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Research paper

Suicide exposures and bereavement among American adults: Evidence from the 2016 General Social Survey

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ABSTRACT

Background: We investigated lifetime suicide exposures and bereavement among a representative sample of American adults from the 2016 General Social Survey.

Methods: Questions on lifetime suicide exposures, bereavement and mental health status were administered to 1432 respondents. Suicide exposed and bereaved respondents were compared to non-exposed respondents on three different measures of mental health functioning with cross tabulations and means comparison tests.

Results: 51% of respondents had exposures to one suicide or more during their lifetimes, and 35% were deemed bereaved by suicide, having experienced moderate to severe emotional distress from their losses. Findings suggested more exposures and bereavements were associated with greater numbers of bad mental health days and more expectations of "having nervous breakdowns" but with no clear associations with CES-D scores.

Conclusions: These findings suggest suicide exposures and bereavement are far more pervasive than commonly thought, with more than half of the population exposed and a third bereaved. Health professionals need to more actively assess for suicide exposures and bereavements, and be vigilant for significant impacts of suicide even when the suicide decedent is not a first degree family relative, helping to reduce the mental health distress presently associated with these experiences.

1. Introduction

The question of gauging the extent of suicide "survivorship" has puzzled scholars and policy makers for nearly a half-century. In perhaps the earliest discussion of this issue, Edwin Shneidman, founder of the American Association of Suicidology, posited that for every suicide there were six "survivor-victims" whose lives were "thereafter benighted by that event" (Shneidman, 1973) (p. 22). Shneidman never collected any systematic survey data to support his claim (Linn-Gust, 2014, Fall), yet his assertion has stuck and to this day, his very conservative estimation still continues to be quoted in discussions of national suicide prevention strategies and public health messages about suicide.

The first fully empirical study of suicide exposures was a 1994 telephone-based survey that included 5238 respondents that oversampled minority households (Crosby and Sacks, 2002). This study found 7% of the national population exposed to a suicide *in the past year* of someone known to them, 20% of whom indicated that the decedent was a relative. However, we cannot place great confidence in these findings for the following reasons. 1) the high non-response rate; 44% of potential respondents did not complete this survey. 2) many studies suggest suicide grief is an enduring feature in the life of the bereaved and needs to be investigated over their lifetimes (Jordan, 2001; Jordan and McIntosh, 2011).

The next most important theoretical moment in thinking about assessing the incidence of suicide and suicide bereavement comes from the work of Berman who pointed out that **knowing** someone who took their life by suicide may be substantially different than being **negatively impacted** by that person's suicide (Berman, 2011). The concept of the perceived negative impact from the death appears to be a very important criteria for assessing suicide bereavement.

More recent random digit dial studies (Cerel et al., 2013, 2016) have successfully transcended the problems inherent in the Crosby and Sacks study (Crosby and Sacks, 2002), addressing the issues of suicide exposures over the lifetime and assessing their perceived negative emotional impact but only examining adults in one state. In their first study,

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based on 302 adults in Kentucky with landlines, Cerel et al. (2013) found that 40% of their sample had been exposed to a suicide during their lifetimes, half of whom claimed they were significantly affected by the suicide death of that person. In the second, larger study of 1732 adult Kentuckians sampled from both landline and cell phones (Cerel et al., 2016), 48% had one or more suicide exposures during their lifetimes. Cerel et al. (2016), did not directly assess impact but in a different way found that 21.4% reported that the death had significantly disrupted their lives. Response rates for these studies were not ideal with 36% in the small study and 37% in the larger study.

Today, unfortunately, telephone-based surveys are doomed to low response rates as potential respondents may be reluctant to answer calls from unfamiliar phone numbers (Kempf and Remington, 2007). While this might not have been as much of a problem in the early 1990s, it is more prevalent today with the availability of more modern telephone equipment and the near ubiquitous use of cell phones with caller ID available to screen out unknown callers. Thus, telephone surveys leave us with lingering questions on whether the survey participants are similar to non-participants, especially when the numbers of non-participants equals or exceeds participants. Thus, only a face-to-face household survey is capable of gauging the true extent of suicide exposures and bereavement in the US population at large.

Another important moment in the development of useful conceptualizations on suicide exposures and survivorship was a theory that suicide survivorship exists on a continuum (Cerel et al., 2014). This conceptualizes that individuals exposed to a suicide may be expected to have shorter or longer-term bereavement effects throughout their lifetimes with some people exposed never going on to have an effect of the suicide and others experiencing life-long difficulties as a result of the suicide of someone close to them. At the extreme end of the grief difficulties continuum some individuals are seen as “stuck” in their grief, experiencing persisting or complicated grief.

Although this conceptual paper emphasized persisting grief problems it neglected to examine the subject of multiple bereavements, a potentially important subject that has been overlooked in most studies of grief and mourning. We are aware of only one study that examined this question (Feigelman et al., 2012) which investigated multiple child and other family member deaths following a child's suicide. Thus, in the present study, it was vitally important to explore the adverse mental health consequences associated with multiple distressing suicide losses.

