Macrothink Institute™

Journal of Sociological Research
ISSN 1948-5468
2024, Vol. 15, No. 2

Psycho Social Challenges Experienced by Flood Victims in Charsadda, Pakistan

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Received: February 10, 2024 Accepted: March 11, 2024 Published: June 20, 2024

doi:10.5296/jsr.v15i2.21697 URL: https://doi.org/10.5296/jsr.v15i2.21697

Abstract

Flood victims face a complicated set of emotional, social, and mental challenges that require advanced knowledge and personalized treatments. The July 2010 flood severely disrupted Pakistani society, inflicting chaos and structural damage and needing a new framework for the people of Khyber Pakhtunkhwa. This research investigates the social and psychological effects of the floods on residents of Charsadda, Pakistan. The information was gathered from people affected by floods in Charsadda, Pakistan. Purposive sampling methods were used to choose responders. N = 377 flood victims were selected from four villages in Union Council Agra. The data for this research was gathered from flood victims using a closed-ended questionnaire. The study emphasizes the enormous social and emotional hardship that flood victims experience, extensive property destruction and health issues. They lacked zeal for their well-being and exhibited excessive emotional reactions. The study suggests focusing social rehabilitation on financial aid and interest-free loans, conducting training sessions and building adequate therapy programs for future calamities. Psychological treatment can offer comfort and support to those impacted. Those who are impacted can find comfort via psychological treatment.

Keywords: flood victims, natural calamities, socio-psychological distress, Charsadda, Pakistan

1. Introduction

It is essential that we fully understand and address the complex psychosocial issues faced by flood victims in Charsadda, Pakistan. Flooding in this area has extensive social and psychological impacts and significant material and human losses. Previous studies have focused on post-disaster recovery, emergency response, and housing. However, there needs to be a more comprehensive analysis of ongoing psychosocial challenges that persist long after the disaster. Further research is required to understand the social and mental impacts experienced by Charsadda flood survivors and address the lack of knowledge about the lasting effects on individuals and communities.

The frequency of natural disasters has risen, causing loss of life, property damage, and environmental harm, especially in developing nations with high poverty levels and increasing the number of vulnerable individuals annually. Throughout human history, natural disasters have been the primary focus, causing significant damage to human and non-human assets (Liritzis, 2023). These disasters, such as floods, earthquakes, cyclones, droughts, and tsunamis, significantly impact human society (Mbandlwa, & Dorasamy, 2021). In contrast, artificial disasters, such as accidents and wars, negatively impact the environment through air, water, and noise pollution. Natural disasters frequently have a greater environmental impact than human-caused ones despite their significant societal effects (Sloggy et al., 2021; Koç, & Koç, 2023).

Natural disasters such as earthquakes, cyclones, floods, volcanic eruptions, and other similar events are the primary sources of natural catastrophes. These disasters cause significant damage to both people and their possessions, resulting in a wide-ranging impact on society and individuals (Reilly, 2022; McGuire, 2024). Floods, which are characterized by the presence of excessive water in unsuitable areas, have a significant impact on population displacement. They occur more frequently, last longer, and affect more locations than many other types of disasters (Merz et al., 2021). There will be an increase in fatalities, severe injuries, property destruction, power disruptions, and water pollution due to this significant hazard. Floods of various types can have devastating consequences, causing considerable damage to residential areas. Rivers may experience flooding during specific times of the year due to seasonal rain or snowmelt in large catchment areas. Like flash floods, tropical storm floods occur when intense rainfall exceeds the capacity of rivers and streams, leading to their overflow. Ultimately, storms, winds, and various natural phenomena can lead to the ocean overflowing, resulting in flooding on land (Chaudhary, & Piracha, 2021).

Rainfall intensity and frequency are the leading causes of floods, with flash floods being a significant worry due to their sudden occurrence. They can occur from collapsed levees, dams, ice blockages, or other blockages, making it crucial to be aware and prepared (Javadinejad, 2022). According to (Van Susteren, & Al-Delaimy, 2020), climate change is causing a global increase in natural disasters like floods, causing emotional, social, and economic impacts on individuals through property damage, income loss, and emergency expenses. Floodwater damage disrupts transportation routes, making it difficult and expensive to navigate affected areas. It also has significant emotional and social repercussions, which are intangible due to

factors like education, social connections, geographical separation, and emotional strain, leading to sleep disorders and emotional anxiety"(Parajuli et al., 2023). According to (United Nation, 2020) significant numbers of people perished daily due to natural disasters, resulting in over 1.23 million deaths over the past two decades. These disasters are particularly prevalent in countries with a low Human Development Index, leading to increased mortality rates. According to (Alexander et al., 2021), it has been observed that natural catastrophes are becoming increasingly devastating and resulting in higher casualties.

