



Effect of flood hazard on avoidant personality disorder (AVPD)

Chandana Lakshmi

Prof, (Retd.) GSROY, Moh Rambag PO, Kdsu, Darbhanga, Bihar, India

Abstract

The aim of this study was to examine the psychological impact of devastating natural flooding on Avoidant personality Disorder among the residents of flood prone area. A cross-sectional survey was used to investigate the psychological symptoms of AvPD associated with the aftermath of the flood amongst adults living in the affected communities. The sample consisted of 100 adults from flood prone area and 100 adults from non-flood prone area from cross-section of society, and from both sexes from East-North Districts (Koshi Commissionery) of North Bihar, out of which 87 were found suffering from AvPD, and 113 were those showing negligible symptoms of AvPD, aged between 22 to 35 years. Data had had been collected after two months of recession of devastating flood. Avoidant personality Disorder was measured through Chandana Lakshmi's (2011) Avoidant Personality Disorder Scale. Results indicated that poor female persons of flood prone areas had greater amount of Avoidant Personality Disorder compared to their counterpart rich and male sufferers, and those of non-flood prone areas. There should be provision and facilities for on the spot psychological counseling to the flood victims.

Keywords: flood hazard, avoidant personality disorder (avpd)

Introduction

Natural disaster such as floods exposes people to several mental and health-related problems. Flooding represents a major environmental risk for many countries around the world with potentially devastating effects for human lives, health and livelihoods. The frequency and severity of floods are increasing in many global regions due to land development and processes of climate change, which are set to increase the intensity of rainfall (Smith *et al.*, 2014^[14], Watts *et al.*, 2015)^[19].

Repeated experience with devastating flood may lead to development of avoidant personality disorder. Survivors of flood hazard can experience longer-term psychosocial effects such as distress, anxiety, pain, depression, and social dysfunctions. Severe distresses in the worst cases may become mental disorders or so-called psychopathologies (Watts *et al.*, 2015)^[19]. Evidences suggest that human health impacts related to climatic events have increased and will continue to do so in the future (Watts *et al.*, 2015)^[19]. Mason *et al* (2010)^[11] reported prevalence of Post-traumatic stress disorder (PTSD), avoidant personality disorder (AvPD) depression and anxiety among the victims of flooding, and that females had higher mean scores on PTSD, anxiety and depression than males. Avoidant personality disorder is a mental condition in which a person has a lifelong pattern of feeling very: Shy, Inadequate, and Sensitive to rejection

Most frequently reported coping strategies were rational, detached and avoidant, with the least frequent being emotional coping. Moreover, detached coping appeared to be related to less distress. The reasons why people develop psychological distress can be multiple. They can be related to individual skills and experience with flooding, autonomous actions taken to protect family, or belongings or to the taking out of insurance.

Some studies suggest that repeated flood experience in the recent past leads to less distress in people. Indeed, as

individual memories of floods and their consequences remain, people are prone to adapt their attitude toward the risk (Burn, 1999)^[4]. Thus, living in a flood risk area means suffering some flooding, and that experience should be used to build the ability to reorganize, and face the challenges. Liao (2012)^[9] points out that each flood experience creates a chance to adjust internal structures and processes and to build knowledge and develop coping strategies.

A substantial body of evidence has established that floods have direct health impacts such as the risk of death and injury, disease outbreaks, such as gastroenteritis, and water quality issues (Alderman *et al.*, 2012)^[2]. But floods are also a deeply traumatic experience for those affected. Multiple studies highlight higher occurrences of mental health issues (such as anxiety, depression and post-traumatic stress disorder) in populations that have experienced flooding (Ahern *et al.*, 2005^[1], Carroll *et al.*, 2009^[5], Stanke *et al.*, 2012^[15], Alderman *et al.*, 2012^[2], Fernandez *et al.*, 2015)^[6].

Researches in this field further documents some of the factors that exacerbate the mental health consequences of flood experience, such as the flood duration, the economic and social consequences of recovery, and the emotional labour involved (Fordham and Ketteridge, 1995^[7], Medd *et al.*, 2015^[12], Tapsell *et al.*, 2002^[16], Tapsell and Tunstall, 2001^[16], Tapsell and Tunstall, 2008^[17], Whittle *et al.*, 2012)^[12].

Several researches point to long-lasting effects on mental health and wellbeing, including stress, anxiety, depression and post-traumatic stress disorder (Tapsell and Tunstall, 2008^[17]; Ahern *et al.*, 2005)^[1]. Asim *et al.* (2019)^[3] observed Post-Traumatic Stress Disorder among the Flood Affected Population in Indian Subcontinent. Besides several studies document the negative impact of wicked flooding on mental health of victims off the flood affected areas (Lamond *et al.*, 2015^[8]; Mason *et al.*, 2010)^[11]

Sample

Originally the Sample of the study consisted of 250 adults from flood affected and 300 adults from non-flood affected areas of Koshi Commissionery of North-East part of Bihar State; out of which only 58 adults from flood affected area, and 26 adults from non-flood affected area met the diagnostic criteria of Avoidant Personality Disorder. They were from both sexes and from cross section of the society, aged between 22 to 35 years. The sample of flood affected group was smaller compared to those of non-flood affected group, because of the fact that soon after recession of flooding majority of adult population had left the village for livelihood earning, so their population had been reduced

during the period of investigation.

