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# Exploring the Relationship between Climate Change and Mental Health among Flood Victims of Kanyakumari District: A Descriptive Study

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#### Abstract

This study explores the intricate relationship between climate change and the mental health of individuals affected by recent flood in Kanyakumari District, utilizing the Impact of Event Scale (IES) to assess the perceived impact of climate changeinduced events. The research focuses on the profound implications of environmental shifts on the psychological resilience of flood victims, drawing insights from the experiences of those affected. The literature review highlights the prevalence of psychological distress and post-traumatic stress disorder (PTSD) symptoms among flood victims, underscoring the urgent need for tailored interventions. The study employs a quantitative method with a Descriptive Research Design, incorporating the distribution of respondents based on the perceived level of the event, as measured by the IES. The findings reveal significant and pervasive psychological responses, with high levels of intrusion (58%), avoidance (58%), hyperarousal (68%) and overall (58%) impact related to a specific event. These results underscore the necessity for targeted Mental Health interventions to address the observed distress and mitigate the enduring impact on respondents' well-being. The research concludes with suggestions for key stakeholders especially government and social workers, emphasizing the importance of prioritizing Mental Health support services and creating a supportive ecosystem for affected individuals. The collaborative efforts advocated in the study aim to foster resilience and recovery within communities facing the Mental Health challenges induced by climate change-related disasters.

Keywords: Climate Change, Impact of Flood on Mental Health, Kanyakumari District, Measuring Impact of Event, Resilience.

## Introduction

This study investigates the intricate connection between climate change and the mental health of individuals affected by flooding in Kanyakumari District. As climate change continues to escalate, the frequency and intensity of natural disasters, such as floods, have amplified, significantly impacting communities worldwide.

Kanyakumari District, prone to flooding, presents a unique context for exploring the profound implications of these environmental changes on the mental well-being of its residents. By delving into the experiences of flood victims, this research aims to shed light on the nuanced relationship between climate change-induced events and the psychological resilience of individuals in the aftermath of floods. Understanding this connection is crucial for informing targeted interventions and mental health support systems that can aid in mitigating the adverse effects of climate change on the mental health of vulnerable populations. This study contributes to the broader discourse on climate change and mental health, providing valuable insights for policymakers, mental health professionals, and community stakeholders in formulating strategies to enhance the resilience and well-being of those affected by environmental disasters.

## **Review of Literature**

(Visser, 2015) et al done this study assessed the prevalence of psychological distress and post-traumatic stress disorder (PTSD) symptoms among flood victims in the Western Cape, South Africa. The researchers found that over 30% of participants reported moderate to severe psychological distress, and 16% met the criteria for PTSD. Factors associated with greater distress included losing belongings, experiencing injury, and having pre-existing mental health conditions. This study highlights the significant mental health impacts of flooding and the need for targeted interventions to support flood victims.

(Page, 2022) et al had done this systematic review analyzed 35 studies examining the long-term mental health impacts of flooding across diverse regions and populations. The review found that individuals exposed to floods experience elevated rates of depression, anxiety, and PTSD, with these effects persisting for years after the event. Additionally, factors like pre-existing vulnerabilities, limited social support, and inadequate post-disaster support systems exacerbate these mental health challenges. The review underscores the need for long-term mental health interventions and preventative measures to address the ongoing impacts of flooding on mental well-being.

# **Scope of the Study**

This study aims to investigate the impact of climate change on the mental health of flood victims in Kanyakumari District. It employs qualitative methods to explore the experiences of individuals affected by flooding, focusing on emotional well-being, coping mechanisms, and overall mental resilience. The scope includes identifying specific stressors, vulnerabilities, and the intricate connections between environmental factors and mental health. The research intends to contribute valuable insights for developing targeted interventions and support systems, informing policymakers, mental health professionals, and community stakeholders.

# Significance of the Study

This study is crucial as it addresses gaps in understanding the impact of climate change on the mental health of flood victims in Kanyakumari District. Its findings can inform targeted policies and interventions, guide mental health support systems, raise awareness globally, and contribute to building community resilience. Additionally, the research serves as a foundation for future studies in similar regions, amplifying our comprehension of the broader implications of climate change on mental health. Overall, the study has significant potential to drive positive change in addressing mental health challenges resulting from climate change-induced disasters.

## **Materials and Methods**

## Aim

The overall aim of the study is to assess the relationship between the climate change and the mental health among the flood victims of Kanyakumari district.

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# **Objectives**

- 1. To collect Socio-demographic characteristics of the victims of the Flood
- 2. To assess the relationship between the climate change and the mental health among the flood victims of Kanyakumari district.
- 3. To suggest suitable recommendation for the victims of the flood

#### **Definition**

"Climate change impacts on mental health refer to the complex interplay between environmental shifts, extreme weather events, and the resulting psychological consequences experienced by individuals and communities. It encompasses the range of stressors, disruptions, and emotional responses stemming from climate-related factors, highlighting the intricate relationship between the changing environment and mental well-being."

# Methodology

Research Design: As the study aims at exploring the relationship between Climate Change and Mental Health among Flood Victims of Kanyakumari District, Descriptive Research Design is adopted. The study will utilize quantitative research method to collect and analyze data.

# **Sampling Design**

## Universe

The targeted universe were flood affected area in Kanyakumari District

# Sampling Method & Size

The sampling design were simple random sampling method, The researcher used the questionnaire method to collect data from the respondents. There totally 50 response were collected.

# **Tool of Data Collection**

- 1. A Questionnaire prepared by the researcher was used to collect the Socio-Demographic Characteristics of the Respondents.
- 2. Impact of event scale developed by the Horowitz, Wilner, and Alvarez in 1979 it contains 22 questions.