Natural disasters impact around 250,000 people globally, with a significant portion occurring in less developed countries. Developed nations like the US, Japan, and Italy are equally susceptible. Floods consistently rank highest in terms of both human lives lost and those affected, with various factors influencing casualties (Han, & Sharif, 2021). In July 2010, Pakistan experienced a catastrophic flood due to intense monsoon rainfall, causing extensive flooding across half of the country. The National Disaster Management Authority's 2010 annual report states that the southwestern region of Baluchistan experienced floods in the third week of July 2010. The second wave of monsoon rain hit the province of Khyber Pakhtunkhwa, causing significant flooding in major rivers like Nullah Khyber Pakhtunkhwa, Punjab, and Sindh. The flood caused substantial property damage and loss of life across all provinces, including Khyber Pakhtunkhwa (Ahmad Khan et al., 2010). Khyber Pakhtunkhwa experienced the highest number of casualties and the largest population affected in Pakistan, with 1156 deaths and 20 million people impacted. This study sought to investigate the social and psychological impacts on families affected by the July 2010 flood in District Charsadda.

This study aims to address the gap in supporting flood victims by focusing on their social and psychological effects. Floods often leave more dangerous challenges than physical ones, and the research aims to draw attention to policies for coping with these challenges. In order to achieve these aim, three objectives were developed and those are a) to analyze the socio-economic characteristics of flood victims. b) To investigate the social and psychological impact of the flood on families affected by it and c) To propose an effective solution for the successful rehabilitation of the victims. The findings will benefit all sectors of society, including government, policymakers, researchers, and relief agencies.

2. Literature Review

Floods are a frequent event that has a significant impact on people's lives, bringing about various challenges in the short and long term (Masoudian, 2009). In today's society, there is a growing concern regarding the vulnerability and possible mishandling or exploitation of individuals. Floods can have devastating impacts, resulting in the tragic loss of lives and significant socio-economic challenges. Implementing thorough water policies and strategies is essential for addressing these consequences. Early warning systems are valuable tools that enable individuals to develop effective action plans to reduce economic losses and prevent personal injuries(Vlachos, 1995). The Pakistan Metrological Department has developed an early warning system that collects and interprets information, but unfortunately, there is no mechanism in place to alert individuals about flash floods(Chaudhry, 2006). Developing

disaster coping mechanisms for communities at severe risk is of utmost importance for government organizations(Malik, 2016).

Floods have been a prevalent natural disaster throughout history, causing various human-life-threatening effects(Baez, De la Fuente, & Santos, 2010), (Tunstall et al., 2006), (Poiani, 2007).According to(Masoudian, 2009), the effects of floods can be classified into primary, secondary, and tertiary consequences. Direct impacts typically result in human casualties and property damage. Secondary impacts encompass water contamination, the spread of diseases, and the risks of undernourishment, while tertiary consequences lead to significant financial losses. As(Few & Tran, 2010)explains, several factors play a role in determining the effects of a flood on human life. Various factors contribute to the vulnerability of an area to disasters, such as economic conditions, population distribution, investments in flood control infrastructure, and the implementation of risk reduction measures. Women are disproportionately impacted compared to men as a result of physical and biological variances, restricted mobility, and lower literacy rates, which contribute to varying levels of vulnerability in different societies(Neumayer & Plümper, 2007).Floods pose significant challenges to men in protecting their loved ones and possessions, impacting their homes, land, livestock, crops, and electronic appliances. Victims often sell these items at low prices to meet their daily needs or restore their lives. This loss can significantly impact financial situations, potentially pushing people further into poverty or worsening their existing poverty level(O'Brien et al., 2006).The 2010 flood in Pakistan significantly impacted the agricultural sector, with crops and livestock suffering substantial losses in terms of value(Ali, 2014).

The flood resulted in a significant loss of life, especially in densely populated regions such as Japan, with a high concentration of valuable assets. However, with the implementation of a dependable early warning system(Szollosi-Nagy & Zevenbergen, 2004),incidents resulting in casualties could be more frequent. The flood profoundly impacted the lives of individuals and their ability to fulfill their basic needs. It resulted in significant socio-economic changes for farmers and fishermen, who lost land, livestock, nets, and boats(O'Brien et al., 2006).Floods significantly impact the education sector, causing disruptions to children's education and creating challenges for families in terms of limited access to books and other learning materials. According to a study by (Meyers & Hardee, 2017), natural disasters frequently disrupt children's education. The 2010 flood in Pakistan significantly impacted the education system, resulting in widespread damage to schools. The loss of parents and family members who provided social support was an essential factor. Muhammad Ali, the president of the Roshni helpline, emphasized the situation. Ali underscores the need for a complete reconstruction of the furniture and infrastructure of these schools to make them suitable for educational activities.

