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An Ecological View of Psychological Trauma and Trauma Recovery

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This paper presents an ecological view of psychological trauma and trauma recovery. Individual differences in posttraumatic response and recovery are the result of complex interactions among person, event, and environmental factors. These interactions define the interrelationship of individual and community and together may foster or impede individual recovery. The ecological model proposes a multidimensional definition of trauma recovery and suggests that the efficacy of trauma-focused interventions depends on the degree to which they enhance the person-community relationship and achieve "ecological fit" within individually varied recovery contexts. In attending to the social, cultural and political context of victimization and acknowledging that survivors of traumatic experiences may recover without benefit of clinical intervention, the model highlights the phenomenon of resiliency, and the relevance of community intervention efforts.

KEY WORDS: psychological trauma; ecological perspective; recovery; resiliency.

Research findings and clinical experience indicate that in the aftermath of traumatic exposure, individual victims may exhibit acute or delayed symptoms of posttraumatic stress disorder (PTSD) (American Psychiatric Association [APA], 1994), a complex posttraumatic syndrome (Herman, 1992a, 1992b), any of a spectrum of trauma-related psychiatric disorders (Brett, 1992) and a wide variety of posttraumatic response and recovery patterns (Briere, 1988; Browne & Finkelhor, 1986; Cohen & Roth, 1987). While many clinicians understand these variations solely or primarily in terms of the pretraumatic attributes of victims, research suggests that extent

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and duration of traumatic exposure (Kulka et al., 1990), characteristics of traumatizing events (Herman, Russell, & Trocki, 1986; Roth, Wayland & Woolsey, 1990), the way/s in which individual victims interpret these events (Roth & Lebowitz, 1988), and qualities of the larger environment (Green, Wilson, & Lindy, 1985; Koss & Harvey, 1991; Wilson, 1989) are equally important.

The existing literature on psychological trauma is characterized by a relative underemphasis on environmental contributors to individual variations in posttraumatic response and recovery. The clinical literature, in particular, also tends to overlook the phenomenon of individual resiliency, the possibility of recovery in the absence of clinical care and the contribution of social, cultural and environmental influences to these outcomes. In this literature, the term "recovery" is generally poorly defined and criteria indicative of trauma recovery are seldom specified.

This paper utilizes the ecological perspective of community psychology to address these issues. This perspective suggests that psychological attributes of human beings are best understood in the ecological context of human community, and that individual reactions to events are best understood in light of the values, behaviors, skills and understandings that human communities cultivate in their members (Kelly, 1968, 1986; Koss & Harvey, 1991). Applying these constructs to the phenomenon of psychological trauma, this paper offers an ecological model for understanding individual differences in posttraumatic response and recovery. The model attributes these differences to interactions among mutually influential person, event and environmental factors. These interactions define the dynamic relationship between individual and community and form for each individual a unique and mutable context for recovery. The ecological model identifies four conceptually distinct trauma recovery outcomes and proposes a multidimensional definition of trauma recovery. An implication of the model is that clinical interventions can aid or impede individual recovery. Another is that community interventions far removed from the domain of clinical work can foster resiliency. Both clinical and community interventions rely for efficacy upon the degree to which they enhance the person-community relationship by achieving "ecological fit" within individually varied recovery contexts.

An Ecological View of Psychological Trauma

Ecology is the science concerned with the interrelationship of organisms and their environments (Webster's Ninth New Collegiate Dictionary, 1985). Within community psychology, the interest is in the ecological con-

text of human community and in the interrelationship of individuals and the communities from which they draw identity, belongingness and meaning (Kelly, 1968, 1986; Koss & Harvey, 1991). In crafting an ecological view of human behavior, community psychologists study community in much the same way that field biologists study other living environments. The "ecological analogy" (Kelly, 1966, 1986; Trickett, 1984) describes communities in terms of their resource and resource exchange characteristics. These are apparent in the ways in which community dollars, services, values and traditions are cycled, shared, and enriched or depleted, for example, and by a community's adaptive, health-promoting—or maladaptive and health-impeding—qualities vis a vis the needs and circumstances of community members.

Applied to the realm of psychological trauma, the ecological analogy understands violent and traumatic events as ecological threats not only to the adaptive capacities of individuals but also to the ability of human communities to foster health and resiliency among affected community members (Koss & Harvey, 1991; Norris & Thompson, in press). Thus, growing urban violence can be viewed as the innercity counterpart of "acid rain"—i.e., an ecological threat to a community's ability to offer its members safe haven. Racism, sexism and poverty can be thought of as environmental pollutants—i.e., ecological anomalies that foster violence and threaten to overwhelm the health-promoting resources of human communities.

