Aging & Mental Health, 2017
Vol. 21, No. 2, 173−181, http://dx.doi.org/10.1080/13607863.2015.1099609

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Permissive beliefs and attitudes about older adult suicide: a suicide enabling script?

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(*Received 23 July 2015; accepted 11 September 2015*)

Objectives: In the United States, suicide rates are highest among European American older adults. This phenomenon calls attention to cultural factors, specifically, the suicide beliefs and attitudes of European Americans. Beliefs and attitudes matter in the vulnerability to suicide. As predicted by cultural scripts of suicide theory, suicide is most likely among individuals and in communities where it is expected and is most acceptable. This study examined beliefs about the precipitants of, and protectors against older adult suicide, as well as suicide attitudes, in a predominantly European American community.
Design and Methods: Two hundred and fifty-five older adults (86% European American) and 281 younger adults (81% European American) indicated what they thought were the most likely older adult suicide precipitants and protectors, and their opinion about older adult suicide, depending on precipitant.
Results: Health problems were the most endorsed older adult suicide precipitants. Suicide precipitated by health problems was also rated most positively (e.g., rational, courageous). Older adults, persons with more education, and persons who did not identify with a religion expressed the most favorable attitudes about older adult suicide, across suicide precipitants. Men viewed older adult suicide as more admissible, and women, with more sympathy. Perceived suicide protectors included religiosity among older adults, and supportive relationships among younger adults.
Conclusions: The belief, in this study's predominantly European American community, that older adult suicide is triggered by health problems, together with favorable attitudes about older adult suicide, suggest an enabling older adult suicide script, with implications for suicide risk and prevention.

Keywords: suicide beliefs; suicide attitudes; older adults; physical illness; cultural scripts of suicide

Introduction

In the United States, older adults have high rates of suicide. Individuals aged 60 and older account for one of every five suicide deaths. At the same time, rates of older adult suicide are not uniformly high across ethnicities, and by sex. Rather, they are highest among European American older adults, particularly men (at 31.7 per 100,000, in 2007−2009), and lowest among African American older adults, particularly women (at virtually 0 per 100,000, in 2007−2009)[1] (Karch, 2011, based on National Violent Death Reporting System data for 17 US states).

Aging adversities are not the explanation for the sex and ethnic patterns of US older adult suicide. In the United States, older European American men are the group who experience the most privilege, not the most adversities, prior and in late adulthood, and yet they are the most affected by suicide (Canetto, 1992, 1995, in press). Depression does not account for the ethnic and sex patterns of US older adult suicide either. Rates of depression are typically higher in women than in men in older adulthood (Djernes, 2006). This paradox of older 'White' male suicide (Canetto, 1997, in press)) calls attention to cultural factors.

Among such cultural factors, of particular relevance, are suicide beliefs and attitudes. Beliefs and attitudes matter in the vulnerability to suicide. As predicted by cultural scripts of suicide theory (Canetto, 1992−1993, 1997, 2008, in press; Canetto & Lester, 1998; Canetto & Sakinofsky, 1998), suicidality is most likely among individuals, and in communities where it is expected, and is most acceptable (Andriolo, 1998; Gibb, Andover, & Beach, 2006; Joe, Romer, & Jamieson, 2007; Kleiman, 2015; Renberg, Hjelmeland, & Koposov, 2008; Stein, Brom, Elizur, & Witztum, 1998). The cultural-scripts-of-suicide theory (Canetto, 1997, 2008, in press; Canetto & Lester, 1998; Canetto & Sakinofsky, 1998) builds on the observation that there is substantial and stable variability across cultures in the prevalence of suicidal behaviors as well in the profiles of the persons who typically engage in suicidal behavior (in some cultures it is adolescents, and in other cultures, older adults), the methods, and the narratives (i.e., the beliefs about the causes of suicidal behavior and attitudes about suicide permissibility) of suicidal behavior. In other words, cultures differ in their scripts of suicide. The cultural-scripts-of-suicide theory postulates that individuals draw upon these scripts in determining whether (depending, for example, on cultural beliefs about acceptable conditions for suicide), and then how (e.g., via what method) to engage in suicidal behavior. To make sense of the high rates of older adult suicide among European Americans, it is therefore important to examine beliefs and attitudes about older adult suicide among European Americans.

