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Identifying the Social Demographic Correlates of Suicide Bereavement

William Feigelman, John McIntosh D, Julie Cerel D, David Brent, and Nina J. Gutin

We investigated the demographic correlates associated with suicide bereavement among a representative sample of U.S. adults from the 2016 General Social Survey. A secondary aim of this study was to use this representative data platform to cross-check official data findings of U.S. completed suicides. Questions on suicide bereavement were administered to 1,432 GSS 2016 respondents and these were cross-tabulated with various demographic and social activity variables included in this omnibus survey to investigate whether suicide bereaved respondents shared any distinctive demographic characteristics. Findings showed that friends of the suicide deceased person outnumbered the deceased's first degree relatives by at least 2 to 1. We also observed older, White, Non-Hispanic, and native born women were over-represented among the suicide bereaved. The suicide bereaved were also less likely to live in the Pacific region, and to live in the nation's largest cities, and were more likely to come from homes where a gun was owned by someone in the household. More of the suicide bereaved reported themselves to be in poorer physical health and bereaved women were more likely to be Facebook subscribers. These findings are consistent with other data on U.S. suicide patterns and the greater likelihood of firearms being utilized in suicide deaths. These revealed demographic correlates of suicide offer valuable information to helping agencies seeking to reach potential clients among the suicide bereaved.

Keywords demographic correlates, firearms ownership, friends' suicides, suicide bereavement

INTRODUCTION

For a variety of reasons, the social demographic correlates associated with suicide bereavement remain poorly understood. Most importantly, past research on suicide bereaved has relied heavily upon convenience samples of former patients and support group affiliates, inhibiting generalizing on the characteristics of survivors (Jordan & McIntosh, 2011). For several reasons knowing these correlates could offer dividends to advance the healing needs of the suicide bereaved and could promote a deeper understanding of the theories of suicide causation and opportunities for their validation. As we learn more about the social locations of the bereaved in their communities, helping agencies should have an easier time finding the bereaved and presenting them with the therapeutic services they may need. Were it not for the outreach efforts of such organizations as LOSS teams (Local Outreach to Suicide Survivors) and similar organizations, consisting of trained bereaved first responders who visit the newly bereaved at their homes shortly after a suicide death, many bereaved might never seek professional or peer support help or would seek this help much later during their usually agonized early grief experiences (Campbell, Cataldie, McIntosh, & Millet, 2004). As the social correlates of bereavement are revealed we should also be able to see existing theories of suicide causation supported or failing to find confirmation.

Why existing U.S. studies of suicide bereavement have failed to provide evidence of the demographic correlates of bereavement may not seem so perplexing when one considers the short lived history of this field of study. For a more complete discussion of the history of suicide bereavement services and support readers are invited to consult Chapter 9, "History of Survivor Support," in the Postvention in Action (McIntosh, Bolton, Andriessen & Campbell, 2017). It was only about 50 years ago that the subject of suicide bereavement came into sharper focus as a worthy subject of interest with the creation of the term "postvention"; this term was coined by Edwin Shneidman, the father of suicidology. Shneidman (1969) was perhaps the first scholar to become keenly aware of the complex bereavement needs of those mourning the suicide deaths of their close associates and their own suicidal inclinations. Before Shneidman's work, no social scientist had given much explicit thought to the experiences of the mourners of suicide

deaths. After Shneidman carved out this new discipline and focus upon the bereaved, during the 1970s and 1980s there were a scarce array of mostly theoretical, case study, and memoir studies of suicide bereavement with the creation of such works as Cain (1972), Dunne, McIntosh, and Dunne-Maxim (1987), Lynd (1976), Bolton (1983), Shneidman (1973), and Appel and Wrobleski (1987). Survey research of suicide bereavement did not begin to appear until the 1990s and early 2000s with the appearance of such works as Hazell and Lewin (1993), Stimming and Stimming (1999), Rubey and McIntosh (1996), Provini, Everett, and Pfeffer (2000), (2000), Callahan Pennebaker and O'Heeron (1984), Murphy, Johnson, Wu, Fan, and Lohan (2003), and Crosby and Sacks (2002). By 2001, in the only summary appraisal of the cumulative development of the postvention field that seemed to be available, its author (Clark, 2001) noted that by the mid-1980s researchers were using rigorous methods such as comparison groups, large sample sizes and controls for socio-demographic variables to investigate postvention subjects. Since the early 2000s there has been a marked upsurge in suicide bereavement survey research, with a great many new studies appearing over the past decade including such studies by McMenamy, Jordan, and Mitchell (2008), Mitchell, Kim, Prigerson, and Stephens (2004), Feigelman, Jordan, McIntosh, and Feigelman (2012), and Cerel et al. (Cerel, Maple, Aldrich, & Van de Venne, 2013; Cerel et al., 2016). Ever since 2000, survey research now dominates in this rapidly expanding research arena.

