Introduction

Suicide is a leading cause of death among young adults (CDC, 2005; WHO Statistical Information System, 2008), and it is one of the most serious public health challenges worldwide. Few would discount the importance of attempting to reduce the rates of suicide in this age group. Directives set forth by the National Strategy of Suicide Prevention (U. S. Public Health Service, 2001) strongly advocated the use of informational campaigns. Public service announcements (PSAs) represent one approach that has been used in the hopes of reducing the incidence of suicide. A public service announcement (PSA) is a noncommercial advertisement, that typically broadcasts on radio or television intended to publicize an issue of relevance or interest to the public. Ideally, PSAs modify public attitudes and behavior by raising awareness about specific issues and communicating key information (Ajzen & Fishbein, 1980). These universal suicide-prevention approaches are typically promoted by community and government organizations.

This study evaluates a PSA campaign developed by a grassroots community agency (Suicide Awareness Voices of Education; SAVE). Based on the principals of social marketing (Kotler & Anderson, 1996; Kotler & Lee, 2007; Smith, 2006), the suicide-prevention messages were crafted to advance identified goals, promote awareness that suicide is preventable, and provide information that help is available. This approach to suicide prevention was intended for a broad audience, including those suffering from depression and contemplating suicide. However, the target audience for this campaign was friends, girlfriends, and spouses close to a depressed or suicidal male (males being at highest risk for suicide; CDC, 2005). In this study we employed the methodology used for adolescents in a previous study conducted in collaboration with SAVE (i.e., Klimes-Dougan, Lee, & Houri, 2009). Here, we extended that work to examine potential benefits and untoward effects of this PSA campaign for a primarily female sample of young adults.

There is some preliminary support for the benefits of PSAs used in suicide prevention. A few recent published reports evaluated community-wide suicide-prevention PSA campaigns. For example, Daigle et al. (2006) evaluated suicide-prevention efforts that featured several weeks of not only radio and video postings in the media, but also a billboard slogan throughout the community that targeted at adult males: Pain is Not Gender-Specific – Yet 80% of Suicides are Committed by Males. A telephone survey indicated that the men exposed to PSA were more knowledgeable about the rates of suicide and resources for help than were nonexposed...
men. Some efforts to evaluate PSAs have focused on assessing help-seeking attitudes and behavior. Increases in mental health contacts (e.g., emergency room visits) following PSA campaigns were noted in several studies (Daigle et al., 2006; Dyck, 1993; Daigle, Brisoux, Raymond, & Girard, 1998, as cited in Daigle et al., 2006). Oliver et al. (2008) evaluated placards, posters, and billboards that featured the message Suicide is Preventable. Its Causes are Treatable. Consistent with their predictions, the pattern of calls to emergency mental health services was more likely to be during, rather than before or between phases of the campaign. These findings have generally been interpreted as meeting the desired campaign goals by increasing requests for help for those in need.

Suicide prevention efforts do not always serve their intended goals and may have some unintended adverse consequences (Chambers et al., 2005; Davis, Sandoval, & Wilson, 1988; Gould, Greenberg, Velting, & Shaffer, 2003). Some have suggested that the risks associated with suicide-prevention efforts are minimal. Kalafat (2003) noted that in 20 years of prevention research there have been no documented cases that suicide-prevention efforts were linked to youth suicide. While most would suggest that it is unlikely that iatrogenic effects of suicide-prevention messaging are a typical response, some have raised concerns that the format and content of some suicide-prevention programs might inadvertently stimulate imitation in vulnerable youths (Shaffer, Garland, Gould, Fisher, & Trautman, 1988; Velting & Gould, 1997). Daigle et al. (2006) raised the possibility that the differences observed in increased help-seeking behavior associated with PSA exposure may be considered as much a positive effect (increase in requests for help) as a negative one (increase in suicidal behavior). Indeed, a number of studies have documented that depressed or suicidal adolescents often fail to find suicide-prevention efforts beneficial — and in some cases these efforts may actually thwart their willingness to reach out to others (e.g., Shaffer et al., 1990). This work has yet to be extended to other age groups, although it is possible that the information conveyed may inadvertently promote some untoward effects in vulnerable young adults.

