# The Mental Health Consequences of Torture

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# 4

# Psychosocial Models

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In this chapter we discuss a selected number of psychosocial conceptual models—learning theory, information processing, social–cognitive models, social support, developmental models, and learned helplessness—that purport to explain some aspects of the etiology, course, and treatment of the human response to traumatic experiences. These specific psychological models were selected for review because empirical information is available regarding their explanatory power for survivors of torture and related violence and trauma.

## LEARNING THEORY: CLASSICAL AND INSTRUMENTAL CONDITIONING

Early behavioral conceptual models of traumatic stress reactions were based largely on the two-factor learning theory of psychopathology originally proposed by Mowrer (Fairbank & Keane, 1982; Keane, 1998; Keane, Zimering, & Caddell, 1985; Kilpatrick, Resick, & Veronen, 1981; Kilpatrick, Veronen, & Best, 1985). As applied to traumatic stress reactions, two-factor conditioning models posit that fear and other aversive emotions are learned through association via mechanisms of classical conditioning (Fairbank & Nicholson, 1987). Such fear conditioning is the first factor in the acquisition of aversive emotions characteristic of many persons

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who have survived catastrophic events. The second factor involves principles of instrumental conditioning in that some persons will learn to escape from or avoid cues that stimulate aversive emotions (Keane, 1998).

Through the process of fear conditioning, neutral cues associated with a traumatic (or otherwise aversive) event acquire the capacity subsequently to evoke a conditioned emotional (fearful) response in the absence of the aversive stimulus. First described by Pavlov and associates, this psychological mechanism is posited to preserve information about exposure to previous threats to promote future survival. A line of research demonstrating the presence of fear conditioning among individuals with posttraumatic stress disorder (PTSD) involves laboratory paradigms in which persons with PTSD are exposed to auditory or visual stimuli pertaining to their traumatic event (Blanchard, Kolb, Pallmeyer, & Gerardi, 1982; Malloy, Fairbank, & Keane, 1983; Pitman, Orr, Forgue, De Jong, & Claiborn, 1987). Most people who have PTSD will exhibit sudden dramatic elevations of cardiovascular or other sympathetic nervous system activity immediately after exposure to such trauma-related stimuli in a laboratory setting (Blanchard, Kolb, & Prins, 1991; Malloy et al., 1983; Orr, Pitman, Lasko, & Herz, 1993).

More recent conceptual models have emphasized the central role of cognitive factors in the development and maintenance of stress-related symptoms and illnesses (Brewin, Dalgleish, & Joseph, 1996; Chemtob, Roitblatt, Hamada, Carlson, & Twentyman, 1988; Creamer, Burgess, & Pattison, 1992; Foa, Steketee, & Rothbaum, 1989; Lang, 1977; Litz & Keane, 1989; Resick & Schnicke, 1993).

## COGNITIVE–BEHAVIORAL THEORIES: INFORMATION PROCESSING

Information processing theory has been proposed as an explanation of the ways in which information associated with traumatic experiences is encoded and recalled in memory (Foa & Kozak, 1986; Foa, Rothbaum, & Molnar, 1995; Foa et al., 1989). Foa et al. (1989), for example, have offered a model based on the concept of a fear structure that they describe as a "network in memory that includes three types of information: (a) information about the feared stimulus situation; (b) information about verbal, physiological, and overt behavioral responses; and (c) interpretive information about the meaning of the stimulus and the response elements of the structure" (p. 166). Foa et al. (1995) have proposed that treatment must be based on activation and correction of information in fear structures, accomplished through exposure to traumatic stimuli and cognitive restructuring, respectively. The information processing model has yielded a productive, theoretically grounded approach to basic laboratory studies and clinical efficacy research.

A widely replicated laboratory finding is that persons with PTSD selectively attend to and process trauma-relevant information (McNally, 1995). Experiments using Stroop Test paradigms have repeatedly shown that words closely related to trauma produce more cognitive interference than negative words less closely related to trauma (Kaspi, McNally, & Amir, 1995; Vrana, Roodman, & Beckham, 1995). In studies of Vietnam veterans, interference for trauma words has been found to

be significantly related to severity of PTSD symptoms but not to level of exposure to combat, per se (Cassiday, McNally, & Zeitlin, 1992; McNally, Kaspi, Riemann, & Zeitlin, 1990). Additional studies have shown that people with PTSD show biases favoring trauma-related material in tasks designed to tap explicit memory (e.g., recall, recognition) as well as implicit memory (e.g., word-stem completion, lexical decision) (e.g., Vrana et al., 1995; Zeitlin & McNally, 1991).

Evidence in the animal literature also shows that predictable and controllable stressors generally have a less deleterious effect than do unpredictable and uncontrollable stressors (for a review, see Basoglu & Mineka, 1992; Mineka & Hendersen, 1985). Moreover, prior exposure to controllable stressors, perhaps leading to a sense of mastery, can immunize against the deleterious effects of subsequent exposure to uncontrollable stressors (e.g., Moye, Hyson, Grau, & Maier, 1983; Williams & Maier, 1977). A recent study (Basoglu & Mineka, 1997) found evidence in support of these hypotheses in survivors of torture. This study compared 55 tortured political activists who had greater "psychological preparedness for trauma" (i.e., prior exposure to similar stressors, greater extent of political involvement, stronger commitment to a political cause, and prior knowledge and expectations of torture) with 34 tortured nonactivists who had less psychological preparedness for trauma. Despite less severe torture, the nonactivist group reported greater perceived distress during torture and had more PTSD and more severe psychological symptoms than did the activist group.

