COMMENTARY

How Prevalent Is Resilience Following Sexual Assault?: Commentary on Steenkamp et al. (2012)

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Steenkamp, Dickstein, Salters-Pedneault, Hofmann, and Litz (2012) analyzed latent trajectories of posttraumatic stress disorder (PTSD) symptoms on data obtained in the early months following a single-incident sexual assault. In contrast to previous studies of potentially traumatic events, they did not observe a trajectory of minimal symptoms or resilience, which they argued occurred because sexual assault involves more severe and direct trauma exposure than examined in previous studies. Although sexual assault is an aversive and challenging event, it seems highly unlikely that at least some sexual assault survivors would not be resilient. Steenkamp et al.’s failure to observe resilience can easily be explained on purely methodological grounds. Most notably, their findings were probably heavily influenced by sampling bias. Additionally, their sample size was too small and had too much missing data for the kinds of latent trajectory modeling they attempted.

A growing body of research over the past two decades has consistently demonstrated that most of the variation in long-term outcome following potentially traumatic events (PTEs) is captured by a small set of prototypical trajectories of adjustment over time (Bonanno, Westphal, & Mancini, 2011). The most common or modal trajectory is almost always a resilient pattern of stable health and well-being (Bonanno, 2004). In an apparent exception to this pattern, Steenkamp, Dickstein, Salters-Pedneault, Hofmann, and Litz (2012) reported that the resilient trajectory was not evident in the early months following a single-incident sexual assault. The absence of resilience in this case, they argued was simply due to the fact that sexual assault involves “marked emotional upheaval” (p. 473) and because previous studies focused on less severe or less direct forms of trauma exposure. That sexual assault is deeply disturbing and often results in posttraumatic stress disorder (PTSD) is beyond doubt. But is sexual assault necessarily more disturbing than say escaping from a collapsing building during a terrorist attack (Bonanno, Rennicke, & Dekel, 2005), enduring emergency surgery at a level-one trauma center (deRoon-Cassini, Mancini, Rusch, & Bonanno, 2010), or suffering a violent spinal cord injury (Bonanno, Kennedy, Galatzer-Levy, Lude, & Elfström, 2012), all events that have generated considerable PTSD, but also resilient outcomes.

Why would resilience fail to manifest exclusively in the context of sexual assault? Leaving behind the question of trauma severity, for which there is currently not sufficient data to resolve, there are other more purely methodological explanations that might address the discrepancy. A paramount concern in virtually all studies of trauma, for example, is sampling bias (Bonanno, Brewin, Kaniasty, & Greca, 2010), and arguably no event is more vulnerable to sampling bias than sexual assault (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). Steenkamp et al. recruited their participants using a variety of methods, including community bulletin boards and referrals from a rape crisis center. As a consequence, they had no way of assessing response rates and thus could not possibly determine whether their sample adequately represented the broader population of assault survivors. In studies that tracked sexual assault victims admitted to hospitals or emergency care centers, PTSD prevalence rates were high while participation rates were extremely low (e.g., 17.5%; Kramer & Green, 1991), suggesting a bias toward pathology and away from resilience. As a consequence, they had no way of assessing response rates and thus could not possibly determine whether their sample adequately represented the broader population of assault survivors. In studies that tracked sexual assault victims admitted to hospitals or emergency care centers, PTSD prevalence rates were high while participation rates were extremely low (e.g., 17.5%; Kramer & Green, 1991), suggesting a bias toward pathology and away from resilience. Because survivors of sexual assault are often viewed with suspicion or blamed for their own abuse, for example, low-symptom survivors would have little motivation to participate. Indeed, survivors with documented histories of sexual abuse commonly fail to report and even deny the occurrence of such events (Williams, 1994). When confronted with their abuse histories, survivors often explain their reticence in terms of the stigmatized nature of the disclosure process (Femina, Yeager, & Lewis, 1990).
The trauma of spinal cord lesion (SCI) in many ways mirrors the upheaval of sexual assault. SCIs typically result from exceptionally violent injury, produce permanent loss of major bodily functions, and require years of rehabilitation. Not surprisingly, SCIs frequently cause dramatic increases in both depression and anxiety (Craig, Hancock, & Dickson, 1994; Kennedy & Rogers, 2000). Recently, however, my colleagues and I modeled outcome trajectories following SCI using data from multiple hospitals in six different European countries (Bonanno et al., 2012). SCI participants were enrolled shortly after admission, and then followed for several years. The initial overall response rate was a respectable 78.8%, suggesting minimal sampling bias and that the data could reasonably be considered representative of the broader SCI population. Moreover, despite the significant psychological costs of SCI, we found that more than half of the lesion patients showed a resilient trajectory of low levels of depression and anxiety soon after injury and at multiple follow-ups. I would argue, as these findings aptly demonstrate, when a prospective and representative sample is available, resilience will be common after even the most severe and pernicious of traumas.

At a statistical level, there are other problems with Steenkamp et al.’s study. Most notably, their sample was too small for the kind of growth modeling analyses they attempted, and given that small sample size, the proportion of missing data was likely excessive (Kim, 2012; Muthén, 2003). In practical terms, this meant that their analysis lacked adequate power to detect a reliable latent trajectory solution. The small sample size also prohibited Steenkamp et al. from including covariates or modeling random effects, which further compromised the validity of their model (Muthén, 2003). Finally, the graph they used to depict their trajectories was misleading, anchoring PCL scores at zero rather than their true base of 17. This is a minor criticism, but whether intentional or not, it rendered the low symptom trajectories as more severe than they actually were.

Sexual assault is nasty business. Although it is plausible that a single-incident assault might be the sole exception to the general rule that resilience is always common, I have my doubts. I found little in Steenkamp et al. to assuage those doubts. Given the plentiful evidence for resilience following other extremely difficult PTEs, there is no reason not to assume that at least some sexual assault survivors will also be resilient. But this is merely an informed opinion; the proof as it were will require a prospective study with a reasonably large and representative sample. Ideally, the sample should have been captured prior to the event to minimize sampling bias as much as possible and to control for pre-existing trauma (e.g., Engelhard et al., 2007). This kind of research is not easy, but if we want to understand sexual assault and resilience it is the only way.

References