Yet, many studies have relied on convenience sampling, on advertising to gain research subjects, snowball samples, support group based samples and other methods that have left the researchers reluctant to comment on the demographic characteristics of their respondents knowing that they are not necessarily representative of the populations they sought to investigate. For example, studies by Feigelman et al. (2012), McMenamy et al. (2008), and Callahan (2000) were drawn primarily from the ranks of support group affiliates, who comprised their research volunteers. Only a few studies have been drawn from coroner or medical examiner records that would lead to representative samples of the local communities from which they were drawn.

In 2015 we were granted a unique opportunity to probe the social demographics associated with suicide bereavement by adding 11 questions on suicide exposure and bereavement to the 2016 General Social Survey (Feigelman, Cerel, McIntosh, Brent, & Gutin, 2018). Our 11 questions ascertained whether a person known to the respondent had ever died by suicide, whether a second known person had died this way, time since the losses, relationship to the deceased, closeness and emotional distress from the losses, and two mental health status questions. From this platform of having questions on suicide exposures and bereavement included in the survey we were afforded the ability to examine potential associations within the large body of demographic and social attitude questions regularly presented to representative samples of U.S. adults in bi-annual GSS surveys. Previous suicide bereavement surveys suggested that the suicide bereaved over-represent women, the middle aged, Whites, the more economically advantaged, more highly educated, and urban residents (Dyregrov & Dyregrov, 2008; Feigelman et al., 2012; Murphy et al., 2003). We wanted to explore whether these patterns could be verified in a nationally representative adult sample.

A secondary aim of the present study was to use our representative data platform of suicide bereaved individuals to act as a cross-check to verify official death data statistics about completed suicides. Reports of U.S. suicides have shown them to be higher among Whites, Non-Hispanics and higher in regions and communities of the country where gun ownership is more prevalent (Goldsmith, Pellmar, Kleinman, & Bunney, 2002).

METHOD

The General Social Survey has a long and venerable history behind it, illuminating controversial and topical social questions for nearly 50 years, since 1972 (National Opinion Research Center, 2017). Beginning from collecting yearly representative surveys of approximately 3,000 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. All our new questions were pre-tested both among samples of suicidebereaved survivors and GSS pre-test samples to fine tune items for the 2016 survey. The response rate for the 2016 survey was 61%. GSS participation rates have been declining since the early 1990s when they ranged at about 80%; since then, they have declined to approximately 70%; the 2016 response rate was 8 points below the participation rate for 2014 (National Opinion Research Center, 2017).

Assessing suicide bereavements was a two-part process. First, we assessed whether each participant was exposed to one or more suicides during their lifetime. This was asked in the following manner: "Over your lifetime how many people have you known personally that died by suicide." Once suicide exposure was established exposed individuals were asked this question, establishing suicide bereavement: "Of the person(s) that died by suicide, who you knew best that died this way, "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 suicides, who indicated being greatly or to some extent emotionally distressed by the death as being "bereaved by suicide."

The GSS contains a wide variety of social demographic, attitude, and behavior items that have been asked repeatedly since 1972. Our tables present only the weighted data totals and statistical test results, usually with Chi-square crosstabular tests, which represent the U.S. adult population living in households. We applied the most commonly used survey weight variable "wtssall" throughout all weighted comparison tests. GSS survey administrators recommended that this variable would provide the best single weight variable to create a nationally representative sample from the GSS 2016 data. We employed STATA, Version 13, statistical software for analyzing our data.