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A prior study conducted in a predominantly European American community, and with a predominantly European American sample, found that physical illness was believed to be the most likely precipitant of older adult suicide, independent of whether the decedent was female or male (Stice & Canetto, 2008). There is also evidence that European American (or ethnicity unspecified) respondents have more positive attitudes toward suicide when it involves older adults. Specifically, a study found that a 70-year-old's decision to suicide was perceived, by ethnicity-unspecified college students, as 'wiser,' 'stronger,' more 'right,' 'braver,' more 'permissible,' and more 'acceptable' than the same decision by a 45-year-old, especially when the person making the suicide decision was male, and when the evaluator was male (Deluty, 1988−1989b). In another vignette study, ethnicity-unspecified physicians considered suicidal ideation rational and normal for a (fictitious White male) patient aged 78. The physicians in the study were also less willing to use therapeutic strategies with the suicidal 78-year-old patient than with a suicidal 38-year-old patient (Uncapher & Areán, 2000). Furthermore, several studies found that respondents (ethnicity-unspecified or often described by authors as 'Caucasian' or 'mostly Caucasian') considered physical illness or disability the most acceptable reason for suicide even when the decedent was not an older adult (Deluty, 1988−1989a; Droogas, Siiter, & O' Connell, 1982−1983; Hammond & Deluty, 1992; Ingram & Ellis, 1995; LoPresto, Sherman, & DiCarlo, 1994−1995; McAndrew & Garrison, 2007; Range & Martin, 1990) or when the age of the suicide decedent was not specified (King, Hampton, Bernstein, & Schichor, 1996; Singh, Williams, & Ryther, 1986; Sorjonen, 2004−2005).

Past studies also have documented that perceptions of the permissibility of suicide, independent of the circumstances of the suicide, can vary depending on the age (Sawyer & Sobal, 2001; Segal, Mincic, Coolidge, & O'Riley, 2004), education, income, retirement status, ethnicity (Ellis & Range, 1991; Morrison & Downey, 2000; Richardson-Vejlgaard, Sher, Oquendo, Lizardi, & Stanley, 2009; Sawyer & Sobal, 2001), religious affiliation, religiosity (Johnson, Fitch, Alston, & McIntosh, 1980; Sawyer & Sobal, 2001), orthodoxy of religious beliefs, religious devotion (Neeleman, Wessely, & Lewis, 1998), sex (Lewis, Atkinson, & Shovlin, 1993−1994; Lewis & Shepeard, 1992; Marks, 1998−1989; Sawyer & Sobal, 2001; Seidlitz, Duberstein, Cox, & Conwell, 1995; but see Ingram & Ellis, 1995; Parker, Cantrell, & Demi, 1997, for exceptions), and gender conventionality (conventional femininity or masculinity) (e.g., Cato & Canetto, 2003; Dahlen & Canetto, 2002; Ellis & Range, 1988) of the evaluator. Specifically, male, conventionally masculine, 'White,' younger, more educated, higher income, employed, non-religion-affiliated, non-religious-rites attending, low in orthodox religious beliefs, and low in personal-devotion persons have generally more positive attitudes toward suicide (than female, androgynous, 'non-Whites,' older, lower educated, lower income, retired, religiously affiliated, frequent religious-rites attending, high in orthodox religious beliefs, and high in personal devotion persons). Taken together, these findings suggest that European Americans in predominantly European American communities think that older adult suicide is precipitated by a physical illness. There is also consistent evidence that individuals from more privileged groups (e.g., men, the young, and persons higher in socioeconomic status) think that physical illness is a relatively understandable reason for suicide at any age. It is plausible then, but not empirically verified, that older adult suicide under conditions of physical illness would be viewed particularly positively in predominantly European American communities. It is also plausible that, in these communities, individual factors, such as sex and age, would moderate the relationship between suicide precipitant and suicide attitudes.

A limitation of the empirical literature on beliefs and attitudes about older adult suicide is that it includes few studies (Deluty, 1988−1989b; Parker et al., 1997, Sawyer & Sobal, 2001; Segal et al., 2004; Singh et al., 1986; Stice & Canetto, 2008), relative to the empirical literature on beliefs and attitudes about adolescent suicide (e.g., Arnautovska & Grad, 2010; Schwartz, Pyle, Dowd, & Sheehan, 2010) or about suicide in general (e.g., Sawyer & Sobal, 2001). Another limitation of studies of beliefs and attitudes about older adult suicide is that they often relied on college students' samples (Deluty, 1988-1989b; Stice & Canetto, 2008) or had a very small sample (i.e., 54 respondents; in Parker and colleagues' 1997 older adult study), their findings' generalizability therefore being limited.

