
The Impact of Childhood Exposure to a Natural
Disaster on Adult Mental Health: A 20-year
Longitudinal Follow-up Study of Children Exposed
to a Major Australian Bushfire

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by

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Abstract

Background

On February 16 1983, several large-scale bushfires devastated substantial parts of Australia. In the following two-years, McFarlane and colleagues examined the long-term psychological consequences of exposure to this bushfire in children. Eight hundred and six children attending school in an easily demarcated region of South Australia that was vastly devastated by the fires and 725 unexposed children were assessed. This thesis reports on the 20-year longitudinal mental health trajectories of this cohort of children. This study is the first to follow-up a large sample of childhood disaster survivors using a control sample recruited as children at the time of the original study

Sample:

Nine-hundred and eleven participants (540 (67%) bushfire survivors, and 471 (65%) controls) completed the follow-up assessment. The mean age of the bushfire sample at the time of the disaster was 8.44 years (3.23 to 13.49 years) and at follow-up was 28.64 years (23 to 34 years). The mean age of the control sample at the time of the disaster was 7.39 years (1.67 to 13.11 years) and at follow-up was 27.66 years (22 to 33 years).

Method:

Participants completed a 1-hour telephone interview examining lifetime and 1-month prevalence of DSM-IV disorder using the Composite International Diagnostic Interview (CIDI) as well as a self-report booklet.

Results:

Bushfire survivors were at a slightly increased risk of developing a current DSM-IV disorder (in particular a current DSM-IV anxiety disorder), as well as a lifetime DSM-IV anxiety disorder compared to the controls.

Seventy-five percent of the bushfire group still reported some degree of bushfire-related distress in the form of intrusion symptoms 20 years on, however the lifetime prevalence of bushfire-related PTSD was considerably lower than rates following other childhood disasters. Only 6 (1.7%) of the bushfire survivors met lifetime DSM-IV PTSD criteria in response to the bushfire, compared to 27 (5.8%) of the control population who met PTSD in relation to their worst lifetime event.

Risk factor models for the development of lifetime depressive and anxiety disorders (including bushfire-related PTSD and worst-event PTSD) were examined, with special consideration given to the relative contribution of characteristics of the disaster, child, and the post-disaster environment as well as additional lifetime trauma to the development of DSM-IV psychopathology over time. The methodological limitations of current PTSD diagnostic criteria and assessment measures, as well as the implications of their use in longitudinal disaster research are comprehensively discussed.

Conclusion.

The present study, while acknowledging the detrimental impact of childhood disaster exposure on the development of long-term anxiety spectrum disorders, raises some important questions regarding the methodologies employed by previous longitudinal disaster studies. The main challenge facing researchers is to begin to prioritise the disaster in the context of the other lifetime trauma so as not to overemphasise the contribution of this one discrete event to

long-term psychosocial maladjustment. A focus on family intervention and reducing the risk of further traumatising, in addition to the implementation of a long-term follow-up schedule for all childhood disaster survivors is recommended.

Declaration

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Miranda Van Hooff

I believe that this thesis is properly presented and conforms to the specifications for the degree of sufficient standard to be, *prima facie*, worthy of examination

Professor Alexander Cowell McFarlane
Principal Supervisor

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