RESULTS

Table 1 shows the loss characteristics associated with being suicide bereaved. The table shows that an especially high number, 35% of all respondents, experienced an emotionally distressing loss of someone they knew personally. Of the 1,432 respondents that were asked this question 516 were bereaved by suicide; another 235 were exposed to one or more suicides but were not emotionally distressed from it.

In our first report of GSS 2016 suicide bereavement findings (Feigelman et al., 2018) we found that friends comprised the

largest single relationship category of people lost to a respondent, compared to the loss of a first-degree relatives' death, outnumbering relatives by more than 5:1. We wanted to see if we applied a more conservative definition of being bereaved, considering only those who reported very great emotional distress after the death, only about 18% of our sample, instead of 35%, whether the same ratio of friends' to first-degree relatives' losses was still obtained. Had we defined suicide bereavement more conservatively, as only consisting of those experiencing extreme emotional distress from the loss (this is not displayed in the tables), there would have been somewhat greater numbers of first-degree relatives mentioned, 17%, as first degree relatives, 26% as other relatives, and still 44% reporting a friend as the largest category of relationships to the deceased. This table also shows that these three groups were more likely to be represented among the bereaved, accounting for 80% of all cases, while acquaintance or neighbor associations were more common among those exposed to suicides, but not bereaved. A very small number of human service practitioners (n = 5) reported losses of patients and these were invariably experienced as emotionally distressing. We examined the occupations of these five individuals and found three reported their work as psychotherapists, one a medical doctor, and the other in nursing.

Table 1 also presents data showing the span of time since the loss, spread out over a period extending from as recently as a few months after the loss to as long as 67 years afterwards. Average time since loss was 14 years (SD = 13.8). Over 35% of all respondents were 14 years or longer past their loss. Almost half of the bereaved reported themselves as somewhat or very close to the deceased.

Table 2 displays demographic comparisons between the bereaved and the

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10					
10	4.92	56	9.60	66	8.10
61	26.95	122	24.01	183	24.95
61	27.35	240	45.79	301	39.88
16	5.49	24	5.03	40	5.18
0	0.00	5	1.09	5	0.74
73	30.29	52	11.44	125	17.48
14	5.00	17	3.04	31	3.67
235	100.0	516	100.0	751	100.0
43	17.69	112	24.43	155	22.27
48	22.85	93	18.62	141	19.98
46	20.02	99	21.03	145	20.71
44	19.86	100	18.07	144	18.64
50	19.59	97	17.85	147	18.41
231	100.0	501	100.0	732	100.0
9					
ictim					
102	44.29	42	7.94	144	19.47
61	25.51	68	13.69	129	17.44
49	21.66	161	32.59	210	29.12
14	5.70	122	24.24	136	18.36
7	2.85	123	21.54	130	15.61
233	100.0	516	100.0	749	100.0
	61 16 0 73 14 235 43 48 46 44 50 231 9 ictim 102 61 49 14 7	61 27.35 16 5.49 0 0.00 73 30.29 14 5.00 235 100.0 43 17.69 48 22.85 46 20.02 44 19.86 50 19.59 231 100.0 9 9 ictim 102 44.29 61 25.51 49 21.66 14 5.70 7 2.85 233 100.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

TABLE 1. Loss Characteristics Associated with Being Suicide Bereaved

non-bereaved. It should be noted that the non-bereaved category also includes the 235 cases of individuals who were exposed to a suicide but not bereaved. Compared to the non-bereaved, the bereaved were more likely to be White, 83% vs. 67% (Design-based Chi Square (1) = 5.43, p = .023). The bereaved tended to be older,