Current study

The current study examined beliefs and attitudes about older adult suicide among older and younger adults in a predominantly European American community. Building on the method and findings of a prior study of college students' beliefs about older adult suicide (Stice & Canetto, 2008), it was hypothesized that health problems would be perceived as the most likely precipitant of older adult suicide. Based on past findings on the acceptability of illness-related suicide (e.g., Ingram & Ellis, 1995) as well as the evolution of suicide attitudes in the United States (for example, assisted suicide under conditions of terminal illness becoming legal in Oregon in 1997, Oregon Health Authority (n.d.), and more recently in Washington state and Vermont), it was hypothesized that all respondents, older and younger alike, would view older adult suicide precipitated by health problems more positively than older adult suicide triggered by other events. In addition, it was expected that all respondents would view the health-problems-precipitated older-adult suicide as admissible due at least in part to (i.e., as mediated by) their perceptions of illness-related suicide as rational. Participant factors hypothesized, based on theory (e.g., Canetto, 1997; Canetto & Sakinosky, 1998) and past findings, to be associated with more positive views of older adult suicide, independent of believed precipitant, were being older (Segal, Mincic, Coolidge, & O'Riley, 2004), male (e.g., Lewis, Atkinson, & Shovlin, 1993−1994),

describing oneself as conventionally masculine (e.g., Dahlen & Canetto, 2002), reporting lesser religiosity (e.g., Sawyer & Sobal, 2001), and having a history of suicidality (Joe, Romer, & Jamison, 2007). Finally, given that older men have higher suicide rates than older women, it was expected that suicide would be viewed more positively when it involved older men – though it was recognized that evidence on the role of decedent sex in attitudes about suicide is mixed (e.g., Deluty, 1988–1989b and Parker et al., 1997; versus Stice & Canetto, 2008). With regard to protective factors, it was hypothesized that religiosity and supportive relationships would emerge as the most endorsed older adult suicide protectors, consistent with past findings (Stice & Canetto, 2008).

Methods

Participants and recruitment

A total of 536 individuals (255 older adults, M age = 70.95, range 60–95, 62% female; 85.8% European descent; and 281 younger adults, M age = 19.04, range 17– 30, 70% female; 80.8% European descent) participated in the study. Half of the participants reported having experienced suicidal thoughts or behavior at some point in their lives, with older adults less often reporting a history of suicidality than younger adults (χ^2 (1, n = 533) = 30.41, $\varphi = -.24$, $p < .001$). The older adults significantly differed from the younger adults also in terms of the proportion of women (among older adults there were more similar proportions of women and men than among younger adults, where women represented more than two-thirds of the sample) (χ^2 (1, n = 536) = 3.97, φ = .09, p < .05), education (older adults had more education) ($t(308) = -8.61$, $d = -.76$, $p < .001$), and religious affiliation (older adults were more likely to report a religious affiliation) (χ^2 (1, $n = 533$) = 22.28, $\varphi = .20$, $p < .001$).

Younger adults were recruited from a large public university located in a Rocky Mountain community with a predominantly (92%) European-descent population. The younger adults were given classroom credit for their own participation and for supplying contact information for a friend or relative aged 60 or older, who was invited to participate in the study. Older adults were recruited via the student referral system as well as newsletters, announcements, and notices posted at senior serving centers (the latter representing 22% of the total older adult sample).

Stimulus material, procedures, and measures

All participants read a fictitious obituary about J.M., a 71-year-old adult who died of suicide, in randomly assigned female or male version (see Appendix). The obituary was based on a model by Range and Martin (1990), as revised by Stice and Canetto (2008). Initials rather than names were used in the obituary to make it relatively culturally unmarked – because names are culturally – as well as sex-specific. Young adults filled out surveys in a classroom location with a researcher present. Student-referred surveys were returned by the older adults via mail. The rest of the older adult surveys were completed in small groups at senior centers, with a researcher available. The study was approved by all relevant institutional review boards.

