Personality Traits in Patients Affected with Flood - A Hospital Based Study

Authors
Junaid Nabi\textsuperscript{1}, A.W Khan\textsuperscript{2}, Aijaz Ahmed Suhaff\textsuperscript{3}, Sajid Mohammad\textsuperscript{4}, Mohammad Sarwar Mir\textsuperscript{5}, Nowsheen Zaffar\textsuperscript{6}
\textsuperscript{1}Registrar, Department of Psychiatry, SKIMS MC, Srinagar
\textsuperscript{2}Professor & HOD, Department of Psychiatry, SKIMS MC, Srinagar
\textsuperscript{3,4}Post Graduate, Department of Psychiatry, SKIMS MC, Srinagar
\textsuperscript{5}Post Graduate, Department of Hospital Administration, SKIMS, Srinagar
\textsuperscript{6}Senior Resident, Department of Hospital Administration, SKIMS, Srinagar

ABSTRACT
A flood is an overflow of water that submerges land which is usually dry. Disasters not only have impact on the morbidity and mortality of the local population but also disrupt progress and destroy the outcome of developmental efforts over several years, often pushing nations’ quest for progress back by several decades. A typical pattern of mental, emotional, and physical response is observed in the majority of people after exposure to any disaster. The combination of cloud bursts, floods, and landslides triggered on 4th 5th and 6th September 2014 affected almost whole of Kashmir and some areas of Jammu as well. Research in this area can provide newer insights in prevention and management of patients who seem vulnerable in developing personality disorder.

Aims: 1) To study socio demographic characteristics of patients affected with flood.
2) To study personality traits in these patients

Methods and Materials: It was a cross-sectional observational study carried out in tertiary hospital in Srinagar. Patients affected with flood referred to psychiatry for opinion and willing to participate were included. Socio demographic details were obtained through self designed proforma. International personality disorder examination (IPDE) was used to diagnose personality traits in such patients.

Results: Majority of the patients affected with flood (68%) were of young age group (15-27) years with male predominance (62%) were unmarried (38%) and belonged to Muslim (94%) Nuclear (58%) family. Histrionic personality (27%) was found to be personality traits in majority of the patients followed by dissocial personality (16%).

Conclusion: Patient affected with flood at our setting had a distinctive pattern which was different from the norm.

INTRODUCTION
A flood is an overflow of water that submerges land which is usually dry.\textsuperscript{[1]} The European Union (EU) Floods Directive defines a flood as a covering by water of land not normally covered by water.\textsuperscript{[2]} Disasters not only have impact on the
morbidity and mortality of the local population but also disrupt progress and destroy the outcome of developmental efforts over several years, often pushing nations’ quest for progress back by several decades.\textsuperscript{3} A typical pattern of mental, emotional, and physical response is observed in the majority of people after exposure to any disaster.\textsuperscript{4,5} Disasters threaten personal safety, overwhelm defense mechanisms and disrupt community and family structure.\textsuperscript{6} Viswanath et al. in 2012\textsuperscript{7} reported that the medical and mental health needs of geriatric survivors deserve special consideration and allocation of resources on a priority basis. Math et al.\textsuperscript{8} had reported that interventions such as art therapy, informal education, group discussions, dramas, storytelling, activity scheduling, yoga, relaxation, sports/games, providing factual information, and educating parents and teachers can help in a number of ways.