## SOCIAL–COGNITIVE MODELS

A number of authors (Horowitz, 1986; Janoff-Bulman, 1985; McCann & Pearlman, 1990; Roth & Newman, 1993) have proposed social–cognitive models that emphasize that traumatic experiences challenge people's preexisting core beliefs and assumptions about themselves and others, fostering negative emotions and maladaptive belief structures that produce and maintain the array of signs, symptoms, and disorders characteristic of stress-related illnesses. Although empirical studies of the social–cognitive model are still rare, some supporting research evidence has been reported. For example, Dalgleish (1993) examined maladaptive belief structures in survivors of a disaster involving the sinking of a ferry and found that survivors with PTSD were more likely to believe that a range of negative events would occur in the future than survivors without a traumatic stress disorder. With the use of a semistructured interview procedure, Newman, Riggs, and Roth (1997) examined an array of cognitive (e.g., ideas and expectations that the world is malevolent) and emotional (e.g., emotional self-reproach) issues in individuals with and without traumatic stress disorders. These investigators found that the severity of PTSD symptoms and the level of interpersonal violence associated with the traumatic events were associated with deficits in the processing of cognitive and emotional material.

## SOCIAL SUPPORT MODELS

A vast body of research on acute and chronic stress has demonstrated that social support affects and influences physical and mental health and the likelihood that individuals will experience stress-related illnesses (e.g., Cohen & Wills, 1985; Holahan & Moos, 1981; King, King, Fairbank, Keane, & Adams, 1998; Norris & Murrell, 1990). Research on the readjustment of trauma survivors has also shown the importance of the quality and quantity of social support to recovery from stressful life events and overall well-being (e.g., Egendorf, Kadushin, Laufer, Rothbart, & Sloan, 1981; Keane, Scott, Chavoya, Lamparski, & Fairbank, 1985; Solomon & Mikulincer, 1990).

Researchers have also long recognized that posttrauma outcomes may not be solely the product of a single precipitating event (e.g., Green, 1994; Resnick, Kilpatrick, & Lipovsky, 1991). Rather, what is observed as a stress reaction may be the consequence of a series of highly stressful events that extend back into an individual's personal history before a focal traumatic experience. Current findings suggest that adverse life events have a strong negative relationship with social support, in that stressful life events appear to deplete social resources, which, in turn, exacerbates stress-related illnesses. In some instances, stressful life events in and of themselves are the loss of important interpersonal support resources (e.g., the loss of a spouse through death) (King et al., 1998). More commonly, stressful life events deplete social resources by placing an excessive demand on them.

## DEVELOPMENTAL MODELS

Developmental models emphasize that knowing a person's developmental stage is essential to understanding reactivity to trauma throughout the course of life (Cole & Putnam, 1992; Marmar, Foy, Kagan, & Pynoos, 1993; Pynoos, Steinberg, & Wraith, 1995). A basic assumption of most developmental models is that the ways in which the effects of trauma are manifested are likely to vary by individuals' neurobiological, cognitive, emotional, and psychological maturation at the time of exposure (Cole & Putnam, 1992). A comprehensive model proposed by Pynoos et al. (1995) underscores the complexity and dynamic qualities of the developmental perspective. Focusing on the reactions of children and adolescents to traumatic events, this model posits a role for "the intricate matrix of a changing child and environment, evolving familial and societal expectations, and an essential linkage between disrupted and normal development" (p. 72). Developmental approaches to understanding reactivity to trauma have begun to be tested empirically. For example, a longitudinal study of children exposed to a severe brush fire in Australia found that trauma–reactivity relationships were not static over time (McFarlane, 1988). Over the next decade, developmentally appropriate research designs (e.g., longitudinal studies) are likely to be used to explore how maturational processes are involved in survivors' adaptation to severe traumatic events.

## LEARNED HELPLESSNESS

Survivors of abusive and violent interpersonal trauma often experience apathy, dysphoria, passivity, decrements in performance on basic tasks, and highly generalized beliefs about personal lack of control over future events (Goodman, Koss, & Russo, 1993). To better understand the etiology of these symptoms, several authors (Campbell, 1989; Flannery, 1987; Flannery & Harvey, 1991; Walker, 1978) have considered the role of "learned helplessness," a theory developed by Martin Seligman (Garber & Seligman, 1980; Seligman, 1975). The construct of learned helplessness was originally proposed to explain the effect of prior exposure to inescapable shock on some animals' subsequent passive behavior and failure to respond under different conditions in which escape from the aversive shock was possible. Research animals showed a range of behavioral outcomes, from profound performance decrements to marked positive adaptation, in studies using Seligman's (1975) paradigm. This animal model provides researchers with a promising direction for studying aspects of the course of behavioral adaptation following exposure to uncontrollable and inescapable trauma (Pare, 1996).

## RECOMMENDATIONS FOR FUTURE RESEARCH

Testable hypotheses need to be derived from each of the models, which can then be evaluated with regard to the following:

- Risk for PTSD and other signs, symptoms, conditions, and disorders
- Prediction of symptom patterns, course, severity, and chronicity of the stress response
- Methodological approaches to early detection
- Theory-driven interventions
- Measurement of outcomes within a theoretical context (e.g., evaluation of symptom reduction as an outcome of predicted changes in cognitions, appraisal, social support, etc.)
- Tests of goodness-of-fit of theoretical constructs with clinical or psychobiological phenomena

The complexity of the human response to torture and related violent and traumatic events suggests the need for continued effort to develop, refine, and test integrated models of traumatic stress that take into account the complexity of person–environment–outcome interactions. Promising work in this direction includes the dual representation theory proposed by Brewin et al. (1996).

Psychosocial models of traumatic stress generally focus on psychopathology and functional impairments associated with exposure to extreme events. Models are needed that examine the strength and resilience of survivors and that help to shape a conceptual framework for recovery.

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