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Preventing Suicide in Montana: A Community-Based Theatre Intervention

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Abstract

Purpose—This study examined whether a community-based suicide prevention project could increase willingness to seek professional help for suicidal ideation among eastern Montana youth.

Design—Online surveys were administered at baseline (N = 224) and six months post-test (N = 217) consisting of the Risk Behavior Diagnosis Scale (RBD), self-report questions on suicidality, willingness to engage with suicide prevention resources, and willingness to communicate with peers, family members, teachers or counselors about suicide.

Findings—A comparison of means within groups from pre- to post-test showed *increases* in self-efficacy for communicating about suicidal concerns with a teacher, school counselor or social worker; *increases* in self-efficacy for helping others; and increases in response-efficacy of interpersonal communication about suicide with a teacher, school counselor or social worker.

Practical Implications—Young adults need to be willing and able to intervene in life-threatening situations affecting their peers. In step with narrative empowerment education, personal experiences can be used to communicatively reduce peer resistance to behavior change.

Originality—Health communicators tend to rely on overly didactic education and awareness-raising when addressing suicide prevention. This research shows the importance of direct and personal forms of influence advocated by social marketing professionals.

Keywords

Community-based research; depression; perceived stress; suicide prevention; self-efficacy; health communication

Introduction

Individuals living with suicidal ideation are frequently isolated; especially in rural communities with limited access to professional counseling or where talking about suicide is

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profoundly stigmatized (Ingram & Franco, 2012). Exacerbating the problem, people with suicidal symptoms are often reluctant to seek professional help (Niederkrotenthaler, et al., 2014; Barney, et al., 2006). As with alcohol prevention, research on suicide shows that didactic education and awareness-raising alone will not reduce the risk (Gould, 2003; Niederkrotenthaler, et al., 2014; Wyman, et al., 2008; Dryfoos, 1993). For long-lasting attitude changes regarding sensitive issues like suicide, more direct and personal forms of influence are needed (Rich & Cargile, 2004; Wasserman, et al., 2012).

While social marketing engages a more holistic view of individuals and decision-making in its persuasive strategies, research on suicide indicates a need to address upstream, cultural factors that influence decision-making in a seemingly unconscious or irrational manner (Colucci & Lester, 2012; Xerfan, 2014; Evans-Lacko, et al., 2012). As noted by Tapp and Spotswood (2013, p. 278), “in social marketing there tends to be a preoccupation with theories which emphasis the cognitive, self-reflexive decision making surrounding a behaviour, rather than hidden cultural influences which underpin these seemingly rational decisions.”

Changing lifestyles may require an understanding of competing factors that are intrinsic to particular subgroups (Giles & Brennan, 2015). This is particularly true for suicide, where individual-focused efforts are criticized: “Suicide prevention has narrowly focused on identifying proximate, individual-level risk factors, rather than thinking about population mental health in terms of complex social and ecological relations.” (Knox, et al., 2004, p. 37). Suicide does not have a well-defined disease mechanism; “it reflects diverse risk factors and is best understood within a complex paradigm of social, behavioral, and psychiatric factors” (Knox, et al., 2004, p. 37). Due to this complexity, suicide prevention programs should combine social marketing persuasive techniques with approaches that address cultural building blocks to inform the attitudes and decisions around suicide prevention behavior..

Suicide in Rural Areas

Rural communities may represent one type of subgroup where local, embedded beliefs and customs affect attitudes and behavior around suicide. Residents of rural mountain states (e.g., Montana, Alaska, Colorado, Utah) experience excess mortality from suicide at almost twice the national average, with 24.5 per 100,000 in Montana compared to 13.4 per 100,000 nationally (Centers for Disease Control, 2015). In 2015, Montana had the highest suicide rate in the nation and has ranked among the top five states for 30 years (Centers for Disease Control).

Suicide Prevention Strategies

While some educational interventions appear to have a positive impact on both mental illness stigma reduction and reductions in suicide attempts (Wasserman, et al., 2012; Chisholm, 2016; Corrigan, et al., 2012; Ke, et al., 2015; Milin, et al., 2016), few such interventions have engaged social marketing strategies to address suicide. One noted exception by the U.S. Air Force in 1996–2002, achieved significant reductions in suicide rates and risk by implementing a population based prevention program designed to change

social norms around suicide and stigma of mental illness (Knox, et al., 2003). A 2009 review of 43 public awareness campaigns about depression and suicide demonstrated that few campaigns invoked theoretical design or used audience research to identify specific risk factors – as indicated by social marketing science. Of these campaigns, only two showed impacts on behavior – increased short-term visits to clinicians were associated with Suicide Prevention Week in Canadian communities in 1991 (Dumensil & Verger, 2009), and reduced suicide attempts were associated with the Nuremberg Alliance Against Depression, in German in 2001 (Hegerl, et al., 2010).