The impact of the flood on health deserves more significant consideration(Few et al., 2004; Hajat et al., 2003).Nonetheless, floods substantially affect physical and mental well-being, both in the immediate and long-term(Tunstall et al., 2006). Floods have far more negative effects on human health than they do on the immediate threat of loss of life. Floodwater contains polluted and harmful substances, exposing people to toxins and diseases that can

significantly impact mental health(Few & Tran, 2010). Contaminated and stagnant drinking water can spread deadly diseases like diarrhea, cholera, malaria, yellow fever, and respiratory disorders(Lehman et al., 2007).Landowners frequently no longer need the affected people's jobs after the disaster, so that floods can result in unemployment(Weather, 2004), (O'Brien et al., 2006).In 1974, the flood in Bangladesh resulted in significant unemployment and widespread hunger(Clay, 1985).In addition to causing unemployment, flooding directly impacts infrastructure, resulting in power outages and disruptions to gas lines. In 2010, floods caused significant damage to numerous schools, colleges, health centers, and water supply installations throughout Pakistan(Ali, 2014). The electric power company in Pakistan incurred a significant loss of 120 million US dollars due to the devastating flooding. This unfortunate event has detrimentally impacted various essential infrastructures such as landline telephones, railway networks, and electricity lines(Green, Penning-Rowsell, & Telford, 2007).The tourism industry, a crucial player in the global economy, encounters difficulties because of its remote destinations prone to flooding. The 2010 flood in Swat, Pakistan, significantly impacted the tourism sector, resulting in a loss of Rs. 650 million(Kirsch et al., 2012).

It is crucial to recognize the profound impact of natural disasters on mental well-being, as this aspect is frequently neglected when aiding and support to affected individuals(M. Khan et al., 2021).After a disaster, people commonly face feelings of anxiety, stress, unsettling memories, mental instability, trouble sleeping, and distressing nightmares. It is essential to address these issues to ensure the well-being of individuals and prevent prolonged disagreements(Hart et al., 2011).Disasters can lead to emotional challenges such as enduring sadness, stress, anxiety, and a diminished mood. Some individuals may experience difficulties with anger management, leading to the manifestation of hostility, suspicion, and irritability. On the other hand, some individuals may choose to withdraw and avoid social interactions. Experiencing distressing memories, disrupted sleep, and disturbing dreams can potentially contribute to the development of substance abuse issues, such as drug addiction or alcoholism, in specific individuals(Ehrenreich & McQuaide, 2001).

Flooding can have a profound effect on mental health, causing lasting conditions such as anxiety and depression that can endure for extended periods. Natural disasters like flooding can activate various stress-inducing factors, leading to these mental health challenges (Weather, 2004; O'Brien et al., 2006). Adult flood victims frequently face psychological distress, which can result in physical illness for both adults and children(Reacher et al., 2004). Secondary traumatization can affect individuals who are connected to traumatic events, including family members, observers, relief staff, and medical professionals. These individuals might suffer emotional consequences due to their connection to the primary victims. Assessments are crucial for individuals who may have gone through traumatic experiences, as emotional instability can give rise to further difficulties stemming from the initial event (Ehrenreich et al., 2001). Floods significantly impact mental health, as victims become more sensitive to anxiety and stress during heavy rainfall, river overflow, or potential risks, causing symptoms like fatigue, sleep difficulties, disturbing dreams, intoxication, anger, and self-harm thoughts (Penning-Rowsell et al., 2005).

3. Methods and Procedures

This article utilizes data collected from individuals impacted by flooding to examine the psychological and social consequences of the event. A quantitative research design was used to gather information from the respondents (Escuder-Bueno et al., 2012). A total of 377 informants were selected according to the guidelines of (Krejcie & Morgan,1970) for determining the sample size. During the initial sampling stage, Charsadda, a significantly impacted district, was chosen using purposive sampling. Four union councils were selected using proportionate sampling from the entire district during the second sampling stage. For the next sampling stage, 95 respondents were selected through random sampling from each union council. An interview schedule was prepared to gather the necessary information through a field survey of individuals aged 20–60. Forty informants randomly chosen from the target population validated the measurement tool before collecting the data. As per the agreement and preference of the study participants, some questions were added, removed, or modified to ensure the collection of comprehensive and authentic information. The data was presented and interpreted using univariate and bivariate tables. The Statistical Package for Social Sciences (SPSS) examined psychological and social markers of flooding, including mean, median, mode, standard deviation, variance, and range (Asif Khan, Islam, & Mitra, 2019).

