

Effects of flooding on mental health: A case-control study

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Introduction

Post-disaster mental health problems may affect population in different ways.

Population exposure to a natural disaster has been associated with psychological distress, in particular, in the development of Posttraumatic Stress Disorder (PTSD).

Most people experience distress after their exposure to an extreme event.

For people with good psychosocial resilience and access to social support, mental health problems can be relatively less important since supporting relationships and inner capabilities may begin the adaptation processes. Mental disorders occur often, but less commonly than distress, and in some cases they may require intensive and long term continuing interventions and treatment(1).

Objectives

The aims of this study were to investigate the effects of flooding on mental health population, particularly on the general health and the symptom's emergence of PTSD.

Method

A random sampling method was conducted in a population affected by a flood occurred in September 2012, an area of 20.000 inhabitants in the North of Almeria (Spain) (N=70).

The control population was a near region (30 Km) of 30.000 inhabitants non affected by the flood (N=41).

The sample were screened with a socio-demographic questionnaire, 12-item General Health Questionnaire(GHQ-12) and the Questionnaire to rate Traumatic Experiences(TQ). We also counted the distribution of stress exposure among people with various kinds of exposures (physical risk or/and economical losses).

Results

The mean age of the individuals was 53, 69 years, sd 15,99. Distribution by sex was 34,62% men – 65,38% women. There were no statistical differences between age and genders between case and control population.

There was statistical differences in TQ scores between case population (5,39) vs. control population (1,8).

An association between age and TQ scores was demonstrated, increasing TQ scores by age. Also, there were no statistical differences between individuals that suffered physical risk in the flood versus people that didn't suffered in TQ scores. On the other hand, a multiple regression model was adjusted by age and sex. Significant differences were found in the TQ scores mean values for individuals that suffered economical losses (9,51 TQ score) versus individuals that didn't suffered it (2,94).

Conclusions

- Older people were more likely to develop PTSD
- It's necessary to consider secondary stressors, such as economical losses, in the develop of PTSD.

References:

- Lock S, Rubin GJ, Murray V, Rogers MB, Amlôt R, Williams R
Secondary stressors and extreme events and disasters: a systematic review of primary research from 2010-2011.
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	Estimate	Std.error	T value	p
(Intercept)	2,18566	1.69081	1.293	0.1990
age	-0.02313	0.02755	-0.840	0.4031
sex	1.05886	0.90382	1.172	0.2441
physical risk	2.75165	1.48812	1.849	0.0673
economical losses	7.24776	0.97748	7.415	0,000 ***