Understanding Acute Psychological Distress Following Natural Disaster

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A household probability sample of 229 adults was interviewed four to seven months after the Sierra Madre earthquake (June 28, 1991; Los Angeles County). The study predicted psychological distress from these variables: demographics, traumatic event history, low magnitude event history, earthquake related threat perceptions, and earthquake related resource loss. Based on the Conservation of Resources (COR) stress model, it was predicted that resource loss would be central in predicting psychological distress. Three major hypotheses were supported: (1) resource loss was positively associated with psychological distress; (2) resource loss predicted psychological distress when other predictors were statistically controlled; and (3) resource loss was associated with mild to moderate elevations in of psychological distress. The findings support COR stress theory. Theoretical and practical implications are discussed.

KEY WORDS: disaster; psychological distress; theory.

INTRODUCTION

Residents of the San Gabriel Valley of California (Los Angeles county) suffered an earthquake at 7:43 A.M. on June 28, 1991. This event was named the Sierra Madre earthquake after the small mountain community that suffered the greatest damages. The Sierra Madre earthquake was moderate in size based on geologic magnitude (5.8 on Richter scale), estimates of financial damage ($33.5 million), deaths (2) and injuries (approximately 100). The San Gabriel Valley had experienced three other

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earthquakes within a 4-year period: Whittier Narrows earthquake in October 1987; Pasadena earthquake in December 1988; and Upland earthquake in February 1990 (J. D. Goltz, Southern California Earthquake Preparedness Project, personal communication, August 1991).

The repeated exposure of the residents of the San Gabriel Valley to moderate sized earthquakes provided an interesting research opportunity. Previous research has emphasized the link between discrete high magnitude natural disaster exposure and psychological adjustment (e.g., McFarlane, 1988; Shore et al., 1986). Many people may face the threat of repeated exposure to moderate sized natural disasters (Norris and Murrell, 1988; Phifer and Norris, 1989). This study focuses on the link between a moderate sized natural disaster and psychological adjustment.

PSYCHOLOGICAL ADJUSTMENT

Earthquakes and other natural disasters provide an important focus for study. Natural disasters impact large numbers of people throughout the world. In the United States, it has been estimated that as many as two million adults suffer injury or property damage each year due to such events (Solomon, 1989). Further, natural disasters can impact psychological adjustment. Many adults experience mild transient complaints (e.g., sadness, anxiety, somatic concerns) that resolve with the return to safe, predictable routines (Cook and Bickman, 1990; North et al., 1989). A small proportion of adults may experience mental health problems that are persistent (McFarlane, 1988; Shore et al., 1986; Raphael and Middleton, 1987).

Certain characteristics may be particularly salient to determining how people adjust following traumatic events (Green, 1990). These mental health risk factors can be described as either subjective or objective in nature. Subjective risk factors include a person's perceptions of the traumatic event. These subjective experiences are typically associated with higher levels of psychological distress: low control, low predictability, and perceived threat to life (Foa et al., 1989; Jones and Barlow, 1990). Objective risk factors include the following types of experiences: bereavement, property loss, personal injury, or unemployment. Objective risk factors are also known to increase levels of psychological distress (Maida et al., 1989; Shore et al., 1986).

A dose-response relationship may exist between subjective and objective risk factors and subsequent psychological adjustment (Freyedy et al., 1992; Shore et al., 1986). The perception of life threat due to trauma may carry a particularly high mental health liability (Kilpatrick et al., 1989).