4. Results and Discussion

4.1 Socio-Economic Characteristics

Table 1 presents the age of the respondents, their marital status, family type, and monthly family income. These are essential socio-economic factors that significantly influence human existence. As we mature, we gain a greater sense of rationality, wisdom, and stability. As one gains more life experiences, thoughts and actions tend to grow. Marital status plays a crucial role in increasing one's level of responsibility, offering valuable emotional support during emergencies, and gaining social recognition. Likewise, the monthly income of respondents from all means significantly impacts their social lives. Earning a higher income can elevate substantially an individual's social standing and substantially affect their ability to make crucial decisions within their family. The table above shows that a significant portion of the participants, approximately 53%, were over thirty during the interview. Among the respondents, a considerable portion falls between 20–24 years old (34%) and 25–29 years old (13%). According to the data, the study included flood victims who were young, middle-aged, and older. This analysis of various age groups enables the researcher to accurately record the consequences of the disaster, including the destruction of land, property, and assets, and gain valuable insights into the social and psychological difficulties the flood victims face.

In addition, Table 1 reveals that a significant portion of the respondents, comprising 55%, are single, whereas 45% were married. Regarding the respondent's family types, 46% are part of a joint family, consisting of parents and their married children. In addition, a significant portion of participants were part of an extended family structure, with some relatives living together under one roof. Another group of respondents lived in a nuclear family system. The

data on monthly family income was collected to gain insight into their overall financial situation. The table illustrates that a significant % of the monthly family income, precisely 30%, is Rs. 10,000–20,000.

Table 1. Distribution by Marital Status, Age, Family Type, and Monthly Household Income

Respondent's age			
No	Statement	Frequency	Percentage (%)
1.	20-24	129	34
2.	25-30	47	13
3.	30-above	201	53
4.	Total	377	100
Respondent's Marital status			
1.	Married	170	45
2.	Single	207	55
3.	Total	377	100
Family type of respondents			
1.	Nuclear family	70	19
2.	Joint Family	173	46
3.	Extend Family	134	35
4.	Total	377	100
Family Monthly Income of the respondents			
1.	less than 10000	52	14
2.	10000-20000	113	30
3.	20001-30000	108	29
4.	above 30000	104	27
5.	Total	377	100

Source: Field Survey

Additionally, 29% of the respondents' family monthly income falls within the Rs. 20,000–30,000 bracket, while 27% of the respondents' family income exceeds Rs. 30,000. The respondent's family income suggests that they have a middle-class background. This highlights their living standard and struggles to fulfill their basic family needs.

4.2 Property Damages

Given that every member of the affected community possesses tangible assets such as houses (which may be poorly constructed with delicate items), household utensils, livestock, crops, and electronic devices(Del Ninno, 2001; Alam & Rabbani, 2012).This table showcases the water levels during the flood of 2010 (July) and the extent of the damage in the area. A small percentage of respondents living far from the river reported experiencing flooding in their

homes, with water levels reaching up to one foot. Similarly, a small percentage of informants encountered a water level ranging from two to four feet. In comparison, most respondents reported a water level between five and seven feet high. A significant portion, approximately 16.4%, mentioned that their homes were inundated with over seven feet of water during the flood. The majority of the participants indicated substantial levels of water.

Table 2. Distribution of Respondents Based on Water Level, Damage to Housing, Shops or Factories and Home or Academic Destruction

Water level during the 2010 flood			
No	Statement	Frequency	Percentage (%)
1.	Up to 1ft	7	1.9
2.	From 2 to 4ft	25	6.7
3.	From 5-to 7ft	283	75
4.	Over 7 feet	62	16.4
5.	Total	377	100
Home damaged			
1.	Much of the degree	129	34.2
2.	To a certain degree	91	24.1
3.	Definitely not	157	41.7
4.	Total	377	100
Damage to shops or factories			
1.	Does not apply	333	88.4
2.	Much of the degree	41	10.9
3.	To a certain degree	3	0.7
4.	Total	377	100
Disposal of personal papers			
1.	Much of the degree	12	3.1
2.	To a certain degree	45	12
3.	Definitely not	320	84.9
4.	Total	377	100
Destruction of scholarly records			
1.	Much of the degree	17	4.6
2.	To a certain degree	24	6.3
3.	Definitely not	336	91.1
4.	Total	377	100

