

Psychological Trauma and Coping Strategies Among Adult Flood Victims in Kerala: A Descriptive Survey

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Abstract

Background: Floods are among the most frequent natural disasters globally and significantly impact mental health. The 2018 and 2019 Kerala floods caused severe devastation, leaving many affected individuals psychologically scarred.

Objective: To assess psychological trauma and coping strategies among adult victims of flood, determine the correlation between them, and identify associations with selected demographic variables.

Methods: A descriptive survey was conducted among 100 adult flood victims in selected Kerala communities using snowball sampling. Data collection tools included a demographic questionnaire, Harvard Trauma Questionnaire (HTQ), and BRIEF COPE scale. Data were analyzed using descriptive and inferential statistics.

Results: Among participants, 54% experienced severe psychological trauma, and 77% demonstrated good coping. There was a statistically significant positive correlation between psychological trauma and coping ($r = 0.295$, $p = 0.003$). Psychological trauma was significantly associated with gender, religion, occupation, marital status, socioeconomic status, area of living, frequency of flood exposure, house loss, animal loss, and financial crisis ($p < 0.05$).

Conclusion: Psychological trauma is prevalent among flood victims, despite relatively good coping mechanisms. Targeted mental health interventions and resilience-building strategies are recommended for flood-prone regions.

Keywords: Psychological trauma, coping strategies, flood victims, Kerala, disaster mental health, Harvard Trauma Scale, BRIEF COPE.

1. Introduction

Floods are increasingly frequent natural disasters due to global climate change, often leading to widespread displacement, property loss, and severe psychological distress. The 2018 and 2019 floods in Kerala, India, displaced thousands and inflicted both tangible and emotional harm.

The psychological aftermath of natural disasters includes post-traumatic stress disorder (PTSD), depression, anxiety, and maladaptive coping mechanisms. While physical damage receives immediate attention, psychological scars often remain unaddressed. This study explores the extent of trauma and the efficacy of coping strategies among flood survivors in Kerala.

2. Methods

Study Design and Setting:

A quantitative, descriptive survey was carried out in flood-affected areas of Kerala.

Participants:

100 adult flood survivors aged 25–75 years were selected through snowball sampling. Inclusion required basic literacy in Malayalam or English and flood exposure in 2018 or 2019. Excluded were individuals with pre-existing major psychiatric conditions.

Instruments:

1. Demographic Questionnaire
2. Harvard Trauma Questionnaire (HTQ): Measures psychological trauma severity (25–100 score range).
3. BRIEF COPE Scale: Assesses coping behaviors (28–112 score range).

Data Collection:

Data were collected over one month (Feb 2021) via self-administered questionnaires. Ethical approval was obtained, and informed consent was secured.

Data Analysis:

SPSS was used for statistical analysis. Descriptive statistics summarized demographics and score distributions. Pearson correlation assessed the trauma–coping relationship. Fisher’s exact test identified associations between trauma and demographic variables.

3. Results

• Demographics:

- Mean age: 45–54 years (29%)
- Gender: 57% female
- Religion: 51% Hindu, 49% Christian
- Socioeconomic status: 56% Above Poverty Line (APL)
- Flood exposure: 53% experienced flooding twice

• Trauma Findings:

- 54% reported severe trauma
- 32% moderate trauma
- 7% mild trauma
- 7% reported no trauma

• Coping Findings:

- 77% showed good coping
- 22% average coping
- 1% poor coping

• Correlation:

Positive correlation between trauma and coping ($r = 0.295$, $p = 0.003$)

Significant Associations:

Psychological trauma was significantly associated with gender, religion, occupation, marital status, socioeconomic status, area of living, flood frequency, house loss, animal loss, and financial crisis.

4. Discussion

This study underscores the psychological toll of flood disasters, even in resilient communities. Over half of the participants experienced severe trauma, though most displayed effective coping. The positive correlation between trauma and coping suggests that victims actively employ strategies to manage distress, highlighting their adaptive potential. Significant demographic factors influencing trauma—such as gender and socioeconomic status—indicate the need for tailored interventions. Community-based mental health services, psychoeducation, and resilience-building workshops could mitigate long-term psychological harm.

5. Conclusion

The study reveals a high burden of psychological trauma among Kerala flood victims, with encouraging levels of coping. However, certain vulnerable groups need focused psychological support. Policymakers and health professionals should prioritize post-disaster mental health care as part of emergency response planning.

Acknowledgements

The author thanks the faculty and administration of Amala College of Nursing, study participants, and statistical and translation support staff for their contributions.

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