	Non-]	Non-Bereaved*	Ber	Bereaved ^{**}	L	Total
	и	Percent	u	Percent	и	Percent
Race of respondent						
White	629	67.40	422	82.75	1051	72.73
Black	184	19.87	58	11.19	242	16.86
Other	103	12.73	36	6.06	139	10.41
Total	916	100.0	516	100.0	1432	100.0
Uncorrected Chi Square $(2) = 38.88$, Design-base	8, Design-based $F(1.64, 8.20) = 13.62, p = .003$	13.62, p = .003				
Urban/Suburban/Rural						
Central city of 12 largest SMSAs	93	11.01	19	4.46	112	8.73
Central city remaining 100 largest SMSAs	132	12.97	87	15.36	219	13.80
Suburbs of 12 largest SMSAs	131	14.67	64	13.40	195	14.23
Suburbs remaining 100 largest SMSAs	163	19.64	106	21.27	269	20.21
Other urban	307	32.62	185	35.26	492	33.53
Other rural	90	9.09	55	10.25	145	9.49
Total	916	100.0	516	100.0	1432	100.0
Uncorrected Chi Square $(5) = 19.24$, Design-based $F(4.14,268.91) =$	d F(4.14,268.91)	= 2.25, p = .038				
Age of respondent						
18–25 years	110	14.44	38	9.51	148	12.72
26-40 years	255	28.54	129	24.63	384	27.18
41–55 years	227	26.76	142	29.26	369	27.63
56–65 years	156	14.48	113	21.47	269	16.91
Over 65 years	164	15.78	93	15.14	257	15.56
Total	912	100.0	515	100.0	1427	100.0
Uncorrected Chi Square $(4) = 18.14$, Design-base	4, Design-based F(3.82,248.031)	= 3.71, p = .007				
						(Continued)

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n Percent N Percent </th <th></th> <th>Non-</th> <th>Non-Bereaved*</th> <th>Ber</th> <th>Bereaved^{**}</th> <th>L</th> <th>Total</th>		Non-	Non-Bereaved*	Ber	Bereaved ^{**}	L	Total
		u	Percent	u	Percent	u	Percent
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Sex of respondent						
83 321 62.58 830 0 516 100.0 1432 1 65 516 100.0 1432 1 65 282 59.37 770 89 104 16.03 249 46 130 24.60 412 89 104 16.03 249 46 130 24.60 412 0 516 100.0 1431 1 0.37 351 59.81 889 56 153 36.20 516 9 77 351 59.81 889 56 153 36.20 516 77 3 0.78 9 4 1.37 9 4 1.37 9 6 3 36.20 316 21 0.39 3 36.20 516 100.0 1432 1 6 1.47 9 9 9 9 21 94.30 163 0 516 100.0 1432 163 0 570 163 0 570 163 0 570 163	Male	407	44.17	195	37.42	602	41.83
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Female	509	55.83	321	62.58	830	58.17
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total	916	100.0	516	100.0	1432	100.0
	Uncorrected Chi Square $(1) = 6.09$, Design-base	ed $F(1,65) = 5.43$,	p = .023				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Marital status of respondent						
89 104 16.03 249 46 130 24.60 412 10 516 100.0 1431 1.037 351 59.81 889 56 153 36.20 516 56 153 36.20 516 77 3 0.78 9 41 4 1.35 6 31 1 0.39 3 6 1.35 0.78 9 6 1.35 0.78 9 6 1.35 0.78 9 6 1.47 9 6 1.47 9 1.47 9 1.47 6 1.47 9 1.489 94.30 1432 1.489 94.30 1269 0 516 100.0 1432 163 0 570 163 0 570 163	Marr./Widowed/Separated	488	57.65	282	59.37	770	58.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Divorced	145	11.89	104	16.03	249	13.33
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Never married	282	30.46	130	24.60	412	28.43
.037.07 351 59.81 889 .07 351 59.81 889 .56 153 36.20 516 .77 3 0.78 9 .77 3 0.78 9 .41 4 1.35 6 .31 1 0.39 3 .31 1 0.39 3 .31 1 0.39 3 .31 1 0.39 3 .32 516 100.0 1432 1 .91 489 94.30 1269 .92 5.70 163 163 .0 516 100.0 1432 1	Total	915	100.0	516	100.0	1431	100.0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Uncorrected Chi Square $(2) = 8.24$, Design-base	ed $F(1.95, 126.71) =$	= 3.41, p = .037				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Number of family generations in household						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 Generation	538	50.07	351	59.81	889	53.45
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 Generations, children	363	47.56	153	36.20	516	43.61
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 Generations, parents	9	0.77	33	0.78	6	0.78
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 Generations, grandchildren	2	0.41	4	1.35	6	0.74
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3 Generations, children, grandchildren	2	0.31	1	0.39	3	0.34
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3 Generations, children, parent	5	0.89	4	1.47	6	1.09
=.050 .91 489 94.30 1269 .09 27 5.70 163 .0 516 100.0 1432 1	Total	916	100.0	516	100.0	1432	100.0
.91 489 94.30 1269 .09 27 5.70 163 .0 516 100.0 1432 1	Uncorrected Chi Square $(5) = 20.36$, Design-bas	tsed F(4.40,286.18)					
.91 489 94.30 1269 .09 27 5.70 163 .0 516 100.0 1432 1	Respondent born in this country						
.09 27 5.70 163 .0 516 100.0 1432 1	Yes	780	83.91	489	94.30	1269	87.52
.0 516 100.0 1432	No	136	16.09	27	5.70	163	12.48
Uncorrected Chi Square (1) = 32.06, Design-based $F(1,65) = 19.80$, $p < .001$	Total	916	100.0	516	100.0	1432	100.0
	Uncorrected Chi Square $(1) = 32.06$, Design-bas	19.8 lsed F(1,65) = 19.8	0, $p < .001$				

