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Diversify Your Emotional Assets: The Association Between the Variety of Sources of Emotional Support and Thoughts of Death or Self-harm Among US Older Adults

Mijung Park , Susan Wang , Charles F. Reynolds III , and Deborah L. Huang 

ABSTRACT

Using data from a nationally representative sample of community-dwelling older adults (age ≥ 65) (NHANES: $n = 3,114$), we examined the association between the variety in sources of emotional support and thoughts of death or self-harm in the past two weeks among US older adults and if such association is modified by gender and race/ethnicity. Overall, an additional category of source of emotional support was associated with the 0.36-fold lower odds of endorsing thoughts of death or self-harm in the past two weeks (WAOR: 0.64, 95% CI: 0.46–0.89), after controlling for demographic, socioeconomic, and health-related characteristics. The magnitudes of such association varied across different gender and racial/ethnic subgroups. While among older women and non-Hispanic Black older men, increase in the variety of sources of emotional support was associated with decrease in the odds of endorsing thoughts of death or self-harm in the past two weeks, for non-Hispanic White older men and Hispanic older men, increase in the variety of sources of emotional support was associated with increase in the odds of endorsing thoughts of death or self-harm in the past two weeks. Our findings highlight the importance of considering gender and race/ethnicity when designing and implementing successful interventions for reducing suicide ideation among diverse elderly persons.

KEYWORDS

Emotional support; gender and ethnic variation; older adults; social support; suicidal ideation

INTRODUCTION

Suicide in later life is a serious public health problem. Individuals age 65 and over account for only 12% of the U.S. population but they are account for over 17% of suicide deaths (Stone et al., 2018). In 2017, more than 16 per every 100,000 US older adults died from suicide (Centers for Disease Control & Prevention, 2019). The baby boomer cohort has an historically higher rate of suicide compared to other cohorts. As they enter older age, substantial increases in the numbers of suicide in this population are projected (Conwell, Van Orden, & Caine, 2011). Thus, there is an urgent need to develop more effective programs to reduce suicide and suicidal ideation in this vulnerable population.

Although personal, social, and societal consequences of death by suicide are equally devastating across all age groups, the issue of late-life suicide has received less attention

compared to their younger counterparts. Furthermore, few interventions have shown effectiveness in reducing suicidal ideation in the old-adult population (Alexopoulos et al., 2009; Erlangsen et al., 2011; Lapiere et al., 2011).

In the US, the rates of suicidal ideation vary dramatically across diverse older-adult subgroups, with highest rates among older White men and lowest rates among oldest Black women (Center for Disease Control and Prevention (CDC), 2009; Stone et al., 2018). Such epidemiological variations suggest that, to develop effective late-life suicide prevention programs, we need more nuanced understanding about differential risk and protective factors across diverse older-adult subgroups.

In this article, we focus on the construct of emotional support, a potential protective factor against suicidal ideation. Two systematic reviews examined the relationship between emotional support and suicidal ideation in later life (Chang, Chan, & Yip, 2017; Cheng, Fowles, & Walker, 2006; Fässberg et al., 2012). Fässberg et al. (2012) concluded that positive emotional family life may be protective against suicide ideation. Chang et al. (2017) concluded that the variable discordant social relationship was associated with a 1.77-fold increase in suicidal ideation. Furthermore, a disadvantaged relational structure (e.g., never been married) was associated with a 1.37-fold increase in suicidal ideation.

It is well established that emotional support is a gendered and culturally grounded phenomenon (Kuehner, 2017; Trinh, Bernard-Negron, & Ahmed, 2019). For example, an analysis of a representative US Latino and Asian older-adults sample showed that conflict and cohesion within the family affect diverse older-adult subgroups differently. Overall, greater family cohesion was associated with a decrease in the risk for depression, while greater family conflict was associated with an increase in the risk for depression. However, the magnitudes of these associations were greater in men than in women. Furthermore, Asian older adults were more sensitive to family conflict, whereas Latino older adults were more sensitive to family cohesion in the context of depression outcomes (Park & Unutzer, 2014). Whether such variations exist in relation to late-life suicide ideation, however, has not been fully examined. Nevertheless, the complex interplay between gender and race/ethnicity with regard to social support and to late-life suicidal ideations is a potential cause of differential effects of suicide prevention strategies (Ali, Rockett, & Miller, 2019).

