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Spring 2019

Best Predictive Factor for Knowledge of How to Appropriately Respond to Suicidal Individuals

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BEST PREDICTIVE FACTOR FOR KNOWLEDGE OF HOW TO APPROPRIATELY RESPOND TO SUICIDAL INDIVIDUALS

A Master's Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Clinical Psychology

Ву

Sadie Flood

May 2019

BEST PREDICTIVE FACTOR FOR KNOWLEDGE OF HOW TO APPROPRIATELY RESPOND TO SUICIDAL INDIVIDUALS

Psychology

Missouri State University, May 2019

Master of Science

Sadie Flood

ABSTRACT

Suicide is a major health crisis affecting all parts of the world. Although extensive research has been conducted on suicide and numerous suicide prevention programs are in place, there still exists a gap in our knowledge as to how to encourage the public to reach out to individuals who may be suicidal. The aim of the current study is to examine methods of responding when confronted by an individual with suicidal tendencies. Participants completed four scales measuring their knowledge of suicide, personality characteristics, level of suicide stigma, and knowledge of how best to respond to an individual with suicidal tendencies. Data was analyzed by way of a regression analysis. Results suggest knowledge of suicide and suicide stigma are predictive of knowledge of how to appropriately respond to someone with suicidal tendencies; however, the personality characteristics included in this study were not found to add to the regression model. Limitations and future directions are discussed.

KEYWORDS: suicide, psychology, predictive factors, stigma, knowledge, appropriate responding, personality, Big 5

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By

Sadie Flood

A Master's Thesis
Submitted to the Graduate College
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In Partial Fulfillment of the Requirements
For the Degree of Master of Science, Clinical Psychology

May 2019

Approved:

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In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

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INTRODUCTION

The World Health Organization (WHO) details many statistics related to the concern posed by suicide around the world, including a global mortality rate of one death every 40 seconds (Owens et al., 2011). A global survey conducted by the WHO found that 61% of the 90 countries that participated in the survey indicated suicide was a significant public health concern (Arensman, 2017). The Centers for Disease Control (CDC) published the Youth Risk Behavior Surveillance in 2017 (Kann et al., 2017), which included many statistics related to suicide among adolescents. The CDC reported that 17.2% of high school students in the United States had seriously contemplated suicide, 13.6% had made a plan, and 7.4% had attempted suicide at least once over the past year prior to taking the survey. Additionally, at each of these levels females reported rates twice as high as males. The CDC reported a linear decrease occurring from 1991 to 2007, but an increase from 2007 to 2017 in the percentage of students contemplating suicide and creating a plan. Finally, the CDC (2015) reports that a suicide occurs in the U.S. every 13 minutes and suicide is the second leading cause of death among individuals aged 15-34.

Many suicide prevention programs (SPP) and campaigns have been created, including state and national level campaigns (i.e. Know the Signs, Ask Listen Refer, Question Persuade Refer, Raising Awareness of Personal Power, Mental Health First Aid, Let's Talk). Most of these programs focus on increasing knowledge and awareness, decreasing stigma, and encouraging individuals to reach out to the person with suicidal tendencies and appropriately referring them for professional services. The RAND Corporation has published a Suicide Prevention Program Evaluation Toolkit for programs to evaluate the efficacy of their SPPs (Acosta, Ramchand,

Becker, Felton, Kofner, 2013). Since 2005, program evaluations show SPPs have improved significantly in that they have been achieving their goals (Zalsman et al., 2016).

An expectation surrounding suicide is that mental health professionals will identify and treat individuals with suicidal ideation. Based on the fact that this is what mental health professionals are trained to do, there appears to be widespread belief that evaluation of individuals with suicidal tendencies is reserved only for professionals. This is evident in the research literature, as exemplified by one article, "Suicide Risk Assessment: What *Psychologists* Should Know" (emphasis added; Sommers-Flanagan & Shaw, 2017). However, statistics show that 75% of individuals who take their own life are not under the care of a mental health professional (Owens et al., 2011). This points to the need for all members of the community to be properly trained on suicide prevention. Fortunately, some countries have adopted the idea that "suicide is everyone's business" (Owens et al., 2011), which has increased the number of SPPs directed at a broader category of individuals, not just professionals. Additionally, research has found that youth experiencing suicidal ideation are more likely to confide in their peers than in adults (Hazell & King, 1996). As one study found, many people are able to discern depressive behaviors in individuals to whom they are close (Owens et al., 2011). Notably, research has found that many individuals experiencing suicidal ideation communicate their intent to loved ones before attempting (Owen, Belam, Lambert, Donovan, Rapport, & Owens, 2012; Owens et al., 2009; Houston, Hawton, & Shepperd, 2001). However, the concern then becomes how loved ones react to the signs individuals with suicidal tendencies are displaying, which is a frequent aim of SPPs (Nicholas, Rossetto, Jorm, Pirkis, & Reavely, 2018).