n Percent adent Hispanic 137 17.30 ad 377 17.30 ad 779 82.70 4 ad 916 100.0 5 rected Chi Square (1) = 15.75 , Design-based $F(1,65) = 9.23$, $p = .003$ 82.70 4 adent region at time of interview 54 5.65 6.64 v England 54 5.65 6.64 Morth Central 56 6.64 11.11 Korth Central 56 6.64 6.72 th Atlantic 183 20.15 6.72 th Atlantic 183 20.15 6.72 file 90 $10.0.0$ 9 7.97 file 90 10.34 7.97 7.97 file 138 17.39 916 100.0 9 adent has gun in home 187 31.80 11.73 9.16 100.0 9.16	Bereaved**	**	Tc	Total
	u	Percent	и	Percent
4.0 0 - 1.0				
4 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	49	9.52	186	14.60
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	467	90.48	1246	85.40
	516	100.0	1432	100.0
v c				
~ - c				
v (38	7.91	92	6.44
~ - ·	59	11.98	166	11.41
м - с	96	17.95	240	15.39
~ _ ~ (40	7.68	96	7.00
v ,	96	20.67	279	20.33
v	36	5.53	102	6.31
	50	9.96	140	10.21
	43	7.87	121	7.94
	58	10.45	196	14.98
	516	100.0	1432	100.0
187 31.80 2000 2000				
187 31.80				
	125	39.98	312	34.48
IN0 429 08.20 200	200	60.02	629	65.52
Total 616 100.0 325	325	100.0	941	100.0
Uncorrected Chi Square (1) = 6.14, Design-based $F(1,5) = 12.37$, $p = .017$				

	Non-I	Non-Bereaved*	Ber	Bereaved ^{**}	T	Total
	u	Percent	и	Percent	и	Percent
Health status of respondent						
Excellent	159	25.33	68	20.27	227	23.64
Good	294	48.35	153	45.32	447	47.34
Fair or poor	171	26.32	114	34.41	285	29.02
Total	624	100.0	335	100.0	959	100.0
Uncorrected Chi Square $(2) = 7.54$, Design-based $F(1.99,9.96) = 4.25$, $p = .046$	1 F(1.99, 9.96) = 4	i.25, p = .046				
Female Respondents Only						
Respondent uses Facebook						
Yes	288	77.82	199	82.99	487	79.80
No	83	22.18	41	17.01	124	20.20
Total	371	100.0	240	100.0	611	100.0
Uncorrected Chi Square (1) = 2.40, Design-based $F(1, 5) = 10.55$, $p = .023$	I F(1, 5) = 10.55,	p = .023				
Note. **Bereaved refers to people indicating a person known to them dying by suicide whose death presented some or great emotional distress to them. *Non-Bereaved refers to those not exposed to a suicide of a known to them.	ı known to them dy erson and/or not fe	ring by suicide whose eling emotional distre	death presented s ss from the death	ome or great emotion of a person dying by s	al distress to them. suicide known to th	* <i>Non-Bereaved</i> em.