Source: Field Survey

According to Table 2, a significant portion of participants encountered severe damage to their houses due to flooding, with another portion experiencing partial damage. In addition, 41.7% of respondents indicated their houses were completely safe. It was observed that most of the

respondents' homes were partially cemented and experienced significant damage from the flood. The flood caused extensive damage to residential properties and commercial establishments, including shops and factories. The above table demonstrates the considerable impact of the flood on the shops and cottage industries, affecting a staggering 88.4% of informants. In addition, a small percentage of participants noted that shops and small enterprises were affected somewhat. In contrast, an even smaller percentage reported that the flood had little to no impact on these establishments.

Nevertheless, the floods had a severe impact on shops and small-scale industries. In addition, 3.3% of respondents stated that the flood impacted their home and property documents. Approximately 11.9% of the respondents experienced loss or partial damage to their home documents due to the flood. However, most respondents (84.9%) reported that their home documents were safe and secure. This indicates that individuals are proactive in taking additional safety precautions to protect important documents, including records related to their homes and properties.

Table 3. Distribution of Responders with Diarrhea, Cholera, Esophageal Irritation, and Acidity

Stomach problems			
No	Statement	Frequency	Percentage (%)
1.	Yes	307	81.4
2.	No	70	18.6
3.	Total	377	100
Flatulence/Diarrhea			
1.	Yes	260	68.9
2.	No	117	31.1
3.	Total	377	100
Cholera			
1.	Yes	224	59.4
2.	No	157	41.6
3.	Total	377	100
Acid Reaction in the Oesophagus /Esophagus Inflammation			
1.	Yes	212	56.2
2.	No	165	43.8
3.	Total	377	100
Acidity			
1.	Yes	250	66.3
2.	No	127	33.7
3.	Total	377	100

Source: Field Survey

In addition, a small percentage of the respondents reported that their academic documents were utterly destroyed, while others experienced partial loss. Nevertheless, the documents of the vast majority of respondents are safe and secure. The data demonstrates that the flood has had a minimal effect on crucial academic and property documents. Individuals have prioritized the safety of these documents, and in some cases, incidents involving documents occurred due to emergencies during home evacuations.

4.3 Gastric Problems

The survey, conducted after a flood in Bangladesh, reveals that many flood victims experienced illness. On average, around 31% of the victims were affected, but in the region that experienced severe flooding, this ratio increased to 40%(Del Ninno, 2001).The contaminated drinking water and accumulation of flood water resulting from flooding can lead to various illnesses, such as respiratory disorders, cholera, dysentery, malaria, and yellow fever (Watson & Contexto-Enfermagem, 2007). Stagnation often arises from inadequate sewage systems and non-biodegradable materials, such as plastic bags. In 2002, the Bangladeshi government banned plastic bags to prevent the obstruction of drainage systems(O'Brien et al., 2006). According to Table 3, it was found that a majority of the respondents, 81.4%, experienced gastric problems as a result of flooding.

On the other hand, 18.6% of the respondents did not report any gastric issues. Gastric issues primarily arose due to tainted or polluted flood water. The flooding limited access to clean or filtered water, leading to a surge in gastric problems in the affected region.

The table also indicated that diarrhea is a major gastrointestinal problem in flood-affected regions, impacting almost 68.9% of the participants. In addition, 31.1% of respondents chose to avoid drinking contaminated water as a precaution against diarrhea. Cholera is a frequently encountered gastric issue, affecting approximately 59.4% of the respondents. It originates from tainted drinking water and often spreads in flood-affected areas. On the other hand, 41.6% of the respondents had no experience with cholera. The table also shows additional gastric issues, such as inflammation and swelling of the esophagus canal, that individuals encountered during the July 2010 flood. A significant portion of the respondents, approximately 56.2%, experienced inflammation and swelling of the esophagus canal.

On the other hand, 43.8% of the respondents took precautions to prevent gastric disease by avoiding contaminated flood water. In the July 2010 flood, a significant number of respondents, 66.3%, reported experiencing acidity as a result of using contaminated or polluted flood water. On the other hand, 33.7% of respondents used clean water and did not face any acidity issues.