The vast majority of SPPs instruct "gatekeepers" to ask about suicide (Nicholas, Rossetto, Jorm, Pirkis, & Reavely, 2018). Therefore, it is important to include as an outcome

variable if gatekeepers are more likely to ask about suicide after completing training. Individuals experiencing suicidal ideation have also indicated that taking suicide threats seriously is important during open communication about suicide with loved ones (Nikolas, Pirkus, Rossetto, Jorm, Robinson, & Reavely, 2017). However, some programs "rarely provided guidance on how to talk about suicide with someone who might be at risk" (Nicholas, Rossetto, Jorm, Pirkis, & Reavely, 2018).

SPPs typically work to train "gatekeepers," defined in the suicide literature as "individuals in a community who have face-to-face contact with large numbers of community members as part of their usual routine." The goal of SPPs is to increase gatekeepers' ability to "identify persons at risk of suicide and refer them to treatment or supporting services as appropriate" (U.S. Department of Health and Human Services Office of the Surgeon General and National Action Alliance for Suicide Prevention, 2012). SPPs have had as a primary learning objective the increase of knowledge about suicide, but this alone has not increased individuals' reaching out behaviors when they believe someone may be suicidal (Wyman et al., 2008). Efficacy research has shown that stigma can be decreased, but individual intervention behaviors have not been increased. Therefore, the focus should be on how to increase trained individual's reaching out behaviors.

"Question Persuade Refer" is an SPP that was implemented in Tennessee following policy change that mandated all mental health professionals undergo specialized training on suicide prevention. Outcome measures, based on gatekeeper self-report, showed increases in gatekeeper preparedness, knowledge of suicide, access to services, and a decrease in gatekeeper reluctance. However, there was no change in objective measures of gatekeepers asking students about suicide or distress or referring students to appropriate services (Wyman et al., 2008).

Owens et al. (2011) conducted a qualitative analysis in which they asked individuals who were close to someone who died by suicide to reflect on the months leading up to the suicide. The most important finding from this study was why these close members did not initiate a conversation about suicide with the individual experiencing suicidal ideation. The participants indicated many reasons they did not ask, including the following: awkwardness, embarrassment, hypocrisy, ignorance, busy lives, respect for the individual's autonomy, and fear of saying the wrong thing (Nicholas, Rossetto, Jorm, Pirkis, & Reavely, 2018; Owens et al., 2011). The present study aims to add to the information obtained by Owens and colleagues (2011), especially by obtaining quantitative data and not relying on hindsight.

This study will examine the predictive factors related to appropriately responding to someone who may be having thoughts of suicide. Factors to examine include: participant's knowledge of suicide (Revised Facts on Suicide Quiz; Voracek, Tran, and Sonneck, 2008), participant's stigma related to suicide (Stigma of Suicide Scale; Batterham, Calear, & Christensen, 2013), and the participant's personality characteristics (NEO – Neuroticism: vulnerability or N6; Extraversion: assertiveness or E3; Conscientiousness: competence or C1; Goldberg et al., 2006).

The researchers hypothesize that participants will have a better understanding of how best to respond to individuals implying suicidal ideation if: they have strong knowledge of suicide; they have low suicide stigma; they have lower levels of vulnerability; and they have higher levels of assertiveness and competence.

The researchers hypothesize that the unique variance of knowledge of how to appropriately respond to suicidal individuals will be accounted for by knowledge of suicide and levels of suicide stigma, vulnerability, assertiveness, and competence.

METHODS

Participants

A total of 91 participants were obtained for this study. Two participants were excluded: one only reported demographic information and the other reported their age as 17. Therefore, 89 participants were included in the final participant pool and subsequent analyses. Of the 89 participants, 72 (80.9%) were female, 16 (18.0%) were male, and one did not identify. Ages ranged from 18 to 34, with a mean of 19.56 and standard deviation of 2.64. Additionally, 28 (31.5%) participants indicated they had participated in a suicide prevention program prior to the study, while 61 (68.5%) indicated they had not. This study utilized a convenience sample from general psychology classes at a midsize, midwestern university. Participants were recruited using SONA Systems, a cloud-based software used to facilitate the research recruitment process at Missouri State University. No incentive was directly provided by the researcher, but participation fulfilled course requirements.

Measures

The Revised Facts on Suicide Quiz (RFSQ; Voracek, Tran, and Sonneck, 2008) was used to assess participant's knowledge of suicide. Participants were presented with the 14 items and asked to determine if the statements were true or false. Items were presented in the order originally used to validate the scale. Higher scores indicated more knowledge about suicide.