Personality is defined as consistent patterns of behavior reflecting thoughts and emotions, and it is considered stable or slow changing. Previous research about the relationship between personality and traumatic events has typically regarded personality as an independent variable predicting the incidence of PTSD or related negative emotions. For example, an investigation of Australian Vietnam veterans found that having neurotic traits was significantly and positively correlated with combat-related PTSD.\textsuperscript{9} Coping styles refer to active efforts through positive or negative behaviors to deal with stress, involving a series of cognitive and behavioral strategies.\textsuperscript{10} Positive coping can help to ameliorate adverse symptomatology, whereas avoidant coping can strengthen negative emotional responses to earthquakes.\textsuperscript{11,12} The combination of cloud bursts, floods, and landslides triggered on 4\textsuperscript{th} 5\textsuperscript{th} and 6\textsuperscript{th} September 2014 affected almost whole of Kashmir and some areas of Jammu as well. Kashmir witnessed the worst floods in past 60 years. Every department of life was affected, so were hospitals. Most of them were deluded. Our hospital remained closed for a good 10 days and when it started it took more than a month to function it in a smoother way. Our OPD started flooding with patients who were affected with flood in one or other way. That was the moment we decided to take up this study to see which personality people are more vulnerable and who can handle in a better way. Therefore, this study was designed to find the personality traits in patients affected with flood in a tertiary care teaching hospital in Srinagar.

**AIMS & OBJECTIVES**

1. To screen for personality traits using International Personality Disorder Examination (IPDE) scale in patients affected with flood.

2. To find out the socio-demographic details of patients affected with flood.

**MATERIALS AND METHODS**

This was a hospital based cross-sectional observational study which included all referred patients with history of exposure to flood to Department of Psychiatry for evaluation. Total of 200 patients were taken up for the study. Successive patients satisfying the inclusion and exclusion criteria were taken up for the study and administered the International Personality Disorder Examination (IPDE) scale for evaluation of personality traits.

Each patient was informed about the purpose of interview; his/her consent was obtained and strict confidentiality was ensured. The interview was conducted as soon as possible after the patient was evaluated and was able to co-operate for the interview. Those patients referred to Psychiatry OPD for evaluation were interviewed in the outpatient department itself and other patients who asked for admissions were interviewed in wards after admission. General description, demographic data and psychiatric history were recorded using the self designed proforma and the IPDE.

**Research instrument**

1) **Study case record /proforma:** It consisted of a self-designed interview schedule to record the socio-demographic data, the psychiatric history
including that of the suicide attempt, mode of suicide, causes / factors, the physical examination and International Personality Disorder Examination mental status examination.

2) IPDE: IPDE Screening Questionnaire is a self-administered form that contains 77 DSM-IV or 59 ICD-10 items. The patient responds either True or False to each and can complete the questionnaire in 15 minutes or less. The clinician can quickly score the questionnaire and identify those patients whose scores suggest the presence of a personality disorder. It has proven to be a user friendly and clinically tool for clinicians. It has demonstrated inter-rater reliability and temporal stability that is similar such instruments. It is semi-structured clinical interview in accordance with both ICD-10 and DSM-IV criteria that provides a means for arriving at diagnoses of major categories of persons.13

Statistics: Data obtained was then entered in Microsoft excel and analyzed in Statistical Package for the Social Sciences (SPSS, version 17) for descriptive statistics.

RESULTS
In this study, two hundred (n= 200) participants with history of exposure to floods were analyzed. Males were 62% (n = 124) and females were 38% (n = 76). Majority (68%) were young adults in the age group of 15 to 25 years. Married were 58% (n = 116) and females were 42% (n = 84). In this study, 39% (n = 78) studies till primary level and 13% (n = 26) were illiterate. Muslims were maximum with 94% of the total sample.

Table 1 summarizes the characteristic and socio-demographic details of the participants

| Characteristics                  | Value (Percentage) |
|----------------------------------|--------------------|
| Participants with Attempted suicide | 200                |
| Age (years)                      |                    |
| 15-25                            | 68% (136)          |
| 26-35                            | 20% (40)           |
| 36-45                            | 7% (14)            |
| 46-58                            | 5% (10)            |
| Gender                           |                    |
| Male                             | 62% (124)          |
| Female                           | 38% (76)           |
| Marital status                   |                    |
| Married                          | 58% (116)          |
| Unmarried                        | 42% (84)           |
| Divorce                          | 0% (0)             |
| Family type                      |                    |
| Nuclear                          | 55% (110)          |
| Joint                            | 45% (90)           |
| Education                        |                    |
| Illiterate                       | 11% (26)           |
| Primary                          | 39% (78)           |
| Secondary                        | 23% (46)           |
| Graduation                       | 19% (38)           |
| Post-graduation                  | 8% (16)            |
| Occupation                       |                    |
| Student                          | 67% (134)          |
| Salaried                         | 18% (36)           |
| Business                         | 10% (20)           |
| Unemployment                     | 5% (10)            |

