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COPING SELF-EFFICACY AND PSYCHOLOGICAL DISTRESS FOLLOWING THE OKLAHOMA CITY BOMBING

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COPING SELF-EFFICACY AND PSYCHOLOGICAL DISTRESS FOLLOWING THE OKLAHOMA CITY BOMBING

Approximately 2 million people in the U.S. alone will be significantly effected by a disaster this year (Solomon, l989). At 9:02 A.M. on April l9, l995, the world was suddenly shocked by the worst terrorist act on U.S. soil in recent U.S. history. One hundred and sixty eight people were killed and hundreds more were injured as a terrorist bomb ripped through the Alfred P. Murrah Federal building in Oklahoma City. Since this tragic day in April, citizens have been attempting to recover and to put the pieces of their lives back together. Research on the mental health impact of disasters has rapidly proliferated in the last several decades, and has demonstrated that serious psychological ramifications occur following a disaster (Adams & Adams, l984; Rubonis & Bickman, l99l). The primary aim of this research was to evaluate the predictive power of subjective appraisals of coping self-efficacy for psychological distress after the Oklahoma City bombing tragedy.

Coping self-efficacy is defined as a person's subjective appraisal of his/her ability to cope with the environmental demands of the stressful situation. High coping self-efficacy has been related to improved psychological adjustment to abortion (Meuller & Major, l989), improved coping with physical assault (Ozer & Bandura, l990), improved immune function (Wiedenfeld, et al. l990), lower catecholamine responsivity (Bandura, Taylor, Williams, Mefford, & Barchas, l985), and reduced blood pressure response (Bandura, Reese, & Adams, l982). Coping self-efficacy has also been correlated with better psychological adjustment following severe environmental stressors such as volcanic eruptions (Murphy, l987), hurricanes (Benight, et al., in press; Benight, et al., under review), and military combat (Solomon, et al., l988).

Based on this research, we hypothesized that coping efficacy in dealing

with the coping demands following the bombing would explain a significant proportion of the variance in PTSD symptomology and general psychological distress over and above several control variables (e.g., social support, threat of death).

Methods

A total of 27 victims were recruited two months after the bombing. These participants were found through local businesses within a 5-mile radius around the bombing site. The mean age of this sample was 41 years old. Of these individuals, 48% were men and 52% were women. The mean income range reported for sample one was between $40,000 and $45,000 per year. Educationally, 7% reported a high school education, 26% some college, 37% college graduate, and 30% graduate education. Ethnically, almost the entire sample was Caucasian, with only 3% African-American and 3% Native American. Approximately one year after the bombing 17 of these victims were assessed again. In addition, 10 new participants were added at the one year follow-up. This second sample consisted of 63% women and 37% men. The mean age of this group was 43 years of age. The mean range of income for this second sample was basically the same, between $35,000 and $40,000 annual income. This sample reported slightly more education experience with 4% high school, 19% some college, 33% college graduate, and 44% graduate education. This sample was entirely Caucasian. Thus, this study is reporting results from the initial 27 participants and how the one-year sample reacted to the bombing. Time one participants completed a psychosocial questionnaire and an interview. The one-year follow-up participants filled out the questionnaire packet and returned it in the mail. Hierarchical multiple regression was utilized to test the importance of the coping self-efficacy measure. The control variables utilized were threat of death, income, social support, and loss of resources.

Measures

Coping Self-Efficacy

Coping self-efficacy was measured using a 43-item scale designed to assess the main situational demands of coping with a bombing. Items are divided into four main areas of coping demands: Behaviors, Thoughts, Images, and Emotions. Under each of these areas specific demands that participants were facing were assessed. The items were all answered on a 7-point Likert-type scale with 1="not at all capable" and 7="totally capable." The items related to issues such as "doing my job well," "managing thoughts of people dying," "thoughts of personal injury," "distressing dreams," "feelings of helplessness," etc. The internal reliability of this measure was acceptable, alpha>.85.

Life Threat

Subjects were asked whether they thought they were going to die during the bombing, with answers ranging from (1) "not at all" to (7) "absolutely."

Loss of Resources

Loss of resources was assessed in line with Hobfoll's (Hobfoll, l989) model of stress. The list of resources utilized for this study relates to material resources (e.g., car, furniture, etc.) and experiential resources such as time for sleep, daily routine, etc.

Social Support

The Interpersonal Support Evaluation List (ISEL) was utilized to measure social support (Cohen, Mermelstein, Kamarck, & Hoberman, l985). The ISEL is a 40-item assessment that measures four main areas of social support. These include: tangible support, belonging support, appraisal support, and self-esteem support.