The Stigma of Suicide Scale – Short Form (SOSS-SF; Batterham, Calear, & Christensen, 2013) was used to measure participants' perceived stigma related to individuals who die by suicide. It is a list of 16 words related to suicide in which individuals indicated how much they

agreed with each item relative to individuals who take their own lives. Descriptive words presented fall into one of three categories: stigma, isolation/depression, or glorification/normalization. All items were presented in a random order across participants. Scores were rated on a 1 (strongly disagree) to 5 (strongly agree) scale with higher scores indicating more stigma.

Items from the International Personality Item Pool or IPIP (https://ipip.ori.org/) were used to assess participants' levels of vulnerability (N6), assertiveness (E3), and competence (C1). The IPIP-NEO is a public domain resource that provides researchers with the ability to assess factors and facets within the Big Five model of personality using open access materials (http://www.personal.psu.edu/~j5j/IPIP/ipipneo300.htm). Vulnerability is a facet from the Neuroticism scale, with high scores indicating the participant feels "unable to cope with stress, becoming dependent, hopeless, or panicked when facing emergency situations" and low scores indicating they "perceive themselves as capable of handling themselves in difficult situations" (McCrae & Costa, 2010, pg. 22). Assertiveness is a facet from the Extraversion scale, with high scores indicating participants "are dominant, forceful, and socially ascendant" while low scores indicate participants "prefer to keep in the background and let others do the talking" (McCrae & Costa, 2010, pg. 22). Competence is a facet from the Conscientiousness scale, with high scores indicating participants "feel well-prepared to deal with life" and low scores indicate participants "have a lower opinion of their abilities and admit that they are often unprepared and inept" (McCrae & Costa, 2010, pg. 23). Additionally, competence and vulnerability are negatively related to one another, which is in line with the researcher's predictions. Each facet contained 10 statements that were indicative of either high or low levels on that scale, for a total of 30 statements. Participants were asked to rate how accurately they felt the statements described

them on a 1 (very inaccurate) to 5 (very accurate) scale. Items were presented in a random order across participants.

The Suicide Intervention and Response Inventory (SIRI; Neimeyer & McInnes, 1981) was used to assess participant's ability to determine appropriate responses to an individual expressing suicidal ideation. The SIRI contains 25 statements made by an individual who is experiencing some degree of suicidality. To each statement, the participant was presented with two "helper" replies. Participants were instructed to determine which of the two replies was more appropriate. Items were presented in the order originally used to validate the scale. Responses were compared to those of a professional panel. Higher scores indicated better understanding of how to respond to an individual experiencing suicidal ideation.

Procedure

The study was approved by Missouri State University's Institutional Review Board on February 4, 2019 (study number IRB-FY2019-344, see Appendix). Participants joined the study by choosing it on SONA Systems. Once joined, they were redirected to the study on Qualtrics. Participants were first presented with an informed consent statement, at which point they needed to accept and acknowledge their rights and attested to being 18 years or older. Following consent, they were asked simple demographic questions, including gender, age, and if/when they had participated in a suicide prevention program in the past. Finally, participants were presented the scales in random order. Participation in the study fulfilled part of course requirements.

RESULTS

Reliability statistics were obtained for all four measures, with individual statistics reported for the three facets of the NEO-PI-3 (assertiveness E3, competence C1, and vulnerability N6). Further, three regressions were run: one regression comprising all the measures, one comprising the measures hypothesized to positively correlate with appropriate responding (competence, assertiveness, and knowledge), and one comprising the measures hypothesized to negatively correlate with appropriate responding (stigma and vulnerability).

Cronbach's alphas were high for the NEO-PI-3 facets (vulnerability = .868; assertiveness = .840; competence = .809) and the SIRI (.802). However, the SOSS and RFSQ demonstrated low reliability (Cronbach's alphas of .696 and .270, respectively). This appears to be the first study to calculate reliability statistics for the RFSQ. A possible explanation for the low reliability may be that the RFSQ has a two-factor structure rather than a single one – a factor analysis would be able to determine this, but there was not a sufficient number of participants in this study to conduct one.

The correlations between all variables are presented in Table 1. The Pearson correlation coefficient between knowledge of appropriate responding (SIRI) and stigma (SOSS) was significant at the .05 level, r (87) = -.31, p = .003. The Pearson correlation coefficient between knowledge of appropriate responding (SIRI) and knowledge of suicide (RFSQ) was significant at the .05 level, r (87) = .36, p = .001. The Pearson correlations between knowledge of appropriate responding (SIRI) and the three personality facets (N6, E3, C1) did not reach statistical significance: SIRI and N6, r (87) = -.01, p = .946; SIRI and E3, r (87) = -.08, p = .453; SIRI and C1, r (87) = .13, p = .222.

