

Quick Response Report #103

CHILDREN'S RESPONSE TO EXPOSURE TO TRAUMATIC EVENTS

Richard D. Allen and William Rosse

1998

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This material is based upon work supported by the National Science Foundation under Grant No. CMS-9632458. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

CHILDREN'S RESPONSE TO EXPOSURE TO TRAUMATIC EVENTS

The research on childrens' response to exposure to traumatic events clearly documents that children who experience traumatic events are at risk for developing both short- and long-term negative emotional reactions (Swenson et al., 1996; Nader et al., 1990). Children are particularly vulnerable to the effects of trauma and may need to have specific interventions to assist them in their recovery. Typically children look to their parents for assurance and assistance when faced with painful situations. If a child is looking to a parent or parents for assistance, how does the parent's own experience of and reaction to the trauma influence the child's reactions? This question is of paramount concern because parents are often the primary caregivers in supporting their children to adjust to traumatic events (Heft 1993).

Gleser et al. (1981) have posited a relationship between parent or caregiver's distress and the level of distress in children. These primary caregivers may be modeling an appropriate response to the traumatic event, or may be unable to provide the assistance or assurance that the child needs.

Since there is a likely relationship between a parents' and their childrens' response to a traumatic situation, how parents attempt to cope with this situation may also impact how they are able to respond to the needs of their children.

The research on coping and trauma has suggested that coping reactions may be related to either positive or negative outcomes (McFarlane, 1988; Solomon et al., 1988). Some coping research has supported the idea that coping strategies that are active and address either the physical or psychological needs of the individual may result in a more advantageous outcome for the individual in terms of reduced stress reactions. Coping strategies which aim to avoid the traumatic situation and its effects may in turn be associated with a negative reaction for the individual, although both engagement or avoidance may have either a positive or negative effect on the individual, depending upon the severity of the stressor or a number of other variables (Mullen and Suls, 1982).

This study was designed to more definitively answer if there is a relationship between the level of parent and child stress following a wide scale traumatic event. It also sought to explore if parental coping reactions were associated with levels of stress experienced by children and their parents. Finally, the study sought to address the issue of parental coping styles as they relate to a willingness to seek trauma mitigation services for their children.

Parental willingness to seek services for their children was assessed by follow-up survey.

The questions that this study sought to answer were:

1. Following a wide-scale traumatic event, does a demonstrable relationship between parental stress levels and child stress levels exist? Specifically, are parents exhibiting more stress symptoms likely to have children who also exhibit more stress symptoms?
 2. Is there a relationship between parental coping style and stress symptoms? Specifically, is withdrawal/avoidant coping related to more stress symptoms in parents?
 3. Is there a relationship between parental coping style and child stress symptoms? Specifically, is "withdrawal" or avoidant coping in parents related to a greater number of child stress symptoms?
 4. Is there a relationship between coping style and parents' receptiveness to a referral for their child(ren)?
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Methodology

The study was conducted one week after Hurricane Marilyn (a category II/III storm) struck the Virgin Islands on September 15, 1995. The data were collected at a Federal Emergency Management Agency (FEMA) center and at a Disaster Medical Assistance Team (DMAT) center on St. Thomas. Participants were asked to fill out a series of questionnaires while they waited for services at one of these sites. Subjects went through a brief screening interview before the rating scales were given. Participants were provided a referral for mental health services including programs specifically designed to assist traumatized children. Subjects were also given a postcard, which they were instructed to return as part of the follow-up for this study.

Participants

The participants for the study were 50 parents who came for assistance from FEMA or for medical attention at the DMAT center. The parents filled out the surveys on themselves and one child while waiting for services. Researchers were thus provided with ratings on 50 parents and 50 children.

The mean age for the parents was 32.58 years (with a standard deviation of 7.3 years). The mean age for the children was 6.96 years (with a standard deviation of 2.96 years). Subjects from which this data is drawn were mostly female (81%) and unmarried (58%). While 43% reported they had attended college, 11% were not high school graduates. The participants were primarily African American/Caribbean (72%), Euro American (16%), or Asian American/Native American (12%).

Instruments

The research participants filled out general questionnaires that asked them to provide information concerning gender, education, SES, previous mental health illness, previous disaster experience, and ethnicity. The participants were also asked to report their disaster experiences, focusing on degree of fear experienced, the extent to which they had seen others killed or injured (described as horror) and information about their proximity to the event itself.

The second instrument used in the study was a modified version of the COPE by Carver (Carver et al., 1989). Per the authors' instructions, this instrument had been reduced to 30 items and was being used as part of another research

project that was running concurrently to this study.

The COPE assesses three different current coping strategies: Instrumental Coping (coping behaviors such as getting shelter and other forms of assistance), Emotional Coping (seeking emotional support), and Withdrawal-Avoidance Coping (which includes behavioral disengagement, drug-alcohol use, and denial). The alpha reliability for the full scale COPE's internal consistency range from .62-.92 ($p < .01$). Test-retest reliability has been reported as ranging from $r = .46$ -.86 and for a second group $r = .42$ -.89.

The Stanford Acute Stress Reaction Questionnaire was employed in this study (Cardena et al., 1991; Cardena and Spiegel, 1993; Classen et al., unpublished manuscript). The SASRQ is a 30-item self-report questionnaire designed to measure dissociative and anxiety symptoms following a traumatic experience. Its measures include: dissociative symptoms, traumatic reenactment, avoidance (of reminders of trauma), symptoms of anxiety, and impaired functioning. The SASRQ has a high internal consistency for anxiety symptoms ($\alpha = .91$) and dissociative symptoms ($\alpha = .90$).