Just as violent events can tax and overwhelm community resources, so community values, beliefs and traditions can bulwark community members and support their resilience in the wake of violence. If poverty and racism can be viewed as ecological contributors to a community's increased exposure to violence, so economic well-being and community-wide regard for pluralism and diversity can be understood as ecological contributors to violence prevention. Similarly, if misogyny and patriarchy are seen as environmental contributors to sexual violence and as ecological threats to the well-being of women, then community-based rape crisis centers, "Take back the night" campaigns and community-wide intolerance of sexual violence can be recognized as ecological supports to women's safety and well-being (Koss & Harvey, 1991).

Most individuals can be described by membership in diverse communities—by membership in a geographic (city, town, neighborhood), racial, and ethnic or linguistic community, for example, and perhaps a professional, religious or ideological community as well. The ecological model presented here posits that each individual's reaction to violent and traumatic events will be influenced by the combined attributes of those communities to which s/he belongs and from which s/he draws identity. Shaping

the interrelationship of individuals and their communities are a wide variety of person, event and environmental factors.

The Ecology of Trauma: A Person × Event × Environment Model

Figure 1 presents an ecological model of psychological trauma, treatment and recovery. The model makes three assumptions. The first is that individuals are not equally vulnerable to nor similarly affected by potentially traumatic events. Instead, both vulnerability to victimization and individually varied response and recovery patterns are multi-determined by interactions among three sets of mutually influential factors: those describing the *person/s* involved and their relationship/s to one another, those describing the *events* experienced; and those describing the larger *environment.* Together these factors define the person-community "ecosystem" within which an individual experiences, copes with and makes meaning of potentially traumatizing events.

The second assumption of the ecological model is that in the aftermath of traumatic exposure, affected individuals may or may not access clinical care. In most instances, the great majority will not. A full understanding of psychological trauma requires greater recognition of this untreated majority and an expansion of research activities to illuminate their posttraumatic status and recovery process.

A third assumption, intimately related to the second, is that clinical intervention in the aftermath of traumatic exposure is no guarantee of recovery. The ecological model anticipates four conceptually distinct recovery

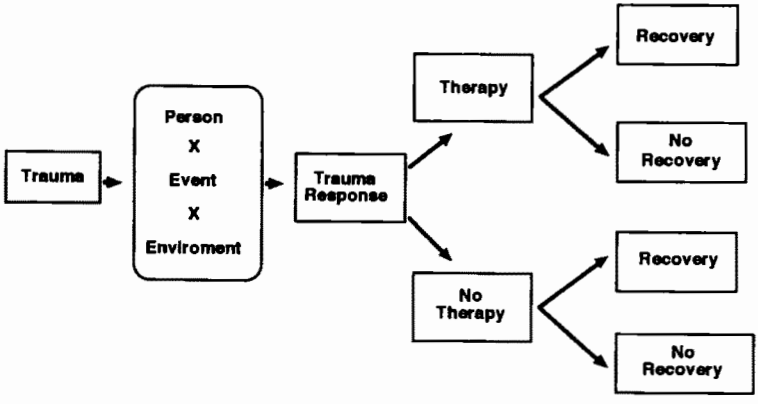

Figure 1. An ecological model of psychological trauma.

outcomes: (1) clinical interventions may interact with other ecological influences to foster recovery; (2) or to intensify distress and impede recovery; (3) recovery may occur in the absence of clinical care, particularly when the naturally occurring ecosystem is supportive of resilience and when natural support systems and community-based resources prove sufficient; and, finally, (4) in the absence of timely and appropriate intervention, some individuals will not recover.

In an ecological framework, failed recovery reflects not only the persistence of individual distress, but also the ecological deficits of a larger recovery environment and the failure of trauma-focused interventions to achieve what community psychologists call "ecological fit." The construct of "fit" refers to the quality and helpfulness of the relationship existing between the individual and his or her social context. Interventions that achieve ecological fit are those that enhance the person-environment relationship—i.e., that reduce isolation, foster social competence, support positive coping, and promote belongingness in relevant social contexts (Levine, 1987; Maton, 1989).

The ecological model is consistent with the psychosocial framework posited by Green et al. (1985) and with the integrative person-by-environment model outlined by Wilson (1989). It differs from these approaches in its distinction between event and environmental factors, in the degree of attention it gives to the social, cultural and political context of victimization and in its emphasis upon the community as a source of recovery and resiliency.

Person × Event × Environmental Influences on the "Trauma Response"

A host of person, event and environmental factors may influence individual posttraumatic response and recovery. Particularly important considerations in an ecological framework are those factors that influence the quality and dynamic of the individual-community relationship. Among these are some variables that clinicians routinely attend to in their assessment of client needs and others they too often neglect or ignore.

Person variables influencing posttraumatic response and recovery include, for example, the age, developmental stage, and initial distress level of the victim, his/her intelligence, personality, affects, cognitions and pretraumatic coping capabilities, as well as the role (if any) of prior trauma, the relationship (if any) between victim and offender, and any number of demographic characteristics. These variables are noted by most experienced clinicians, and often figure significantly in diagnostic determinations and

clinical formulations. Person variables that are ecologically significant but may receive too little attention in clinical assessment include the affected individual's culturally-based understanding of the experience of victimization, his/her comfort and familiarity with various kinds of care, and the modeling of hope, tenacity and resilience that may or may not have been provided by family, friends and other significant figures. These are the persons and person attributes that help to define the victim's ecological relationship with his or her communities of reference.

