



Editorial

Children of Disaster: Helping Children Recover from the Trauma of Pakistan Floods

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Pakistan is amongst the world's most vulnerable countries to natural disasters and climate change, but the country was not prepared for a disaster of such scale- the unprecedented floods of 2022. The floods submerged nearly a third of the country, affected more than 33 million people and have taken more than 1700 lives, approximately 600 of them children.¹ Government declared 72 out of 160 districts to be disaster zones and earlier estimates put the cost of destruction at more than \$10 bn.¹ The situation is still evolving, with flood waters stagnant in many areas, and more than 8 million displaced people now facing a health crisis. The disaster after the disaster is looming.

Early focus in disaster management is on rescue followed by provision of basic life necessities like food, shelter and treating acute illnesses before the long process of rehabilitation starts. The crisis thus has profound and lasting impact on the lives and livelihoods of people of all ages, but trauma experienced by children is no doubt immeasurable.² Three ways are described in which natural disasters like floods may harm children disproportionately.² First, by affecting physical health of children. Standing water is already a breeding ground for infectious diseases. Children are at risk of contracting diarrhoea, typhoid, cholera and malaria amongst other illnesses. Halt in vaccinations drive, poor access to healthcare and risk of malnutrition endangers even more lives. Secondly by adversely impacting the mental health of children. Apart from disasters being

frightening on their own, loss of parents or loved ones, seeing their belongings, homes, cattle, everything they have washed away in floods, migration, neglect and risk of abuse, parental stress, and loss of social connections all contribute towards psychological harm. Thirdly, interruption in children education due to damage to schools, family's migration and financial constraints forcing children into labour to make ends meet, further complicates the situation.²

Mental health issues often take a back seat to the more proximate effects of natural disasters because concerns related to mental health often become apparent much later. Literature suggests that children are more vulnerable to adverse impact on psychological health following natural disasters including floods.^{3,4} These include developmental regression, anxiety, fears, depression, nightmares, sleep related difficulties, poor concentration, hyperactivity, and aggression.^{4,5} In terms of long-term morbidity, post-traumatic stress disorder (PTSD) is arguably the utmost important. In a study following Hurricane Floyd, 95% of children directly affected by flooding had 'mild' PTSD 6 months following the event.⁶ Following Kashmir earthquake in 2005, almost 2/3rd of children was found to have significant PTSD symptoms one and a half year after the event.⁷

Many factors influence the development and persistence of psychopathology among children and adolescents following disasters. Individual characteristics of child including but not limited to

age, gender and developmental levels and pre-existing psychiatric issues, characteristics of family; including access to support, parental mental health; exposure to severe trauma and ability of child to cope, have all been extensively described in literature as factors affecting child response to traumatic events.^{7,8}

There is evidence suggesting possibility of increase in weather related disasters in years to come, thus, unless measures are taken to mitigate such disasters, there is likelihood of harmful impact on children to increase around the globe. First, to increase the odds that negative impacts on children will be minimized, many measures can be taken before a disaster ever strikes. These include building safer houses & schools which can withstand weather conditions, having disaster response plans in place, educating children about disaster risks and how they can take active participatory roles in disaster preparatory situations.² Reuniting children as quickly as possible with families, who can safeguard children can reduce the risk of neglect and abuse. Financial support to families, can help children in having daily necessities. Making clean drinking water available, and ensuring vaccinations are done timely to protect against spread of illnesses.²

Addressing mental-health distress after disasters especially in children, is important because of their vulnerability and higher risk of long-lasting negative impact.⁹ First and foremost, awareness campaigns for policymakers, communities and media focusing on need for psychosocial care during flood relief efforts and rehabilitation is essential. Various guidelines focus on promoting and protecting mental health in young people after disasters and include simple principles like reassuring the children, educating them about the situation in age-appropriate ways, and maintaining structured consistent daily routines.⁹ Mental health and psychosocial support (MHPSS), and UNICEF'S child friendly spaces are helpful to protect and promote psychosocial wellbeing. Psychological First aid (PFA) is an evidence based and cost-effective public health intervention in Pakistan's context and aims to minimize distress and support short- and long-term adaptive functioning of sufferers.¹⁰ Ensuring provision of PFA training to all organizations involved in disaster relief work as well as volunteers in community is crucial especially in

resource poor countries like Pakistan. Quickly re-establishing pre-disaster routines, like schooling, can also protect children. Schools play a critical role in promoting resilience and protecting mental health by emphasizing on coping skills development, encouraging relationships with friends and teachers and providing a safe and nurturing environment for learning and community participation. School teachers can also be trained for the provision of PFA. Play and art therapy assist the children in expressing their feelings and can facilitate healing of emotional scars. Evidence from previous disasters in Pakistan noted that basic expression through art provides children a medium for communication of emotional distress and helps them to come to terms with memories which are painful.¹¹ As specialist care access is not feasible for most of children at risk of poor mental health, early interventions and support in community and schools can be crucial to them and their family's well-being.

Thus, to summarize, children's responses to disaster vary widely depending on the type of disaster; the countries, communities, and families in which children live; and the characteristics of individual children. As recovery phase following floods starts, there is an urgent need for psychosocial strategies to lessen the impact on children using simple yet effective evidence-based community-based care. Future planning for disaster management in Pakistan should focus on capacity building of the health system to address the psychological impact of disasters.

References:

1. UNICEF Pakistan Humanitarian Situation Report no. 4 (floods): 28 September 2022 - Pakistan [Internet]. ReliefWeb. 2022 [cited 2022 Nov 26]. Available from: <https://reliefweb.int/report/pakistan/unicef-pakistan-humanitarian-situation-report-no-4-floods-28-september-2022>
2. Kousky C. Impacts of natural disasters on children. *The Future of children*. 2016;26(1):73-92.
3. Fernandez A, Black J, Jones M, Wilson L, Salvador-Carulla L, Astell-Burt T, et al. Flooding and mental health: a systematic mapping review. *PLoS one*. 2015 Apr

- 10;10(4):e0119929.
4. Baggerly J, Exum HA. Counseling children after natural disasters: Guidance for family therapists. *Am J Fam Ther.* 2007;36:79-93.
 5. Hassan FU, Singh G, Sekar K. Children's reactions to flood disaster in Kashmir. *Indian J. Psychol. Med.* 2018 ;40(5):414-9.
 6. Russoniello CV, Skalko TK, O'Brien K, McGhee SA, Bingham- Alexander D, et al. Childhood posttraumatic stress disorder and efforts to cope after Hurricane Floyd. *Behav Med.* 2002; 28:61-71.
 7. Ayub M, Poongan I, Masood K, Gul H, Ali M, Farrukh A et al. Psychological morbidity in children 18 months after Kashmir Earthquake of 2005. *Child Psychiatry Hum Dev.* 2012 ;43(3):323-36.
 8. Bhamani A, Sobani ZA, Baqir M, Bham NS, Beg MA, Fistein E. Mental health in the wake of flooding in Pakistan: an ongoing humanitarian crisis. *J Coll Physicians Surg Pak.* 2012 ;22(1):66-8.
 9. Imran N, Zeshan M, Pervaiz Z. Mental health considerations for children & adolescents in COVID-19 Pandemic. *Pakistan journal of medical sciences.* 2020 May;36(COVID19-S4):S67.
 10. Haider N, Dogar IA, Rana MH. Psychological first Aid in Pakistan: The need of the hour. *JPPS.* 2016; 13(3):6-7.
 11. Ahmed SH, Siddiqi MN. Essay: Healing through art therapy in disaster settings. *The*