While the quality and the quantity of emotional support is well researched, the sources of emotional support have received less attention. Therefore, the aims of this study were to examine the association between the diversity in sources of emotional supports and late-life suicidal ideation, and to evaluate if the magnitudes of such association vary by gender and race/ethnicity. We tested two hypotheses. First, receiving emotional support from more diverse sources would be associated with the reduced risk for endorsing thoughts of death or self-harm in the US older-adult population. Second, the magnitudes of such association would vary by gender and race/ethnicity.

METHODS

Sample

Using data from the National Health and Nutrition Examination Survey (NHANES), a biannual survey of a representative sample of the US population, we performed a

cross-sectional analysis of pooled data from two waves (2005–2006 and 2007–2008) (CDC & National Center for Health Statistics (NCHS), 2005–2006). Each NHANES wave includes slightly different domains of interest. Only 2005–2006 and 2007–2008 waves included information about both emotional support and suicidal ideation. The final analytical sample included 3,114 respondents aged 65 and over. The design of NHANES was described in greater detail elsewhere (CDC & NCHS, 2005–2006). The response rates ranged from 78.4–80.0%.

Measures

Thoughts of Death and Self-Harm

Thoughts of death and self-harm were assessed using the ninth item of the 9-item Patient Health Questionnaire (PHQ-9): “Over the last 2 weeks, how often have you been bothered by thoughts that you would be better off dead or hurting yourself in some way?” The possible responses were *not at all* (0), *several days* (1), *more than half the days* (2), and *nearly every day* (3). A dichotomous variable was created to indicate no thoughts of death and self-harm (0) versus having thoughts of death and self-harm at least several days (1). Past studies have used the 9-item of PHQ-9 as a proxy for suicidal ideation. Its sensitivity ranged from 0.82–0.92, and specificity ranged from 0.82–0.88 (Simon et al., 2013; Uebelacker, German, Gaudiano, & Miller, 2011).

The Variety in Sources of Emotional Support

We counted the number of distinct categories of social relationship from which respondents reported receiving emotional support. NHANES identified sources of emotional support using two sequential questions. Respondents were first asked, “Can you count on anyone to provide you with emotional support such as talking over problems or helping you make a difficult decision?” If the respondent answered no, the number of sources of emotional support was marked as 0. Respondents who answered yes were asked “In the last 12 months, who was most helpful in providing you with emotional support? Select all that applied.” Possible choices included spouse, daughter, son, sibling, parent, other relative, neighbors, coworkers, church members, club members, professionals, friends, and others. There was no information about if a respondent received emotional support from multiple individuals in the same relational category. For example, receiving emotional support from three daughters was counted as one, while receiving emotional support from two daughters and from a son was counted as two.

Covariates

Demographic characteristics included age, gender, marital status (married/cohabiting, widowed, divorced/separated, or never married), birthplace (foreign born vs. US born), education (having completed high school vs. not). Age was top coded at 80 because respondents aged 85 and over were coded as 85 in 2005–2006 NHANES and the cut point was lowered to 80 in 2007–2008 NHANES. In NHANES, four categories of race/ethnicity were used: Non-Hispanic White, Non-Hispanic Black, Hispanic, and Other.

Because the Other category aggregated multiple race/ethnic groups (e.g., Asian, Native American, Pacific Islander, and mixed race), we did not use this category in this study.

We constructed an indicator for living in poverty based on the federal poverty line for each year using self-reported household income and household size (Office of the Assistant Secretary for Planning & Evaluation, 2014). For example, for a family of four, an annual income of \$19,305 was marked as living in poverty. We identified 259 respondents (9.44% of the total sample) whose income information was missing, which was greater than 5%, the recommended threshold for imputation (Schafer, 1999; Tabachnick & Fidell, 2001). Therefore, we imputed missing values using the following steps: First, we built a logistic regression model to estimate the probability of living in poverty based on age, gender, race/ethnicity, education level, and household sizes from the sample with complete information. We then calculated the predicted probability of living in poverty based on the observed values of the same variables from those with missing income-to-need ratio. A probability of living in poverty greater than 0.5 was marked as living in poverty (1); otherwise, poverty status was marked as 0.