Event factors describe salient attributes of one or a series of traumatic events. Important determinants of posttraumatic response include, for example, the frequency, severity and duration of the event/s experienced, the degree of physical violence and bodily violation involved, the extent of the terror and humiliation endured, and whether the trauma was experienced alone or in the company of others. Equally relevant in an ecological framework are any number of circumstantial details to which the individual and his or her communities of reference may assign significance. A combat veteran with a strong religious background may be haunted for years by the crucifix worn by a dead enemy soldier, for example, and a rape victim who found herself too terrified to resist may feel lasting shame for uttering the words of consent and pleasure that her assailant demanded of her. It is important that clinicians not judge in advance the most traumatizing part of a trauma patient's experience. Instead, the aim is to listen for subtleties of interpretation and remembrance, nuances of affect and self-experience and idiosyncratic social constructions that provide insight into the patient's unique posttraumatic response.

Environmental factors influencing posttraumatic response and recovery are many. They include various descriptors of the ecological context within which the traumatic event/s were experienced (e.g. the home, school, workplace, or other context), salient attributes of the victim's natural support system, the ability of that system to foster adaptive rather than maladaptive coping, and the degree of safety and control afforded the victim posttrauma. In the aftermath of victimization, the attitudes and behaviors of first respondents and the actions and understandings of family and friends, caregivers, and other significant individuals and groups constitute important elements of the victim's recovery environment. Environmental factors of particular importance in an ecological understanding of trauma and recovery also include prevailing community attitudes and values, cultural constructions of race and gender, political and economic factors attending victimization, and the quality, quantity, accessibility and cultural relevance of the larger community's victim care and advocacy resources. The disaster victim who is also a non-English speaking refugee will face daunting challenges to recovery in a community that is fearful of rising

immigration and openly hostile to immigrant populations. Whatever the quality and availability of the community's "mainstream" services may be, their accessibility and cultural relevance to this individual is limited at best. A victim of homophobic gay bashing may be reluctant to seek professional assistance through traditional channels and yet access appropriate care through alternative settings and informal networks.

Four Recovery Outcomes

The ecological model conceptually groups trauma victims into those who do and do not receive clinical intervention at some point posttrauma, and, further, into those who and do not recover from traumatic exposure. The model thus anticipates four conceptually distinct recovery outcome groups. Each poses specific research questions and distinct challenges to clinical care and community intervention.

Trauma victims who have received clinical care and have psychologically recovered from their experience. This group is generally of great interest to clinicians. It is comprised of trauma survivors who receive and apparently benefit from clinical care. Treatment outcome research is sorely needed to assess and confirm beneficial effects. Promising avenues of clinical work with trauma victims currently include: feminist-informed treatment approaches emphasizing the dual themes of safety and empowerment (Harvey & Herman, 1992); cognitive and behavioral techniques to enhance mastery and facilitate abatement of posttraumatic symptoms (Foa, Steketee, & Rothbaum, 1989, 1991; Keane, Fairbank, Caddell, Zimering, & Bender, 1985; Resick, Jordan, Girelli, Hutter, & Marhoefer-Dvorak, 1989); integrative trauma-focused psychotherapy (Wilson, 1989); dynamic and cognitive approaches to facilitate resolution of traumatic affects and schemas (McCann & Pearlman, 1990; Roth & Newman, 1991); group treatment to reduce isolation and offer safe opportunities to form new attachments (Koss & Harvey, 1991; van der Kolk, 1987), and staged, multimodal treatment approaches (Herman, 1992b; Lebowitz, Harvey, & Herman, 1992).

Trauma victims who have received clinical care but have not benefitted and have not recovered. This is the second outcome group identified by the ecological model. As clinicians share and researchers confirm the success and benefit of various treatment approaches, it is important to document treatment failures as well and to identify the ecological conditions attending treatment failure. Many clinicians have learned the hard way, for example, that physical safety and physiological stability are pre-conditions to productive exploration of traumatic recall, and that premature or poorly paced exploration of traumatic material can destabilize and retraumatize the vul-

nerable patient (Herman, 1992b; Horowitz, 1986). Similarly, treatment approaches that are fundamentally insensitive to the cultural heritages of patients or ill-informed about the role of community beliefs, values and resources in the patient's recovery prognosis are ecologically limited and likely to fail.

Trauma survivors who have recovered without benefit of clinical intervention. This group consists of individuals who are able to access and make use of both inner and outer resources in times of crisis and distress. Researchers and clinicians have much to learn from this group. Do these individuals possess internal qualities that heighten their resistance to stress, for example, or are they bulwarked by newly acquired recovery skills, identifiable community resources and particularly helpful networks of interpersonal support? Are the qualities that underlie their resiliency innate and somehow genetically determined or are they acquired and can others acquire them as well? In short, what are the factors that seem to have inoculated this group against posttraumatic stress? Can these factors be duplicated or mobilized by new clinical techniques and more effective community interventions?