Evidence on suicide prevention does not indicate one superior approach (Zalsman et al., 2016; World Health Organization, 2010). Some studies show that the most effective educational programs feature dialectic behavior therapy, cognitive behavior therapy, direct contact with individuals suffering mental illness, drama and theatre about stigma, or role playing (Gould, 2003; Murman, et al., 2014; Dalky, 2012; Mann, et al., 2005). Other reviews indicate that combining contact-based anti-stigma interventions with educational approaches may be most impactful (Chisholm, 2016; Corrigan, et al., 2012; Corrigan, 2015; Dalky, 2012). And, in a review of 244 suicide prevention studies, Zalsman and colleagues found that restricting access to lethal means, some pharmacologic treatments, and school-based programs have the greatest impact on suicide behavior (Zalsman et al., 2016).

Given the mixed record of suicide prevention programming, we look towards Tapp and Spotswood, who recommend that any type of embedded social practice, such as suicide, will be more likely to change in response to a cultural –based approach “which seeks to analyze the cultural underpinnings of individual tastes and decisions...” (Tapp & Spotswood, 2013, p. 276).

Interactive educational tactics have emerged in public health partly in response to a belief that didactic approaches foster passive learning, and partly in the quest to incorporate more cultural background into message creation (Conquergood, 1986; Feldman et al., 2011; Langellier, 2009). Rodriguez et al. (2006) found that an interactive performance model, where students engaged actively in their own learning through dialogue, experimentation, and movement, was more effective than a traditional classroom approach at increasing student willingness to comfort distressed sexual assault victims. Similarly, Rich and Cargile (2004) achieved success in confronting student attitudes about race through an interactive pedagogy, involving immediate feedback and discursive loops, rather than a traditional classroom model. Most important for our work is the work of Howard and Ferrier (2009), who demonstrated how interactive theater can be effective at reducing prejudice and confronting stereotypes within the news industry. Wasserman, et al. (2012) found that interactive role-playing with students can affect both suicide attempts and help-seeking behaviour.

A Community-Based Theatre Approach to Preventing Suicide

The *Let's Talk* program directors hosted and facilitated a theatre workshop to address the risk of suicide (Keller, Austin & McNeill, 2017). Each writer-actor group met bi-weekly for 12 weeks to share their personal experiences with suicide and/or major depression, and to

collaboratively write a unique play based on their experiences. At the end of the writing-rehearsal period, the writer-actors staged performances for their peers, after which they held discussions with audience members. Each discussion was moderated by the school counselor to help answer difficult questions.

Applying Social Marketing Principles

In the preface to *Marketing Social Change*, Andreasen defines social marketing as “the application of proven concepts and techniques drawn from the commercial sector to promote changes in diverse socially important behaviors such as drug use, smoking, sexual behavior...” (Andreasen, 1995). By “proven techniques” Andreasen meant methods drawn from behavioural theory, persuasion psychology, and marketing science with regard to health behaviour, human reactions to messages and message delivery. By using research and behavior change theory, Andreasen recommends that social marketing approaches develop health promotion through 6 stages: 1) Plan a strategy; 2) Select media channels; 3) Develop materials and pre-test; 4) Implement; 5) Assess effectiveness; and 6) Incorporate feedback to refine message strategy.

The Let’s Talk program fits into the social marketing model insofar as the six steps were mostly followed. In planning a campaign, Andreasen urges health communicators to adhere to behavioral theory (Andreasen, 1995). This community-based theater project was instigated without any clear theoretical design. The project, planned by the Global Health Equity Foundation, did, however, follow the planning stages in other ways, insofar as a cross-section of community members (counselors, teachers, school leaders, researchers, hospital executives) were engaged in a conversation about the health problem (suicide) and invited to support the proposed campaign (Let’s Talk). Community theater and a youth photo workshop) were selected as the media channels based on the executive director’s desire to use youth-generated art and community voices to tackle the problem. The materials were developed through a 10-week youth theater workshop, facilitated by a professional theater director, and photography workshop, facilitated by a professional photographer. No “pre-testing” was conducted. Once complete, the first performance was conducted before a community-wide audience at the local Veteran’s Association building and the public were invited to an opening of the youth photography exhibit at a local museum. Effectiveness of the program was assessed through baseline and follow-up surveys, focus groups, and observation. Feedback was incorporated through actor-audience town-hall style discussions that took place after each performance.

The Current Study

Short-term goals were to educate small groups of adolescents in Montana’s rural frontier about the high prevalence of suicide in the state and to increase acceptance of open communication about the topic. The long-term goal was to increase usage of professional counseling services by youth at risk. The program had several components: Providing suicide prevention training to writer-actors; creating and maintaining a website with videos, phone numbers, and crisis contacts; posting flyers throughout schools; and initiating a publicity program through local television and newspapers to draw in widespread community support.