Research evidence suggests many adverse mental health consequences from exposures to suicide and from suicide bereavement including the following: higher risks of deaths by suicide, more suicidal ideation and attempts, greater depression, anxiety, PTSD, and an assortment of other mental health problems (Berman, 2011; Bolton et al., 2013; Brent and Melhem, 2008; Cerel et al., 2013; Feigelman et al., 2016). Yet, considering that some of these findings have been obtained from clinical or less than fully representative population studies, it remains to be investigated whether adverse mental health will be found in a representative sample of adults exposed or bereaved by suicide.

Thus, the present study was able to deliberately assess the extent of lifetime suicide exposures in the population at large and of suicide bereavements and to examine their associations with adverse mental health. This was accomplished by the addition of 11 survey questions on suicide exposures and mental health status to the 2016 General Social Survey (National Opinion Research Center, 2017). We hypothesized that suicide exposed, bereaved and multi-bereaved persons would all be more likely to have more mental health problems, compared to non-exposed and non-bereaved individuals. We anticipated this would be manifested both in lifetime and presently occurring mental health difficulties.

2. Method

The General Social Survey has a venerable history, illuminating controversial and topical social questions for forty-five years (National Opinion Research Center, 2017). Beginning from collecting yearly representative surveys of approximately 3000 adults, since 1994 the GSS changed to conducting bi-annual surveys. Eleven questions on suicide exposures and mental health were added to the 2016 survey, many of which had been employed in previous studies. All new questions were pre-tested both among samples of suicide bereaved survivors and GSS pre-test samples to fine tune items. GSS participation rates have been declining ever since the early 1990s when they ranged at about 80%; since then, they have declined to approximately 70%; the 2016 response rate of 61% was 8 points below the participation rate for 2014 (National Opinion Research Center, 2017).

To assess suicide exposures, respondents were asked this question, “Over your lifetime how many people have you known personally that died by suicide.” Assessing suicide bereavement was measured among those indicating one or more suicide exposures for the person they knew best that died by suicide. “Was that person's death emotionally distressing to you?” Answers were recorded on a five-point scale with the following answers, 1) “Yes, greatly, 2) Yes, to some extent; 3) Yes, but not much; 4) No; 5) Not sure. We coded people who were exposed to one or more suicide, who indicated being greatly or to some extent emotionally distressed by the death as being “bereaved by suicide”. We defined those experiencing multiple bereavements as this same group, who were also bereaved by a second suicide who reported that the second person's death evoked a similar “1” or “2” response of emotional distress.

The mental health assessment items were drawn from questions used in previous GSS surveys. These included the following: 1) Expectations of having a nervous breakdown: “Have you ever felt you were going to have a nervous breakdown”, assessing an individual's lifetime mental health perspective. 2) Current mental health assessment: “Now thinking about your mental health which includes stress, depression and problems with emotions for how many days during the past 30 days was your mental health not good?”, assessing an individual's perceived mental health during the past month.

GSS 2016 also included 5 questions from the frequently utilized 19-item CES-D depression scale (Radloff, 1977). Each question was presented to respondents on a four-point agreement-disagreement scale. How much time have you experienced this during the past week 1) All the time; 2) Most of the time; 3) Some time; 4) None of the time. The five CES-D items were the following: 1) “Feeling depressed”; 2) “Having restless sleep”; 3) “Feeling happy”; 4) “Feeling lonely”; and 5) “Feeling sad.” All five items were highly inter-correlated, one was reversed (happy), and together all yielded a 0.76 alpha coefficient. Scale scores ranged from a low of 5 to a high of 20. The modified CES-D scale was administered to 961 GSS 2016 respondents yielding a mean of 8.6 (2.7 SD). In Table 1 we present frequency data of all suicide exposure and bereavement variables of interest. Our four tables only present the weighted data totals (using “wtssall” weighting) and statistical test results, which represent the American adult population. Dichotomous associations involved cross-tabular testing, while continuous scores involved mean comparison testing with 95% confidence intervals.

3. Results

To examine our first question, what percentage of participants reported lifetime suicide exposure, we found that 51% of participants had at least one lifetime suicide exposure and 28% had lifetime exposures of two or more suicides (See Table 1). Examining the relationships to the suicide decedent (See Table 2), the largest single category of decedents (40%) were of friends’ suicide deaths. 42% of the deaths were of remote relatives and acquaintances. First degree relatives’ deaths (such as of children, parents, spouses, and of siblings’ deaths) probably the most likely subgroup to inspire the strongest grief reactions, accounted for less than 10% of all the deaths.

Bereaved by suicide respondents (as defined by being greatly or to some extent emotionally distressed by the death) accounted for slightly