Trauma victims who have not received clinical care and have not recovered. This fourth and final outcome group identified in the ecological model includes individuals who traditionally elude both researcher and clinician. They have been and remain traumatized by their experiences. They live in relative isolation from others in the community, and they may be very reliant on maladaptive coping skills and resources. In any case, they do not seek or receive clinical care. We need to learn much more about these individuals and to initiate on their behalf community interventions that can lessen their isolation, increase their awareness of available resources and aid their utilization of these resources. Public education campaigns can identify and normalize posttraumatic reactions, for example, and help to destigmatize psychiatric attention to these reactions. Community outreach campaigns can identify available clinical resources and facilitate access to them. In communities lacking these resources, consultation activities and "training of trainers" programs can provide paraprofessionals, clergy and lay helpers with understandings and skills that may benefit currently untreated trauma victims.

A Multidimensional Definition of Recovery

Operational definitions of trauma recovery are generally lacking in the literature. Two, equally inadequate, definitions are often implied. In the first, clinicians seem to speak of recovery from psychological trauma

in global terms, linking it to the completion of a lengthy psychotherapy, and to the mastery and final resolution of psychological conflicts that may or may not have their origins in traumatic exposure. As laudable as these treatment aims may be, they do little to distinguish trauma recovery from what might be called "global mental health." They add little to our understanding of psychological trauma and offer little direction either to the design of effective interventions or to the conduct of badly needed treatment outcome research. A second approach focuses particularly on posttraumatic arousal and on the intrusive symptoms characteristic of posttraumatic stress disorder. This approach seems to equate trauma recovery with symptom abatement: with an absence of flashbacks or traumatic nightmares, for example, or with a more modulated response to traumatic remembrances. This definition has the advantage of providing specific foci for clinical interventions and of emphasizing the importance of symptom relief in recovery from posttraumatic stress disorder. It is less useful in defining recovery from other trauma-related disorders or from what Herman (1992a) has called "complex PTSD." It fails to consider, for example, the sense of shame and self-blame that can persist in the face of symptom relief or the equally persistent sense of separateness and mistrust that is too often the relational legacy of so-called "survivorship" (Janoff-Bulman, 1985). And, finally, equating trauma recovery with symptom abatement fails to consider the fact that recovery in the context of an ultimately helpful psychotherapy may entail periods of symptom intensification (Briere, 1989).

The ecological model presented here understands recovery from psychological trauma as a multidimensional phenomenon, hallmarked by the following outcome criteria.

(1) Authority over the remembering process. Aberrations of memory and consciousness are central to the description of traumatic disorders (APA, 1994). Simply stated, traumatic events wreak havoc with the individual's ability to recall and make use of the past. Trauma survivors are often plagued both by the absence of salient information about their experience and by traumatic intrusions which disable and terrify even as they elude meaningful appraisal (van der Hart, Steele, Boon, & Brown, 1993). A primary sign of recovery from psychological trauma (and therefore a primary aim of trauma treatment) is that of new or renewed authority over the remembering process. The recovered individual can choose to recall or not recall events that previously intruded unbidden into awareness. The amnestic aftermath of trauma is largely repaired. Among those past events that were once unremembered are some that are remembered again, but with context that adds meaning to memory. In recovery, the balance of power between the survivor and her/his memories is reversed and s/he is

able to call upon and review a relatively complete and continuous life narrative.

(2) Integration of memory and affect. In the wake of one or of a prolonged series of traumatic experiences, some individuals will have clear and continuous memories of these experiences, yet feel little or nothing as they recall them. Others will feel waves of terror, anxiety or rage in response to specific stimuli, yet be unable to draw meaningful associations to past or present precipitants to these affects (Harvey & Herman, 1994). In both cases, memory and affect are separate and psychological impairment is a result of the separation. In recovery, memory and affect are joined. The past is remembered with feeling. Cognitive recollections of traumatic events include some remembrance and incorporate some reexperiencing of the affects and bodily states that initially accompanied those events. Sad memories elicit sadness once again; anger, fear and other emotions are similarly connected to the events recalled. The recovered survivor is also able to identify contemporary feelings about the past. For example, the recovered rape victim not only remembers and feels echos of the terror s/he once experienced, s/he also feels new anger and sadness now when recalling the assault.

(3) Affect tolerance. Recovery implies that the affects associated with traumatic events no longer overwhelm or threaten to overwhelm. Feelings linked to the trauma have been deprived of their terrible immediacy and fierce intensity. Feelings can be felt and named and endured without overwhelming arousal, without defensive numbing and without dissociation. In recovery, the individual is relieved of undue alarm and dangerous impulse. Affects are differentiated from one another and are experienced in varying degrees of intensity, reflecting a more measured response to traumatic recall and a greater capacity to manage contemporary stressors.

