

BJPO/2015/1180 Data supplement**The role of peri-traumatic stress and disruption distress in predicting PTSD symptoms following exposure to a natural disaster**

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Covariate factors for structural equation modelling

Gender. Measured at birth.

Cognitive ability (IQ; ages 8-9 years). Cohort members' IQ was assessed at age 8-9 years using the Revised Wechsler Intelligence Scale for Children(1). The full scale score was used for the purposes of the present analyses.

New Zealand Maori ethnicity (age 21). At age 21 years respondents were asked about their ancestry, ethnic identification, level of participation in Māori cultural domains, and proficiency in the Māori language (2). On the basis of this questioning, 11.1% of sample members self-identified as New Zealand Māori.

Prior History of Mental Disorder (age 25-30 years). At age 30 participants were assessed on a comprehensive mental health interview that examined aspects of psychosocial adjustment since the previous assessment. This interview was similar to that used at age 35 and enabled classification of participants on a range of mental disorder outcomes for each of the interval 25-30 years. This information was combined over the four assessment periods to provide two measures. The first measure was a count of the number of mental disorders for which the individual met DSM-IV(3) criteria during the period 25-30 years, including: major depression; anxiety disorders; nicotine, alcohol and illicit drug dependence; and suicidal ideation/attempt over the period from age 25-30 years. The second measure was a dichotomous classification as to whether the individual met criteria for PTSD during the period 25-30 years.

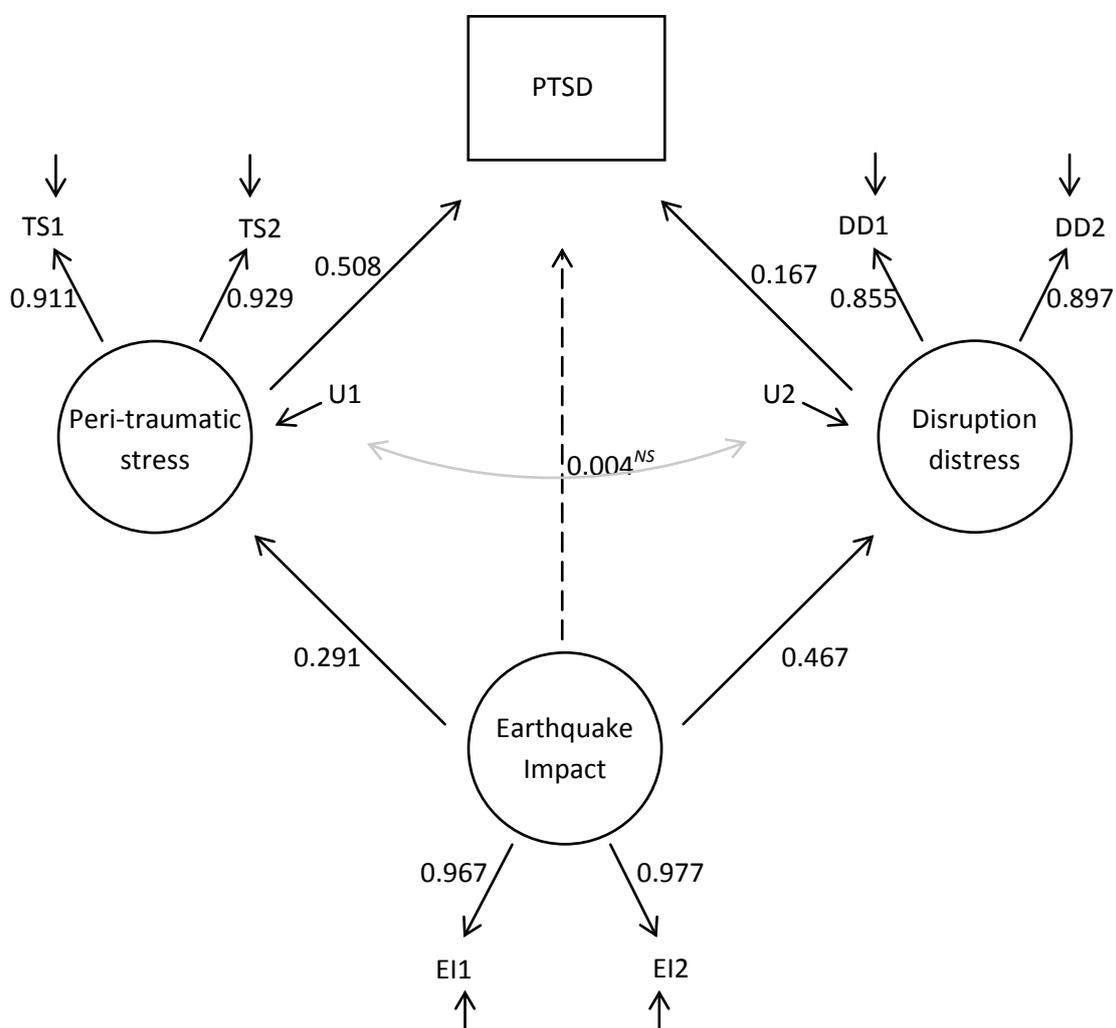
Family socioeconomic status (age 30). The socioeconomic status of each cohort member's family was assessed at age 30 using the NZSEI-2006 (New Zealand Socioeconomic Index) (4). The NZSEI classifies individuals and families on a scale ranging from 10 (lowest) to 90 (highest) based on occupational status. For the purposes of the present investigation, the family NZSEI score was the higher of the scores for the cohort member or the cohort member's partner (where applicable).