Replicating a procedure used by Stice and Canetto (2008), participants were asked to respond to the following question: 'In your opinion, what is the most likely event that led to J.M.'s suicide? (Choose one)' by selecting from a perceived suicide precipitants list developed by Duberstein, Conwell, Conner, Eberly, and Caine (2004). The presumed suicidogenic events in the list represented three categories: health problems (i.e., a severe illness; a terminal illness; need for in-home assistance); interpersonal problems (i.e., the end of an intimate relationship; family discord; terminal illness in a first degree relative; and death of a first-degree relative); and impersonal problems (i.e., retirement or other change in employment; financial troubles; legal difficulties), with an 'other' option also available.

Next, participants were asked to describe their attitudes about older adult J.M.'s suicide. Respondents rated J.M.'s suicide on six, seven-point scales with the end points (1/7) labeled as 'extremely' and the midpoint (4) as 'neither'. The scales were wise/foolish, selfish/unselfish, weak/strong, active/passive, right/wrong, and brave/cowardly. Suicide permissibility and acceptability, and sympathy for the suicide, were also assessed on seven-point rating scales (e.g., 1 = 'not at all permissible'; 7 = 'very permissible'). Some items were reverse scored so that higher scores would consistently indicate a more positive attitude about suicide. Based on previous research on - perceptions of older adult suicide (e.g., Stice & Canetto, 2008), individual attitude items were combined into three subscales representing cognitive/Rational ('wise' and 'right'), affective/Courageous ('strong,' 'brave,' and 'unselfish'), and moral/Admissible ('permissible' and 'acceptable') attitude components. Items were summed, with higher scores representing more Rational (range 2–14), Courageous (range 3–20), and Admissible (range 2–12) attitudes, respectively. Internal consistency was moderate to high for the three subscales (Cronbach's $\alpha = .81$, .73, and .79, respectively). In addition, the moderate correlations between the three subscales (ranging from $r = .50$ to $r = .68$) indicate that the subscales assessed distinct but related attitudes. The combined Rational, Courageous, and Admissible subscales were also merged with the two single-item scales ('sympathy' for the suicidal act, and 'active') to create an overall Attitudes Scale, with scores ranging from 9 to 62 (Cronbach's $\alpha = .85$).

Participants were also asked to respond to the following question: 'In your opinion, what might have best protected J.M. from suicide?' by ranking their top three choices from a list (developed by Stice & Canetto, 2008) of potential suicide-protective factors. The suicide protectors in the list were personal beliefs, religiosity (i.e., religious beliefs, participation in religious activities), good family relationships, good social relationships (i.e., having close friends, social engagement/activities), financial resources, mental health care (i.e., counseling/

Table 1. Participant demographics.

Variable	Younger adults (n = 281)	Older adults (n = 255)
Age	m = 19.04 (SD = 1.63)	m = 70.95 (SD = 8.74)
Sex		
Female	70.1% (197)	62.0% (158)
Male	29.9% (84)	38.0% (97)
Ethnicity		
White/European American	80.8% (227)	85.8% (218)
Other Ethnicity	9.6% (27)	4.3% (11)
Latina/o/Hispanic American	4.3% (12)	2.8% (7)
Asian American	1.1% (3)	2.8% (7)
Native American	2.1% (6)	2.4% (6)
Black/African American	2.1% (6)	2.0% (5)
Religious engagement (yes[a])	61.9% (174)	79.6% (203)
Religious affiliation		
Protestant	21.8% (38)	43.6% (88)
Catholic	23.6% (41)	27.7% (56)
Other Christian, Christian NOS	46.6% (81)	24.3% (49)
Other	0.6% (1)	3.0% (6)
Jewish	4.6% (8)	1.0% (2)
Buddhist, Hindu	1.1% (2)	0.5% (1)
Muslim	1.7% (3)	0.0% (0)
Education (years)	m = 13.40 (SD = 1.11)	m = 15.21 (SD = 3.18)
Suicidality history[b] (yes)	60.9% (171)	36.9% (94)

[a]Attends religious activities at least once a year.
[b]History of suicidal thoughts and behavior.

psychotherapy, psychotropic medication), and physical health care. An 'other' option was also available. Finally, participants were asked to conjecture the ethnicity of the suicide decedent.