(4) Symptom mastery. In recovery, particularly persistent symptoms have abated or become more manageable. Stimuli that act as "triggers" for flashbacks, for example, are known and can be avoided. The recovered trauma survivor may continue to experience symptomatic arousal, but s/he has mastered and practices healthful coping routines to reduce arousal and manage stress. S/he may avoid distressing stimuli (e.g., violent films), for example, or practice specific stress management techniques or make appropriate use of prescribed medications to manage and ameliorate symptoms that are resistant to extinction. The emphasis in this domain is not on the abatement of all symptoms, but on the survivor's ability to predict and manage symptoms.

(5) Self-esteem and self-cohesion. Even single exposures to traumatic events can have devastating impact upon the victim's sense of self and self-worth (Terr, 1983). Early, prolonged and repeated victimization is associ-

ated with severe identity disturbances and with a discontinuous and fragmented self-experience (Herman, 1992a, 1992b). Recovery from psychological trauma thus entails repair and mastery in the domain of self-esteem and self-cohesion. In recovery, self-injurious behaviors and impulses are replaced by healthful, self-caring routines, inner fragmentation by a more coherent and consistent experience of self. Feelings of guilt, shame and self-blame are relinquished in favor of a new or newly restored sense of self-worth. Obsessive, self-critical review is replaced by more realistic appraisal, reflecting a more positive view of self—as one deserving of care and capable of leading a self-caring, self-fulfilling existence.

(6) Safe attachment. Self-imposed isolation from others and heightened vulnerability to revictimization are the polar expressions of trauma's relational impact. Traumatic events involving interpersonal violence and the betrayal of trust can sorely compromise the individual's ability to pursue, negotiate and sustain safe and supportive relationships (van der Kolk, 1987). Recovery from psychological trauma thus entails the development or the repair and restoration of a survivor's relational capacities. In recovery, the pull to isolation is replaced by a new or renewed capacity for trust and attachment. The recovered survivor is able to negotiate and maintain physical and emotional safety in relationships and views the possibility of intimate connectedness with some degree of optimism. The process may require a complicated renegotiation or an intense and final grieving of significant relationships. It almost always involves a self-directed expansion of the trauma survivor's social support network.

(7) Meaning-making. Finally, in recovery the survivor assigns new meaning to the trauma, to the self as trauma survivor and to the world in which traumatic events occur and recur (Janoff-Bulman, 1985). Making meaning out of trauma is a deeply personal and highly idiosyncratic process, particularly when the trauma has entailed interpersonal violence and direct encounter with the human capacity to commit atrocity. Some individuals, as they discard the sense of a damaged self, will embrace the belief that misfortune endured has yielded new found strength and compassion. Others will transform their experience into creative pursuit or determined social action—embracing a survivor mission as part of their recovery process (Herman, 1992b). Still others will find spiritual answers to the questions "why?" and "why me?" Whatever the process, the recovered survivor will have named and mourned the traumatic past and imbued it somehow with meaning that is both life-affirming and self-affirming.

Each of these criteria reflects an entire domain of psychological functioning, one that may or may not have been negatively impacted upon by one or a series of traumatic events. Together these criteria describe a multifaceted definition of trauma recovery and offer to clinician, survivor and

researcher alike a set of benchmarks against which individual recovery can be assessed and toward which both clinical and community interventions can aim. The result is a conceptual framework for ecologically informed, multi-dimensional assessment of recovery and resiliency among both treated and untreated trauma survivors (Harvey, Westen, Lebowitz, Saunders, & Harney, 1994). In this framework, *recovery* is apparent whenever change from a poor outcome to a desired one is realized in any domain affected by traumatic exposure. *Resiliency* is evident when one or more domains remains relatively unimpacted and when the trauma survivor is able to mobilize strengths in one domain to cope with vulnerabilities and secure recovery in another. For example, the trauma survivor who is tormented by traumatic intrusions and intense posttraumatic distress may call upon relatively intact relational capacities to access crucial interpersonal supports or to engage in a productive psychotherapy. The process will involve a mobilization of strengths and resiliencies in the domain of safe attachment in pursuit of symptom mastery and of renewed authority over memory. The assault victim who is experiencing new found fear of relational encounters may be able to mobilize a strong sense of self and an enduring set of spiritual values as s/he struggles for a restored sense of trust and connectedness. In this instance, repair in the domain of safe attachment will be aided by resiliencies in the domains of self esteem and meaning making.

Recovery from Rape: An Ecological Example and Analysis

The ecological model is capable of predicting wide variations in individual responses to traumatic events. The interaction of person, event and environmental factors and the power of environmental contributors to posttraumatic response and recovery is illustrated by the contrasting vignettes of two women, each raped by men they "sort of" knew after visiting neighborhood bars.