The Child Stress Reaction Survey by Allen is currently unpublished and is a behavioral assessment instrument which measures parents' rating of their child(ren)'s behavior on 12 items that reflect post-traumatic stress reaction. Parents rate their children on pre- and post-event behaviors and provide a frequency estimate of the same. Four areas of behavioral symptomology that are associated with trauma in children are measured:

1. Behaviors that reflect developmental regression (such as enuresis, or not wanting to sleep alone).
2. Behaviors that indicate dissociative phenomena.
3. Preoccupation with the traumatic event.
4. Behaviors that are indicative of anxiety and anger symptoms.

Parents are asked to rate their child's current and pre-event behaviors on a 5-point Likkert-type scale which ranges from "never" to "very often". The measure has both high internal consistency (.89) and face validity.

Parental stress was measured by the Stanford Acute Stress Reaction Questionnaire. Parents' rating of their children on the Child Stress Reaction Survey provided data on children's stress. Three coping reactions (Instrumental, Emotional and Withdrawal-Avoidance Coping) were measured by the COPE inventory.

Results

A significant relationship between parental and child stress symptoms was found ($r = .44$, $p = .001$; $R^2 = .19$ $F(1,48) = 11.33$, $p < .005$). The data suggests that with higher levels of parental stress, a corresponding increase in levels of stress is found in their child(ren).

The second research hypothesis was not supported as parental coping styles were not correlated with child stress reactions.

The relationship between parental coping and parental stress produced the following results: Avoidance Coping Style is positively correlated with Parental Stress Level ($r = .43$, $p < .005$; $R^2 = .18$, $F(1,48) = 11.24$ $p < .005$), supporting the relationship between these two phenomena.

The question of how parental coping styles would impact their receptiveness to referral for mental health services was unmeasurable due to a lack of participant response in the follow-up survey.

Discussion

Studies have produced equivocal results on similarity in stress levels between parents and children (Pynoos, 1991). The results obtained in this study suggest that parents do report a significant relationship between theirs and those of

their offspring. On the surface this appears to be logical as parents and their offspring may have experienced similar levels of traumatic stimuli during a disaster, and children often look to their parents when assessing how serious a given situation is. Having parents rate their children using a behavioral checklist that asks them to focus on very specific behaviors and rate the frequency of those behaviors both prior to the event and following the event may assist them in making a more accurate evaluation of their children's levels of post-traumatic stress.

The relationship between parent and child stress levels has important implications for outreach considerations following a disaster. Outreach should be targeted towards parents who are exhibiting high levels of stress in ways that facilitate them seeking assistance for their children. These parents may be identified at disaster relief centers, Red Cross, FEMA, etc., as well as by primary care physicians and other health care providers. Treatment should also be oriented towards providing parent debriefing groups that assist parents in addressing their children's post-traumatic stress symptoms. When children are identified as the primary "crisis," having families involved may ameliorate their stress levels and can be an important adjunct to treatment. Consulting with parents who may not identify themselves as in need of post-traumatic counseling services and teaching them how to help their children may be an important part of helping the entire family recover.

The lack of a statistically significant relationship between parental coping style and levels of child stress raises a question concerning whether this phenomenon was due to methodological issues, or if parental coping style is not a variable that affects the reported level in the child(ren)'s stress.

Parental stress levels are related to their children's stress level and this variable, parental stress, may be the more salient variable when studying child stress levels. If the parent and child have had a similar experience it might be reasonable to assume that they will have a similar level of post traumatic stress. Another factor may be that children read their parents, and their own level of stress may increase or decrease depending upon the level of parent stress that the children observe. For instance, children may experience more stress if they see their parents exhibit greater degree of stress reactions. Conversely, children may be soothed when they see that their parents are not showing many signs of stress.

The third research question examined the relationship between coping and stress. There was a relationship between avoidance coping style and stress with higher levels of stress associated with the avoidance style. Alternative explanations of this could be that individuals who are overwhelmed by their stress symptoms will engage in avoidance coping, (e.g., withdrawal, use of alcohol or drugs) or those individuals who engage in avoidance coping find that their stress levels increase, especially if these individuals perceive these coping strategies are of little utility in addressing their emotional problems. In either case, this population exhibits higher levels of stress symptoms and is usually not engaged in behaviors that are likely to improve the immediate situation. This group should, therefore, be targeted for interventions that may enhance more adaptive coping strategies.

The final question addressed the issue of parents' receptivity to referral. Lack of participant response to the follow-up mail survey may be attributable to the compromised environment in which they were living. Many were living in houses where there was no roof and were faced with living in a situation without running water, electricity, and phone services. In being reduced to this level of existence, keeping track of a postcard that they agreed to mail if they sought mental health services might not have been of immediate concern, and they may have forgotten the task. There may have also been cultural variables that influenced how receptive participants were to reporting the seeking of mental health services.

This study, conducted with highly traumatized individuals in a compromised environment provides data on parent and child reactions. Results from this study indicated that there was a high correlation between child and parent stress and that parental avoidance type coping was correlated with higher stress levels. Future studies which attempt to answer the question of whether coping style, specifically avoidance coping, leads to higher levels of stress or whether higher levels of stress result in avoidance coping appear to be warranted.

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Acknowledgments

The authors would like to thank Rick Crandall for his thoughtful review of the first draft of this report; Yu-Wai Chiu for his assistance in data analysis; Health Commissioner MacDonald of the Virgin Islands for her assistance and Linda B. SewerBridges-Williams for her help in acquiring access to participants. We would like to thank Rory Osborne for his assistance in data collection and trauma consultation. Finally, we would like to thank Jackie Raaye and Diane Wells for their assistance in preparing this manuscript.

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February 25, 1998

hazctr@colorado.edu