Depressive symptom severity was assessed using the PHQ-9. Because the last item of PHQ-9 was used as the proxy for suicidal ideation, we used the PHQ-8 score to estimate depression severity. PHQ-8 scores were calculated by summing all responses except suicidal ideation and ranged from 0–24. Cronbach's alpha of PHQ-9 for this sample was 0.839.

Modified Charlson comorbidity index scores were calculated according to Quan et al. (2011). Epidemiological studies have shown that chronic medical comorbidity is associated with suicidal ideation (Scott et al., 2010).

Having a memory problem was identified by the response to a yes-no question: "Are you limited in any way because of difficulty remembering or because you experience periods of confusion?" Studies have shown that having cognitive impairment was associated with suicidal ideation in older adults (Clark et al., 2011; Gujral et al., 2014).

Data Analysis

We used descriptive statistics to estimate population parameters and to describe sample characteristics. To test the hypotheses mentioned previously, we first built a logistic regression model with thoughts of death and self-harm as the dependent variable and the variety in sources of emotional support as the independent variable. We sequentially added demographic characteristics, socioeconomic characteristics, and clinical characteristics to the model and observed the changes in magnitudes of the association between the variety in sources of emotional support and thoughts of death and self-harm. Finally, we tested the following interaction terms: gender \times variety in sources of emotional support and race/ethnicity \times variety in sources of emotional support.

All statistical estimates were weighted, using the recommended NHANES sampling weight, to ensure representativeness of the US population. Statistical significance was tested at the $\alpha = 0.05$ level, using *F*-tests and adjusted Wald tests.

All data analyses were performed using the Stata software package version 16 (LLC, 2019). We used publicly available, de-identified data. As such, this study was exempt from Institutional Review Board approval.

RESULTS

Table 1 describes weighted sample characteristics. A majority of respondents were non-Hispanic Whites, were married, and completed high school education or more. At the time of survey (2005–2008), approximately 2.6% of US older adults had endorsed thoughts of death or self-harm in the past two weeks. Hispanic older adults were more likely to have endorsed thoughts of death or self-harm over the past two weeks than their counterparts.

Spouse, daughter, and son were the main sources of emotional support among the US older adults. Non-Hispanic Black older adults were less likely to endorse a spouse as a source of emotional support and more likely to receive emotional support from non-traditional sources than their counterparts. Hispanic older adults were less likely to have a source of emotional support than their non-Hispanic counterparts.

Table 2 presents results from weighted multiple logistic regression models. Each additional category of emotional support was associated with a 36% reduction in odds for thoughts of death and self-harm over the past two weeks after controlling for demographic, socioeconomic, and clinical characteristics.

Figure 1 illustrates varying magnitudes of the association between the variety of sources of emotional support and thoughts of death and self-harm across different gender and racial/ethnic groups. In all three racial/ethnic subgroups of older women and non-Hispanic Black older men, an increase in the variety of sources of emotional support was associated with decreased risk for thoughts of death and self-harm. However, for non-Hispanic White older men and Hispanic older men, an increase in the variety of emotional support was associated with increased risk for suicide ideation.

