

Letter to the Editor

Depression and suicidal ideation among Pakistani rural areas women during flood disaster



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Through this correspondence, we would like to highlight the need for psychological crisis intervention during and after the natural disaster. Flooding can directly cause morbidity and mortality through drowning, electrical shock injuries, and the transmission of contagious diseases, or indirectly through damage to infrastructure and public health services (Al-Wathinani et al., 2021). However, practically all natural disasters result in an increase in mental impairments rather than physical health issues (Makwana, 2019). Depression affects twice as many women as men worldwide. Women's depressive symptoms can be exacerbated by age, a lack of education, a poor economic situation, divorce or widowhood, and verbal or physical assault. In women who have experienced a natural disaster, depression can lead to low birth weight, poor health, lower productivity, chronic diseases, and even suicidal behavior (Mushtaque et al., 2021).

Since mid-June, 30 million Pakistanis have been impacted by monsoon rain and flooding, which have destroyed around 218,000 homes. Moreover, 1136 people were killed and 1634 were injured. As of August 2022, more than 300,000 flood victims were still residing in makeshift communities. These floods are the deadliest worldwide and in Pakistan since the South Asian floods of 2017 that claimed over 2000 lives (National Disaster Management Authority, 2022). Millions of people are now homeless and at risk of hunger, waterborne diseases, and other health issues as a result of the catastrophic floods. Pakistan declared a state of emergency because of the flooding. By 29 August, Pakistan's minister of climate change said around "one-third" of the country was underwater, affecting 33 million people. The Government of Pakistan has estimated the loss of US\$10 billion so far from floodings across the country (Fig. 1).

Women and girls are particularly at risk. In the aftermath of the flood disaster, according to the UN department for reproductive health, up to 73,000 of the 650,000 pregnant women living in flood-affected areas of Pakistan are expected to give birth in the following month. In light of global economic and welfare factors, Pakistani women are more susceptible to depression (Nawaz et al., 2021).

The purpose of this study was to find out how common depression is in the disaster-prone villages of Taunsa and Rajanpur, Tehsil of Dera

Ghazi Khan, Punjab, Pakistan. Flooding in Dera Ghazi Khan and Rajanpur has displaced millions of people, killed 34 people, and damaged 300 villages and three tehsils. In the current study, the data was collected from the Taunsa and Rajanpur flood-affected villages. The village's elementary school served as a safe shelter for the flood victims. One woman per household or family who lived full-time in the village and was at least 18 years old was eligible to participate in the study. There are 450 families in total in both villages. In the study one hundred fifty women volunteered to participate and fill out the survey. In a sample of 60% were married women, 36% were single, and 3% were widowed. Single and married women both experienced depressed symptoms [(38.8% vs. 55.2%), ($X^2 = 6.95$, $p = 0.031$)]. The age range of the women was 19–29 (43%), 30–40 (40%), and above 40 (16%). On the scale of depression, 85 women were diagnosed with depression. Depression was more prevalent in young and elderly women ($X^2 = 7.875$, $p = 0.045$). Approximately 48% of women with no children reported positive depression scores, compared to 23% and 17% of women with 4–6 and 7–10 children ($X^2 = 5.98$, $p = 0.047$) respectively. In the scenario including flooding, twelve women reported having to abort their kids, and ten of these women displayed significant depressive symptoms. Some women experience menstrual cycle disturbance (36.6%), in which 23.6% of women exhibit symptoms of depression ($X^2 = 10.51$, $p < 0.001$). Approximately 53% of women sustained bodily injuries during the flood tragedy. 56% of these individuals were depressed ($X^2 = 5.49$, $p = 0.047$). Eleven women in the sample lost a family member as a result of the disaster. During the flood crisis, the majority of women (60%) receive aid (clothing, food, water, and sanitary pads) in their shelter locations. Women who lost their home, crops, and animals were shown to have elevated levels of depressive symptoms (27% vs. 38% vs. 34%). In the study, 55 women out of 150 had suicidal thoughts. Suicidal ideation was more common among married women without children ($X^2 = 1.80$, $p = 0.046$). In the flood crisis, 56% of women who had no earning member reported suicidal ideation ($X^2 = 2.61$, $p = 0.043$). Suicidal ideation was found to be similar in women who had an abortion and in women who had a family member die (9.1% vs. 7.3%). Suicidal ideation is prevalent among women who were