Table 4. Classification of Responses by Flood Effect on Schoolchildren

School stays closed			
No	Statement	Frequency	Percentage (%)
1.	At Less Than Three Months	71	21
2.	No more than three months	191	56.3
3.	In excess of three months	77	22.7
4.	Total	339*	100
Your kids switched schools			
1.	Yes	283	83.5
2.	No	56	16.5
3.	Total	339*	100
Children's school dropout rate			
1.	Yes	283	83.5
2.	No	56	16.5
3.	Total	339*	100
The flood affected people occupied schools			
1.	To a considerable degree	221	78.1
2.	The degree to which (slightly)	32	11.3
3.	Absolutely Not	30	10.6
4.	Total	283**	100
Difficulty faced by Childrenin adjusting to a new school			
1.	To a considerable degree	205	72.4
2.	The degree to which (slightly)	54	19.1
3.	Absolutely Not	24	8.5
4.	Total	283**	100

*In the table 04, there were total 339 responses, as 38 participants indicates that they had no school-going children.

**The Table depicts 283 responses with 38 respondents having no school going children, and 56 participant children have not undergone any shift.

Source: Field Survey

4.4 Children's Academic Performance

Table 4 presents the impact of the flood on school-age children(O'Brien et al., 2006). It was found that flooding caused 21% of the schools to remain closed for less than three months, 56.3% for three months, and 22.7% for more than three months. Based on the data collected, it is evident that most schools remained closed for three months or longer. As a result, students experienced significant disruptions to their academic terms, negatively affecting their studies and exam performances. Most respondents strongly desired to transfer their children to different schools, with only a tiny percentage opting to keep them in their current schools due to shorter closures. In addition, a significant % of respondents, 83.5%, expressed

a preference to transfer their children to different schools. This suggests that the dropout rate increased during the flood as families relocated their children to new educational institutions. On the other hand, 16.5% of respondents believe that the flood did not contribute to a rise in the dropout rate.

Table 5. Classification of Respondents Based on the Impact of Flooding on Their Children Education and Performance

Children lost their school books			
No	Statements	Frequency	Percentage (%)
1.	To a considerable degree	209	61.7
2.	The degree to which (slightly)	92	27.1
3.	Absolutely Not	38	11.2
4.	Total	339	100
School instructors were not present			
1.	To a considerable degree	212	62.5
2.	The degree to which (slightly)	78	23
3.	Absolutely Not	49	14.5
4.	Total	339	100
Issues Interrupting Class			
1.	To a considerable degree	216	63.7
2.	The degree to which (slightly)	103	30.4
3.	Absolutely Not	20	5.9
4.	Total	339	100
Exam for kids Performance was poor			
1.	To a considerable degree	215	63.4
2.	The degree to which (slightly)	97	28.6
3.	Absolutely Not	27	8
4.	Total	339	100
Children don't seem interested			
1.	To a considerable degree	188	55.5
2.	The degree to which (slightly)	87	25.7
3.	Absolutely Not	64	18.8
4.	Total	339	100

Source: Field Survey

In addition, the flood victims and government and non-government authorities utilized a significant portion of the schools in the affected areas to facilitate camps for those affected. A few respondents (around 11.3%) noted that the flood-affected individuals took shelter in certain sections of schools, NGOs, and government organizations for temporary accommodations. In contrast, approximately 10.1% of the participants noted that schools

were unoccupied. The data revealed that flood victims used many schools, and the relief programs implemented by the government and NGOs in different schools and colleges significantly impacted the children's academic year. Most respondents faced substantial challenges adapting to the new school environment after moving their children to other schools. Similarly, 19.1% of respondents experienced fewer challenges adapting to the new school environment, while 24% had no issues adjusting. Nevertheless, the data indicates that a significant number of students faced difficulties when adapting to a new school environment, resulting in a negative effect on their academic performance.

4.5 Academic Process Suffer

Children's academic performance after a flood was the subject of a study by(Ardales et al., 2016). The study found that children stopped their educational activities after the loss of their parents and other family members who had been a source of social support for them. Table 05 illustrates the impact of the flooding on the academic performance of children affected by the flood. It highlights several challenges, including the unfortunate loss of school books and notebooks during the flood, teachers' unavoidable absences, interruptions in academic sessions, and the need for exam rescheduling. Table 5 clearly shows that a significant portion of the children affected by the flood experienced complete loss of their books and notebooks, with about 61.7% falling into this category. Additionally, 27.1% of the children lost their books to some extent, while a smaller percentage of 11.2% were able to protect their books during the flood. Based on the data, it is evident that most students have yet to encounter issues with losing their school books.

