

Exploring suicidality in the aftermath of the 2022 flood in Pakistan: insights from newspaper reports

Letter to the Editor

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Corresponding author:

Rameez A. Mahesar;
 Email: rameezalimahesar@gmail.com

Rameez A. Mahesar¹ , Hadia Khalil², Sadia Shaikh³, Aqsa Kalhoro⁴, Allah B. Rajar⁵, Momina A. Memon⁶ and Mohammed A. Mamun^{7,8,9} 

¹Department of Media & Communication Studies, Shah Abdul Latif University, Khairpur, Pakistan, ²Department of Media & Communication Studies, Sindh Madressatul Islam University, Karachi, Pakistan, ³Benazir School of Business, Benazir Bhutto Shaheed University, Karachi, Pakistan, ⁴Institute of Public Health, People's University of Medical and Health Sciences for Women, Shaheed Benazirabad, Pakistan, ⁵Department of Community Medicine Muhammad Medical College, Ibn-e-Sina University, Mirpur Khas, Pakistan, ⁶Department of English, Shaheed Benazir Bhutto University, Shaheed Benazirabad, Pakistan, ⁷CHINTA Research Bangladesh, Savar, Dhaka, Bangladesh, ⁸Department of Public Health and Informatics, Jahangirnagar University, Savar, Dhaka, Bangladesh and ⁹Department of Public Health, University of South Asia, Dhaka, Bangladesh

To the Editor:

Pakistan, prone to various natural disasters and climate change impacts, has long grappled with mitigating the effects of events like typhoons, droughts, floods, and earthquakes. Among these, the catastrophic 2022 flood stands out as a severe and impactful event. Lasting from mid-June to mid-September, it was the worst of its kind in decades, affecting an estimated 33 million people, claiming over 1700 lives, and causing extensive infrastructure and agricultural damage. The province of Sindh bore the brunt, experiencing 471% more rainfall than the 30-year average and leaving 89 000 individuals displaced, exacerbating food crises and mental health challenges. The consequences of natural disasters extend far beyond the visible physical damage. In the aftermath of such catastrophic events, communities face an array of profound mental health challenges.

Floods, in particular, are known to amplify the risk factors for suicidal behavior among those directly exposed to these traumatic events. The loss of lives, financial instability, and the material and personal devastation experienced by individuals during and after floods contribute to their psychological vulnerabilities.¹ These vulnerabilities can push individuals toward contemplating and engaging in suicidal behavior, compounding the already significant toll exacted by the disaster.² Despite recognizing the importance of understanding and addressing the mental health impacts of natural disasters, there is a gap in research on the general population's suicidal behavior during Pakistan's monsoon season. To bridge this gap, this study analyzes newspaper reports to shed light on the link between floods, suicidal behavior, and actual incidents. The aim is to provide valuable insights into the mental health challenges faced by the affected population in Pakistan.

For suicide report extraction from the media, 12 widely circulated newspapers in Pakistan were chosen: *Dawn*, *Express Tribune*, *Pakistan Observer*, *The Nation*, *The News International*, *Daily Jeejal*, *Daily Kawish*, *Daily Dunia*, *Daily Sobh*, *Daily Jang*, *Nawa-e-Waqt*, and *Express News*. These newspapers report in English, Sindhi, and Urdu. Two authors (H.K. and M.A.M.) conducted a thorough search for news reports on suicidal behavior from June 16 to September 15, 2022, using specific keywords like *suicide*, *flood in Pakistan*, *depression*, *rainfall*, and so forth involving a web-based search technique on each newspaper's site. After identifying potential news articles, 2 authors (R.A.M. and H.K.) independently extracted data from the selected reports, focusing on relevant information about suicidal behavior. Any disparities in data extraction were resolved through discussion and consensus. The suicide reports were excluded if it was discussing ambiguous suicides, suicide bombings, terrorism, and detailed reports, and were in other reporting genres of editorials, opinions, letters to the editor, book reviews, interviews, articles, feature stories, and unrelated news stories.

Out of the 85 reported suicidal cases, the most incidents (68.2%) were males, 35.2% were aged between 16 and 30 years, 62.3% were Muslims, 15.2% were employed, 28.2% were married, and 63.5% occurred in rural areas. Among the reported suicidal cases, 96.4% were classified as suicides, while 3.5% were suicide attempts. The dominant methods used in these incidents were hanging, accounting for 29.4% of cases, followed by gun shooting at 24.7%, self-poisoning at 17.6%, and jumping from heights at 15.2%. The analysis of risk factors associated with suicidal behavior revealed significant contributing factors. Familial disharmony was identified as the leading risk factor in 31.7% of cases, followed by husband–wife discordance at 12.9%. Other prominent risk factors included poverty, which accounted for 11.7% of cases, and depression at 10.5%. The majority of suicide incidents occurred within the confines of the individuals' homes, representing 76.4% of the reported cases (Table 1).