DISCUSSION

The first key finding of our study is that an additional category of sources of emotional support was associated with an approximately 36% lower risk for thoughts of death or self-harm in the past two weeks, after controlling for various sociodemographic and clinical covariates. Our findings are consistent with existing literature that shows greater emotional support is protective against suicidal ideation (Chang et al., 2017; Cheng et al., 2006; Fässberg et al., 2012). There may be several reasons for why more diverse sources of emotional support are associated with decreased risk for thoughts of death and self-harm in the past two weeks. First, receiving emotional support from more diverse categories may increase the quantity of social support, therefore reducing feelings of isolation, strengthening connectedness, and reducing suicidal ideation. Second, different categories of social relationships may offer qualitatively distinctive emotional benefits to elderly persons. Finally, having more categories of emotional support may increase the stability of the emotional support system. In other words, more diverse sources of emotional support may function as an emotional safety net. For example, when there is a disruption in one source of emotional support (e.g., death of spouse), another source of emotional support (e.g., friend) may step up and help the older adult to cope with such disruption. Thus, older adults with various sources of emotional support may be able to address their emotional needs better than those who rely on fewer social connections.

TABLE 1. Sample Characteristics.

	Total Sample			Non-Hispanic white			Non-Hispanic black			Hispanic		
	Total (n = 3,114)	Men (n = 1,572)	Women (n = 1,542)	Total (n = 1,846)	Men (n = 959)	Women (n = 887)	Total (n = 644)	Men (n = 325)	Women (n = 319)	Total (n = 624)	Men (n = 288)	Women (n = 336)
Thought of death or self-harm over the past 2 weeks	2.60%	2.62%	2.58%	2.31% ^{††}	2.21%	2.39%	3.31% ^{††}	3.98%	2.85%	5.65% ^{††}	6.71%	4.79%
Social support profile												
Have an emotional support	93.3%	92.12%	93.79%	93.69% ^{†††}	92.74%	94.50%	92.38% ^{†††}	91.89%	92.72%	84.82% ^{†††}	83.59%	85.83%
Variety in emotional support	1.51	1.43 ^{***}	1.59 ^{***}	1.48 ^{†††}	1.40	1.55	1.85 ^{†††}	1.70	1.96	1.54 ^{†††}	1.50	1.57
Sources of emotional support												
Spouse	49.20%	64.35% ^{***}	36.59% ^{***}	51.77% ^{†††}	66.50% ^{***}	39.26% ^{***}	30.26% ^{†††}	49.56% ^{***}	16.86% ^{***}	40.75% ^{†††}	53.29% ^{***}	30.51% ^{***}
Daughter	30.73%	20.60% ^{***}	39.15% ^{***}	29.21% ^{†††}	19.15% ^{***}	37.74% ^{***}	38.42% ^{†††}	26.00% ^{***}	47.04% ^{***}	40.75% ^{†††}	33.96% ^{***}	46.28% ^{***}
Son	21.32%	16.49% ^{***}	25.34% ^{***}	20.46% ^{†††}	15.66% ^{***}	24.53% ^{***}	24.16% ^{†††}	18.78% ^{***}	27.89% ^{***}	29.22% ^{†††}	25.28%	32.43%
Siblings	11.32%	8.56% ^{***}	13.62% ^{***}	9.70% ^{†††}	7.09% ^{***}	11.92% ^{***}	25.42% ^{†††}	22.01%	27.78%	13.49% ^{†††}	11.74%	14.91%
Friends	24.33%	20.84% ^{**}	27.23% ^{**}	24.62% ^{††}	20.91% [*]	27.77% [*]	27.65% ^{††}	26.93%	28.15%	15.52% ^{††}	11.89%	18.48%
Others	32.39%	27.97% ^{***}	36.07% ^{***}	31.77% ^{†††}	27.63% [*]	35.28% [*]	42.99% ^{†††}	36.05% [*]	47.81% [*]	25.91% ^{†††}	22.27%	28.88%
Demographic characteristics												
Age (top coded at 80)	70.18	70.00	70.52	70.52 ^{†††}	70.20	70.79	69.27 ^{†††}	68.87	69.54	68.45 ^{†††}	68.66	68.29
Marital Status												
Married/cohabiting	62.95%	76.77% ^{***}	51.45% ^{***}	65.30% ^{†††}	78.34% ^{***}	54.24% ^{***}	42.95% ^{†††}	62.06% ^{***}	29.69% ^{***}	58.96% ^{†††}	73.67% ^{***}	46.94% ^{***}
Widowed	21.63%	9.60% ^{***}	31.64% ^{***}	20.97% ^{†††}	9.10% ^{***}	31.05% ^{***}	28.77% ^{†††}	16.12% ^{***}	37.56% ^{***}	20.54% ^{†††}	8.13% ^{***}	30.66% ^{***}
Divorced/separated	12.41%	10.38% ^{***}	14.11% ^{***}	11.00% ^{†††}	9.30% ^{***}	12.45% ^{***}	22.65% ^{†††}	17.84% ^{***}	25.98% ^{***}	17.28% ^{†††}	15.88% ^{***}	18.43% ^{***}
Never married	3.01%	3.26% ^{***}	2.80% ^{***}	2.73% ^{†††}	3.26% ^{***}	2.27% ^{***}	5.63% ^{†††}	3.97% ^{***}	6.77% ^{***}	3.23% ^{†††}	2.32% ^{***}	3.97% ^{***}
Completed high school	75.39%	75.78%	75.07%	80.25% ^{†††}	80.22%	80.27%	53.69% ^{†††}	54.11%	53.39%	39.46% ^{†††}	41.52%	37.79%
Living in poverty	8.06%	6.75% [*]	9.15% [*]	5.46% ^{†††}	4.60%	6.19%	20.29% ^{†††}	16.74%	22.75%	26.44% ^{†††}	24.02%	28.41%
Health-related characteristics												
PHQ-8 score	2.45	1.95 ^{***}	2.84 ^{***}	2.39 [†]	1.93	2.79	2.60 [†]	1.92	3.08	2.86 [†]	2.36	3.26
Charlson comorbidity index	9.95	1.03	0.96	1.01 ^{†††}	1.05	0.98	1.01 ^{†††}	1.11	0.94	0.70 ^{†††}	0.64	0.94
Have a memory problem	10.24%	9.65%	10.74%	9.64%	9.29%	9.93%	13.69%	10.45%	15.95%	13.63%	13.56%	13.69%