Sarah is a 21-year-old white middle-class college student in Boston. Raised in a relatively egalitarian family by parents who were equally involved in the raising of their children, Sarah is a member of an active feminist community and is engaged in a wide variety of feminist-inspired campus activities. One evening, after meeting friends at a local tavern, she began talking with a man she'd been interested in for some time. When he offered to walk her home, Sarah agreed and indeed looked forward to getting to know him better. En route, she became uncomfortable with his frank sexual overtures and, at one point, pushed him away. His response was angry, violent and life-threatening sexual assault.

JoAnn is also 21 years old. She is white and grew up in a large, closeknit and religious family in a rural and largely working class community, several miles west of Boston. Growing up, JoAnn was an impressive athlete who always "held her own" with two older brothers who saw her as a "Tom Boy" and admired her strength and skill. JoAnn's parents, however, often became upset by her "unladylike" behavior. She did well in school, but married right after high school graduation. Now divorced, JoAnn lives with her two children (ages 4 and 2) in a small apartment not far from where she grew up. She works part time at a local restaurant and is a strong player on a local women's softball team. One evening after a winning game, she dropped by a neighborhood bar with a friend. The bar scene that night was particularly rowdy. Instead of leaving with her friend, JoAnn stayed on a little longer. A man she met that night but had "seen around" offered to see her home. In the parking lot, he forced her to drive to a remote area, raped her and left her to fend for herself.

Person × *event* × *environmental factors.* In terms of *person attributes,* Sarah and JoAnn are alike in many ways. Both are white and 21, and both come from caring and closeknit though perhaps not equally supportive or well-educated families. They are also different from one another. Sarah is single; JoAnn divorced. Sarah is in college; JoAnn works. Sarah is middle-class; JoAnn working class. Sarah's life is relatively free of financial worries or encumbering responsibilities. JoAnn often has to rely on her family for financial assistance. And, finally, while Sarah is clear that women are entitled to the same opportunities and lifestyle choices as men, JoAnn vascilates between defiant rejection of social constraints and a troubled endorsement of the conventional sex role stereotypes and beliefs that characterize her family and community.

With respect to *events,* both women were raped by men they met and willingly interacted with at neighborhood bars. Both assaults involved physical brutality and humiliation. Alcohol was a factor in both cases. In the aftermath of rape, each woman will experience intrusive recollections and revisit her fear and her pain. Each will also be haunted for a very long time by personally salient details of her experience. Sarah will recall with particular shame the fact that she was initially attracted to the man who assaulted her. Joann will revisit the humiliation she experienced when her physical strength failed her and she felt too frightened to fight.

If their recovery prognoses are at issue, however, no considerations are ecologically more important than the *environmental factors* distinguishing their situations. While both Sarah and JoAnn have friends and family who care deeply about them, the people who comprise their support networks differ considerably in their understandings of rape, their views of women, their attitudes toward alcohol, and their comfort and familiarity

with professional assistance and psychiatric intervention. Their geographic communities and their options within these communities are also markedly different.

Sarah, for example, has available to her a number of friends who share her membership in a feminist community. Most of these friends are clear that this is an instance of rape and that it is her assailant who is to blame for the attack. Some of Sarah's friends "seem to look at me funny now" and she wonders if "they really believe their own rhetoric." Nonetheless, Sarah's community is rich in interpersonal supports and relevant resources. Her closest friends include women who are familiar with these resources and will encourage Sarah to use them. Her family is used to relying on professional assistance. They, too, will encourage her to "talk to someone," preferably someone who is trained in rape crisis work and who knows something about psychological trauma.

JoAnn's situation is quite different. In the rural area in which her hometown is located, there is no rape crisis center, no specially trained medical emergency room personnel, and no sexual assault unit of the local police department. There is no rape crisis worker to talk with her or to help her decide if and when to call her family and, what, if anything, to say to them. She, herself, is not sure what she thinks of her experience. Was she raped? Many in her home community, including perhaps her own father and mother, believe that a "nice girl" can't really be raped. JoAnn's town also offers little in the way of publicly financed mental health care, and virtually nothing in the way of trauma services. The town is home to a few privately practicing clinicians, of course, but it is unlikely that JoAnn, or anyone JoAnn knows would think to call for an appointment. No one in her family has ever been in therapy. Among her friends is one woman who took her teenage son to a guidance counselor and another who is trying to get her husband to enter marriage counseling. She is not comfortable talking to either of these women about the rape.

Accessing and benefitting from clinical intervention. The ecological realities of Sarah's life create for her the ecological conditions conducive to accessing and benefitting from clinical care. In her resource-rich urban community, she has many mental health practitioners, specializations and settings to choose among. Both diversity and choice enhance the likelihood that she will find her way to a helpful practitioner. She also has available to her an array of grassroots feminist resources staffed by volunteers who are much like Sarah herself: young, white, single, middle class and well-educated. The presence and availability of like others enhances the cultural relevance of these resources and the probability that Sarah will make effective use of them. These resources will serve not only as community supports to Sarah's recovery but also as useful sources of clinical referrals.