Theoretical Background

Narrative Engagement Framework, a prominent model in interactive education, and community-based social marketing, can be applied retroactively to describe the theoretical basis for the intervention (Mckenzie-Mohr, 2000; Miller-Day & Hecht, 2013). Although not a traditional theory of behavior change, the narrative model states that personal narrative-based messages can be meaningful to other members of a single community, and can also yield important information about perceptions, attitudes and beliefs within a community (Miller-Day & Hecht, 2013; Langellier, 2009). This approach can also be compared to “community-based social marketing,” in which behavior change strategies are designed to overcome the barriers identified within specific communities and pre-tested with small segments of those communities (Mckenzie-Mohr, 2000). Consistent with the recommendations from this body of research, the suicide prevention program was provided in a community-based manner, enlisting community members to design and deliver narrative-based messages (Kalafat, 2003; Jepson, et al., 2010; Langellier, 2009; Miller-Day & Hecht, 2013).

To analyze the effects of the *Let's Talk* project, we used the Extended Parallel Process Model (Witte 1992, 1994) to examine the threat components related to suicide (perceived susceptibility to suicide and perceived severity of suicide) and efficacy components related to the goals of the *Let's Talk* program (perceived self-efficacy for and response efficacy of interpersonal communication with professionals, friends, and family about suicide risk; accessing help; and helping others). Since suicide has such a low baseline level, it is hard to document effects of preventive programs on behavior (d'Orio, et al., 2014). Hence, we focus on attitudes related to help-seeking, open dialogue, and helping others as outcomes variables.

EPPM posits that respondents are more likely to change their behavior in response to a health message if both the perceived threat and their perceived efficacy (including *self-efficacy*, behavior-specific self-confidence, and *response efficacy*, perceptions of the effectiveness of the recommended solution) are high. However, Witte (1992; 1994) warns that messages that increase the audience's perceived threat without simultaneously increasing their perceived efficacy to make a change can stimulate unhealthy coping mechanisms, including defense-avoidance, denial, or reactance (i.e., blaming the messenger).

The threat component of the EPPM includes both the perceived severity and perceived susceptibility of the health threat (e.g., “Is there really a suicide epidemic?” “Am I at risk for suicide?”). The efficacy component of the model includes both perceived self-efficacy and perceived response efficacy. Perceived self-efficacy refers to beliefs as to whether or not one is capable of performing the behavior in question (e.g., “I am able to get professional help if I feel I'm depressed or have suicidal ideation”), whereas perceived response efficacy relates to one's belief in the effectiveness of a specific recommendation/proposed behavior (e.g., “Speaking with a professional counselor will help reduce my depression”).

EPPM was selected over other health communication theories due to the extensive body of evidence showing it has been used effectively to both generate and evaluate messages intended to motivate health-related behaviors (Witte, 1994; Cameron, et al., 1999; Kline & Mattson, 2000; McKay, et al., 2004; MaGuire, et al., 2010; Witte, et al., 1996; Witte, et al., 1998; Askelson, et al., 2015). Because no direct fear appeal was used in this intervention, (the script, while infused with confessions of suicidal thinking and stories of loss, delivers a strong message in promotion of open dialogue and seeking help; www.letstalkmiles.org), we elected to use the EPPM to study the intervention's effects on efficacy.

The study sought to assess this two-dimensional concept of efficacy at baseline and follow-up.

Hypotheses

To identify whether this approach would be effective in *Let's Talk*, the EPPM framework was used to understand Montana students' perceptions in response to *Let's Talk* health messages to reduce barriers to help-seeking and helping others.

Using the EPPM, this study hypothesizes that:

H1a) The *Let's Talk* program will increase self-efficacy to access prevention resources; and

H1b) The *Let's Talk* program will increase self-efficacy to talk to others about suicide and suicidal ideation.

The *Let's Talk* theatre performance addressed self-efficacy by promoting interpersonal communication about suicide, and increased self-confidence to access professional counseling or formal suicide prevention resources.

H2a) The *Let's Talk* program will increase perceived response-efficacy of prevention resources.

H2b) The *Let's Talk* program will increase response-efficacy to talk to others about suicide and suicidal ideation

The content of the play, and counselor-led question-and-answer sessions that followed each performance, were designed to highlight the benefits of seeking professional counseling and contacting suicide prevention hotlines.

Methods

Facilitation of the Intervention

Recruiting, Writing, and Rehearsal—The local high school counselor recruited the writer-actors. Student status and interest in the program were the only screening criteria used to select participants. They did not undergo mental health screening, but voluntary reports of mental illness or history with counseling were noted. Prior to the start of the program, all writer-actors signed consent forms and received Question, Persuade, and Refer (QPR) Gatekeeper Training for Suicide Prevention.