Research Tools

Avoidant personality Disorder was measured through Chandana Lakshmi's (2011) Avoidant Personality Disorder Scale. This scale has got sufficient amount of reliability (Split-Half Reliability=.87; and Test-Retest Reliability=.75), besides sufficient amount of construct validity (Coefficient of Concordance=.92) which warranted its application for research.

Results

Following results were obtained

Table 1

Comparison of Mean Avoidant Personality Scores of Respondents						
Group	No. of AvPD Clients	Mean of AvPd Scores	SD of AvPd Scores	t-ratio	df	p-value
Flood Affected	58	16.24	2.36	10.27	82	<.01
Non- Flood Affected	26	12.03	2.07			

It is obvious from the figures presented in Table-1 that individuals of flood affected areas had been experiencing greater amount of avoidant personality disorder (M=16.24; SD=2.36) compared to those of non-flood affected areas (M=12.03; SD=2.07), as obtained t-ratio (t=10.27; df=82) was significant beyond 99% of confidence interval.

The reason behind such finding may be that some natural calamities give rise to emotional disturbances, anxiety, and fear that lead to the development of Avoidant personality disorder. Individuals in ravaging flood area are extremely frustrated, fearful, by ravaging hazard and develop essential self-doubt and a mistrust of others, with the anticipation of humiliation or rejection (Million, 1981). As a result of natural disaster a change in interpersonal relationships skills, such as an increase in conflict or a more withdrawn and avoidant personality. It often associates with Post-Traumatic Stress disorder (Velzen *et al*, 2000) ^[18], that result from natural disasters.

To conclude it can be said that devastating flood creates a lot of mental health problems including anxiety, depression, post-traumatic stress disorder, avoidant personality disorder, and the like.

References

- Ahern M, Kovats RS, Wilkinson P, Few R, Matthies F. Global health impacts of floods: Epidemiologic evidence. *Epidemiol. Rev.* 2005; 27:36-46
- Alderman K, Turner LR, Tong S. Floods and human health: a systematic review. *Environ. Int.* 2012; 47:37-47
- Asim M, Mekkodathil A, Sathian B, Elayedath RN, RK, Simkhada P, van Teijlingen E, *et al*. Post-Traumatic Stress Disorder among the Flood Affected Population in Indian Subcontinent. *Nepal J Epidemiol.* 2019; 9(1):755-758. doi: 10.3126/nje.v9i1.24003. eCollection 2019 Mar. PMID: 31210997
- Burn DH. Perceptions of flood risk: A case study of the Red River Flood of 1997. *Advancing Earth and Space Science.* American Geophysical Union, 1999.
- Carroll B, Morbey H, Balogh R, Araoz G. Flooded homes, broken bonds, the meaning of home, psychological processes and their impact on psychological health in a disaster Health Place. 2009; 15:540-547.
- 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; 10(4):e0119929.
- Fordham M, Ketteridge AM. *Flood Disasters – Dividing the Community.* Emergency Planning. Lancaster, UK, 1995.
- Lamond JE, Joseph RD, Proverbs DG. An exploration of factors affecting the long term psychological impact and deterioration of mental health in flooded households. *Environ Res.* 2015; 140:325-34. doi: 10.1016/j.envres.2015.04.008. Epub 2015 Apr 22. PMID: 25909883
- Liao K. A theory on urban resilience to floods—a basis for alternative planning practices. *Ecology and Society.* 2012; 17(4):48. <http://dx.doi.org/10.5751/ES-05231-170448>
- Mason V, Andrews H, Upton D. The psychological impact of exposure to floods. *Psychol Health Med.* 2010; 15(1):61-73. doi: 10.1080/13548500903483478. PMID: 20391225.
- Mason V, Andrews H, Upton D. The psychological impact of exposure to floods. *Psychology Health and Medicin.* 2010; 15(1):61-73. DOI: 10.1080/13548500903483478
- Medd W, Deeming H, Walker G, Whittle R, Mort M, Twigger-oss C, *et al*. The flood recovery gap: a real-time study Of local recovery Following The floods Of June 2007 In hull, North East England. *J. Flood Risk Management.* 2015; 8:315-328
- Millon T. *Disorders of Personality DSM-III: Axis II.* New York, NY: John Wiley & Sons, 1981.
- Smith GP, Davey EK, Cox R. *Flood Hazard.* Water Research Laboratory, NSW, Australia, 2014.
- Stanke C, Murray V, Amlot R, Nurse J, Williams R. The effects of flooding on mental health: Outcomes and recommendations from a review of the literature. *PLOS Currents Disaters,* Edition, 2012.
- Tapsell SM, Tunstall SM. *The Health and Social Affects of the June 2000 Flooding in the North-East Region: report to the Environment Agency.* Middlesex University: Flood Hazards Research, 2001.

17. Tapsell SM, Tunstall SM. I wish I'd never heard of Banbury: the relationship between 'place' and the health impacts from flooding. *Health Place*. 2008; 14:133-154
18. Velzen CV, Emmelkamp P, Scoling A. Generalized social phobia versus avoidant personality disorder. *Journal of anxiety disorders*, 14(4):395-411.
19. Watts N, Adger WN, Agnoucci P, Blackstock J, Byas P, Wenjila. Health and climate change: Policy responses to protect public health, *Lancet*. 2015; 386:1861-1914, doi:10.1016/S0140-6736(15)60854-6.