

Abstract

Introduction

In view of catastrophe happen in disaster prone Uttarakhand, its poor preparedness and severe outcome in terms of destruction and loss of human lives & property, a study was designed to look into other 'not too visible' areas loss in terms of Post-Traumatic Stress Disorder (PTSD) and Health related Quality of Life (H-QOL) of the disaster victims and estimate this burden. Hence, the present study was planned to estimate magnitude/prevalence of PTSD and assess Health related QOL with potential relationship between variables of PTSD & Health related QOL among the disaster victims of Sub Himalayan Uttarakhand state of India .

Methods:

The research design adopted had both Quantitative and Qualitative as it was most appropriate to attain the data from the Disaster victims. Quantitative component of the study design was used to assess Prevalence of PTSD and post Disaster H-QOL among the afflicted. The Qualitative component study design was used to do SWOT analysis on ongoing disaster preparedness and mitigation process. Data collection was done in two different time intervals i.e. Six month after disaster (Baseline) and eighteen month after disaster (End line). At baseline 2667 disaster victims were sampled by multi stage probability sampling in a cross sectional study with key respondents being head of the family , next to head of the family, any individual directly injured during disaster, aged ≥ 14 years and non-alcoholic were included in the study. Among the baseline disaster victims 1719 of them were given responses about PTSD and HQOL at end line. Total of fifteen (15) ASHA workers were selected who were already staying in the village with disaster victims to collect the data. Focus group discussion and in depth interviews were been done to generate information for SWOT analysis on ongoing disaster preparedness and mitigation process. Instruments used were PCL-S and WHOQOL- BREF tools besides a structured, pre-tested instrument to elicit socio- demographic data. The purpose of the study was explained and written informed consent was obtained from the study participants.

Results:

- More than half (51%) of the disaster victims were diagnosed with PTSD at the Baseline.
- End line prevalence showed that every fifth (22%) disaster victim met the criteria of PTSD symptom and 78% of disaster victims overcame the stress.

- The base line PTSD mean score is significantly higher than the end line PTSD mean score at the level of significance $p \leq .05$.
- At baseline the overall H QOL score was found to be 'poor' ($1.76 \pm .43$). Sub scales of H QOL like physical ($2 \pm .03$); social ($2 \pm .02$) and environmental H-QOL ($2 \pm .01$) were found to be 'poor'. And psychological domain of H- QOL of disaster victims was found to be 'very poor' as it was $1.1 \pm .40$.
- Total H QOL score at end line was found to be improved from the baseline $2.53 \pm .43$ and it was 'neither poor nor good'. Other domains like physical ($3.02 \pm .06$), Social ($3.7 \pm .71$) showed improvement. The radical improvement was seen in environmental ($4.1 \pm .05$) domain. Even though psychological domain was also found to be nominally improved from 'very poor' to 'poor' ($1.9 \pm .30$).
- The total H QOL score across all domains indicates significant improvement in symptoms at the end line ($2.53 \pm .43$) at the significant level of $p \leq .05$.
- Health related QOL was found to be negatively correlated with PTSD among the disaster victims.
- Socio-demographic and other variables, namely gender, education, occupation, family income, marital status, kind of disaster exposed to, frequency of disaster, type of loss and type of exposure significantly contributed development of PTSD.
- Except duration of disaster exposure all socio-demographic and other variables, like gender, education, occupation, family income, marital status, kind of disaster exposed to, frequency of disaster, type of loss and type of exposure significantly affected the Health related Quality of Life of Disaster victims.

Conclusion:

- The findings of study highlight requisite need for identification and intervention for PTSD for Disaster Victims in context of developing countries.
- The scope of the study may be extended into a larger sample and coverage area; the initiative has the potential to be replicated at socio-epidemiological state with similar perspective.
- PTSD may persist for several years after a disaster that may result in various functional impairment in affected people both physically and psychologically.

- Required treatment program should be organized to cure post-disaster stress along with assessment, diagnosis and interventions for survivors should be taken as priority goal in a program of public health.
- Both community and provider capacity unit for disaster-preparedness and mitigation system should be built. Imparting appropriate coping skills to deal with post disaster affects via proper designed modules is an imperative need.
- Research studies can also test whether treatment targeting PTSD symptoms have a beneficial effect on HQOL and whether interventions specifically effectively reduce PTSD symptoms.
- State and central government authorities need to focus on minimizing the damage to existence, belongings and surroundings before the catastrophe moves.

Keywords: Disaster Victims, Post Traumatic Stress Disorder, Quality of Life.