

Post-Flood Mental Health Crisis: Neglected Consequences of Natural Disasters

Floods are often put into perspective within the frame of visible destruction, such as houses and agricultural lands ruined, and damaged infrastructure. Still, the psychological damage that they cause to the victims is no less terrible and is left in them even when the water subsides. Research conducted globally has indicated that floods cause recovery booms of depression, anxiety, and post-traumatic stress disorder (PTSD) in societies that are already poor and have weak health systems. Psychological consequences of natural disasters are a crisis to be considered and be included in the disaster preparedness and disaster recovery policies.

The systematic review of the consequences of flooding found a linear association with large levels of depression and PTSD particularly among individuals who were displaced or had their means of livelihood destroyed.¹ Greater evidence exists on natural disasters confirming the same trends: exposure to natural disasters is a major risk of mood and anxiety disorders and the impact of disasters on mental health is also likely to be long-term over the years.² Longitudinal support of this image includes one study, which monitored participants both prior to and following floods, and found sharp rises in distress, anxiety, and PTSD symptoms during the post-disaster period.³ It was found that the exposure to disasters enhances prevalence rates of common mental disorders across all settings, but the extent and duration of the impact varies with vulnerability factors.⁴ However, interventions remain a few. A meta-analysis of prevention strategies found very little evidence of support of psychosocial interventions in the aftermath of natural hazards and stated that there was much to be desired on scalable mental health responses to the flood-affected population.⁵

Mental health burden is not only short-term but also evolves over time. According to longitudinal studies, there is a changing pattern of recovery of survivors over time: some recover, while others do not, due to social support, the availability of care, and economic stability.⁶ The case of the 2024 Bangladesh flash floods shows this clearly. Cross-sectional surveys showed disastrous levels of PTSD, depression, and anxiety in survivors, with women and children being disproportionately impacted.⁷ Particular attention should be paid to gendered vulnerabilities. A more recent study in flood-prone communities showed that

men also experienced increased depression, stress, and anxiety following floods, which disproves the belief that women are the only ones who experience the negative psychological effects. As the complementary evidence indicates, the impacts of disasters on both genders are not equal: the former tend to respond to disasters by being stressed due to economic loss, whereas the latter are more prone to the effects of disasters due to the burden of caregiving and insecure conditions.⁸

There are also other vulnerable groups, not related to gender, that should also be given immediate attention. There is a clear appreciation of extreme weather and its association with disproportionate mental health among the poor, the elderly, and those with pre-existing illnesses.⁹ Researchers noted that in South Asia, with annual floods, the mental health issue is still the consequence of the disaster that has long been overlooked, especially in Pakistan, whose 2022 floods have left millions devastated, but with psychosocial needs largely unmet.¹⁰ The elderly are especially susceptible. In a scoping review, it was established that older populations are affected by flooding because it increases social isolation and worsens depression, whereas community support structures are poor.¹¹ Disruption of livelihood is especially critical. An empirical study of 2024 has also directly associated economic damage after flooding with increasing psychological distress, with those affected by unemployment or agricultural failure having the highest levels of depression and anxiety.¹²

Climate change will only exacerbate floods, and the lessons learned are evident: the mental health impact cannot be an afterthought. Not only do the survivors experience physical displacement, but they also experience long-lasting psychological displacement that compromises the resilience of the community. Policy makers should incorporate mental health services into the disaster preparedness and recovery strategies, intensify local interventions, and address the special needs of vulnerable people, such as women, men, children, and the elderly. The danger of ignoring this dimension is that it will continue to create trauma cycles even after the floodwaters recede.

REFERENCES

1. Miller VE, Fitch KV, Swilley-Martinez ME, Agha E, Alam IZ, Kavee AL, et al. Impact of Hurricanes and Floodings on Mental Health Outcomes Within the United States: A Systematic

- Review and Meta-Analysis. *Disaster Med Public Health Prep* 2025; 18: e335. <https://doi.org/10.1017/dmp.2024.327>
2. Heanoy EZ, Brown NR. Impact of Natural Disasters on Mental Health: Evidence and Implications. *Healthcare (Basel)* 2024; 12(18): 1812. <https://doi.org/10.3390/healthcare12181812>
3. Nöthling J, Gibbs A, Washington L, Gigaba SG, Willan S, Abrahams N, et al. Change in emotional distress, anxiety, depression and PTSD from pre- to post-flood exposure in women residing in low-income settings in South Africa. *Arch Womens Ment Health* 2024; 27(2): 201-218. <https://doi.org/10.1007/s00737-023-01384-3>
4. Keya TA, Leela A, Habib N, Rashid M, Bakthavatchalam P. Mental Health Disorders Due to Disaster Exposure: A Systematic Review and Meta-Analysis. *Cureus* 2023; 15(4): e37031. <https://doi.org/10.7759/cureus.37031>
5. Kip A, Weigand L, Valencia S, Deady M, Cuijpers P, Sander LB et al. Prevention of mental disorders after exposure to natural hazards: a meta-analysis. *BMJ Ment Health* 2025; 28(1): e301357. <https://doi.org/10.1136/bmjment-2024-301357>
6. Liu X, Bao M, Wang X, Zhou G. A longitudinal investigation of mental health outcomes after the Henan floods in China: Examining predictors of resilience trajectories. *Psych J* 2024; 13(6): 993-1003. <https://doi.org/10.1002/pchj.781>
7. Rahman MM, Shobuj IA, Alam S, Sadia AM, Khanam S, Hossain MT, et al. The unforeseen tide: exploring mental health impacts of the 2024 flash flood in Bangladesh. *BMC Public Health*. 2025; 25(1): 2728. <https://doi.org/10.1186/s12889-025-24118-9>
8. Rahman MM, Shobuj IA, Hossain MT, Alam E, Islam MK, Hossain MK et al. Flood impact on men's mental health: evidence from flood-prone areas of Bangladesh. *Front Public Health* 2025; 13: 1529558. <https://doi.org/10.3389/fpubh.2025.1529558>
9. Batra M, Erbas B. Extreme Weather, Vulnerable Populations, and Mental Health: The Timely Role of AI Interventions. *Int J Environ Res Public Health* 2025; 22(4): 602. <https://doi.org/10.3390/ijerph22040602>
10. Akram S, Mushtaq S. Environmental change and floods: the long-ignored effects of displacement on mental health. *Front Public Health* 2024; 12: 1434123. <https://doi.org/10.3389/fpubh.2024.1434123>
11. Raza M, Fatima A, Habiba U, Shah HH. Public health implications of severe floods in Pakistan: assessing the devastating impact on health and the economy. *Front Environ Sci* 2023; 11: 1091998. <https://doi.org/10.3389/fenvs.2023.1091998>
12. Law S, Marinova T, Ewins L, Marks E. Understanding the psychological impact of flooding on older adults: A scoping review. *Ann N Y Acad Sci* 2025; 1548(1): 99-115. <https://doi.org/10.1111/nyas.15356>

Dr. Haseeb Khaliq
Department of Pathology, University
of Health Sciences Lahore / IMRPS,
Berlin Germany

Dr. Amna Batool
Department of Surgery, FMH College of
Medicine and Dentistry, Lahore Pakistan