In addition, the table above indicates a significant absence of teachers in the school. According to 62.5% of the respondents, the teachers were unavailable during this time. Furthermore, 23% of the respondents reported that not all teachers were in the schools during the flood. However, approximately 14.5% of the respondents said teachers were at their children's schools during the flood. It is evident from the data that a significant number of teachers were absent from schools during and after the flood. However, it is essential to note that the flood also had an impact on the teachers themselves. In addition, Table 5 also emphasizes the effect on children's academic performance during and after flooding. Approximately 63.7% of the participants noted a significant impact on the academic term of the children due to the flood. Conversely, around 30.4% of the respondents mentioned that while the children's academic year was affected, it quickly recovered after the flood. In contrast, 5.9% of the respondents felt that the flood had a minimal effect on the children's academic year.

Furthermore, the table above reveals that a significant portion of the participants' children experienced a severe impact on their performance as a result of the flood. Additionally, a smaller percentage of the participants' school-going children had a slight decline in their exam performance. However, the flood affected only 8% of the students' exam results. The data clearly illustrates the negative impact of flooding on educational performance, especially in exams. This was due to the unavailability of school books and notebooks, frequent teacher absences, and the need to reschedule academic sessions. Finally, the table above reveals that a

significant portion of the respondents' school-going children (55.5%) lost interest in their academic work after the flood. In comparison, 25.7% showed only a slight interest in their educational activities. Contrary to expectations, a significant portion (18.8%) of the participants' school-going children remained unaffected by the flood and continued to show interest in their studies and perform academically. This may be due to the young age of these kids, who were largely unaware of the extent of the harm the floods in their homes and schools had caused.

Table 6. Based on Family and Neighbour Relationships, Respondents were Distributed

Relationship/bond of respondents with family members after the flood			
No	Statement	Frequency	Percentage (%)
1.	Normal	164	44
2.	Tense	116	31
3.	Happy	59	16
4.	Mixed	38	9
5.	Total	377	100
Relationship of respondents with Neighbors and friends			
1.	Normal	158	42
2.	Tense	118	31
3.	Happy	62	16
4.	Hatred	39	11
5.	Total	377	100

Source: Field Survey

4.6 State of the Relationship after the Flood

The table displays the connections between the surveyed individuals and their family members, neighbors, and friends before and during the flood (Ardales et al., 2016). According to Table 06, a significant portion of the participants, precisely 44%, had positive relationships with their family members. This is a promising finding. Thirty-one percent of the respondents experienced a strained relationship with their family during the post-flood period, while 16 percent reported having a positive relationship with their family members. According to Table 6, one-third of the participants said a tense relationship. The discussed table also highlights the connection between respondents and their neighbors and friends during and after the flood. The relationship of 42% was average, 31% of respondents' relations were strained, and 11% had a negative experience with their neighbors and friends during and after the flood. The respondents expressed concern over the need to recover their losses, leading to strained relationships with their family, neighbors, and friends.

Table 7. Flood-related Psychological Difficulties Amongst Respondents

People overreacted in a normal situation			
No	Statement	Frequency	Percentage (%)
1.	Strongly agree	115	30
2.	Agree	195	52
3.	Undecided	25	7
4.	Disagree	31	8
5.	Strongly disagree	11	3
6.	Total	377	100
Affected people remain sad and gloomy			
1.	Strongly agree	96	25
2.	Agree	129	34
3.	Undecided	52	14
4.	Disagree	60	16
5.	Strongly disagree	40	11
6.	Total	377	100
Affected people were not interested in daily work/Family matters			
1.	Strongly agree	67	20
2.	Agree	138	37
3.	Undecided	28	7
4.	Disagree	88	23
5.	Strongly disagree	49	13
6.	Total	377	100
Affected people become short-tempered while interacting with people			
1.	Strongly agree	88	23
2.	Agree	134	36
3.	Undecided	66	18
4.	Disagree	38	9
5.	Strongly disagree	51	14
6.	Total	377	100
People remain fearful of a natural disaster.			
1.	Strongly agree	113	30
2.	Agree	177	47
3.	Undecided	56	15
4.	Disagree	10	2
5.	Strongly disagree	21	6
6.	Total	377	100

Source: Field Survey

4.7 Psychological Problems

Table 7 presents the psychological issues and distress observed among study respondents.