None of these conditions guarantees to Sarah either a smooth recovery or an optimal clinical experience. Nonetheless, she will pursue her recovery in a person-community ecosystem hallmarked by a support network whose knowledge, traditions, beliefs, and values are likely to facilitate Sarah's effective use of clinical resources.

JoAnn, on the other hand, is unlikely to find her way to clinical care. Some of her friends may encourage her to talk about her experience, and some may share their own experiences with her. Some friends will encourage her to calm her distress with alcohol, and others will urge her to return to her church and talk with her priest. Almost none will encourage her to seek professional help. The situation could change, of course, particularly if the rape itself alters the ecological relationship between JoAnn and the larger community. If she decides to prosecute, for example, she may meet an attorney who will unequivocally label her experience as rape and who will refer her for psychological assessment. She may meet a court-based victim advocate who will, in turn, refer her to relevant services. It is possible that the circumstances and brutality of her rape will become known to others in the community who will reach out to JoAnn with assistance that will lead her to clinical care. Ecologically, however, JoAnn's access to clinical care—and the contribution of clinical care to her recovery from rape—seem far more serendipitously determined than is true for Sarah. With or without clinical care, JoAnn's recovery will rely heavily on non-clinical resources.

Ecological influences on recovery. In the immediate aftermath of rape, both Sarah and JoAnn will experience extreme distress and significant disruptions in their sense of self, their trust in others, and their understandings of the world around them. Over time, differences in the social supports and recovery environments available to them will be expressed as different degrees of impairment and resilience on multiple recovery domains and as ecologically different pathways to trauma recovery.

As Sarah recalls her choices on the night she was assaulted, she may well experience disquieting challenges to her sense of self-efficacy and self-esteem. She may blame herself for her initial interest in the man who raped her and feel angry at herself for not recognizing his potential for violence. In time, she may find that some in her community are not as stalwart in their support of her as she would expect. She may discover, for example, that at least some of her friends wonder if she might somehow have avoided or prevented the rape. Similarly, some family members, school officials and police may question how much she was drinking or how impaired her judgment was at the time. Sarah will almost certainly find herself asking herself these same questions. She may find herself shrinking from people who care about her and she will wonder if she will ever be "okay" again. Ultimately, however, most of the people upon whom

Sarah relies for support do understand her experience as one of rape. They will help her to bear her distress and hold onto this same understanding. They will encourage her to access clinical care and she will probably use it well. First, conversations with a rape crisis volunteer will help her understand and choose among various medical and legal options. Later, psychotherapy will help her examine the feelings and memories that threaten her sense of self and self-worth. She will come to understand traumatic intrusions as predictable sequelae of rape and will use treatment to gain increasing control over when and what and how she remembers. As she recovers from rape, Sarah is also likely to experience new feelings of mistrust and fear, toward other people generally and toward men in particular. As she contends with these feelings, she may join a rape survivors group and use its relational context to learn that she is not alone either in her wariness of others or in her desire to have safe and satisfying relationships. As she pursues these goals both in and outside of psychotherapy, Sarah will be able to call upon a reservoir of positive attachments and her own relatively intact relational capacities. These will serve her well as she rebuilds her relational world and makes meaning of her experience.

JoAnn's experience postrape is likely to be quite different. As traumatic remembrances intrude upon her, neither JoAnn nor those closest to her are likely to understand her emotional reactions as predictable psychological responses to rape. JoAnn knows she was hurt; she knows she is angry; she's not sure she was raped. She is certain that neither her parents, nor many of their neighbors and friends will understand her experience as rape. It is likely that her parents will feel deeply ashamed. They will almost certainly be reluctant to have anyone in the neighborhood "know." Her brothers will be angry—at her assailants, certainly, but also at JoAnn for putting herself at risk. JoAnn herself feels damaged and ashamed.

Like Sarah, JoAnn will need to repair her damaged self esteem, reconstruct her relational world and make meaning of her experience. Unlike Sarah, JoAnn will first have to develop a new understanding of rape, challenge the deeply ingrained constructions of gender that prevail in her family, neighborhood and church and find her way to new sources of social support and understanding. In doing so, she will need to call upon her own tenacity and stubbornness, on her outrage, and on her capacity for defiant rejection of attitudes that imply she deserved what happened to her. Her brothers who, despite their ambivalence about her judgment, still value her physicality and admire her spunk may well prove to be primary resources for her. JoAnn's teammates, who value their relationships with one another and are for JoAnn the cultural equivalent of Sarah's feminist community, constitute an invaluable resource as well. If she can bring herself to talk

with these women, she will learn that many of them do understand her experience as rape and will empathize with her distress and encourage her to reassume control of her life. Moreover, by resuming her place on the team, JoAnn will have the opportunity to once again experience herself as physically strong and to gradually revive her capacity for assertive physical engagement. As she mobilizes her flagging spirit, she may find her way to the few established community resources that can provide formal support to her recovery—the District Attorney's office, for example, and the court-based victim advocacy program. If and as she accesses these resources, her recovery will be fostered not only by these established community resources but also by the hard won gains of social activism and by state law that unequivocally defines her experience as rape.