The Pearson correlation coefficient between knowledge of suicide (RFSQ) and stigma (SOSS) was significant at the .05 level, r (87) = -.27, p = .010. Consistent with findings by McCrae and Costa (2010), competence (C1) and vulnerability (N6) were found to have a statistically significant negative correlation, r (87) = -.67, p < .001. The Pearson correlation coefficient between assertiveness (E3) and vulnerability (N6) was significant at the .05 level, r (87) = -.36, p = .001. The Pearson correlation coefficient between assertiveness (E3) and competence (C1) was significant at the .05 level, r (87) = .46, p < .001. Finally, participation in an SPP was found to have a statistically significant negative correlation with knowledge of suicide (RFSQ), r (87) = -.22, p = .040.

Table 1: Correlation matrix.

Variable	1	2	3	4	5	6	7
1. SIRI		31*	.36*	01	08	.13	.04
2. SOSS			27*	.01	11	14	08
3. RFSQ				.04	01	.03	22*
4. N6					36*	67*	.08
5. E3						.46*	18
6. C1							04
7. Participation in SPP							

^{*} *p* < .01

Multiple regression analyses were conducted to examine the relationship between appropriate responding and various potential predictors. Table 2 summarizes the descriptive statistics and analysis results. The multiple regression model with all five predictors produced R^2 = .212, F(5, 83) = 4.461, p = .001. As can be seen in Table 2, knowledge had a significant

positive regression weight, indicating participants reporting more knowledge of suicide were expected to have more knowledge of appropriate responding, after controlling for the other variables in the model. Stigma had a significant negative weight, indicating participants reporting higher levels of suicide stigma were expected to have lower knowledge of appropriate responding, after controlling for the other variables in the model (a suppressor effect). Personality facets (vulnerability, assertiveness, and competence) did not contribute to the multiple regression model.

Table 2: Regression model and descriptive statistics.

Variable	Mean	SD	Multiple Reg	gression Weights	Sig.
			b	β	
SIRI	18.29	4.01	13.11		.064
SOSS	43.42	6.66	16	22	.032
RFSQ	11.28	1.69	.67	.28	.007
N6	27.73	7.80	.03	.07	.617
E3	31.97	7.01	10	18	.114
C1	33.80	5.06	.17	.22	.128

Due to the personality facets not correlating with the other variables (including the dependent variable), a multiple regression analysis was conducted to examine the relationship between appropriate responding and the two variables that were found to have statistically significant correlations with the dependent variable. Table 3 summarizes the descriptive statistics and analysis results. The multiple regression model with the two predictors produced $R^2 = .176$, F(2, 86) = 9.166, p < .001. As can be seen in Table 3, and consistent with the initial regression presented in Table 2, knowledge had a significant positive regression weight, indicating

participants reporting more knowledge of suicide were expected to have more knowledge of appropriate responding, after controlling for the other variables in the model. Stigma had a significant negative weight, indicating participants reporting higher levels of suicide stigma were expected to have lower knowledge of appropriate responding, after controlling for the other variables in the model (a suppressor effect).

Table 3: Adjusted regression model and descriptive statistics.

Variable	Mean	SD	Multiple Regression Weights		Sig.
			ь	β	
SIRI	18.29	4.01	16.57		.000
SOSS	43.42	6.66	14	23	.025
RFSQ	11.28	1.69	.69	.29	.005

DISCUSSION

Consistent with the hypotheses, lower suicide stigma and more knowledge of suicide predict an individual's knowledge of how to appropriately respond to an individual with suicidal tendencies. On the other hand, the personality facets of vulnerability, assertiveness, and competence do not predict knowledge of appropriate responding. It is likely someone who has low suicide stigma will be more respectful and thoughtful in their responses to individuals expressing suicidal ideation, whereas someone with high suicide stigma may have difficulty expressing empathy to an individual experiencing suicidal ideation. Similarly, someone who has more knowledge of suicide may have additionally learned how best to respond to individuals expressing suicidal ideation.

As mentioned, personality facets of vulnerability, assertiveness, and competence were not found to predict knowledge of appropriate responding. This may be an indication that personality factors do not contribute to how people choose to interact with individuals expressing suicidal ideation. However, it may be possible that the three chosen personality facets alone do not affect how an individual interacts with someone who is expressing suicidal ideation; instead, there may be other personality characteristics not assessed for in this study that are predictors. Potentially, a more comprehensive personality assessment may be found to better predict knowledge of appropriate responding.

