

Suicidality and disasters

AN ANTE-, PERI-, AND POST-CATASTROPHE LOOK

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There are many considerations to take into account when preparing for, responding to, or recovering from disasters and mass casualty events. The purpose of this article is to put into context the issue of suicide and related phenomena as relates to disaster situations, and to provide potential incident command staff information for consideration in their response and planning.

Major events affect a variety of people who fall into six psychological victim categories.

- 1) Primary – those directly involved at the onset,
- 2) Secondary – relatives and friends, who learn of the tragedy,
- 3) Third-level – response personnel,
- 4) Fourth-level – the community at large,
- 5) Fifth-level – those psychologically affected even though not involved, and
- 6) Sixth-level – people who would have been primary victims had they not been elsewhere or who were vicariously or indirectly involved (Taylor & Frazer, 1981).

Psychological mitigation factors include demographics—age, sex, and past experiences of those involved—and situational aspects—magnitude of the disaster, social support available, training, debriefing, and interpersonal conflict before, during, and after an incident (Shepherd & Hodgkinson, 1990). Those exposed to psychological stressors may experience normal reactions that fade with time, symptoms that are severe and last up to a month (acute stress reaction), symptoms that continue after a month (post-traumatic stress disorder or PTSD), or delayed onset of symptoms that occur after the disaster (American Psychiatric Association, 2013). Aside from PTSD-like effects, people may develop depression and an increase in suicidal thoughts after a disaster, as was the case after the Wenchuan earthquake in China (Ran et al., 2015). This is important given that PTSD and major depressive disorder are among the top four disorders associated with suicide

(Bolton & Robinson, 2010).

Annually, there are approximately 45,000 suicide deaths in the U.S. (Centers for Disease Control & Prevention, 2018) and over 804,000 worldwide (World Health Organization, 2012), although the actual number is estimated to be much higher (Rocket, Kapusta, & Bhandari, 2011). It is estimated there are 1.3 million suicide attempts per year in the U.S. (Substance Abuse and Mental Health Services Administration, 2017). The research on suicidality during disasters and other significant events has produced mixed results (Bromet & Dew, 1995; Rezaeian, 2008), but there do seem to be differences based on culture, location, and magnitude of disaster (Kölves, Kölves, & De Leo, 2013). The 9-11 attacks had no effect on suicide rates—up or down—even up to five years after the event (Mezuk et al., 2009). In contrast, after the Northridge earthquake suicide rates dropped in Los Angeles County and were lower three-years post-quake than three-years pre-quake (Shoaf, Sauter, Bourque, Giangreco, & Weiss, 2004). This same decrease in suicides was noted two-years after the Kobe earthquake in Japan (Nishio et al., 2009). During the 2009 Red River flood on the North Dakota-Minnesota border, time volunteering in flood relief efforts was found to be correlated with a decrease feeling of burdensomeness and an increased sense of belongingness (Gordon, Bresin, Dombeck, Routledge, & Wonderlich, 2011), which are theorized to reduce suicidal ideation (Joiner, 2005).

Increased social connection—as in the Red River flood study (Gordon et al., 2011)—has been shown to be effective in reducing suicidality (Melo, Moreira, Makse, & Andrade, 2014). Evidence uncovered by researchers in Japan found that during natural disasters people pull together and help others, which increases social connection and results in a lowering of suicide rates—to a point (Matsubayashi, Sawada, & Ueda, 2013). Researchers of this same study found the suicide prevention benefits of increased social

connection showed a diminishing return as the disaster became more destructive and disruptive (p. 132). Small-scale disasters have been known to increase community trust (Gayer, Legros, Formenty, & Connolly, 2007; Omelicheva, 2011), whereas large-scale events have the ability to temporarily reduce existing societal conflicts (Le Billon & Waizenegger, 2007). Other factors that may counter the positive effects of overall social connection were noted in the period after an earthquake in Taiwan, which included loss of employment, divorce, and minority status—elderly females and aboriginal peoples (Chuang & Huang, 2007). Perhaps this is explained by a resulting feeling of burdensomeness and thwarted belongingness (see Joiner, 2005) secondary to their social standing as exacerbated by disaster conditions. For this reason, delayed effects on suicidality must be considered with ideation, attempts, and deaths monitored (De Leo, Too, Kólves, Milner, & Ide, 2013).

People may be affected in six distinct ways after a disaster and this includes us as direct responders or dispatchers. Psychological impact, including suicidal thoughts, attempts, and deaths is often mitigated by increased social connection. Social connection may be enhanced by providing people meaningful activities to assist in response and recovery, forming support networks and groups, inclusion of often marginalized populations (elderly, disabled, etc.), systematically and regularly checking in on victims and responders, and the defusing of interpersonal conflicts. While suicidality often wanes during a catastrophe, the responder should be vigilant for delayed effects and understand that larger scope incidents may undo some of the protective benefits of increased social connection. ❀

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