# **Primary Data**

The questionnaire prepared by the researcher is used for collecting demographic details and also for screening the respondents who are the affected in the flood.

# **Secondary Data**

The secondary data include journals, articles and books related to the relationship between the climate change and the mental health among the flood victims.

## **Pre Test**

The researcher pre-test after preparing the questionnaire. The sample of the pre-test were given to the victims of flood, Kanyakumari district. The questionnaire was accepted by the victims so there is no change made in the questionnaire and the researcher used the same questionnaire to collect data.

#### **Data Collection**

The data has been collected through questioner method. It contains demographic details, and impact of event scale to assess the relationship between the climate change and the mental health among the flood victims of Kanyakumari district.

# **Results and Discussion**

Table 1 Distribution of Respondents by their Socio Demographic

S. No.	Variable	No. of Respondents (n:50)	Percentage
01	Gender		
	Male	27	54.0
	Female	23	46.0
	Occupation		
02	Government sector	37	74.0
	Daily Wages	13	26.0
	Educational qualification		
0.2	HSC	10	20.0
03	Under Graduate	27	54.0
	Post Graduate	13	26.0
	Domicile		
04	Rural	19	38.0
	Urban	18	36.0
	Semi urban	13	26.0
05	Experienced any fear or anxiety		
	Yes	23	46.0
	No	13	26.0
	Maybe	14	28.0

# Interpretation

From the above table it is observed that among 50 respondents, the study exhibits a balanced gender distribution (54% male, 46% female), with a predominant occupation in the government sector (74%). Educational qualifications vary, ranging from HSC (20%) to postgraduate (26%). Domicile diversity is evident, with 38% rural, 36% urban, and 26% semi-urban. Additionally, 46% of respondents have experienced fear or anxiety, 26% have not, and 28% responded with uncertainty. These succinct findings provide a snapshot of the socio-demographic landscape, laying the groundwork for further exploration of potential correlations with mental health indicators and coping mechanisms.

Table 2 Distribution of Respondents by the Perceived Level of Impact of Event

S. No	Variable	No. of Respondents (n:100)	Percentage
01	Intrusion		
	Low	13	26.0
	Medium	8	16.0
	High	29	58.0
	Avoidance		
02	Low	15	30.0
	Medium	6	12.0
	High	29	58.0

03	Hyperarousal		
	Low	16	32.0
	Medium	0	0.0
	High	34	68.0
04	Overall		
	Low	16	32.0
	Medium	5	10.0
	High	29	58.0

From the above table, it is inferred that among 50 respondents, majority perceives high levels of intrusion (58%), avoidance (58%), hyperarousal (68%), and overall impact (58%) related to a specific event. These findings collectively highlight a significant and pervasive psychological response, emphasizing the necessity for targeted mental health interventions to address the observed distress and mitigate the enduring impact on respondents' well-being.

Table 3 Karl Pearson's Co Efficient of Correlation among the Perceived Impact of Event

	Intrusion	Avoidance	Hyperarousal	Overall Total
Avoidance	0.560**	1		
Hyperarousal	0.905**	0.693**	1	
Overall total	0.838**	0.866**	0.947**	1

<sup>\*\*</sup> Significance at the 0.01 level

From the above table its interpreted that the intrusion has a significant inter co-relation between the other dimensions and overall, the avoidance has a significant inter co-relation between the other dimensions and overall, the hyperarousal has a significant inter co-relation between the other dimensions and overall and the overall has a significant inter co-relation between the other dimensions.

# **Findings**

- The study exhibits a balanced gender distribution (54% male, 46% female), with a predominant occupation in the government sector (74%). Educational qualifications vary, ranging from HSC (20%) to postgraduate (26%). Domicile diversity is evident, with 38% rural, 36% urban, and 26% semi-urban. Additionally, 46% of respondents have experienced fear or anxiety, 26% have not, and 28% responded with uncertainty. These succinct findings provide a snapshot of the socio-demographic landscape, laying the groundwork for further exploration of potential correlations with mental health indicators and coping mechanisms.
- Majority perceives high levels of intrusion (58%), avoidance (58%), hyperarousal (68%), and overall impact (58%) related to a specific event. These findings collectively highlight a significant and pervasive psychological response, emphasizing the necessity for targeted mental health interventions to address the observed distress and mitigate the enduring impact on respondents' well-being.

# Suggestions to Varied Stakeholders To Government Authorities

The government need to imperative to prioritize mental health support services for individuals affected by the specific event. Allocating resources to enhance counseling and therapy services, establishing mental health helplines, and reinforcing community-based support centers can provide crucial assistance.

# To Social Worker

Engaging in community outreach programs to identify and reach individuals who may be hesitant to seek help is crucial. Additionally, providing training programs for community leaders and influencers enhances the community's capacity to recognize and address mental health concerns at the grassroots level. In tandem, these efforts by the government and social workers can create a supportive ecosystem that addresses the mental health needs of those affected, fostering resilience and recovery within the community.

## Conclusion

This study sheds light on the multifaceted impact of a specific event on individuals, emphasizing the pervasive psychological challenges faced by the surveyed population. The socio-demographic diversity within the sample underscores the need for targeted mental health interventions that consider various backgrounds and experiences. The high levels of perceived intrusion, avoidance, hyperarousal, and overall impact highlight the profound psychological resonance of the event. Government initiatives should prioritize mental health support services, integrate mental health into disaster preparedness plans, and conduct educational programs. Social workers can play a vital role in establishing accessible counseling services, advocating for mental health policies, engaging in community outreach, and providing training. Collaboratively, these efforts aim to create a comprehensive and supportive ecosystem that addresses the mental health needs of individuals affected by the event, fostering resilience and recovery within the community.

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