Throughout the play-writing process, workshop members shared journal entries, stories, memories, songs, and poetry with the director and the rest of the group. By contributing creative non-fiction based on their own experiences with self-harm (e.g. cutting), suicidal ideation, suicide attempts, and grief over a friend's or family member's suicide, the writer-actors collaboratively created an original narrative theatrical performance (Langellier, 2009; Miller-Day & Hecht, 2013, p. 658).

Performance and discussion—At the end of the rehearsal period, one performance by five writer-actors was staged in a school-wide performance at the local high school. Before the performance, audience members were given reference cards containing crisis prevention hot-line numbers and local mental health resources. A member of the research team introduced the performance with a brief explanation of the *Let's Talk* program, the importance of the research, and the need to eradicate stigma surrounding mental illness and suicide. The performance lasted 20 minutes, followed by a moderated 40-minute Q&A session.

In addition to dramatizing the distress that mentally ill and suicidal people experience, the performance was designed to model adaptive decision-making strategies in times of stress, accessing emergency help, providing ongoing support to peers during a crisis, and identifying at least one caring adult in the school or community from whom to seek help (Mazza & Reynolds, 2008; Miller, et al., 2009). Following this structure, in their opening scenes, the performance demonstrated the destructive power of negative self-talk. For example, the play opened with a young woman's inner voice saying to her, "Look at all those people out there staring at you, judging you, waiting for you to mess up like you always do. All you do is ruin everything you touch." Then, as it went on, the performance incorporated more hopeful messages.

At the end of the play, the high school counselor initiated the question and answer session. The performers sat on the edge of the stage facing the audience. The first question, posed by the director, was, "How many in here have had some experience with suicide?" Most audience members and actors raised a hand. Some audience members spontaneously started sharing their own experiences with loss and asking questions of the moderator or the performers.

Evaluation Procedure

In Spring 2012, an online questionnaire was administered to 224 high school students (ages 14–18) (all freshmen and sophomores who had participant assent and parental consent) in a school computer lab, prior to a school-wide performance of one of the *Let's Talk* plays. Questions assessed self-reported history of suicidal thoughts, willingness to access suicide prevention resources, willingness to engage with interpersonal communication about suicide, and perceived effectiveness of both prevention resources and open dialogue. The survey took 5–10 minutes to complete.

Six months after the intervention, a second round of online data collection was conducted, also in a school computer lab, (n = 217), asking the same scales and demographic questions

as the baseline survey, alongside exposure questions to assess reach of the intervention. The procedure for the second survey was identical to the first.

Sample

Due to the small size of the community ($n = 8,758$) at the research site, and the opportunity to access all teenagers currently attending the city's only high school, the sample included all current students (440) enrolled in county high school (ages 14–18). Seniors were excluded from the pre-test in order to ensure the same students would be around for the follow-up. Hence, 224 students were surveyed at the pre-test and 217 students were surveyed six months later, after the intervention. For logistical reasons, and to protect anonymity, the two samples were *not* matched, and therefore treated as independent samples in the analysis.

Measures

One validated tool was included on the *Let's Talk* Suicide Prevention survey assessments which helped quantify the health-related concerns of risk behavior. Questions from the Risk Behavior Diagnosis Scale (Witte, 1994) probed students' perceived self-efficacy and response-efficacy for engaging with suicide prevention resources, communicating with peers, family members or professionals about suicide, and helping others perceived to be at risk of suicide.

The Risk Behavior Diagnosis Scale (RBD) is a 12-item, 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (Witte et al., 1996). The scale was developed to use all aspects of the EPPM as its theoretical baseline. The RBD asks individuals three questions each about their perceived attitudes toward susceptibility, severity, self-efficacy, and response efficacy toward a certain behavior or topic. The analysis enables a researcher to identify whether an individual (or individuals) is (are) in fear control or danger control processes before or after exposure to a health risk message. The results from the RBD allow researchers to create an effective message directed toward their target audience. The following scales assessed the stage of a particular individual regarding danger control or fear control toward the suicide.

Severity—Participants rate the following items on a scale of 1 (strongly disagree) to 5 (strongly agree): “Suicide is a serious threat,” and “Suicide is a severe threat.” Pretest Cronbach's $\alpha = .91$, and posttest = .88.

Susceptibility—Participants rate the following three items on a scale of 1 (strongly disagree) to 5 (strongly agree): “I am at risk for suicide,” “It is possible that I will attempt suicide,” and “I am susceptible to depression.” Pretest Cronbach's $\alpha = .85$, and posttest = .91.