TABLE 2. Continued

with 18% fewer in the under 40-year-old age group, and 6% more in the 56–65 yearold age group, compared to the nonbereaved. The bereaved were on average 49 years old (SD = 16.5). The bereaved were more likely to be born in the United States (94% vs. 84%). They were also more likely to be non-Hispanic (91% vs. 83%).

Table 2 also shows that the bereaved greatly over-represented women, 63% as compared to 56% among the non-bereaved. The table shows that the divorced and the never married are over-represented among the bereaved. The bereaved also include more one-generation families of adults living in households without children in them or in three-generation families.

It can also be seen in Table 2 that the bereaved are less likely to be living in the largest cities of the United States compared to the non-bereaved (5% vs. 11%). It was also noted that the bereaved were less likely to be living in the Pacific States region as compared to the non-bereaved (10% vs. 17%). We suspected that both these patterns were related to patterns of gun ownership in the United States; America's biggest cities, which are more likely to impose greater restrictions on gun ownership, and the Pacific states, California especially, which is one of the places where fewer guns are found in homes. We suspected that people living in regions and communities where gun ownership was more prevalent would show both higher rates of suicide and the presence of suicide bereaved people. We examined the association between gun ownership and bereavement and found it to be significant. Forty percent of the bereaved lived in homes with a gun in them compared to only 32% among the non-bereaved (Design-based Chi Square (1) = 12.4, p = .02).

We also examined whether the bereaved were in any way different from

the non-bereaved in terms of their educational attainments, social class affiliations, household incomes, religious leanings, political philosophies, and political leanings, whether they were any differently inclined to have social attachments, whether they found life as exciting, and considered themselves happy and happily married. In all these respects the bereaved remained undistinguished from the non-bereaved. All these above mentioned non-significant associations are not displayed in our tables.

We also investigated internet use among the bereaved and their use of Facebook. The weighted data did not show any significant differences in internet use or being a Facebook subscriber. Yet, we suspected that sex could have been a possible confounding factor in explaining higher Facebook use for bereaved women compared non-bereaved women. When we examined the Facebook use hypothesis among women exclusively we found it was significantly associated with being bereaved with the weighted data, (Design based Chi-Square (1) = 10.5, p = .02). One other variable stood out as another statistically significant dividing point between the bereaved and the non-bereaved: their assessments of their current health. More bereaved described their overall health as fair or poor compared to the nonbereaved, 34% as compared to 26%.

DISCUSSION

This study found that friends of the suicide deceased person outnumbered the deceased's first-degree relatives by at least 2 to 1. In addition, older, White, Non-Hispanic and native born women were over-represented among the suicide bereaved. The suicide bereaved were also less likely to live in the Pacific region, and to live in the nation's largest cities, and were more likely to come from homes where a gun was owned by someone in the household. Some of the demographic correlates of suicide bereavement we have identified in this report such as the higher number of divorced and greater number of one-generation householders (living without their children) could be results of the older ages of the bereaved. The average age of the bereaved was 49.5, compared to 47.5 for the non-bereaved. Further analysis of some of these demographic correlates identified here—among each other—could show a similar overlapping of associations.

In another paper based upon this same GSS 2016 data (Feigelman et al., 2018), we suggested that suicide exposures and bereavement are far more widespread than commonly thought, with exposures affecting about half of the adult population and bereavements affecting a third of adults. Much of the previous research literature on suicide bereavement has focused on bereavement among the deceased's first-degree relatives, assuming that they are dominant among the bereaved. However, we may measure being bereaved with this data, whether to include the moderately emotionally distressed or only those indicating extreme emotional distress, there are at least twice as many bereaved friends of the deceased, greatly outnumbering the firstdegree relatives. Based on what we now know about the mental health risks associated with suicide bereavement (Cerel et al., 2013; Cerel et al., 2016) and what we know about support group utilization (Provini et al., 2000), there are probably high numbers of untreated suicide bereaved friends who were left mentally distressed following their friends' suicides. For example, in one study of the impact of a peer suicide on friends and siblings, the rates of depression and PTSD were comparably increased relative to controls among adolescent peers and siblings of the suicides (Brent, Moritz, Bridge, Perper, & Canobbio, 1996a, 1996b). This finding highlights that individuals who lose friends by suicide may also be comparably and severely affected as family members.