Information collected about the study's participants included their age, sex, ethnicity, education, religious affiliation, religious engagement, and history of suicidal thoughts or behavior (collectively referred to as history of suicidality) (see Table 1). The short form of the Personal Attribute Questionnaire (PAQ; Spence, Helmreich, & Stapp, 1973) was used to assess participants' self-perceptions of gender conventionality. The PAQ consists of 24, five-point scale items which load onto two factors: conventional femininity (expressiveness) and conventional masculinity (instrumentality). Responses to the femininity and masculinity subscales are summed, with higher scores representing higher endorsement of conventional femininity or masculinity descriptions, respectively. The PAQ internal consistency has been reported as Cronbach's $\alpha = .70-.80$ (Choi, 2004), which is consistent with its reliability in this sample (Cronbach's $\alpha = .80$ for Femininity; $\alpha = .69$ for Masculinity).

Results

Beliefs about older adult suicide precipitants

The majority of respondents (56.7%) chose health problems ('severe illness, terminal illness, and need for in-home assistance') as the stressor most likely to have precipitated J.M.'s suicide, with many 'other' answers (36.2% of the 'other' responses), also specifically referring to being sick and/or medical diagnoses as likely precipitants. An interpersonal problem ('death of a first degree relative') and an impersonal problem ('financial troubles') were the next most endorsed suicide precipitants (18.5% and 6.0%, respectively). Responses about likely suicide precipitant did not vary by the sex or the ethnicity of the participant. Age of participants made a difference, however, with older adults more likely to view health problems as a suicide precipitant than younger adults (χ^2 (1, n = 534) = 24.76, φ = .22, p < .001). In addition, participants who received the obituary featuring an older woman were more likely to choose health problems as a suicide precipitant than those who received the male version of the obituary (χ^2 (1, n = 534) = 5.21, φ = .10, p < .05), though the effect size was small.

With regard to J.M.'s ethnicity, most respondents presumed J.M. to be European American (73.9%), with many 'other' answers also referring to J.M. as 'White' or 'Caucasian' (37.8% of 'other' responses). Attributions about J.M.'s ethnicity varied by participant's sex and ethnicity, with female and European American participants most likely to say that J.M. was European American (χ^2 (1, n = 460) = 4.03, φ = .09, p < .05, and χ^2 (1, n = 460) = 6.00, φ = .20, p < .05, respectively). There were no differences in speculations of the suicide decedent's ethnicity by sex of the decedent or the presumed suicide precipitant.

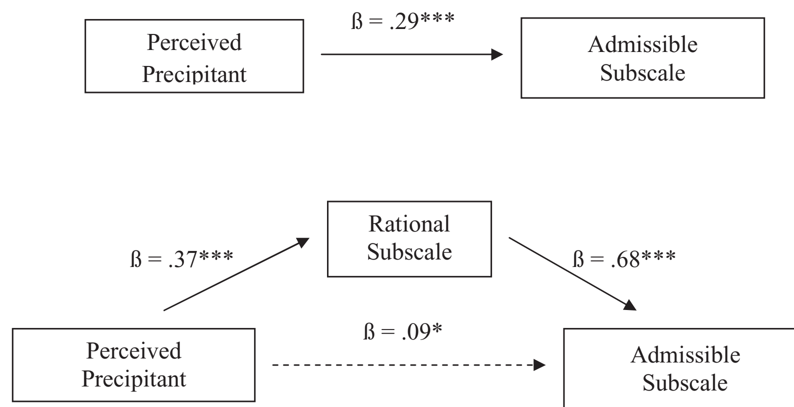

Figure 1. Path model showing the associations between perceived suicide precipitant and admissibility as partially mediated through views of suicide rationality.
Note: Sobel test: $z = 7.67^{***}$; $^{*}p < .05$, $^{***}p < .001$.

Attitudes about older adult suicide precipitated by health problems

As hypothesized, there was a main effect of perceived suicide precipitant on participants' attitudes about older adult suicide. Specifically, respondents who identified health problems as the most likely suicide precipitant tended to evaluate older adult suicide in more positive terms. Compared to other presumed suicidogenic events (e.g., death of a first-degree relative, financial troubles), suicide in response to health problems was viewed as significantly more rational ($F(1, 452) = 65.63$, $p < .001$, $\eta^2 = .13$), courageous ($F(1, 448) = 34.93$, $p < .001$, $\eta^2 = .07$), and admissible ($F(1, 520) = 32.86$, $p < .001$, $\eta^2 = .06$). There were no significant interactions in the effect of perceived suicide precipitant on participants' suicide attitudes by sex of the suicide decedent, or by participants' age, sex, or ethnicity.