Furthermore, problems may result from implying that suicidal thoughts and behaviors are typical or normative (Chambers et al., 2005; Cialdini, 2003). For young adults, the media is a primary source of information about suicide, and people in this age group typically overestimate the incidence of suicide (Beautrais, Horwood, & Fergusson, 2004). It is possible that, when exposed to information about suicide, young adults come to believe that this behavior is a common response to life stressors rather than a rare event associated with severe psychopathology (Cialdini). When PSAs highlight the link between depression and suicide, occasionally there may be unintended consequences (Chambers et al., 2005). We have also learned from portrayals of suicide in the media that efforts to capture the attention of the public have at times resulted in excessively sensationalized depictions of suicide (Gould, Jamieson, & Romer, 2003; Shaffer et al., 1988; Shoal et al., 2005). Balancing how best to present information is an ongoing challenge for the field.

Many methodologies are used to assess suicide-prevention PSAs. Many of the studies reviewed are advantageous in that they provide real-world exposure; but some methodologies employed also pose a number of important challenges including the lack of adequate control conditions and low exposure rates. Daigle et al. (2006) reported 20% of those contacted recalled exposure to a PSA. Using these methodologies, it may not be feasible to obtain critical information regarding interpretation of these suicide-prevention messages (e.g., telephone interviews must be sufficiently brief to elicit cooperation). Additional efforts are needed to provide a more comprehensive understanding of what aspects of prevention messaging may be most effective. Simulation studies provide a potentially complimentary approach to evaluating the possible benefits and risks associated with PSAs (similar approaches been used to evaluate other health behaviors, e.g., Lorch et al., 2006).

Klimes-Dougan et al. (2009) conducted a study to evaluate exposure to simulated PSAs with adolescent participants (average age 15 years). Participants were randomly assigned to one of three conditions: a TV advertisement, a billboard, or no information. They then were asked to report on (a) their perceived utility of prevention efforts, (b) their knowledge of depressive symptoms, (c) their normative beliefs of suicidal risk, and (d) their coping attitudes. The results suggest that viewers of the simulated TV ad reported more accurate knowledge of symptoms of depression and were more likely to perceive PSA suicide-prevention efforts as useful. However, some concerns raised about possible untoward effects of PSAs were also supported in this study. Specifically, high-risk participants who viewed a PSA (either a simulated billboard or a TV ad) were less likely to favor help-seeking attitudes than those in the no-information controls. After viewing the billboard, the adolescents also tended to report higher levels of maladaptive coping and rated PSAs as less useful. No group differences were noted for adolescents’ estimates of suicidal risk as a result of one-time exposure to the suicide-prevention PSAs (normative beliefs). The aim of this study is to replicate and extend the findings of Klimes-Dougan et al. (2009) with a group of primarily female, young adult participants.

Method

Participants

A total of 279 (81.36% female) young adults between 18 and 35 years of age (M = 22.41; SD = 3.12) participated in this study. This sample was primarily white (80.02% Caucasian, 6.81% African American, 3.22% Latin American, 6.45% Asian American, 2.15% Native American, and 1.07% other), and 73.83% reported being affiliated with Christian religions. All participants were enrolled in under-
Recruitment and Experimental Procedures

This research proposal was approved by the Internal Review Board at the University of Minnesota. Recruitment took place over multiple semesters between 2006 and 2007. Participants were recruited from six behavioral science courses. Participation was voluntary and alternative assignments were available for those who chose not to participate in the study. Of the eligible 328 students, some were excluded as potential participants (e.g., students over 36 years of age) resulting in 85.06% of the potential volunteers actually completing this study.

All participants completed a brief demographic questionnaire that also screened for experience with depression and suicide (Demographic/Screen Measure). Within each course, participants were randomly assigned to one of the three conditions (billboard N = 97, TV ad N = 100, and no information N = 82) and directed to their areas. The billboard and TV ad used within the context of this study were developed by SAVE, a Minneapolis based nonprofit suicide-prevention agency. In the billboard condition, participants were asked to imagine that they were driving in a vehicle as they viewed this billboard message. They were then shown a large Powerpoint projection (approximately 3 × 5 feet) of the billboard for 5 s. The message read Prevent Suicide, Treat Depression – See your Doctor and depicted a middle-aged male. Similarly, in the TV ad condition, participants were asked to imagine that they were watching television. They were then presented with a 30-s ad that featured several adults. The ad described depression as “a brain illness,” listed salient symptoms of depression (including “it can even lead to suicide”), and urged depressed individuals to seek medical help (“see your doctor”). The no-information condition provided no preliminary information about the ongoing study. Immediately after participants were exposed to the simulated PSA (the billboard or TV ad) or the no-information condition, they were asked to complete the Suicide Awareness Questionnaire. To ensure anonymity of participants, consent/assent forms were handed in and filed separately from questionnaires. Upon completion of the study, the researchers provided information about the university health service in the event that participants experienced distress from participating in research on the topic of suicide.

