, N.* (2015). Mental health problems and coping among flood victims in Ghana: A comparative study of victims and non-victims. *Current Research in Psychology*. 6(1): 15-21. DOI: <https://doi.org/10.3844/crpsp.2015.15.21>
- EM-DAT, 2015** – *EM-DAT, H.* (2015). The human cost of weather-related disasters, 1995–2015. *Centre for Research on the Epidemiology of Disasters, UN Office for Disaster Risk Reduction (UNODRR), Brussels*, 1-25.
- Fang, Chung, 2019** – *Fang, S., Chung, M.C.* (2019). The impact of past trauma on psychological distress among Chinese students: The roles of cognitive distortion and alexithymia. *Psychiatry Research*. 271: 136-143. DOI: <https://doi.org/10.1016/j.psychres.2018.11.032>
- Frankenberg et al., 2008** – *Frankenberg, E., Friedman, J., Gillespie, T., Ingwersen, N., Pynoos, R., Rifai, I. U., ... , Thomas, D.* (2008). Mental health in Sumatra after the tsunami. *American Journal of Public Health*. 98(9): 1671-1677. DOI: <https://doi.org/10.2105/AJPH.2007.120915>
- Frasquilho et al., 2015** – *Frasquilho, D., Matos, M.G., Salonna, F., Guerreiro, D., Storti, C.C., Gaspar, T., Caldas-de-Almeida, J.M.* (2015). Mental health outcomes in times of economic recession: A systematic literature review Health behavior, health promotion and society. *BMC Public Health*. 16(1). DOI: <https://doi.org/10.1186/s12889-016-2720-y>
- Griensven et al., 2006** – *an Griensven, F., Chakkraband, M.S., Thienkrua, W., Pengjuntr, W., Cardozo, B.L., Tantipiwatanaskul, P., ... , Thailand Post-Tsunami Mental Health Study Group.* (2006). Mental health problems among adults in tsunami-affected areas in southern Thailand. *Journal of American Medical Association*. 296(5): 537-548.
- Guo et al., 2017** – *Guo, J., He, H., Fu, M., Han, Z., Qu, Z., Wang, X., Guan, L.* (2017). Suicidality associated with PTSD, depression, and disaster recovery status among adult survivors 8 years after the 2008 Wenchuan earthquake in China. *Psychiatry Research*. 253(February): 383-390. DOI: <https://doi.org/10.1016/j.psychres.2017.04.022>
- Haqqi, 2006** – *Haqqi, S.* (2006). Mental Health Consequences of Disasters. *Medicine Today*. 4(3): 102-106.
- Hussain et al., 2011** – *Hussain, A., Weisaeth, L., Heir, T.* (2011). Psychiatric disorders and functional impairment among disaster victims after exposure to a natural disaster: A population based study. *Journal of Affective Disorders*. 128(1–2): 135-141. DOI: <https://doi.org/10.1016/j.jad.2010.06.018>

[Kim et al., 2017](#) – Kim, H., Sefcik, J.S., Bradway, C. (2017). Characteristics of qualitative descriptive studies: A systematic review. *Research in Nursing & Health*. 40(1): 23-42. DOI: <https://doi.org/10.21061/jcte.v21i1.647>

[Klomp, 2016](#) – Klomp, J. (2016). Economic development and natural disasters : A satellite data analysis. *Global Environmental Change*. 36: 67-88. DOI: <https://doi.org/10.1016/j.gloenvcha.2015.11.001>

[Kolves et al., 2013](#) – Kolves, K., Kolves, K.E., De Leo, D. (2013). Natural disasters and suicidal behaviours: A systematic literature review. *Journal of Affective Disorders*. 146: 1-14. DOI: <https://doi.org/10.1016/j.jad.2012.07.037>

[Ladds et al., 2017](#) – Ladds, M., Keating, A., Handmer, J., Magee, L. (2017). How much do disasters cost? A comparison of disaster cost estimates in Australia. *International Journal of Disaster Risk Reduction*. 21: 419-429. DOI: <https://doi.org/10.1016/j.ijdrr.2017.01.004>

[Lindel, Prater, 2004](#) – Lindell, M.K., Prater, C.S. (2004). Assessing community impacts of natural disasters. *Natural Hazards Review*. 4(4): 176-185.

[Makwana, 2019](#) – Makwana, N. (2019). Disaster and its impact on mental health: A narrative review. *Journal of Family Medicine and Primary Care*. 8(10): 3090-3095. DOI: https://doi.org/10.4103/jfmpe.jfmpe_893_19

[Orui, Harada, 2014](#) – Orui, M., Harada, S. (2014). Changes in suicide rates in disaster-stricken areas following the Great East Japan Earthquake and their effect on economic factors : an ecological study. *Environmental Health and Preventative Medicine*. 19(6): 459-466. DOI: <https://doi.org/10.1007/s12199-014-0418-2>

[Paidakaki, 2012](#) – Paidakaki, A. (2012). Addressing Homelessness through Disaster Discourses: The Role of Social Capital and Innovation in Building Urban Resilience and Addressing Homelessness. *European Journal of Homelessness*. 6(2): 137-148.

[Panwar, Sen, 2019](#) – Panwar, V., Sen, S. (2019). Economic Impact of Natural Disasters: An Empirical Re-examination. *Margin: The Journal of Applied Economic Research*. 13(1): 109-139. DOI: <https://doi.org/10.1177/0973801018800087>

[Pietkiewicz, Smith, 2014](#) – Pietkiewicz, I., Smith, J.A. (2014). A practical guide to using Interpretative Phenomenological Analysis in qualitative research psychology A practical guide to using Interpretative Phenomenological Analysis in qualitative research psychology. *Czasopismo Psychologiczne – Psychological Journal*. 20(1): 7-14. DOI: <https://doi.org/10.14691/CPJ.20.1.7>

[Sarfo et al., 2021](#) – Sarfo, J.O., Debraha, T.P., Gbordzoea, N.I., Affula, W.T., Obeng, P. (2021). Qualitative research designs, sample size and saturation: Is enough always enough? *Journal of Advocacy, Research and Education*. 8(3): 60-65.

[Sarfo et al., 2022](#) – Sarfo, J.O., Debrah, T.P., Gbordzoe, N.I., Obeng, P. (2022). Types of sampling methods in human research: Why, when and how? *European Researcher. Series A*. 13(2): 55-63.

[United Nations, 2015](#) – United Nations. Sendai Framework for Disaster Risk Reduction 2015 – 2030 1. United Nations, 2015.