Table 2: Type of stressors prior to flood and social support in the participants

| Characteristics                  | Value (percentage) |
|----------------------------------|--------------------|
| Stressors prior to flood         |                    |
| Economic/ finance                | 25% (50)           |
| Housing                          | 14% (24)           |
| Occupation                       | 10% (20)           |
| Environment                      | 7% (14)            |
| Education                        | 5% (10)            |
| Social support                   |                    |
| Poor                             | 65% (130)          |
| Good                             | 35% (70)           |
Table 3: Personality traits in participants with attempted suicide

| Personality profile | Value (percentage) |
|---------------------|--------------------|
| Cluster A           |                    |
| 1. Paranoid         | 3% (6)             |
| 2. Schizoid         | 1% (2)             |
| 3. Schizotypal      | 1% (2)             |
| Total               | 5% (5)             |
| Cluster B           |                    |
| 1. Histrionic       | 27% (54)           |
| 2. Dissocial        | 16% (32)           |
| 3. Borderline       | 13% (26)           |
| 4. Impulsive        | 8% (16)            |
| Total               | 64% (128)          |
| Cluster C           |                    |
| 1. Anxious          | 14% (28)           |
| 2. Anankastic       | 13% (26)           |
| 3. Dependent        | 4% (8)             |
| Total               | 31% (62)           |
| Grand Total         | 200                |

DISCUSSION
In this study an attempt has been made to study the different types of personality traits in patients affected with flood in a tertiary care hospital in Srinagar.

The findings of the study showed that extraversion and neuroticism personality traits were significant among flood victims and in addition, it showed that, openness to experience personality does not influence the outcome of the patients. This result agreed with Paris (2000) that, neuroticism describes a tendency to react with strong emotion to adverse events. Individuals who are high on this dimension are more prone to stress because their responses are more rapid, more intense and slower to return to baseline. Conversely, those who are low on the trait of neuroticism could “shake off” stressful events. In addition, findings by Lauterbach & Vrana (2001) showed that, neuroticism often exaggerates the impact of the event. Kessler (2001) argued that an individual response to stress is often a function of the level of extraversion. Findings across studies on resiliency after adverse life experiences suggested that individuals who are high on extraversion are likely to develop a positive self-perception, optimism, and a sense of meaning to life while, those who are low on extraversion tend to respond negatively. The study by implication showed that, gender influences the development of PTSD among flood victims. That is, it appears that, the female gender influences are more prone to stress because of the peculiar personality type and they are more susceptible to emotions. Some of these differences are clearly societal and non-biologically based, Northern California Institute for research and education (NCIRE, 2005) explained that, women exposed to trauma may be at greater risk of developing post-traumatic stress disorder than men because of a heightened fear response. They further explained that, women are more likely than the men to develop a strong fear response, and – once conditioned to respond fearfully they are more likely to have strong responses to fear-inducing stimuli. This suggests that, there may be differences in how men and women learn to fear. The presence of histrionic personality traits found in the 27% patients of the sample suggests that it is an important determinant of developing personality problems.

CONCLUSION
In this study we found most patients affected with flood and coming up with personality traits was more common in young adults. More than half of the patients were married with most of them having only primary level education. More than 61% patients belonged to nuclear families and there were a high number of students. A large number of patients reported stressors preceding the attempt with financial problems and problems with primary support being most commonly elicited stressors. Histrionic personality traits were the predominant personality profile observed in flood affected followed by borderline personality traits. Findings of this study also indicated a strong relationship between level of education, presence of social support. Thus the above factors would have to be focused upon, in the management, and,
during the counseling sessions of patients affected with flood.

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