Unsurprisingly, suicide stigma was found to negatively correlate with knowledge of appropriate responding, meaning individuals who report low suicide stigma are better able to choose the appropriate way to respond to an individual expressing suicidal ideation, and people who report higher suicide stigma are not as accurate at choosing appropriate responses to

individuals expressing suicidal ideation. Additionally, knowledge of suicide was found to positively correlate with knowledge of appropriate responding. This means individuals who are more knowledgeable about suicide are better able to choose appropriate responses to individuals expressing suicidal ideation, and those who have less knowledge of suicide are not as good at choosing appropriate responses. This supports the notion that decreasing suicide stigma and educating the public about suicide can improve the interactions between individuals experiencing suicidal ideation and those who choose to reach out to them. Suicide stigma and knowledge of suicide were found to negatively correlate, meaning individuals who reported lower suicide stigma had increased knowledge of suicide, and those who reported higher levels of suicide stigma were not as knowledgeable about suicide. Considering these variables are predictive of appropriate responding, working to cause a positive change in one potentially will affect change in the other.

Regarding suicide prevention programs (SPPs), the current study did not find a relationship between self-reported participation in an SPP and level of suicide stigma. Further, this study found a *negative* correlation between participation in an SPP and knowledge of suicide. This means individuals in this study who reported having participated in an SPP had less knowledge of suicide. If these results are accurate, then the effectiveness of SPPs is drawn into question. The measure used to assess for knowledge of suicide (RFSQ) had low reliability, however, meaning it may not be the most effective measure of knowledge of suicide. Further, no relationship was found between participation in an SPP and knowledge of appropriate responding. SPPs are designed to increase knowledge and awareness of suicide, decrease stigma, and increase reaching out behaviors. Results from this study suggest that SPPs may not be affecting positive change in any of their identified objectives or goals. As previously discussed,

results suggest participation in an SPP is not associated with an increase in reaching out behaviors. Based on the findings of the current study, individuals who report participating in an SPP may not engage in more reaching out behaviors because they do not possess the knowledge of how best to respond to an individual expressing suicidal ideation when presented with one, thus decreasing their confidence in reaching out.

There were a number of limitations with the current study. The RFSQ demonstrated low reliability. Stronger conclusions could be drawn regarding participant knowledge of suicide if a measure with a stronger reliability coefficient had been utilized. Additionally, as mentioned, only three facets of personality were measured (with a total of thirty items), rather than a full personality assessment. Using a comprehensive measure of the "Big Five" personality characteristics might reveal relationships between other factors or facets and reaching out behavior. The study also relied on self-report of participation in SPPs – it may be that more participants had participated in an SPP but did not recall their participation. Further, less than one-third of the participants reported having participated in an SPP, thus giving a disproportionate sample from which to draw for the analyses. This study contained a disproportionately large sample of females (80.9%) versus males (18.0%). Finally, the sample consisted only of college students in one region of the country. A larger, more representative sample may yield different conclusions.

For future directions, it would be interesting to assess for gender and age differences on suicide stigma and knowledge of suicide and appropriate responding. To truly assess the efficacy of SPPs in increasing reaching out behaviors, research is needed using actual behavioral measures as the dependent variable. In such a study, knowledge of suicide, suicide stigma, and personality characteristics could be assessed for, as well, to determine their relationship with

individuals who engage in reaching out behaviors. Considering the large health crisis suicide poses, more research is needed to assess the true efficacy of SPPs.

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APPENDIX

IRB #: IRB-FY2019-344

Title: Best Predictive Factor for Knowledge of How to Appropriately Respond to Suicidal Individuals

Creation Date: 11-19-2018

End Date: 2-5-2020 Status: Approved

Principal Investigator: William Deal

Review Board: MSU

Sponsor:

Study History

Submission Type Initial Review Type Expedited Decision Approved	
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Initial Submission

1 General Information

1A. What is the full title of the research protocol?

Best Predictive Factor for Knowledge of How to Appropriately Respond to Suicidal Individuals

Abstract/Summary

Please provide a brief description of the project (no more than a few sentences).

The purpose of this study is to determine if personality characteristics, knowledge of suicide, or suicide stigma best predicts knowledge of how to respond appropriately to an individual who is suicidal. Suicide is a global health crisis according to the World Health Organization (WHO). Many suicide prevention programs (SPPs) have been created in an effort to reduce the high rates of suicide. SPPs are typically effective at increasing knowledge of suicide and decreasing suicide stigma, but have been ineffective at empowering trained individuals to begin a dialogue with individuals who may be at risk for suicide.

Who is the Principal Investigator?

This MUST be a faculty or staff member.

1C.

Name: William Deal

Organization: Learning Diagnostic Clinic

Address: 901 S National Ave , Springfield, MO 65897-0027

Phone: 417-836-6631

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This person may be the Principal Investigator or someone else (faculty, staff, or 1D. student). This person, in addition to the PI, will be included on all correspondence related to this project.