Note. Statistical Significance of Group Differences Between Men and Woman: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Statistical Significance of Group Differences among Racial Groups: † $p < 0.05$, †† $p < 0.01$, ††† $p < 0.001$.

Statistical significance of group differences between men and women, and among three racial group were tested using Adjusted Wald-tests.

TABLE 2. Weighted and Adjusted Associations between the Variety of Sources of Emotional Support and Suicidal Ideation in Older Adults.

	Model 1	Model 2	Model 3	Model 4	Model 5
Suicidal ideation (OR, 95% CI)	0.52 (0.35, 0.79)***	0.54 (0.37, 0.78)***	0.58 (0.40, 0.84)**	0.64 (0.46, 0.88)**	0.64 (0.46, 0.89)**
Incremental category of sources of emotional support					
Demographic characteristics					
Age		1.04 (1.00, 1.07)*	1.04 (1.00, 1.07)*	1.06 (1.02, 1.10)***	1.06 (1.02, 1.10)***
Women (ref: men)		1.04 (0.65, 1.68)	0.94 (0.55, 1.62)	0.65 (0.35, 1.21)	0.68 (0.36, 1.27)
Race/ethnicity (ref: non-Hispanic White)					
Non-Hispanic Black		1.66 (0.96, 2.87)	1.24 (0.67, 2.27)	1.26 (0.64, 2.48)	1.23 (0.62, 2.45)
Hispanic		2.71 (1.5, 4.81)***	2.07 (1.05, 4.09)*	2.11 (0.95, 4.69)	2.31 (1.03, 5.16)*
Marital Status (ref: married)					
Widowed			1.33 (0.69, 2.55)	1.42 (0.68, 2.96)	1.47 (0.71, 3.02)
Divorced/separated			1.93 (0.91, 4.10)	1.52 (0.64, 3.64)	1.56 (0.65, 3.77)
Never married			3.37 (1.28, 8.88)*	3.92 (1.25, 12.26)*	4.13 (1.32, 12.95)*
Socioeconomic characteristics					
Completed high school			0.89 (0.51, 1.58)	1.17 (0.63, 2.18)	1.22 (0.64, 2.30)
Living in poverty			2.10 (1.01, 4.36)*	1.57 (0.72, 3.46)	1.69 (0.76, 3.75)
Health-related characteristics					
PHQ8score				1.33 (1.28, 1.39)***	1.32 (1.26, 1.38)***
Charlson comorbidity index scores					1.23 (1.05, 1.45)*
Have memory problem					1.11 (0.51, 2.40)

Note. * $p < 0.05$ ** $p < 0.01$. *** $p < 0.0001$. Adjusted Wald test were used.

