

The Effects an Anthropogenic Disaster Has on Post-Traumatic Stress Disorder

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INTRODUCTION

On April 17, 2013, a massive explosion occurred in West, Texas on a fertilizer plant that killed 15 individuals and left about 252 individuals injured. These injuries have also left some individuals affected with long term disabilities. The Waco-McLennan County Public Health District conducted a follow-up study six years after this incident. This study helped assess the communities current physical and mental health needs. Natural disasters similar to this one has been linked with Post Traumatic Stress Disorder and other mental health deficits. It is important to recognize PTSD after a disaster in order to treat it properly.

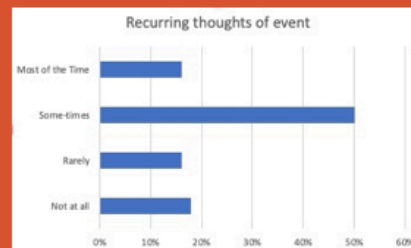
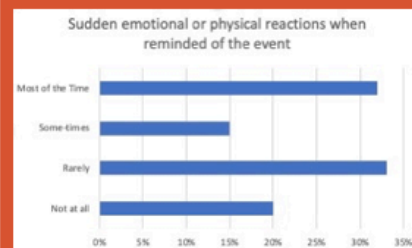
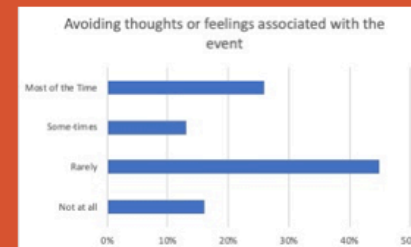
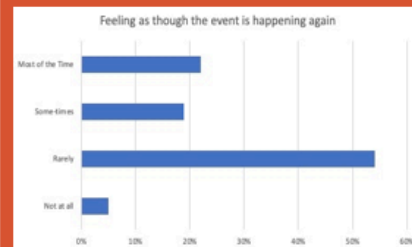
METHODS

Data from the questionnaire of households in West, Texas were used to find relationships between anthropogenic disasters and post-traumatic stress disorder. The questionnaire was self-reporting and consisted of questions regarding physical and mental health. This questionnaire was conducted. The PTSD-8 scale was used to screen for PTSD in the individuals after by the explosion. The PTSD-8 scale is an 8-item questionnaire that assess different symptoms of PTSD. Odds ratio, mean of scores, and data analysis were used to find information on the different variables of PTSD. The relationship between the disaster and PTSD were used to identify the risk factors associated with PTSD.

ACKNOWLEDGEMENTS

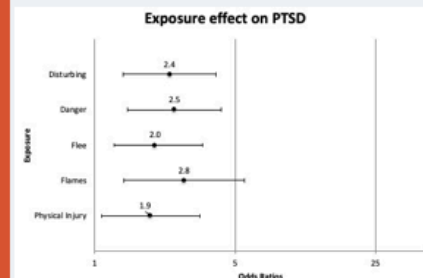
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An estimated 43% of individuals had some level of PTSD from this disaster.



RESULTS

From the PTSD-8 scale it was estimated that 43% of the individual had some level of PTSD. Disturbing scenes (OR= 2.5; 95% CI 1.44-4.35) and respondents who felt in danger (OR= 4.14; 95% CI 1.89-9.78) were associated with PTSD. The mean score from the PTSD questions was 13.6 ranging from 4-32. The cut of score for the scale is 18. Having recurrent thought (81.68%), sudden emotional or physical reactions when reminded of the event (79.85%), and feelings as though the event is happening again (94.87%) are the top risk factors associated with PTSD in this study.



DISCUSSION

Results from this study suggest a significant relationship between an anthropogenic disaster and PTSD. Knowing the risk factors of PTSD can offer quicker and more efficient services and therapy. This study also indicates a need for continuous, long-term public health intervention in this community as this demonstrates long-term effects, six years after the explosion.

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