Measure

Demographic/Screen Measure

The demographic and screening questionnaire included questions regarding the young adults’ sex, age, ethnicity, etc. To screen for experience with depression and suicide, participants indicated whether they “...felt sad all or most of the time for a period of a month or been depressed within the past year?” and/or “... done something to try to kill yourself in the past year?” This measure identified 35% of young adults who reported experience with core depressive symptoms and/or suicide, reflecting a high prevalence of depressive or suicidal symptoms in the study participants.

Suicide Awareness Questionnaire

A second questionnaire was adapted for this study to evaluate participants’ (a) perceptions of utility of PSAs, (b) knowledge of depressive symptoms, (c) normative beliefs (estimates of suicidal risk), and (d) coping attitudes. With the exception of items that specifically evaluated PSAs (e.g., perceived utility), most of the single-item and multiple-item scales were based on previous research used to assess suicide-prevention curriculum (Gould et al., 2004).

Perceived Utility of PSAs

Three items were used to assess perceived utility of PSAs. Participants were asked to rate on a 5-point scale (not at all to extremely) how useful they thought PSAs like a billboard or television advertisement would be in reminding those struggling with depression to seek help (overall usefulness). A second item asked participants to indicate what type of person they expected would benefit from viewing a PSA like a billboard or television advertisement about depression and suicide. Scores were based on the percentage of the six choices endorsed, including a person who is not experiencing depression, a depressed person, a depressed person who is currently thinking about suicide, etc. A third item asked participants what type(s) of information they thought may be useful in preventing suicide. Scores were based on the percentage of six choices endorsed, including a brief advertisement on television, radio, newspapers, billboards, pamphlets, etc.

Knowledge of Depression

Participants checked “the common symptoms of depression” (e.g., sad or irritable feelings, changes in sleep, thoughts of suicide) from a more inclusive list of symptoms (e.g., colds, lying, laughing a lot). Scores were based on the percent of correct symptoms relative to the percent of incorrect symptoms endorsed. Participants were asked how much they agreed with the message that suicide can be prevented by treating depression (using a 5-point scale from not at all to extremely).

Normative Beliefs

To evaluate normative perceptions of suicidal thoughts and behavior, participants were asked to estimate how common it is for people their age (a) to seriously think about killing
themselves (suicidal ideation), (b) to actually try to kill themselves (suicide attempt), and (c) to kill themselves (suicide). Scores reflected their ratings on a 6-point scale ranging from .01% to 50%. To evaluate links between depression and suicide, participants also rated on a 6-point scale (from .01% to 50%) how common it is for people who are struggling with depression to commit suicide.

Coping Attitudes

For the Help-Seeking and Maladaptive Coping Scales, Gould et al. (2004) reported Cronbach’s α coefficients of .60 for the Help Seeking and .54 for the Maladaptive Coping Scale based on factor analytically derived scales (Cronbach’s αs for this sample were .56 and .46, respectively). For the 5-item Help Seeking Scale, participants were asked to rate on a 5-point scale (never to always) a number of help-seeking behaviors (e.g., get advice from another friend, tell my friend to see a mental health professional, talk to an adult about my friend).

For the 7-item Maladaptive Coping Scale, participants were asked to indicate whether they agree or disagree (two items on a 5-point scale were converted to a true-false scale) with a number of statements (e.g., suicide is a possible solution; if you are depressed it is a good idea to keep your feelings to yourself; drugs and alcohol are a good way to help someone who is depressed, people who talk about suicide won’t commit it). An additional item was used to evaluate whether the PSAs resulted in feelings of concern and/or distress on a scale from 1 to 5 (none to a lot).

### Analytic Plan

No significant demographic differences were found between the three groups of participants for age, sex, or race. However, there was a trend for risk status of participants to be higher in the billboard group (44.43%) than in the TV ad group (31.00%) or the no-information condition (31.48%) (χ² = 5.08, p ≤ .10). A series of two-way ANOVAs were the primary analyses used here: Group (3 levels; billboard versus TV ad versus no information) × Risk (2 levels; low versus high risk for depressive/suicidal symptoms). As shown on Table 1, the primary questions considered here were used to examine whether exposure to a PSA resulted in potential benefits or risks to the viewer (main effect for Group) and whether there is evidence of Group by Risk interactions. When the results indicate significant results for Group, posthoc tests (Tukey) are reported. Given the trend for Group differences for risk status, all findings with trends or significant main effects for Group were subjected to one-way ANOVA reanalysis with risk status entered as a covariate (Table 1).