Self-Efficacy—Participants rate the following six items on a scale of 1 (strongly disagree) to 5 (strongly agree): “If I were suicidal, I would feel comfortable talking with a _____” (parent/family member; friend; teacher/school counselor; church leader; doctor/nurse/health care provider; social worker; counselor/therapist) (Table

1). Pretest Cronbach's alpha = .95, posttest = .96. A separate measure of self-efficacy was also administered: "If someone talked to me about being suicidal, I would feel comfortable talking to: _____" (parent/family member; friend; teacher/school counselor; church leader; doctor/nurse/health care provider; social worker; counselor/therapist) (Table 2).

Response Efficacy—Participants rate the following six items on a scale of 1 (strongly disagree) to 5 (strongly agree): "*The following individuals can help young people deal with depression and/or suicide:* _____" (parent/family member; teacher/school counselor; church leader; doctor/nurse/health care provider; social worker; counselor/therapist) (Table 3). Pretest Cronbach's alpha = .87, and posttest = .92.

Only the efficacy components were used in this study, based on pilot studies indicating perceived threat of suicide was high at baseline in the community being studied (Montana Department of Public Health & Human Services [MDPHHS], 2016). Efficacy components were measured with six items for self-efficacy and six items for response efficacy (see Tables 1, 2 and 3).

Students were asked about basic demographic information (age, race and gender), and about their experiences with suicide (personal knowledge of victims; personal experiences with treatment for depression; personal history of suicidal ideation; recent history of attempts) (Tables 4 and 5). To assess for program exposure, students were asked both prompted and un-prompted recall about whether they had seen the *Let's Talk* performance.

Analysis

Descriptive frequencies on all constructs were compared at baseline and post-test, to assess changes in attitudes and behavioral intentions before and after the campaign. In addition, bivariate analysis assessed for relationships between campaign exposure and all descriptive variables. One-way ANOVA was conducted to compare differences in means between groups. Significant differences within groups (between time periods) were assessed using Pearson Chi-Square. Demographic variables collected were controlled to assess campaign affects beyond pre-existing variations within the sample.

Results

Outcome Variables

Tables 1, 2 and 3 display outcome variables of interest (self-efficacy and response efficacy). Mean scores for five point Likert scaled items ranging from 1 to 5, with the higher number indicating greater agreement or affirmation for the item. Table 1 compares the pre-and post-test means and standard deviations of six items used to measure self-efficacy. Using Pearson's Chi-Square test, the mean of only two items increased significantly from pre- to post-test: Students were more confident they could talk to a teacher or school counselor about a suicidal thought (pre-test mean = 2.80, SD = 1.43; post-test mean = 3.06, SD = 1.7; $p = .05$); and they were more confident they could talk to a social worker about a suicidal thought (pre-test mean = 2.22, SD = 1.28; post-test mean = 2.54, SD = 1.18; $p = .05$) (Table

1). Although no significant change occurred, the mean was highest for confidence in being able to talk a friend at both time intervals.

Insofar as social workers and school counselors can be considered to be suicide “prevention resources,” both H1a, “The *Let’s Talk* program will increase self-efficacy to access prevention resources,” and H1b, “The *Let’s Talk* program will increase self-efficacy to talk to others about suicide and suicidal ideation” were supported.

Table 2 examines the pre-and post-test means and standard deviations of six additional items also used to measure self-efficacy for communication with another -- if a friend had confided in them about suicidal ideation. *Teacher/school counselor* and *social worker* were the only two items to show a significant increase, using Person’s Chi-Square test (pre-test mean for *teacher/school counselor* = 3.63, SD = 1.41; post-test mean = 3.94, SD = 1.21; $p = .05$; pre-test mean for *social worker* = 2.65, SD = 1.49; post-test mean = 2.95, SD = 1.98; $p = .05$) (Table 2). Once again, campaign exposure appears to have supported H1b, “The *Let’s Talk* program will increase self-efficacy to talk to others about suicide and suicidal ideation.”

Table 3 examines the pre-and post-test means and standard deviations of six items used to measure *response efficacy* by asking respondents to rate how helpful various people or occupational groups would be in assisting young people with suicidal ideation. Using Person’s Chi-Square test, response efficacy was significantly higher than pre-test for *teacher/school counselor* (pre-test mean = 3.5, SD = 1.00; post-test mean = 3.7, SD = .91; $p = .05$) (Table 3).

Insofar as teachers and school counselors can be considered to be suicide prevention resources, H2a, “The *Let’s Talk* program will increase perceived response efficacy prevention resources,” was also supported. Regardless, H2b, “The *Let’s Talk* program will increase perceived response-efficacy of talking to others about suicidal risk,” was clearly supported, for the category of teachers and school counselors.