Much of the present knowledge base about survivors of suicide comes from studies undertaken among treatment populations, either of patients under care or of others seeking or affiliated with survivor of suicide support groups, with only a few studies drawn from coronary records or official death records in any one locale. Thus, we have no way of ascertaining whether support groups comprise the largest share of mental health support for suicide bereaved mourners, which impressionistically appears to be the case. Yet, if one looks at the membership rosters of survivor of suicide support groups as we have, we usually do not see the deceased's friends seeking help in these groups following their losses. In a recent study drawn primarily from the ranks of U.S. support group members, we found close to 80% of the support groups' members to be first degree relatives, with less than 20% as potential friends of the deceased (Feigelman, Sanford, & Cerel, 2017). The SOS groups, by and large, provide a refuge for the deceased's first degree relatives. These are the people who establish and maintain most support groups over time, with the friends of the deceased only comprising a small percentage of most support group members.

Based on our data of relationship affiliation of U.S. suicide bereaved adults we can probably estimate that about 3% of the adult population experience loss of first degree relatives to a suicide at some time during their lifetime. This 3% figure would be computed from the 10 percent of the bereaved population who report themselves as experiencing an emotionally distressing loss of a first-degree relative, where only about one-third of the whole population report such loss experiences. If we project this out to the population-at-large it would be about 7.5 million adults nationally who would probably want to obtain treatment or support group help to aid them with their grieving of first-degree relatives. Thus, there is no mistaking the compelling need for compassionate care among these traumatically bereaved family members.

We have very little research available on friends' adaptations to their friends' suicides. One of the few studies devoted to the suicide losses of friends, an interesting qualitative study of rural Australian adolescents, revealed patterns of isolation within their own peer groups and aversions to seeking grief support (Bartik, Maple, Edwards, & Kiernan, 2013a, 2013b). Bartik and associates found that these deeply distressed adolescents, mourning their close friends' deaths, generally established closer contacts among their own peers and averted contacts with the families of their deceased friends. Many commented that their own losses paled in comparison to what the families were experiencing and they felt deficient in being able to say comforting things to their friends' families. Such responses augmented experiences of isolation for both these families and the youth. In addition, Bartik found that the closer contact these adolescents had, amongst one another, resulted in higher substance use and abuse. As friends, sustaining suicide losses felt less validated in their grief, and this contributed to exacerbating the grief problems for all in these communities. The previously mentioned studies of adolescents losing friends to suicides (Brent et al., 1996a, 1996b) yielded confirming evidence of closer bonding among the adolescents with one another after the deaths, higher substance use and abuse, and less validation for their grief.

The Australian research also found these adolescents were not inclined to utilize

counseling support despite outreach efforts by their local schools. More research will be needed to document whether the behavior patterns established for these rural Australian adolescents are more widely experienced or were simply unique events within these particular subgroups. Yet, another more recent Australian study of a mostly adolescent female sample confirmed some of the conclusions from Bartik's work, namely a self-reliant tendency among bereaved teens to rely on each other, avoidance of school counseling help, and limited acceptance of professional help, accepted only when parents insisted on it (Andriessen, Lobb, et al., 2018: Andriessen, Mowll, et al., 2018).

Our findings showing women overrepresented among the bereaved reflect back to the highly skewed sex ratio of males over females in suicide deaths, leaving more women disproportionally left behind. According to the latest data available (Drapeau & McIntosh, 2017) there are presently 3.3 male suicides for every female suicide in the United States. The suicide rate among Whites greatly exceeds that of African Americans, Latinos, and Asians and these patterns are reflected also in our bereavement data. Although the increased likelihood of suicide with advancing age would seem to suggest more bereaved in the oldest age groups, (a small but still larger proportion of) the aged population over age 65 live within institutional settings apart from households, setting off people within the late middle age-segment (of ages 55 to 64) as the single largest older age category. The aged disproportionally leave behind middle-aged and younger survivors, since many of their same-aged peers have already passed on.