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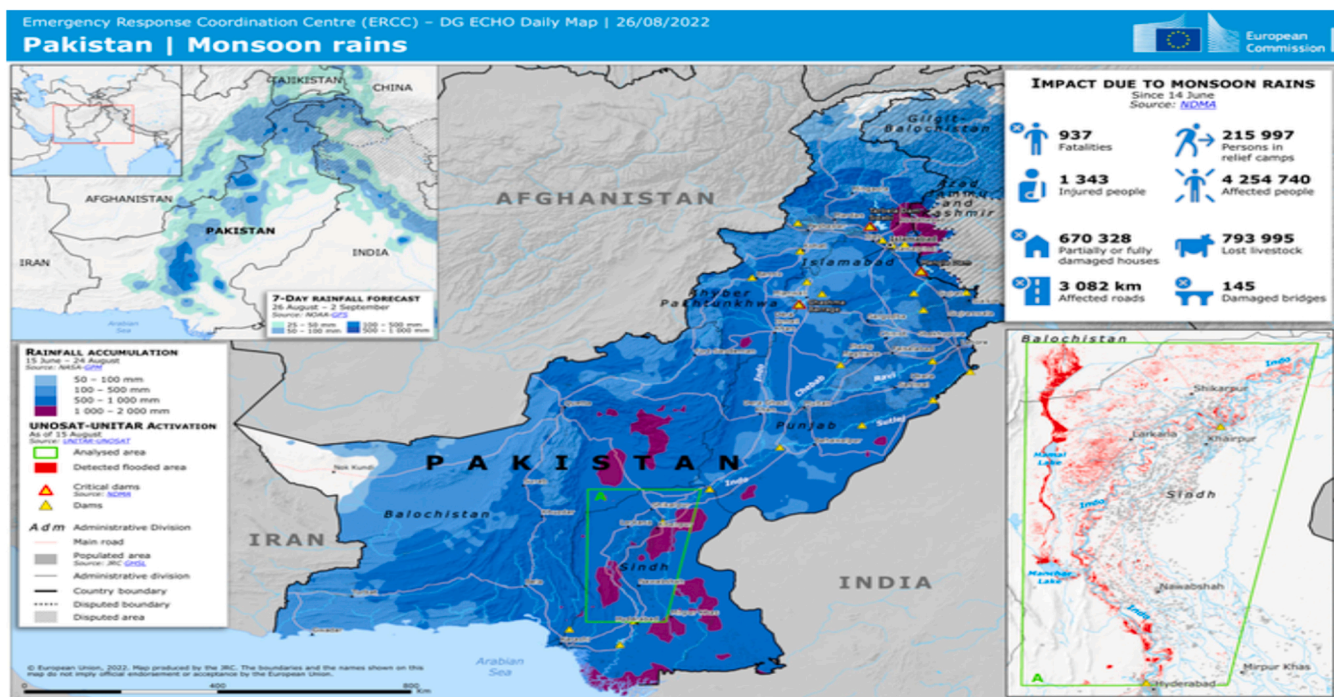


Fig. 1. Emergency Response Coordination (ERCC).

injured (38%) during the flood disaster. Flood relief for victims is also a significant predictor of suicidal thoughts, with 61.9% of participants reporting to receive no relief ($X^2 = 2.712, p = 0.036$).

The overall prevalence of depression after flood disaster among Pakistani women was 56.6%, which was significantly higher than depression rates reported globally after natural disasters (5.9–53%) (Mamun et al., 2019). Suicidal thoughts were found in 34% of women. During the flood, 36% of women experienced menstrual irregularities. 53.0% were injured, 9% had to abort their child, and 7.3% lost a family member. Physical harm, the death of a family member, the loss of a home, crops, and animals, and a lack of relief are all risk factors for depression and suicide. Pakistan's healthcare system should include psychological therapy in times of public health emergencies. Pakistan should develop a psychological crisis intervention program (Mukhtar, 2020) to mitigate the psychosocial and mental health consequences of flooding. This article presents preliminary findings on the mental health features widespread in Pakistan during the flood disaster epidemic.

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Conflict of Interest

The authors of the correspondence do not have any conflict of interest.

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