Demographics

See Table 4 for a breakdown of the samples by age and race. In both samples, the racial breakdown was identical. The age distribution was fairly even, but the post-test sample was slightly younger. There were more females (60%) than males (39%) in both surveys.

Suicide Exposure

Responses obtained from the surveys were examined for descriptive information about the sample’s experiences with suicide and depression, drawing from dyadic measures only. Although exposure to suicide and suicidal thoughts was slightly lower in the post-test survey (possibly explained by the younger age of participants), levels of personal knowledge of suicide victims seemed high but we were unable to compare this statistic to a national sample (Table 5): 81% ($n = 182$) at baseline and 74% ($n = 160$) at post-test said they knew someone who had committed suicide. A full 18% ($n = 41$) at pre-test and 13% ($n = 29$) at post-test admitted they had considered killing themselves in the past year, similar to or lower than the national average of 17% of high school students who seriously consider suicide in a given year (Centers for Disease Control, 2015). Five percent ($n = 11$) at pre-test and 4% ($n =$

9) at post-test said they had actually attempted suicide – significantly lower than the national average of 8% (Table 5) (Centers for Disease Control).

Campaign Exposure

Three items were used to measure campaign awareness. A majority, 66.4%, reported having heard of a suicide prevention campaign. Thirty-five percent of respondents were able to correctly give the name of the campaign without prompting; 54% said that they had heard of the “*Let’s Talk*” campaign when prompted.

Discussion

Results of this study show that the perceived efficacy of communicating with teachers, high school counselors and social workers about suicidal risks (among one-self or others) increased after the *Let’s Talk* theatre intervention. One possible explanation for this change is the strong role played by the high school counselor in administering the project, and facilitating post-performance discussions. Another possible explanation is that the open discussion about suicide loss, ideation and attempts presented in the live theatre performance reduced audience members’ fears about contacting professional adults about suicidal risk. If the latter is true, the intervention achieved one of its primary goals. If the former is true, then the intervention achieved its desired effect, but only in a round-about manner – through the moderated post-performance discussions, rather than the theatre performance itself. A third explanation lies with the on-going post-show talking/interaction between student actors and among the show audience, and within the broader community, during the six months after the play, prior to the post-test evaluation. This explanation assumes that such ongoing open discussion about suicide and risk is helpful; i.e. that it can increase students’ perceptions of their efficacy (behavior-specific self-confidence) to contact teachers or professionals about suicide risk. Future evaluations of this intervention should use a matched pre/post sample to more clearly identify a causal link, and should probe on perceived efficacy for accessing other types of prevention resources.

Although the EPPM was used as a model to guide our evaluation, it was not the central model used to formulate the intervention. The intervention presented here does not dictate a specific format; rather, it provides an illustration of how a community-based approach might be used to increase efficacy for help-seeking behavior among high risk communities. While the script-writing process was grassroots, insofar as students wrote the plays, *Let’s Talk* directors were instructed to ensure the resulting plays delivered several key messages: 1) Interpersonal communication about suicide risk is important; 2) Professional resources for suicide prevention exist and can be helpful; 3) Talking about suicide risk and resources can reduce barriers to prevention. Since the intervention was not based on a theoretical model, perhaps future iterations of *Let’s Talk* should draw more explicitly from current findings about suicide prevention (e.g., a focus on stigma reduction) (National Action Alliance, 2014; Niederkrotenthaler, et al., 2014).

The National Action Alliance for Suicide Prevention identifies stigma as a significant barrier to suicide prevention (National Action Alliance, 2014). The community-based nature of this intervention is ideally suited for addressing stigma of mental illness. *Let’s Talk* could be

tailored to more directly confront both public and self-stigma related to suicide. In fact, the researchers are currently working on a study to evaluate the impact of *Let's Talk* documentaries (videos produced about the theatre workshops and performances described in this paper) on students' perceived stigma of suicide and stigma of help-seeking. Pilot results will be used to guide revisions of the documentaries to increase their educational impact on stigma, prior to an experimental evaluation.

Limitations

A possible limitation is the study's omission of scaled measures of perceived threat. However, it can be argued that such a measure was not necessary since the intervention was not designed to increase perceived threat of suicide. As more than 75 percent of respondents had experienced a personal loss due to suicide, perceptions of threat were likely to have been high at baseline. Given that the performance was scripted by students from the target audience, they elected to focus on increasing perceptions of efficacy rather than emphasizing the severity of the threat of suicide. This approach is consistent with the recommendations of EPPM, to emphasize efficacy for health actions (when perceived threat of a health risk is already high); to both reinforce accurate beliefs as well as to provide information to address and correct concerns and misperceptions (e.g., stigma against accessing help). However, scaled measures for perceived susceptibility and severity would have enhanced our understanding of the audience's level of fear, and any changes in relation to the intervention.