To examine whether viewing the suicide as rational mediated the relationship between perceived precipitant and perceptions of the admissibility of older adult suicide, four regression equations were conducted. The significance of indirect effects was tested using a macro developed by Preacher and Hayes (2004) based on the Sobel test (1982). Viewing the suicide as rational partially mediated the relationship between perceived precipitant and perceptions of suicide admissibility, with the effect of precipitant (namely, health problems) on judgments of suicide admissibility significantly reduced by the addition to the model of the rational subscale scores ($z = 7.67$, $p < .001$). However, there was still a significant relationship between precipitant and admissibility attitudes after controlling for perceived rationality of the suicide ($\beta = .09$, $p < .05$). Model results are presented in Figure 1.

Attitudes about older adult suicide independent of precipitant

To examine the relationship between participant characteristics and attitudes about older adult suicide, a hierarchical multiple regression was conducted. Because viewing the suicide as due to health problems was a significant predictor of attitudes and beliefs about older adult suicide, perceived precipitant was entered on the first step. All participant variables found to be significant predictors of the attitudes subscale scores were entered into the second step of the model (i.e., age, sex, PAQ femininity scores, level of education, religious affiliation, religious engagement, and history of suicidal thoughts or behavior). Sex of the suicide decedent was also added to the model because it was a significant predictor of attitudes. Variables that were not significant predictors of attitudes in previous subscale analyses were not included in the model. Overall, the model was significant (F (9, 411) = 11.69, $p < .001$, $R^2 = .20$). Of the participant characteristics investigated, age ($\beta = .13$, $t(421) = 2.51$, $p < .05$), education ($\beta = .10$, $t(421) = 2.02$, $p < .05$), religious affiliation ($\beta = -.18$, $t(421) = -3.16$, $p < .01$), and history of suicidality ($\beta = .12$, $t(421) = 2.58$, $p < .05$) were significant individual predictors above and beyond perceived precipitant. In other words, older adults, those with more education, those who did not identify with a religion, and those with a history of suicidality, viewed the older adult suicide more favorably than younger adults, those with less education, those indicating a religious affiliation, and those without a history of suicidality, respectively. See Table 2 for full model results.

Participants' age and sex were further examined in relation to views of older adult suicide as rational, courageous, or admissible. Suicide attitudes were regressed on participant age, sex, and the interaction term using hierarchical regression with precipitant entered on the first step, age and sex on the second step, and the interaction term on the third step. Consistent with the findings above, after controlling for precipitant, older adults tended to view the suicide as more courageous ($\beta = .16$, $t(452) = 3.47$, $p < .01$) than younger adults, with scores trending for rational ($\beta = .08$, $t(456) = 1.77$, $p < .10$). Participant sex significantly predicted views of the older suicide as admissible ($\beta = .13$, $t(524) = 3.05$, $p < .01$), with men ($M = 7.41$, SD = 3.65) more likely than women ($M = 6.54$, SD = 3.54) to consider older adult suicide as admissible. Analyses for the two single-item attitude scales (i.e., active and sympathy) were also conducted, with no significant effects of respondent age on either item. However, after

Table 2. Attitudes toward older adult suicide regressed on perceived suicide precipitant, participant characteristics, and decedent characteristics ($n = 421$).

Variable	B	SE (B)	β (beta)	F	R^2	ΔR^2
Step 1	–	–	–	57.15***	0.12	–
Participant precipitant	6.94	0.92	.35***	–	–	–
Step 2	–	–	–	11.69***	0.20	.08***
Participant precipitant	6.15	0.92	.31***	–	–	–
Participant characteristics						
Age	2.72	1.08	.13*	–	–	–
Sex (Male)	0.77	1	.04	–	–	–
Education	0.41	0.21	.10*	–	–	–
Religious affiliation[a]	−3.75	1.19	−.18**	–	–	–
Religious engagement	0.77	1.43	.03	–	–	–
History of suicide	2.4	0.93	.12*	–	–	–
PAQ femininity	−0.13	0.11	−.05			
Decedent characteristics						
Sex of suicide decedent (male)	−0.3	0.89	−.02			

Note: Variables not included in the model due to their non-significant effects in subscale analyses include Participant's Ethnicity and PAQ Masculinity, and Perceived Ethnicity of the suicide decedent.
[a]Affiliation with at least one religious group; ***$p < .001$, **$p < .01$, *$p < .05$.

controlling for precipitant, women were significantly more likely than men to view the older adult suicide with sympathy ($\beta = -.09$, $t(528) = -2.04$, $p < .05$). There were no significant interactions between participant age and sex on any of the attitudes toward older adult suicide (F'$s_{\text{change}} = 0.13-2.35$, ΔR^2's $< .01$, p's $> .05$).