Individuals impacted by floods may encounter various psychological challenges, such as heightened reactions in everyday situations, persistent sadness, increased irritability, and diminished engagement in family affairs(Parel & Balamurugan, 2021). Concern over natural disasters and anxiety arise from unexpected rainfall, which significantly negatively impacts the lives of those affected by the disaster throughout the rainy season(Kousky, 2016). Table 07 shows that a substantial majority, precisely 82% of the respondents, observed that individuals tend to overreact in typical situations following a flood. In addition, approximately 30% of the participants also expressed their support for this argument and strongly agreed with this particular psychological experience.

In contrast, 11% of participants disagreed with the statement that individuals overreact in regular situations. Table 07 also showcases the effects of the flood on people's behavior and attributes during their daily activities. Many respondents, precisely 59%, acknowledged that flood victims encountered a sense of sadness and gloom following the flood. In addition, many respondents strongly agreed regarding flood victims' challenging circumstances. On the other hand, some of the respondents (27%) had a different opinion on this matter. Based on the data, it is evident that a significant number of flood victims are experiencing feelings of sadness and gloom as a direct consequence of the flood. This is primarily attributed to the unfortunate loss of their valuable assets.

The above table highlights that flood victims have significantly decreased engagement with routine activities and family matters. More than half of the respondents, precisely 55%, agree with the statement that flood victims seem disinterested in their family-related issues and that life appears monotonous for them. In addition, 8% of the respondents strongly agreed with the statement. The table also highlights that individuals affected by floods often experience heightened irritability due to their numerous hardships. According to Table 07, most participants (59%) observed that flood victims tend to display short-tempered behaviors during interactions and are often willing to engage in arguments. Based on the data, it is evident that a significant number of flood victims exhibit aggressive and irritable behavior. The high occurrence of these psychological issues is not only causing challenges for the individuals affected but also for their family members and the community at large.

In addition, table 07 also brings attention to another important and frequently observed psychological concern: the fear of natural disasters and anxiety experienced during sudden rainfall and the entire rainy season. These factors hurt the lives of individuals affected by floods. Based on the data, it was found that approximately 77% of the participants agreed that people's fear of natural disasters increased after the July 2010 flood. A significant portion of respondents—to be exact, 30%—were firmly arranged. In addition, the data collected indicates that most participants expressed concern about the potential occurrence of natural disasters at any given moment. The 2010 flood compelled individuals to evacuate their residences and relocate to temporary shelters that lacked essential life amenities. It was a challenging experience for the flood victims, and recalling such complex incidents in the face of natural disasters only adds to their hardships.

5. Conclusion

Floods have a profound impact on human lives, significantly disrupting businesses and social connections. This study delves into the social and psychological repercussions of floods on both regions and residents, revealing considerable damage to shops, small-scale industries, and semi-cemented homes. The contamination and stagnation of drinking water during floods lead to the spread of diseases such as cholera, yellow fever, dysentery, malaria, and respiratory disorders. Affected individuals experience gastric issues, diarrhea, inflammation of the esophagus, and acidity due to water contamination.

The academic performance of school-going children is notably impacted, with schools often closed for extended periods, sometimes exceeding three months. This disruption is exacerbated by the occupation of school buildings by flood victims and various organizations, affecting children's studies and overall performance. Many children face challenges adapting to new environments, losing their academic materials, and dealing with the absence of teachers. Consequently, educational sessions and exam performance suffer significantly, causing many children to lose interest in their studies.

The study's findings highlight that floods induce a range of psychological issues among victims. Relationships with family members, friends, and neighbors become strained due to the stress of replacing losses, leading to tension and hostility. Residents affected by floods often feel terrified, particularly during heavy rains and the wet season. Victims frequently exhibit short tempers and aggressive behavior when interacting with others. Additionally, many flood-affected individuals overreact in everyday situations and show little interest in daily activities or family matters. The aftermath of a flood often leaves victims feeling depressed and gloomy, with a noticeable decline in self-interest.

6. Suggestions and Recommendations

This study recommends measures for governments and national and international non-governmental organizations to tackle natural disasters like floods, which can occur at any time and place, and reduce their negative impact on people.

The Ministry of Education should incorporate disaster prevention measures into schools, educational programs, and social community initiatives. Mobile boarding schools and disaster courses should be designed to reduce dropout rates. Government and NGOs should collaborate on risk management strategies and support flood victims.

Natural disaster relief often overlooks the psychological impact of disasters, focusing on immediate access to basic needs. A team of sociologists and psychologists should be involved to reduce potential psychological effects on flood victims. Government and non-governmental organizations should design psychological therapy or counseling services to prevent further distress, reduce depression, stress, and anxiety, promote self-encouragement, and foster hope for the future.

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Acknowledgments

Not applicable.

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Macrothink Institute.
The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the

corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.