Limitations of this research include the small sample size, the lack of randomized controls to isolate the effects of the intervention, our inability to match the pre- and post-test samples, and the lack of diversity in the sample (Peters, et al., 2015). Although the highest rates of suicide in Montana occur among men ages 55–65, and among Native Americans, this study was unable to track its effectiveness with those populations due to our sample. Future adaptations of this project to address the highest risk groups are recommended, although it should be noted that even Montana's young adults have a risk of suicide that is twice the national average (Centers for Disease Control, 2015).

Another limitation had to do with the possible interference of seasonality with our results. Since baseline results were collected in fall, and post-test results were collected in spring, it is impossible to know whether perceptions related to suicide (and prevention) were affected by changes in season. Research to date is mixed on this topic (McCarthy, 2010; Pretti & Miotto, 1998).

Finally, the intervention may have suffered from a lack of intentional theoretical design. Post-hoc, we feel the approach most closely fits with the Narrative Engagement Framework (Miller-Day & Hecht, 2013) discussed above. At the initial workshop rehearsal, a director (drawn from a pool of adjunct theatre faculty at the university hosting the study) gently probed the writer-actors' experiences with stress, anxiety, depression, alienation from school and home, and relationships. Throughout the play-writing process, workshop members shared journal entries, stories, memories, songs, and poetry with the director and the rest of the group. By contributing creative non-fiction based on their own experiences – with self-harm (e.g., cutting), suicidal ideation, suicide attempts, and grief over a friend's or family

member's suicide – the writer-actors collaboratively created an original narrative theatrical performance (Miller-Day & Hecht, 2013, p. 658; Langellier, 2009).

The intervention also addresses suicide in an approach that could be informed by the community-based social marketing model (Mckenzie-Mohr, 2000), also discussed above. One approach that can be applied to described the intervention that was not discussed previously is the Interpersonal Theory of Suicide (Van Orden, et al., 2010). Van Orden and colleagues suggest two factors must be present for a person to commit suicide: Perceived burdensomeness, the belief that one is a burden to others in some way; and thwarted belongingness, which occurs when one is socially isolated but would prefer the company of others. By engaging community members to openly discuss both the fears of being a burden to others (through one's personality differences or emotional vulnerabilities), and experiences of being alienated from others, this community theater intervention may have addressed both risk factors of suicide. If the assumption is true, that open discussion or interpersonal communication about both suicide risk and its risk factors can lead to prevention, the Interpersonal Theory of Suicide may explain part of the intervention's effectiveness.

Insofar as we have assumed throughout this report that open discussion of a risk can reduce its threat, we turn to the theory of Social Norms (Perkins, 2003). Social norms depend on people's perceptions of what is "normal" behavior, regardless of whether this perception is correct or accurate. Many prevention campaigns are designed to help change people's perception of social norms, for example, behaviors regarding alcohol use: while driving, while pregnant, in excessive amounts. Community theater can be used to help change descriptive (perceptions of what most people are doing) and prescriptive norms (perceptions of what should be done) related to health and well-being, at both the individual and societal levels. As prevention messages achieve critical mass, the behaviors they promote gradually become the "new normal," replacing previous standards. In this case, the theater program may have shifted the community's perception about how many people are *actually* experiencing risk factors for suicide (e.g., perceived burdensomeness and thwarted belongingness), allowing for increased acceptance of those feelings and experiences, while simultaneously shifting the perception of how people *should* feel (e.g., "It's actually quite normal for me to feel like I don't belong.").

While this study seems to indicate some success, far more extensive evaluation is needed to determine the applicability of similar interventions on a large scale, and stronger measures of behavior are needed. Further replication and refinement of the intervention should actively engage a well-established theoretical model from the literature on behavior change communication.

Conclusion

This paper began by examining the effectiveness of a community-based theatre program on youth attitudes and beliefs about suicide prevention. Suicide prevention in the United States will not be achieved without addressing the current knowledge gaps in the field of suicide research. As discussed earlier, traditional, didactic or lecture-style educational approaches have not been shown to reduce the risk of suicide (Gould, et al., 2003; Niederkrotenthaler, et

al., 2014). Instead, more direct and personal forms of influence are needed (Wasserman, et al., 2012; Rich & Cargile, 2004). Young adults need to be willing and able to intervene in life-threatening situations affecting their peers. In step with narrative empowerment education, actors in this project were instructed to use personal experiences to communicatively reduce audience members' resistance to openly discussing the risk of suicide, the use of professional help, and the strategies needed to intervene in suicidal ideation and attempts (Seibold, et al., 1985; Seibold & Thomas, 1994; Wyman, et al., 2010; The JED Foundation, 2016; Miller-Day & Hecht, 2013).

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EXTENDED PARALLEL PROCESS MODEL

Figure 1.

