Toward a Contextualised Approach to Urban Pluvial Flooding and Mental Health in India: Bridging the Gap and Future Directions

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To the Editor,

I found the recent review article, "Causes, impacts, and mitigation strategies of urban pluvial floods in India: A systematic review" by Singh et al. (2023), in the International Journal of Disaster Risk Reduction (Vol. 93), very interesting and worth reading. The book is a very good and up-to-date synthesis of existing science on pluvial floods in Indian cities, with extensive knowledge on causes, impacts, and prevention measures. The use of systematic methodology and the tendency to classify the reviewed 62 scholarly articles is something that has inarguably contributed to the discussion concerning urban flood risk in the Indian case.

In a commendable way, the paper highlights the direct and indirect effects of flooding in cities not only in terms of infrastructure damage and breakdown of livelihoods, but also extended waterlogging and economic uprooting. It also determines a broad range of prevention techniques, such as proactive planning of infrastructures, recovery systems, and warning systems. Nevertheless, the mental health and the psychosocial well-being of the populations affected seem to be an important area that is quite under-represented by the useful studies conducted.

Floods in urban areas are not only objective disasters since they are actually quite personal, emotional, and psychological events to victims (Carías et al., 2022). Individuals in these conditions that revolve around being displaced in their home, communities trying to cope with their subsequent loss of lives, livelihood and economy, and people who have, to degree, faced extreme uncertainty often have to contend with significant psychological desolation such as anxiety, depression, post-traumatic stress, violence, societal separation and withdrawal experienced as post disaster mental health issues (Asante et al., 2024). These impacts, even though not always immediately apparent, impose profound psychosocial consequences as perpetual, enduring factors.

Trauma and amplified instances of mental health problems, which are briefly noted by the authors in the category of indirect effects (Table 2), are described on a limited scale, stating general psychosocial terms. Since mental health impact or vulnerability is gaining prominence as another of the main building blocks of disaster risk reduction, according to both international legislations like the Sendai Framework and the World Health Organization, its overall lack in the article draws attention to a big gap in the existing models of flood resilience in India today. It is important to focus on mental health in parallel with physiological health, as both collectively contribute to the holistic well-being of individuals and the community at large.

Indian people's experiences during Chennai floods in 2015 and 2022, Hyderabad floods in 2020, and Bengaluru floods in 2022 have widely reported stress-related illnesses, interrupted children's education, and burnout by first responders and people living in low-income neighbourhoods (Carter et al., 2025). This distress is especially severe among vulnerable populations such as informal workers, women-headed households, children, older adults, people with disabilities, chronically ill individuals, and those living in low-income or informal settlements. These groups often face greater exposure to harm, limited access to healthcare or aid, and fewer resources to recover from the emotional and economic impact of floods. These psychosocial burdens will tend to worsen with the increasing rate of urban floods caused by climate change and uncontrolled development unless they are recognized and treated using combined measures.

There is a dire need to integrate mental health into the research and policy discourses surrounding urban flooding. The 2017 Texas floods and 2011 Japan tsunami showed that offering mental health support, creating safe spaces, and involving communities in recovery helps people manage emotional distress and strengthens resilience. Just like physical infrastructure planning, such as flood maps and drainage systems, interventions like mental health assessments, counselling in relief shelters, and training responders in psychological first aid are essential. Understanding how different social groups experience and respond to flood- related stress can also improve risk communication and make recovery efforts more inclusive and effective.

Thus, although the reviewed article wonders admirably at the list of causes and mitigation measures, it is my democratic suggestion that the mental and psychosocial adaptation avenues of studies should be given more focus in future reviews, and field studies in urban flood research in India. Not only would this come closer to making the scholarship holistic, but also to re-align with the international trends of disaster risk management systems that are based on human well-being, in addition to rebuilding infrastructure and economy.

To sum up, I would like to thank once more the significant work of Singh et al., which was very feasible to analyse the current situation around urban pluvial flood research in India. Their article incorporates a perfect premise to proceed with interdisciplinary research. As we become more involved in urban flood risk, we should not put off the fact that resilience is not merely how our cities conduct water but how communities can regenerate emotionally, mentally, and socially. Mental health, in turn, must be an inseparable component of the discussion of flood risk reduction in India and beyond.

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