### Results

#### Perceived Utility

No significant group differences were found for perceived utility of PSAs. Although consistent with past research, there was a trend for TV ad viewers to endorse prevention

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**Table 1.** Young adult’s perceptions of usefulness of prevention messaging, knowledge of depression, normative beliefs, and coping

<table>
<thead>
<tr>
<th>Utility of PSAs (usefulness)</th>
<th>Billboard Mean (SD)</th>
<th>TV ad Mean (SD)</th>
<th>No Info Mean (SD)</th>
<th>ME Group F (df)</th>
<th>ME Risk F (df)</th>
<th>Interaction F (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall “usefulness”</td>
<td>2.51 (.87)</td>
<td>2.80 (.95)</td>
<td>2.59 (.87)</td>
<td>2.55**</td>
<td>.25</td>
<td>.28</td>
</tr>
<tr>
<td>Types of people</td>
<td>2.83 (1.85)</td>
<td>3.18 (1.97)</td>
<td>3.34 (2.14)</td>
<td>1.16</td>
<td>.00</td>
<td>.34</td>
</tr>
<tr>
<td>Types of PSAs</td>
<td>3.13 (1.69)</td>
<td>3.37 (1.45)</td>
<td>3.25 (1.56)</td>
<td>.28</td>
<td>3.21</td>
<td>.18</td>
</tr>
<tr>
<td>Depression knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptoms</td>
<td>.85 (.11)</td>
<td>.88 (.10)</td>
<td>.84 (.11)</td>
<td>2.57**</td>
<td>3.28</td>
<td>2.01</td>
</tr>
<tr>
<td>Agree statement</td>
<td>3.33 (.92)a</td>
<td>3.66 (.90)ab</td>
<td>3.27 (.86)b</td>
<td>5.72**</td>
<td>.75</td>
<td>.57</td>
</tr>
<tr>
<td>Normative beliefs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide ideation</td>
<td>3.68 (1.28)</td>
<td>3.40 (1.25)</td>
<td>3.79 (1.31)</td>
<td>1.37</td>
<td>4.00*</td>
<td>.35</td>
</tr>
<tr>
<td>Suicide attempt</td>
<td>2.56 (.93)</td>
<td>2.47 (.90)</td>
<td>2.51 (.97)</td>
<td>.11</td>
<td>1.65</td>
<td>.11</td>
</tr>
<tr>
<td>Suicide</td>
<td>1.80 (.79)</td>
<td>1.71 (.68)</td>
<td>1.85 (1.09)</td>
<td>.62</td>
<td>.05</td>
<td>.30</td>
</tr>
<tr>
<td>Link depression/suicide</td>
<td>2.58 (1.15)</td>
<td>2.47 (1.19)</td>
<td>2.49 (1.14)</td>
<td>.82</td>
<td>1.99</td>
<td>5.23**</td>
</tr>
<tr>
<td>Coping attitudes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help Seeking Scale</td>
<td>2.51 (.62)ab</td>
<td>2.82 (.68)a</td>
<td>2.76 (.63)b</td>
<td>4.74**</td>
<td>1.08</td>
<td>.42</td>
</tr>
<tr>
<td>Maladaptive Scale</td>
<td>.10 (.12)</td>
<td>.08 (.11)</td>
<td>.12 (.17)</td>
<td>2.25</td>
<td>1.19</td>
<td>.56</td>
</tr>
<tr>
<td>Concern/Distress</td>
<td>1.29 (.39)</td>
<td>1.35 (.61)</td>
<td>1.20 (.56)</td>
<td>1.32</td>
<td>.01</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Note. Abbreviations include ME = main effect; G = group, R = risk (those endorsing depressive and suicidal symptoms). Significance levels are as follows: **p ≤ .01, *p ≤ .05, .p ≤ .10. Finding remains at a trend level or significant when risk is entered in as a covariate. Trends or significant posthoc differences are indicated by the same letters after the group means (e.g., aa, bb).
efforts as being more useful than participants in the other groups.

**Knowledge About Depression**

No significant group differences were found for knowledge of depression, although there was a trend for TV ad viewers to report a higher proportion of correct symptoms of depression than participants in the billboard or no-information conditions. Those who had viewed the TV ad were significantly more likely than those who had viewed the billboard or had received no information to agree with the statement that suicide can be prevented by treating depression.