Name: Sadie Flood Organization: Psychology

Address: 901, S. National Avenue, Springfield, MO 65897-0027

Phone:

Email: sadie18@live.missouristate.edu

Select the Co-Principal Investigator(s).

1E.

This MUST be a faculty or staff member. **Persons listed as Co-Pls will be required to certify the protocol** (in addition to the PI). This person will also be included on all correspondence related to this project.

Select the Investigator(s).

An investigator may be faculty, staff, student, or unaffiliated individuals.

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Describe the proposed project in a manner that allows the IRB to gain a sense of the proje

- the research questions and objectives,
- key background literature (supportive and contradictory) with references, and
- the manner in which the proposed project will improve the understanding of the chos

The World Health Organization (WHO) details many statistics related to the concern posed by suicide a death every 40 seconds (Owens et al., 2011). A global survey conducted by the WHO found that 61% a suicide was a significant public health concern (Arensman, 2017). The Centers for Disease Control (CE (Kann et al., 2017), which indicated many statistics related to suicide among adolescents. The CDC for had seriously contemplated suicide, 13.6% had made a plan, and 7.4% had attempted suicide at least Additionally, at each of these levels females reported rates twice as high as males. The CDC found a ligincrease from 2007 to 2017 in the percentage of students contemplating suicide and creating a plan. Fi U.S. every 13 minutes and suicide is the second leading cause of death among individuals aged 15-34

Many suicide prevention programs (SPP) and campaigns have been created, including state and nation Question Persuade Refer, Raising Awareness of Personal Power, Mental Health First Aid, Let's Talk). I awareness, decreasing stigma, and encouraging individuals to reach out to the suicidal person and refer published a Suicide Prevention Program Evaluation Toolkit for programs to evaluate the efficacy of their Since 2005, program evaluations show SPPs have improved significantly (Zalsman et al., 2016).

The expectation surrounding suicide has been that mental health professionals will identify and treat susupposedly evaluation of suicidal individuals is reserved only for professionals. This is evident in the re Assessment: What Psychologists Should Know" (Sommers-Flanagan & Shaw, 2017). However, statistinot under the care of a mental health professional (Owens et al., 2011). This points to the need for all n prevention. Fortunately, some countries have adopted the idea that "suicide is everyone's business" (O SPPs directed at a broader category of individuals, not just professionals. Additionally, research has for peers than in adults (Hazell & King, 1996). Considering humans are social beings, many people are ab they are close (Owens et al., 2011). Notably, research has found that many suicidal individuals commu Belam, Lambert, Donovan, Rapport, & Owens, 2012; Owens et al., 2009; Houston, Hawton, & Shepper loved ones react to the signs they are displaying, which is a frequent aim of SPPs (Nicholas, Rossetto,

The vast majority of SPPs instruct "gatekeepers" to ask about suicide (Nicholas, Rossetto, Jorm, Pirkis gatekeepers are more likely to ask about suicide after completing training as an outcome variable. Suic threats seriously is important during open communication about suicide with loved ones (Nikolas, Pirku some programs "rarely provided guidance on how to talk about suicide with someone who might be at I

SPPs typically work to train "gatekeepers," which have been defined in the suicide literature as "individual large numbers of community members as part of their usual routine." The goal of SPPs is to increase government of treatment or supporting services as appropriate" (U.S. Department of Health and Human Alliance for Suicide Prevention, 2012). Studies have aimed directly at increasing knowledge about suic out behaviors when they believe someone may be suicidal (Wyman et al., 2008). Efficacy research has

intervention behaviors have not been increased. Therefore, the focus of suicide research should be on

"Question Persuade Refer" is an SPP that was implemented in Tennessee following policy change that prevention. Outcome measures relying on gatekeeper self-report showed significant findings in importa knowledge of suicide, and access to services, and a decrease in gatekeeper reluctance. However, ther asking students about suicide or distress or referring students to appropriate services (Wyman et al., 20

Owens et al. (2011) conducted a qualitative analysis in which they asked individuals who were close to leading up to the suicide. The most important finding from this study is why these close members did no individual. The individuals indicated many reasons they did not ask, including the following: awkwardne respect for autonomy, and saying the wrong thing (Nicholas, Rossetto, Jorm, Pirkis, & Reavely, 2018; (individual factor (personality characteristics, knowledge of suicide, and suicide stigma) best predicts kn individual.

2A.