As numerous earlier studies of the suicide bereaved were conducted in the vicinity of large metropolitan communities, such as Seattle (Murphy et al., 2003),

(Callahan, 2000; Chicago Rubey & McIntosh, 1996), Boston (McMenamy et al., 2008), and New York (Feigelman et al., 2012; Provini et al., 2000), a mistaken impression may have emerged of the suicide bereaved as being more well educated urbanites. Yet, this nationally representative data suggested otherwise, with more suicide bereaved living in middle sized cities, suburban, and rural places, who were no more well educated or advantaged economically than their non-suicide bereaved counterparts in society. The demographic data collected on Kentuckians (Cerel et al., 2013; Cerel et al., 2016) is perhaps the only representative data available on the suicide bereaved among rural, and mid-sized city living U.S. adults.

Striking convergences were noted in fewer big city residents and fewer West Coast householders among the suicide bereaved that coincides with lower rates of gun ownership patterns in these places. Most consequentially, if there is a gun in the household there is a greater chance that this household will contain someone bereaved by suicide. These convergent patterns are consistent with guns being used in more than half of the nation's suicides. Until there are reductions in the numbers of guns available among the citizenry, better control over access to firearms among those inclined to self-injury, and greater attention paid to gun safety and safer storage of firearms these associations between gun suicide incidences and suicide bereavements will remain.

From the distinct demographic patterns observed here there are new opportunities for those seeking to reach the suicide bereaved and to find them more easily. This research has uncovered a number of other previously unknown associations between native born status, being middle-aged, onegeneration family members, being divorced, and female Facebook users that should also make it easier for helping agencies to target messages to the suicide bereaved offering them help and support. Perhaps further research on the demographic correlates of bereavement will yield additional social characteristics of value to mental health care agencies wishing to more accurately target messages to the suicide bereaved.

One last finding showed that the suicide bereaved viewed their health less favorably compared to the nonbereaved. In our first paper with the GSS 2016 data (Feigelman et al., 2018) we attempted to gauge the extent of suicide exposures, bereavements, and multiple bereavements in the U.S. adult population and whether these bereaved suffered any enduring mental health deficits as a result of their losses. The health deficits' findings converge with other patterns we found in our initial report on this data, showing these mourners (in comparison to the non-bereaved) feeling they were more prone to "having a nervous breakdown" and to reporting significantly more days in the past month when their mental health was bad because of depression, stress, or emotional problems. It is remarkable that these sentiments appear to endure for many years afterwards, despite the fact that these bereaved were on average 14 years past their losses. All this evidence suggests that suicide bereavement seems to demand the availability of mental health support and services for extended time periods for these long-term mourners.

We will end this report on a cautionary note. Past studies have abundantly demonstrated the suicide risk potential of the suicide bereaved sustaining the losses of nuclear family members (Agebo, 2003; Bolton et al., 2013; Feigelman, Joiner, Rosen, & Silva, 2016). Given our findings showing higher gun availability in the homes of these bereaved we see this particular group of bereaved at greater risk for their own self harm or possible selfdestruction. This calls for a closer monitoring of this population by their primary care physicians and for targeted information about gun safety.

LIMITATIONS

These findings apply only to the U.S. adult suicide bereaved population who live in households. Discussions of the extent of suicide bereavement and the demographic characteristics of the bereaved in other countries could vary greatly from what was found here, from one country to another country. Whether military populations, students living at college dormitories, inmate populations, and institutionalized others would show the same patterns of suicide bereavement these respondents exhibited, remains to be demonstrated, as well. Had more ample financial support been available for this study we would have gladly asked additional questions on the experiences of professional and nonprofessional care and support received among these bereaved, and feelings of value from such experiences, one of the most important remaining unanswered questions for gauging the importance of grief help in the lives of suicide mourners. Had more funds been available we would have gladly augmented our sample from the 1,500 respondents we selected to the entire GSS 2016 sample of approximately 3,000. This would have enabled more detailed investigations of important subgroups of research interest, such as the newly bereaved, those experiencing multiple bereavements, and other important subgroups of interest, Yet, science has to

start somewhere and we are grateful for the support we obtained and that we could advance suicide bereavement knowledge as much as our data permitted.

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