Psychological Distress

Symptom Checklist-90 Revised (SCL-90R)

The SCL-90R (Derogotis, l983) was used to assess psychological distress following the bombing. The SCL-90R is a 90-item self-report measure designed to assess general psychological distress in psychiatric and medical patients. The questions relate to the past week and the checklist sums to an overall psychological distress measure called the Global Severity Index (GSI90). The SCL-90R has been extensively used in studies investigating emotional fallout from traumatic stress (Baum, Gatchel, & Schaeffer, l983)

Post-Traumatic Stress Disorder (PTSD)

PTSD was assessed utilizing the frequency of experiencing 17 PTSD symptoms derived from the Diagnostic and Statistical Manual Third Edition-Revised (APA, l987). Participants were asked to assess how often over the past week they have experienced the series of symptoms associated with PTSD diagnosis (e.g., intrusive thoughts, avoidant response, and hyperarousal). Participants indicated how often they had experienced the symptom with 0= "Not at all" to 4="Everyday" and the severity of those symptoms on a 4 point scale with 0="Not at all Distressing" and 4="Extremely Distressing."

Impact of Event Scale

The Impact of Event Scale (Horowitz, Weiner, & Alvarez, l979) is a 15-item scale that assesses the emotional impact of an event on a person by looking at intrusive thoughts, emotional numbing, and avoidance. This scale has shown adequate reliability and validity and is extensively used in trauma research.

Results

Results supported the importance of coping self-efficacy (CSE) perceptions in helping to explain psychological distress following this type of disaster. At two months following the bombing, CSE accounted for an additional 24% of the variance over and above the control variables of threat of death, income, social support, and loss of resources in predicting general psychological distress [($F(1,21)=29.35$, $p<.000$]. CSE also added 30% of the variance over and above control variables for PTSD symptomology at this time. For the Impact of Event Scale Total Score, CSE added 23% of the variance, which was significant [$F(1,21)=12.33$, $p<.002$]. The one-year data are consistent with these findings. Coping self-efficacy added a significant portion of the variance over and above control variables for general psychological distress [$F(1,22)=24.09$, $p<.000$]. Interestingly, CSE did not significantly add to the prediction of frequency of experiencing PTSD symptomology but did add to the prediction of reported severity of these symptoms [$F(1,20)=40.48$, $p<.000$]. Finally, CSE added significantly to the explanation of the Impact of Event Scale Total Score adding 22% additional variance [$F(1,22)=12.12$, $p<.002$].

Discussion and Implications

The present findings supporting the value of assessing CSE appraisals following a disaster are consistent with data from other severe environmental stressors (Benight et al., in press; Benight et al., under review; Murphy, l987; and Solomon et al., l988). These findings suggest that individual's appraisals of his/her perceived ability to cope with environmental demands are highly associated with reported psychological distress. Implications of these findings are important in relationship to postdisaster mental health interventions. However, before addressing these implications it is important to mention the limitations of this study.

This study is correlational, and causation cannot be inferred from these

findings. Thus, it is unclear if those with higher distress report lower CSE perceptions or the other way around. However, studies experimentally manipulating CSE levels have shown that varying levels of CSE are accompanied by differences in psychological outcome (Ozer & Bandura, l990) and cardiovascular and endocrine reactivity (Bandura, et al., l985; Bandura, et al., l982) Thus, it is conceivable that perceived CSE levels, at least in part, are contributing to psychological and physiological reactions in this study. This study is also limited based on its small sample size and homogeneity of the sample. Generalization of these findings to other terrorism actions or to other samples is not warranted.

The implications of these findings are important for developing psychosocial interventions facing the aftermath of domestic terrorism. The CSE measure designed for this study focused heavily on the psychological demands facing individuals following this type of horrific experience, whereas the hurricane CSE measure focused on both psychological recovery and physical recovery (e.g., "managing the rebuilding of my home," etc.). Specialized interventions for post-terrorism recovery might be designed that focus on specific emotional demands where a person feels inefficacious (e.g., dealing with intrusive thoughts about the bombing), rather than Critical Incident Stress Debriefing interventions currently done (see Kenardy, Webster & Carter, l996). It is conceivable that CSE perceptions may interact with the CISD intervention with some individuals who are having greater difficulty (i.e., feeling highly inefficacious in dealing with memories from the bomb, or thoughts from the bomb) feeling more distressed when asked to discuss in detail his/her experience with the tragedy. Indeed, due to the emotional reactivity linked with poor CSE perceptions, recounting the experience may only further exacerbate self-appraisals of inability to cope. With recent evidence that Critical Incident Stress Debriefing Interventions may not always be helpful (Kenardy et al., l996), future research is needed to look at individual difference variables that may interact with our current front-line interventions. Interventions designed to help affected persons deal with the variety of emotional reactions that emerge from this type of event

might benefit from incorporating components such as realistic goal setting and self-appraisals of success that enhance perceptions of emotional mastery. In the context of terrorism recovery, it is possible that interventions might help individuals normalize their emotional reactions and provide specific coping skills (e.g., relaxation training, social support, etc.) that would enhance efficacy perception. The utilization of alternative treatments that may help the individual process this traumatic material more quickly (e.g., Eye Movement Desensitization and Reprocessing Therapy) may also prove beneficial in increasing individuals perceptions of CSE.

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