Intervention and the construct of "ecological fit." The ecological model suggests that effective interventions are those that achieve "ecological fit" within individually variant recovery contexts. The clinical interventions available to Sarah may well meet this standard. The relevance of clinical intervention to JoAnn's recovery, on the other hand, is constrained, first, by the uncertain quality and limited availability of clinical resources in her geographic community and, further, by ecological factors that undermine JoAnn's comfort and familiarity with clinical care. In the weeks and months following her assault, supportive action by JoAnn's teammates and outreach on the part of a court-based advocate may prove more helpful to her and achieve greater "ecological fit" than clinical care. JoAnn's recovery will almost certainly require a personal confrontation with culturally widespread constructions of gender and a reexamination of all too familiar rape supportive beliefs. Community interventions that offer JoAnn new avenues of social support and new understandings of her experience may facilitate this work and significantly alter her ecological relationship to the larger community. They may also prove to be her only viable avenues to efficacious clinical intervention.

Implications for Clinical Intervention and Research

The ecological model reminds clinicians and researchers alike that most trauma survivors live in very complex and complicated worlds, that traumatic events are not always or even usually followed by clinical intervention and that clinical intervention is not always or even reliably associated with recovery. The vignettes of Sarah and JoAnn describe women who are in many ways more alike than different and who have had little prior exposure to violence. Were we to change the racial and ethnic characteristics of these women or include in either of their vignettes a history of

childhood trauma, an adult history of battering, a family history of significant substance abuse or a community in which racism, economic disenfranchisement, institutional neglect and interpersonal violence are daily realities, the ecological challenges to their recovery would clearly multiply. In the aftermath of traumatic exposure, the helpfulness of any intervention is determined by the extent to which it is able to meet such challenges and to reduce isolation and promote positive coping within a social context familiar to the traumatized person.

Ecologically relevant attributes of clinical intervention. Effective clinical intervention with trauma patients must begin with assessment that is informed by an ecological perspective. A multidimensional definition of trauma recovery emphasizes the importance of an assessment approach that identifies domains of strength as well as domains of impairment. Treatment planning based on multidimensional assessment of trauma recovery and resiliency (Harvey et al., 1994) can serve as an important foundation for the design of clinical interventions that have the potential to positively influence a victim's changing relationship with the larger community. Research is clearly needed to better identify the attributes of clinical intervention that are most relevant to prognosis and recovery among diverse individuals. Certainly these attributes include the timing, setting, aims and methodologies of a given intervention effort, its competence-promoting or deficit-correcting qualities, and its salience within the culture and community of those affected by the trauma. An ecological framework would give equal importance to the social, economic and political milieu in which the trauma occurred and to the clinician's awareness of the community/ies influencing the trauma survivor's understanding of his or her experience. Effective clinical interventions are informed about—and in some cases challenge—the understandings of trauma, victimization and caregiving that prevail in the larger culture and in the racial, ethnic and linguistic communities from which the trauma victim draws identity and meaning.

Societal reform and community intervention. The existence of large numbers of persons who either do not use or do not benefit from clinical care suggests the need for community-based studies of trauma recovery and resiliency in untreated survivors as well as a need for more and more effective community intervention efforts. For example, public education activities that reach out to a broad public with information about trauma and violence and that explain and normalize many of the psychological sequelae of traumatic events augment the efficacy of clinical interventions. For some individuals, these interventions may have far greater impact than clinical care. Similarly, civil rights groups, children's advocacy organizations, feminist groups and lesbian and gay organizations that advocate for their constituencies and seek political redress of oppressive conditions may do more

for some to destigmatize the experience of victimization than years of individual psychotherapy. Legal reform to prevent ill-treatment by police officers, prosecuting attorneys and emergency medical personnel also aids the recovery prognosis of victims. These interventions need not be initiated in competition with clinical care alternatives. Rather, a full spectrum of clinical, community and societal interventions is needed.

Summary

An ecological view of psychological trauma assumes that individually varied posttraumatic response and recovery patterns are multidetermined by complexly interacting person, event and environmental factors. The ecological model conceptually groups trauma survivors into those who do and do not receive clinical intervention posttrauma and, further, into subgroups of those who do and do not recover. Each group poses specific questions and distinct challenges to clinical and community research. We are in particular need of knowledge about individuals we seldom see: those who apparently recover without professional help, and those who may need such help but do not receive it and do not recover.

In acknowledging the multidimensional nature of trauma recovery and the possibility of recovery in the absence of clinical intervention, the ecological model highlights the construct of resiliency, the role of the larger environment, the contributions of natural supports, and the relevance of community interventions. These interventions are essential not only to the promotion of recovery among currently untreated, possibly isolated and distressed survivors, but also to the larger goal of preventing and eliminating the violent and catastrophic events associated with psychological trauma.

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