**Normative Beliefs**

High-risk participants \((M = 3.84; SD = 1.30)\) estimated rates of suicidal ideation to be higher than low-risk participants \((M = 3.43; SD = 1.26)\). Given that our research with adolescents failed to show evidence that normative beliefs systematically varied according to PSA exposure (Klimes-Dougan et al., 2009), we did not predict that normative beliefs would vary across condition with young adults, a population presumably less susceptible to manipulations. Yet, there was a significant Group by Risk interaction for normative beliefs about the perceived link between depression and suicide. High-risk young adults who viewed the billboard (billboard high risk \(M = 3.07, SD = 1.28\)) perceived a stronger link between depression and suicide than the other participant groups (billboard low risk \(M = 2.25, SD = 1.02\); TV ad high risk \(M = 2.18, SD = 1.23\); TV ad low risk \(M = 2.58, SD = 1.25\); no-information high risk \(M = 2.59, SD = 1.33\); no-information low risk \(M = 2.43, SD = 1.04\)).

**Coping**

There was a significant main effect for Group with regard to help-seeking. Posthoc analyses revealed significantly lower help-seeking scores for the billboard group than the TV ad group, as well as lower help-seeking scores for the billboard group than the no-information group. However, in contrast to adolescents (Klimes-Dougan et al., 2009), both low- and high-risk young adults who viewed the TV ad endorsed high levels of help-seeking behavior. For the Maladaptive Coping Scale, a trend was noted (suggesting that high-risk participants in the billboard condition endorsed more maladaptive coping responses), but when risk status was entered as a covariate for follow-up analyses, no trends were noted. There were no group differences for the level of concern or distress experienced by participants.

**Discussion**

Determining optimal methods for preventing suicide is a goal yet to be fully realized (e.g., Chambers et al., 2005; Gould et al., 2003). While suicide-prevention initiatives often state the importance of using informational campaigns to increase awareness about the topic of suicide (U. S. Public Health Service, 2001), the efforts to empirically validate such approaches have been scarce. Guidelines for PSA development were not available until recently (Suicide Prevention Resource Center). The results of this study raise the possibility that, while some modalities and/or messages may have benefits, others may have untoward effects. Well-intended messages effective in capturing the viewer’s attention may result for some in resisting rather than seeking help.

One aim of this simulation study was to determine whether the results with young adults replicate the findings with adolescents (Klimes-Dougan et al., 2009). The young adult sample differed in numerous noteworthy ways from the adolescent sample including age, proportion of females to males, proportion of participants acknowledging their own depressive and suicidal symptoms, and recruitment (students taking behavioral science courses). Nevertheless, the results were largely comparable in that they provided preliminary evidence of benefits of the assessed TV ad and possible untoward effects of the assessed billboard. TV viewers tended to think that PSAs were more useful, to agree more strongly with the message that suicide can be prevented by treating depression, and to be more knowledgeable about the symptoms of depression. Perhaps the TV ad is complete enough to provide some of the essential information (list of symptoms of depression) while embedding the topic of suicide into a broader discussion of depression. Providing a comprehensive list of warning signs has been found to be useful for participants who were given the task of evaluating suicidal risk in others (Van Orden et al., 2006).

The results of this study suggest that the simulated billboard was largely without benefits for young adult viewers – and raise potentially serious concerns about untoward effects of this particular PSA format or message. One of the primary goals of this PSA campaign was to facilitate help-seeking behavior: “see your doctor.” This goal did not appear to be fully realized. Most notably, having been exposed to the billboard simulation, participants endorsed less favorable help-seeking attitudes and tended to perceive PSAs as less useful. For some, the billboard message may have had untoward effects, in fact dissuading them from seeking help. It is possible that the brevity of the directive message was perceived by participants as undermining their experiences of pain and prevailing despair. Alternative approaches should be evaluated to determine what features of the billboard result in these untoward effects and further evaluate if billboards can be an effective means of suicide prevention with young adults.
We also examined perceptions of PSAs for young adults who experienced depressive and/or suicidal symptoms. Previous research noted that suicide-prevention efforts are not always useful for depressed and suicidal adolescents (e.g., Klimes-Dougan et al., 2009; Shaffer et al., 1988). Many of the untoward effects associated with high-risk adolescents (e.g., less likely to endorse help-seeking attitudes) were not replicated in this study with young adults. In some ways, high-risk young adults appeared to benefit the most from PSAs or at least thought others would benefit from exposure to PSAs. In a follow-up question participants were asked “After having viewed a PSA how likely would it be for someone with depression to seek help?” The results revealed a trend for a Group by Risk interaction $F(2, 268) = 2.29, p = .10$ with high-risk young adults in the TV ad condition being the most likely to think that others would seek help after having viewed a PSA (as compared to the other groups). There may be some approaches that facilitate help-seeking in high-risk individuals. A recent population study that provided education and publicity about depression to the public found an increased utilization of treatment services (Goldney, Fisher, Dal Grande, Taylor, & Hawthorne, 2007).