Correlation matrix for split-half indicators

Table DS1. Correlations for split-half indicators of: earthquake impact score (EI); disruption distress (DD); traumatic stress (TS); and post-traumatic stress disorder (PTSD) symptoms

Split-half measure	EI1	EI2	DD1	DD2	TS1	TS2	PTSD1	PTSD2
EI1	1.0	0.945	0.399	0.393	0.265	0.253	0.266	0.281
EI2		1.0	0.409	0.396	0.271	0.256	0.271	0.292
DD1			1.0	0.766	0.471	0.491	0.527	0.515
DD2				1.0	0.537	0.530	0.527	0.545
TS1					1.0	0.846	0.676	0.692
TS2						1.0	0.695	0.687
PTSD1							1.0	0.890
PTSD2								1.0
Mean (s.d.)	16.51 (7.49)	16.40 (7.39)	10.27 (4.21)	12.49 (5.30)	15.97 (6.55)	16.32 (5.33)	12.08 (3.67)	11.69 (3.34)

Figure DS1: Fitted structural equation model of the latent measures of: earthquake impact score; disruption distress; peri-traumatic stress; and the observed three-level classification of PTSD; with standardized coefficients.



NB: All paths statistically significant ($P < 0.0001$) unless indicated by ^{NS}.

Indirect path from Earthquake Impact to PTSD via peri-traumatic stress:
 $\beta = 0.148$, $SE = 0.029$, $P < 0.0001$

Indirect path from earthquake impact to PTSD via disruption distress:
 $\beta = 0.078$, $SE = 0.034$, $P < 0.0001$

References

1. Wechsler D. Wechsler Intelligence Scale for Children: Revised. The Psychological Corporation, 1974.
2. Broughton J, Fergusson DM, Rimene C, Horwood LJ, Sporle A. Nga Tini Aho O Te Ao Hou. The many strands of contemporary Maori society: Maori ethnicity and identity in the Christchurch Health and Development Study. Ngai Tahu Maori Health Research Unit, 2000.
3. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (4th ed.). American Psychiatric Association, 1994.
4. Milne BJ, Byun U, Lee A. New Zealand socio-economic index 2006. Statistics New Zealand, 2013.