

Gender-Distinct Effects of Trauma Exposure on Posttraumatic Stress Reactions and Social Relations in Adolescents Following the 921 Chi-Chi Earthquake in Taiwan

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The Earthquake Exposure-Social Relations-Posttraumatic Stress (ESP) model was proposed to clarify the relations among trauma exposure (objective and subjective), social relations (supportive and detrimental), and posttraumatic stress responses. This study recruited the adolescents who had been exposed to a large-scale natural disaster, the Taiwan 921 Chi-Chi Earthquake. Gender-distinct effects of trauma exposure on social relations and PTSD severity were evaluated using the ESP model. The Earthquake Exposure Index for Youth, UCLA-PTSD Index, and Taiwan Relationship Inventory for Children and Adolescents were given to 871 adolescents living in the epicenter one year after the earthquake. The ESP model was evaluated and cross-validated by structure equation modeling (SEM) method using the data of both boys ($n = 450$) and girls ($n = 421$) separately. Results showed that the ESP model had good overall-fit for both genders. The subjective exposure had significantly greater positive effects on supportive social relations, and objective exposure had greater positive effects on detrimental social relations (especially for girls). Both supportive and detrimental social relations had significantly greater positive effects on PTSD severity. Specifically, the more supportive and/or detrimental social relations the individual perceived, the greater their PTSD severity. The effects of detrimental social relation were relatively larger. Gender difference was found in the paths linking exposure and PTSD severity. While objective exposure had direct positive effects on PTSD severity for boys, subjective exposure had direct positive effects on PTSD severity for girls. These findings pointed out the importance to discriminate between subjective and objective exposure as well as between supportive and detrimental social relations for studying their relations to posttraumatic stress responses. It also suggested that, in helping adolescents exposed to trauma, we should take gender into consideration, and it may be more crucial to deal with detrimental social relations for posttraumatic adjustment.

Keywords: *gender difference, PTSD symptoms, social relation, Taiwan 921 Earthquake, trauma exposure*