This study's findings revealed that the majority of the observed suicidal behavior consisted of completed suicides (96.4%), while suicide attempts accounted for a smaller portion. Of the gender-based suicidality, males exhibited higher rates of suicidal incidents (68.2%), reflecting the external pressures they faced during the floods. Many males were unable to work and provide for their families due to dangerous commuting conditions caused by flooded roads. Displaced from their homes, some resorted to seeking refuge on bridges and roads with limited access to food. These findings align with previous studies highlighting the association between male gender and increased suicide risk. In Western societies, suicide rates among various ethnic groups tend to be higher in males than females, whereas rates of suicidal ideation and attempted suicide are more prevalent among females.³ Notably, we found that individuals between the ages of 16 and 30 exhibited higher rates of suicidal tendencies. This age group's vulnerability to suicide may be attributed, in part, to the demographic composition of Pakistan, where a significant proportion (64%) of the population falls below the age of 30. Furthermore, it is projected that the population within this age range will continue to increase until 2050. Muslims accounted for the highest rates of suicidal behavior (62.3%), reflecting Pakistan's predominantly Muslim population (96.5%). Additionally, rural areas had higher suicide rates than urban ones, underscoring the necessity for tailored interventions and support systems in rural settings.

In terms of the methods employed in suicidal events, hanging (29.4%) and gun shooting (24.7%) emerged as the most common methods. This finding is consistent with global trends, where hanging has become a preferred method for suicide.⁴ Regarding the location of suicidal events, this study indicated that the majority of incidents (76.4%) occurred within individuals' homes during the flood period. This study's findings underscored familial disharmony as a major risk factor for suicide (31.7%), aligning with prior studies.⁵ Unlike Western societies where mental disorders predominate, non-Western settings, particularly South Asian cultures, emphasize interpersonal relationship problems.³ Interestingly, depression contributed to 10.5% of suicidality cases, contrasting with European studies showing heightened post-flood depression.^{3,6} Methodological differences may explain this discrepancy. This study used media reports, capturing factors associated with mental health issues rather than establishing mental health as the suicide causes. European studies might have used psychological autopsies or comprehensive assessments to link depression and flood-related suicide. Such disparities underscore the need for further research to unravel complex suicide risk factors. Understanding these elements informs targeted national suicide prevention strategies. Addressing flood-affected Pakistani populations requires interventions attuned to unique cultural, social, and environmental contexts.

In conclusion, this study highlights the significant impact of floods on the occurrence of suicidal behavior among the affected population in Pakistan. The findings underscore the importance of implementing practical policies by the government and collaborating with NGOs to mitigate the frequent and devastating consequences of floods. It is crucial to provide psychological and medical assistance as part of comprehensive preparedness measures against such disastrous events. Targeted mental health interventions should be prioritized for young adults, males, individuals in rural areas, and those facing familial disharmony and mental health problems (Table 1).

Table 1. Description of the Suicide and Suicide Attempt Victims

Variables	Frequency	Percentage
Age of the victims		
Below 15	3	3.5
Between 16 and 30	30	35.2
Between 31 and 45	8	9.4
Above 45	5	5.8
Not mentioned	39	45.8
Gender		
Male	58	68.2
Female	27	31.7
Religion		
Islam	53	62.35
Christianity	0	00
Hinduism	0	00
Not mentioned	32	37.6
Occupation		
Housewives	5	5.8
Employed	13	15.2
Not mentioned	67	78.8
Marital status		
Unmarried	12	14.1
Married	24	28.2
Divorced	2	2.3
Widow	1	1.1
Not mentioned	46	54.1
Locality		
Urban	31	36.4
Rural	54	63.5
Suicidal behavior		
Suicide	82	96.4
Attempted suicide	3	3.5
Suicide method		
Gun shooting	21	24.7
Hanging	25	29.4
Poison consumption	15	17.6
Jump from height	13	15.2
Under the train	2	2.3
Not mentioned	6	7.0
Other	3	3.5
Risk factors		
Familial disharmony	27	31.7
Husband–wife discordance	11	12.9
Depression	9	10.5
Poverty	10	11.7

Table 1. Continued

Variables	Frequency	Percentage
Unemployment	4	4.7
Not mentioned	20	23.5
Other	4	4.7
Suicide place		
Home	65	76.4
Outside home	14	16.4
Not mentioned	6	7.0

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