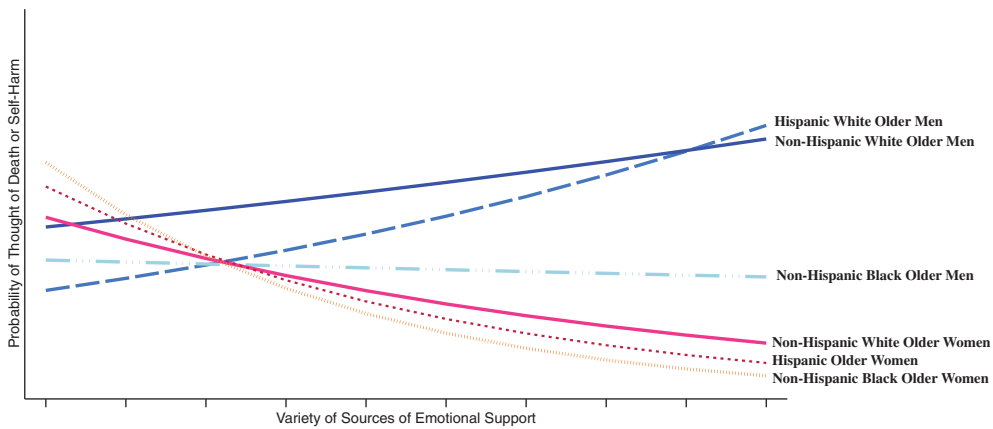


FIGURE 1. Differential magnitudes of the association between the variety in sources of emotional support and risk for suicidal ideation.

Our second finding is that the magnitudes of the association between thoughts of death and self-harm and the variety of sources of emotional support vary across different gender and racial/ethnic subgroups. Among older women, increases in the variety of sources of emotional support were associated with decreases in thoughts of death and self-harm. On the other hand, for non-Hispanic White older men and Hispanic older men, increases in the variety of emotional support were associated with increases in risks for suicide ideation. In contrast, among non-Hispanic Black older men, increases in the variety of sources of emotional support were associated with decreases in thoughts of death and self-harm. As mentioned previously, we hypothesized that gender and race/ethnicity would modify the association between the variety of sources of emotional support and the thoughts of death and self-harm. However, the directionality of these associations was unexpected and needs more research to confirm if results of the current study can be replicated with other samples.

As previously mentioned, we saw significant gender and cultural variations in emotional support profiles. This finding is consonant with previous research studies that found variations in social support among diverse groups of older adults (Gallant, Spitze, & Grove, 2010; McLaughlin, Vagenas, Pachana, Begum, & Dobson, 2010). In the current study, while spouses were the most frequent source of emotional support for older men, older women enjoyed more diverse sources of emotional support. This may be due to the longer life expectancy of women compared to men. In the absence of husbands, widows may seek emotional support from elsewhere. While daughters are significant sources of emotional support for older adults, we found that sons are also important sources of emotional support for older adults.

Non-Hispanic Black older adults were more likely to receive emotional support from nontraditional sources such as other relatives, parents, neighbors, and church. This is consistent with existing research on the social processes unique to Black communities (Chatters, Taylor, Lincoln, Nguyen, & Joe, 2011; Griffin-Fennell & Williams, 2006; Rasic, Robinson, Bolton, Bienvenu, & Sareen, 2011; Robins & Fiske, 2009). Therefore, insisting on first-degree kinship to define “family” when implementing suicide prevention programs involving social support systems may alienate populations where

nontraditional family structures are common. Considering that a sizable proportion of US older adults live alone and/or without family support, researchers and health care providers can further explore ways to activate non-kin support systems in efforts to reduce suicide risk in this group. For example, churches and religious communities may be an under-explored non-kin support system for older adults. Additionally, the importance of church life in the Black community has been well documented (Blank, Mahmood, Fox, & Guterbock, 2002). Therefore, churches and religious communities could serve as places for health services delivery or for suicide surveillance programs.