With regard to the relationship between gender conventionality and suicide admissibility, women who were less likely to endorse conventionally feminine attributes viewed older adult suicide as more admissible than women who were more likely to endorse conventional femininity attributes ($r = -.18$, $p < .001$). This continued to be true even after holding precipitant constant ($\beta = -.20$, $t(343) = -3.98$, $p < .001$). Conventional femininity was unrelated to other suicide attitudes (i.e., rational, courageous, as well as active and sympathy) for women, and unrelated to any attitudes for men. Attitudes toward older adult suicide were not associated with respondents' scores on conventional masculinity for either women or men.

Beliefs about older adult suicide protective factors

Having good family relationships was believed to be the most important suicide protector (37.9%). Religiosity was the next most endorsed (21.1%) suicide protector, with a large percentage of 'other' responses also referring to faith or religious beliefs (e.g., viewing suicide as a sin). Other factors judged to play a preventative role in suicide included personal beliefs (e.g., valuing life; 9.3%), good social relationships (6.7%), mental health care (6.7%), physical health care (5.6%), and financial resources (1.7%). Perceived suicide protectors varied significantly by age of participant (χ^2 (6, $n = 477$) = 29.20, $p < .001$, $\varphi_{\text{Cramer}} = .25$), with older adults more likely to rank religiosity as most protective, and younger adults more likely to rank good family relationships and good social relationships as primary resources against suicide. Beliefs about suicide protective factors did not vary by sex or ethnicity of the participant nor by sex or assumed ethnicity of the older adult suicide decedent.

Participants' ideas about what would protect J.M. from suicide differed based on what they thought caused J.M.'s suicide in the first place (χ^2 (6, $n = 477$) = 35.83, $p < .001$, $\varphi_{\text{Cramer}} = .27$). Those who thought J.M. suicided in response to health problems were more likely to list personal beliefs and physical health care as the most relevant protectors. In contrast, good family relationships were perceived to be most protective for older adults who took their lives for a reason other than health problems.

Discussion

This study examined beliefs and attitudes about older adult suicide among older adults and a comparison group of younger adults, in a predominantly European American sample.

The main finding with regard to beliefs was that older adult suicide was most often assumed to be a response to health problems (i.e., severe illness, terminal illness, or need for in-home assistance). A key attitude finding was that the respondents who perceived older adult suicide to be precipitated by health problems viewed it more positively than respondents who perceived the suicide to have been precipitated by other stressors (e.g., financial problems or death of a spouse). More specifically, individuals viewed older suicide under situations of ill health as more rational (wise/right), more courageous (brave/strong/unselfish), and more admissible (permissible/acceptable) than suicide under other conditions. The latter finding was true across participants' characteristics (i.e., independent of their age and sex), and independent of the sex of the older adult suicide decedent. Views of older adult suicide as rational partially mediated the relationship between perceived precipitant and attitudes that older adult suicide

is admissible. In other words, respondents viewed illness-precipitated suicide as admissible in part because they viewed it as rational. Furthermore, when attitudes toward older adult suicide were examined across suicide precipitants, more positive attitudes were recorded among persons (women and men) who were older, had more education, did not identify with a religion, and reported a history of suicidality. Older adults themselves tended to perceive older adult suicide as more courageous than younger adults. Men viewed older adult suicide as more admissible than women did (especially women higher in conventional femininity), and women viewed it with more sympathy. Perceived suicide protectors included religiosity and supportive relationships, with older adults more likely to list the former, and younger adults more likely to list the latter. Mental health care was believed to play a preventative role by exceedingly few respondents (6.7%). Respondents who believed that older adult suicide was precipitated by health problems were more likely to choose personal beliefs and physical health care as relevant protective factors. In contrast, supportive family relationships were perceived as more important protective factors when the older adult suicide was believed to have been precipitated by factors other than health problems.

This study's findings on beliefs and attitudes about older adult suicide in a predominantly European American community replicate and extend those of prior studies. They confirm, among older adults, the observation, previously documented among predominantly European American college students (Stice & Canetto, 2008), of a belief in the illness theory of older adult suicide. The cultural nature of the association of older adult suicide with illness is illustrated by a comparison of the findings of this study with the findings of a Taiwanese study of beliefs about the causes of older adult suicide. Lack of filial piety was the top (53%) reason for older adult suicide given by older adult Taiwanese respondents (Chen, Tsai, Ku, & Lee, 2014).