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2B. Check all research activities that apply:

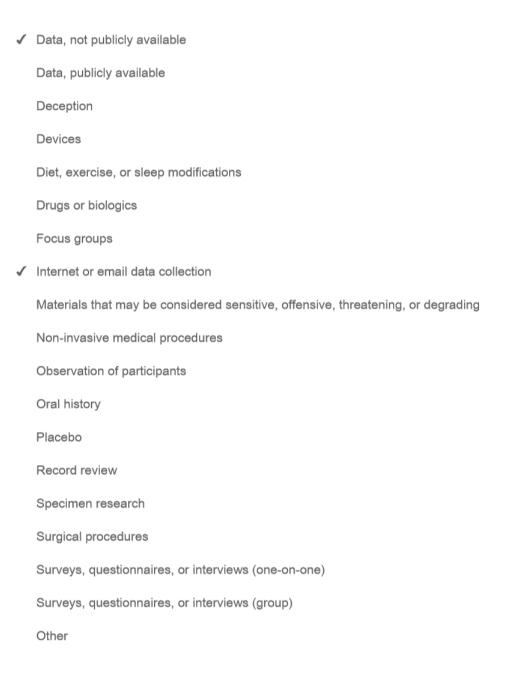
Audio, video, digital, or image recordings

Biohazards (e.g., rDNA, infectious agents, select agents, toxins)

Biological sampling (other than blood)

Blood drawing

Class Protocol (or Program or Umbrella Protocol)



Describe the procedures and methods planned for carrying out the study. Make sure to include the following:

- site selection,
- the procedures used to gain permission to carry out research at the selected site(s),
- data collection procedures,
- and an overview of the manner in which data will be analyzed.

2C. Provide all information necessary for the IRB to be clear about **all** of the contact human participants will have with the project.

Students will participate in the study on Qualtrics, an online survey system. Students will respond to a demographic form and a series of scales assessing knowledge of suicide, level of suicide stigma, personality characteristics, and knowledge of appropriate responses when interacting with a suicidal individual. The scales include the Revised Facts on Suicide Quiz (Voracek, Tran, and Sonneck, 2008), the Stigma of Suicide Scale (SOSS; Batterham, Calear, & Christensen, 2013), the NEO Personality Inventory, Third Edition (NEO-PI-3; Goldberg et al., 2006), and the Suicide Intervention and Response Inventory (Niemeyer & MacInnes, 1981). Data will be analyzed using a regression analysis.

Attach surveys, questionnaires, and other social-behavioral measurement tools, if applicable.

2D. NEO PI 3 Scale.docx

Revised Facts on Suicide Quiz.docx

Stigma of Suicide Scale.docx

Suicide Intervention Response Inventory.docx

Demographic Form.docx

3. Participants

3C.

3A.	S	pecify the participant population(s). Check all that apply.
		Adults
		Children (<18 years)
		Adults with decisional impairment
		Non-English speaking
	✓	Student research pools (e.g. psychology) Specify:
		Intro to Psychology students
		Pregnant women or fetuses
		Prisoners
		Unknown (e.g., secondary use of data/specimens, non-targeted surveys, program/class/umbrella protocols)
	S	pecify the age(s) of the individuals who may participate in the research.
3B. ⁻	m	articipants will vary depending on whether they are a traditional or non-traditional student with the ajority of ages ranging between 18 and 26. No participants under the age of 18 will partake in this udy.
		escribe the characteristics of the proposed participants, and explain how the nature of e research requires/justifies their inclusion.

Participants will consist of undergraduate students from Missouri State University, which may include lower- and upperclassmen and vary demographically. We seek a representative sample of introductory psychology students at MSU.

Provide the total number of participants (or number of participant records, specimens, etc.) for whom you are seeking Missouri State IRB approval.

Approximately 150 students will be recruited to participate in this research study.

Estimate the time required from each participant, including individual interactions, total 3F. time commitment, and long-term follow-up, if any.

Altogether the project will take about 15 minutes to complete.

Describe how potential participants will be identified (e.g., advertising, individuals known to investigator, record review, etc.). Explain how investigator(s) will gain access to this population, as applicable.

3G.

3H.

Participants included in this study will be recruited through the Introductory Psychology (PSY 121) course at Missouri State University. Students who are enrolled in PSY 121 are required to complete research participation credits; they are recruited through the research participation online system (SONA). The data collected from each participant will be kept confidential and anonymous. Researchers will in no way identify the participants' data.

Describe the recruitment process; including the setting in which recruitment will take place. Provide copies of proposed recruitment materials (e.g., ads, flyers, website postings, recruitment letters, and oral/written scripts).

Participants (N = 150) will be recruited from the Introduction to Psychology (PSY 121) research pool through the online research participation system (SONA).

3H.1. Attach recruitment materials, if applicable.

Will participants receive compensation or other incentives (e.g., free services, cash 3I. payments, gift certificates, parking, classroom credit, travel reimbursement, etc.) to participate in the research study?

✓ Yes

Describe the incentive, including the amount and timing of all payments.