Receiving emotional support from multiple sources may reduce caregiver burden for older adults with depression. Because caring for an individual with depression can be emotionally taxing to caregivers, it may also be beneficial to both patients and their caregivers when such responsibility is shared among several caregivers. Thus, when an older adult experiences family conflict, having another source of emotional support may mitigate or soften the impact of such conflict.

Our study has several limitations. First, due to its cross-sectional nature, we cannot draw causal inferences. Second, we were unable to examine how changes in emotional support over time might influence the severity of suicidal ideations. Harrison et al. (2010) previously reported that prolonged interpersonal difficulties are associated with greater risk for suicide in older adults. Third, although greater diversity in emotional support sources may reflect a greater quantity of social support, we were not able to examine the intensity of emotional support with NHANES 2005–2008 data. Fourth, due to the wording of the NHANES questionnaire, the sources of emotional support may have been underestimated. Although respondents were instructed to select all that applied among the 13 possible social relationships, some respondents may have selected only one because they were asked “Who was most helpful in providing you with emotional support?” Finally, in this study, PHQ-9 item 9 was used as a proxy for suicide ideation. However, this item assesses passive suicide ideations rather than active suicide ideations. Therefore, using PHQ-9 item 9 as a sole screening measure for suicidal ideation is problematic. However, in non-specialty health care settings such as primary care clinics, implementing a universal screening for suicide risk using a gold standard screening tool may be difficult. Therefore, screening using one question, such as PHQ-9 item 9, may be a useful tool to identify those who requires further screening for suicide risk.

Despite these limitations, the findings of our study advance the field in several ways. First, we found that greater variety in sources of emotional support was strongly associated with lower risk for positive screening for suicidal ideation. The majority of past studies in these areas have used case-control study design (Beautrais, 2002; Harrison et al., 2010), psychological autopsy (Karch, 2011), or special clinical population (George, Blazer, Hughes, & Fowler, 1989). These studies have limited generalizability. We used a large representative sample of community-dwelling US older adults.

Second, we found that gender and race/ethnicity modified the magnitude of the association between the variety of sources of emotional support and thoughts of death and self-harm in the elderly population. These variations could potentially explain why many suicide prevention programs did not show meaningful effects. Future research in this area needs to focus on understanding different dimensions of emotional support (e.g., diversity, quantity, and intensity of emotional support) and on discovering

underlying mechanisms of differential impacts of sociodemographic and clinical characteristics on suicide ideation in diverse older-adult populations. Such effort can inform us who may benefit from what types of interventions.

Third, emotional support is an ambiguous construct, and thus has a limited utility in the real world. Diversity of sources in emotional support, as defined in this study, can be assessed and monitored during clinical and social encounters. For example, encouraging depressed older women to diversify their sources of emotional support may decrease loneliness, promote connectedness, and reduce suicidal thinking.

Finally, there have been significant societal and demographic changes over the past decade. Such social changes might have transformed the meaning and the importance of social relationship among new cohorts of older adults. Therefore, our findings provide a useful roadmap for future studies in order to compare and contrast how late-life suicide prevention programs involving emotional support can be tailored for diverse elderly populations across different cohorts.

CONCLUSION

Receiving emotional support from diverse sources was associated with lower risk for thoughts of death and self-harm in the US older adult populations. Magnitudes of such association varied by gender and depressive symptom severity. Furthermore, sources of emotional support were varied by gender and race/ethnicity. Being aware of such variations may help us to better design individualized and culturally tailored suicide prevention strategies.

AUTHOR NOTES

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DISCLOSURE STATEMENT

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available at <https://www.cdc.gov/nchs/nhanes/index.htm>.

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