This study's findings also make visible a dominant attitude, in predominantly European American communities, that older adult suicide under conditions of illness is relatively acceptable. The fact that men and women in this study expressed similarly favorable views of older adult suicide (by men and women) with health problems, and, at the same time, men are more likely than women to act on this permissive older adult suicide script (as documented by the fact that men represent the majority of older adult suicides), may have to do with other aspects of the European American script of older adult suicide. Among European Americans, suicide is considered masculine behavior (see Canetto, 1997, for a review). Men who take their own life are judged less negatively than women who do the same. For example, a study found that men who killed themselves were assumed to be more emotionally adjusted than women who killed themselves, independent of precipitant (Lewis & Shepeard, 1992). There is also evidence that older white male suicide is presented as an act of masculine courage and self-determination (Canetto, 1997). As noted by Stice and Canetto (2008), for men, the appeal of the physical-illness suicide script may be amplified by the association of masculinity with physical autonomy and physical integrity (Spector-Mersel, 2006). European American men may be more impacted by dominant ideologies of suicide and masculinity than ethnic minority men because European American men may perceive these ideologies as relevant to their self-image (Connell & Messerschmidt, 2005).

Several methodological features are important to consider in the interpretations of this study's findings. This study focused, by design, on the beliefs and attitudes of mostly European Americans in a predominantly European American community, a group at high suicide risk, but understudied with regard to its cultural scripts of suicide. On the one hand, the ethnic homogeneity of the sample was an asset because of this study's intentional focus on the older adult suicide scripts of European-descent individuals in a mostly European American community. A limitation of this study, however, is that the older adults who participated in this study were well educated – which likely reduced the variability of their suicide attitudes and beliefs. Another limitation is that the older adult respondents were predominantly female. The strength of this study is that it used a cultural perspective to understand suicide in a culturally understudied group, European-descent men (Canetto & Cleary, 2012). This choice recognizes that every suicidal act is culturally grounded and regulated (Canetto & Lester, 1998; Hjelmeland, 2011), and also that culture is something everyone 'has' and does (Corin, 1996).

To further explore the cultural scripts model (Canetto, 1992–1993, 1997; 2008, in press; Canetto & Lester, 1998; Canetto & Sakinofsky, 1998), and to test its explanatory potential, we recommend replicating this study in communities (such as predominantly African American communities) where older adults who have low suicide rates, and also oversampling for male participants. To date, there are no studies of older African Americans' perceptions of older adult suicide's precipitants and protectors. There is, however, evidence that older women of African descent have more negative attitudes toward suicide than older women of European descent. African-descent older women also obtain higher scores on an aspect of intrinsic religiosity (as measured by items such as 'My faith sometimes restricts my actions') that is relevant to suicide prevention (Bender, 2000).

Overall, this study's findings give indication of a dominant attitude, in a predominantly European American community, that suicide is admissible – if not rational – under conditions of physical illness. This attitude may contribute an enabling individual mind-set as well as an enabling social response, with implications for suicide risk and prevention. In predominantly European American communities, older adults with health problems may see themselves, or may be seen by others, as experiencing a situation for which suicide is a reasonable, and perhaps even a moral response. Considering that serious health problems are more common among older than among younger adults, cultural beliefs about the rationality of suicide under condition of physical illness may be particularly impactful on older adults. These suicide beliefs may resonate more with older European descent men than with

older adults of other ethnic backgrounds or with older women, given the association, among European-descent men, between masculinity and physical vigor. In light of the suicide script findings from this and other studies, and the evidence on the relationship between suicide acceptability and actual suicidal behavior, we recommend that suicide prevention programs targeting men, particularly European American older men, include education about dominant scripts of masculinity, aging, illness, and suicide.

Note

1. Rates were not reported for African American women because the total number of decedents was <20.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

Sample obituary

J.M., a [city] resident, was born on August 24th, 1932 and died on July 8th, 2004 at the age of 71. He is survived by his family, also of [city, state]. Services will be held for him at 2:00 p.m., July 10th at the [city] Funeral Home Chapel. Interment will follow at the [city] Memorial Gardens.

Note: Participants were randomly assigned female or male versions of this obituary

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