Extended Parallel Process Model (Witte K., Cameron, McKeon, & Berkowitz, 1996)

Table 1

Self-Efficacy for Communicating About Personal Suicide Concerns

If I were suicidal	Pretest				Posttest			
	I would feel comfortable talking with a:							
	N	M	SD	N	M	SD	N	SD
Parent/family member	215	3.26	1.44	161	3.37	1.39		
Friend	222	3.72	1.31	160	3.83	1.20		
Teacher/school counselor	215	2.80	1.43	161	3.07**	1.70		
Church leader	211	2.71	1.51	159	2.93	1.40		
Doctor/nurse/healthcare provider	211	2.76	1.41	161	2.93	1.23		
Social worker	209	2.22	1.28	158	2.54**	1.18		

Note: Significant differences within groups (between time periods) using Pearson Chi-Square (or Fisher's exact test if predicted count less than 10) are noted with single or double (*) to denote p-values of *<0.10, **<0.05, respectively.

Table 2

Self-Efficacy for Communicating About Suicide Concerning Others

If someone talked to me about being suicidal	Pretest			Posttest		
I would feel comfortable talking to:	N	Mean	SD	N	Mean	SD
Parent/family member	218	3.72	1.37	182	3.90	1.28
Friend	212	3.56	1.39	174	3.50	1.30
Teacher/school counselor	217	3.63	1.41	185	3.94**	1.21
Church leader	207	3.10	1.55	178	2.23	1.46
Doctor/nurse/healthcare provider	207	2.99	1.46	175	3.15	1.37
Social worker	204	2.65	1.49	173	2.95**	1.38

Note: Significant differences within groups (between time periods) using Pearson Chi-Square (or Fisher's exact test if predicted count less than 10) are noted with single or double (*) to denote p-values of *<0.10, **<0.05, respectively.

Table 3

Response Efficacy for Accessing Interpersonal Support

Item	Let's Talk Suicide Prevention	
	Pre (n = 224) M (SD)	Post (n = 217) M (SD)
<i>The following individuals can help young people deal with depression and/or suicide:</i>		
Parent / Friend	4.1 (0.90)	4.2 (0.83)
Teacher / School Counselor	3.5 (1.00)	3.7(0.91) *
Church leader	3.7 (0.99)	3.6 (1.04)
Doctor / nurse / healthcare provider	3.8 (0.99)	3.8 (0.96)
Social worker	3.3 (0.85)	3.3 (0.94)
Counselor / Therapist	4.4 (0.31)	4.4 (0.26)

Note: Significant differences within groups (between time periods) using Pearson Chi-Square (or Fisher's exact test if predicted count less than 10) are noted with single or double (*) to denote p- values of *<0.10, **<0.05, respectively.

Table 4

Demographics

Characteristic	Miles City	
	Pre (n=224) n (%)	Post (n=217) n (%)
Gender:		
Female	135 (60.2)	130 (59.9)
Male	88 (39.3)	84 (38.7)
Not specified	1 (0.5)	3 (1.4)
Ethnicity:		
American Indian or Alaskan Native	8 (3.6)	4 (1.8)
Asian/Pacific Islander	3 (1.3)	1 (0.5)
Black / African-American	2 (0.8)	2 (0.9)
Hispanic / Latino	6 (2.7)	4 (1.8)
White / Caucasian	204 (91.1)	200 (92.2)
Not specified	1 (0.5)	6 (2.8)
Age:		
Less than 15 years of age	16 (7.2)	43 (19.8) ***
Between 15 – 16 years of age	121 (54.0)	124 (57.1) ***
17 years of age or older	87 (38.8)	47 (21.7) ***
Not specified	0 (0.0)	3 (1.4) ***

Note: Significant differences within groups (between time periods) using Pearson Chi-Square (or Fisher's exact test if predicted count less than 10) are noted with single, double, or triple asterisks (*) to denote p-values of * <0.10 , ** <0.05 , or *** <0.01 , respectively.

Table 5

Suicide Experience

	Pre n (%)	Post n (%)
Do you know someone who has committed suicide?	182 (81)	160 (74)
Are you currently being treated for depression?	27 (12)	22 (10)
Have you ever sought professional help for depression?	49 (22)	41 (19)
Have you considered suicide in the past year?	41 (18)	29 (13)
Have you ever attempted suicide?	11 (5)	9 (4)

Table 6

Variables and Definitions

Variable	Definition	Cite
Self-efficacy	Individuals' beliefs about their ability to perform the recommended response.	Witte, Cameron, McKeon, & Berkowitz (1996).
Response-efficacy	Individuals' belief in the effectiveness of a recommended response.	
Perceived Susceptibility	Beliefs about one's risk of experiencing the threat	
Perceived Severity	Beliefs about the significance or magnitude of the threat	