It may also be important to examine what normative beliefs are about suicide. A consistent finding across development was that high-risk participants tended to overestimate the incidents of suicidal thoughts in their peers (e.g., Klimes-Dougan et al., 2009). The results of this study also indicate that high-risk young adults who viewed the simulated billboard estimated a stronger link between depression and suicide. Caution is needed to convey messages about suicide because it is possible that certain messages alter normative beliefs about suicide in specific groups of viewers. Recently, Chambers et al. (2005) noted a potential concern about this PSA campaign, stating that it is important that prevention messages are not too negative and don’t concern about this PSA campaign, stating that it is important that prevention messages are not too negative and don’t concern about depression to the public found an increased utilization of treatment services (Goldney, Fisher, Dal Grande, Taylor, & Hawthorne, 2007).

This study represents an important step in evaluating suicide-prevention messages and modalities using a simulation design. The findings reported here may be relevant to other formats including billboards, posters, and web banners. However, we have yet to establish what stimulus features of the billboard format (e.g., considerable size of the message, the way the message is conveyed in a very public place, the necessary brevity of the message, specific words used in the message) are most closely associated with untoward effects. Similarly, it would be critical that the components of the TV ad be systematically evaluated to determine what features may be most beneficial to the important goal of preventing suicide. Because the message and modality are confounded, our conclusions about possible untoward effects are limited. It is unclear whether these results would generalize to real-world exposure. Nor is it clear whether they would generalize to a sample more representative of the general population. While this campaign was designed to target females as potential gatekeepers and accordingly we assessed a group of largely female participants, further research is needed to extend these findings to more representative samples. Future work should also consider how these messages are perceived in diverse cultures. We have begun these efforts by considering a subset of Asian participants (Sung, Klimes-Dougan, Lee, & Klingbeil, under review). Limitations for internal validity are noted. Some scales rely on only a few items (e.g., usefulness of PSAs, estimates of suicide rates in peers) while other scales have questionable validity estimates (e.g., Maladaptive Coping Scale). Screening for at-risk status identified about a third of the sample, potentially reflecting the low specificity of this screening measure for this age group, or the fact that this young adult group was disproportionately characterized as experiencing depressive or suicidal symptoms (35% in the young adult sample compared to 22% of adolescents; Klimes-Dougan et al., 2009). While the design of this randomized control trial is one strength of this study, alternative research designs such as a pretest/posttest would yield additional benefits by allowing for an evaluation of changes in the participants’ perceptions and attitudes. Including indexes of behavioral change would be desirable.

In conclusion, the results reinforce the notion that some suicide-prevention messages may have benefits as well as untoward effects. Well-intended messages that are effective in capturing the viewer’s attention may result in some resisting rather than seeking help. Much work still needs to be directed toward more fully understanding and refining suicide-prevention messaging. Careful evaluation of the intended effects is critical because subtle changes in the message can render different results. Even if found to be effective, it is unlikely that universal approaches using PSAs will ultimately be used as a sole means of suicide prevention. A range of strategies have been shown to be effective (reviewed by Mann et al., 2005), and diverse approaches addressing different aspects of suicidal risk are needed. Whatever prevention strategy is used, there is no substitute for caring human contact in the efforts to prevent suicide. A recent study that systematically evaluated patients with serious and enduring mental illness found that confiding in family, friends, and mental-health professionals helped patients cope most effectively with their most severedisappearing suicidal feelings (Eagles, Carson, Begg, & Naji, 2003). Recently some called for increased caution, stating “Until there is clear evidence that public health messages about suicide prevent, and do not normalize, suicide, and have no deleterious effects, the most prudent approach to this issue is not to include public health messages as part of a suicide-prevention strategy” (Beautrais, Ferguson, Coggan, Cogan, et al., 2007, p. 7). It is incumbent on preventionists to consider how these findings might be informative in guiding the development of universal prevention efforts in the future.
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Suicide Awareness Voices of Education (SAVE) is one of the leading not-for-profit suicide-prevention organizations in the United States. The staff are committed to increasing awareness and educating the public that it is possible to SAVE lives.

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