Participants will be granted credit in PSY 121 through the online SONA system.

No

4. Informed Consent

From the list below, indicate how consent will be obtained for this study.

4A.

Check all that apply.

✓ Written/signed consent by the subject

Written/signed consent (permission) for a minor by a Parent or Legal Guardian

Written/signed consent by a Legally Authorized Representative (for adults incapable of consenting).

Request for Waiver of Documentation of Consent (e.g. Verbal Consent, Anonymous Surveys, etc.)

Waiver of parental permission

Consent will not be obtained from subjects (Waiver of Consent)

Describe the consent process including where and by whom the subjects will be approached, the plans to ensure the privacy of the subjects and the measures to ensure that subjects understand the nature of the study, its procedures, risks and benefits and that they freely grant their consent.

4B.

The Informed Consent document will be presented to the participant before the survey is started. Respondents will be reminded that participation is strictly voluntary. Participants will also be informed that they may willingly withdraw from the study at any time and that all information will be kept confidential. This study is an anonymous online survey. Data will only be available to research assistants via password protected files. Participation is completely voluntary and can be discontinued at any point. The Principal Investigator of this study is responsible for the storage, oversight, dissemination, and disposal of all data associated with this study.

Attach all copies of informed consent documents (written or verbal) that will be 4B.1. used for this study.

Informed Consent.docxSample documents: Informed Consent Examples

4B.2. Attach all copies of assent documents that will be used for this study, if applicable.

Sample documents: Assent Examples

5. Risks and Benefits

Describe all reasonably expected risks, harms, and/or discomforts that may apply to the research. Discuss severity and likelihood of occurrence.

5A. Consider the range of risks - physical, psychological, social, legal, and economic.

As with any investigation requiring candid responses, there is a slight risk of psychological discomfort. There is no evidence that asking people about suicidal ideation makes individuals more suicidal. The same principle likely would apply to participation in this research project. Further, as an added layer of protection, this project does not require participants to report nor reflect on their own personal ideation or attempts, nor those of individuals with whom they are close.

Describe the steps that will be taken to minimize risks and the likelihood of harm.

5B. Upon completion of the survey, contact information for both the counseling center and Principal Investigator (P.I.) will be provided; participants will be encouraged to communicate with the P.I. regarding questions, concerns, or requests for clarification.

List the potential benefits that participants may expect as a result of this research study.

5C. State if there are no direct benefits to individual participants.

There are no direct benefits to individual participants.

Describe any potential indirect benefits to future subjects, science, and society.

5D.

Research will provide supplementary information regarding the factors that affect a person's ability to respond appropriately to an individual who is suicidal. This study will help to better inform the research literature on suicide.

Discuss how risks to participants are reasonable when compared to the anticipated benefits to participants (if any) and the importance of the knowledge that may reasonably be expected to result.

5E.

As with any investigation requiring candid responses, there is a slight risk of psychological discomfort. The data obtained through this study will be beneficial when informing future suicide prevention programs.

6. Data Collection

Missouri State University is committed to keeping data and information secure. Please review the Missouri State <u>Information Security policies</u>. Discuss your project with the MSU Information Security Office or your College's IT support staff if you have questions about how to handle your data appropriately.

Statement of Principal Investigator Responsibility for Data

6A.

The principal investigator of this study is responsible for the storage, oversight, and disposal of all data associated with this study. Data will not be disseminated without the explicit approval of the principal investigator, and identifying information associated with the data will not be shared.

By checking this box, all personnel associated with this study understand and agree to the Statement of Principal Investigator Responsibility for Data.

How will the data for this study be collect/stored?

6B.

Check all that apply.

✓ Electronic storage format

On paper

Describe where the data will be stored (e.g., paper forms, flash drives or removable media, desktop or laptop computer, server, research storage area network, external source) and describe the plan to ensure the security and confidentiality of the records

(e.g., locked office, locked file cabinet, password-protected computer or files, encrypted data files, database limited to coded data, master list stored in separate location).

6C. At minimum, physical data should always be secured by lock and key when stored. Electronic data should be stored on University secure servers whenever possible (Office 365 or other secure campus server). If data has to be stored off campus, the file should be encrypted and the device password protected. Additionally, any data to be shared outside the University network will require a SUDERS request be filed and approved. See https://mis.missouristate.edu/Central/suders/creat...

This study is an anonymous online survey. Data will only be available to research assistants via password protected files. Participation is completely voluntary and can be discontinued at any point. The Principal Investigator of this study is responsible for the storage, oversight, dissemination, and disposal of all data associated with this study.

Describe how data will be disposed of and when disposal will occur.

At minimum, Federal regulations require research records to be retained for at least 3 years after the completion of the research (45 CFR 46). Research that involves identifiable health information is subject to HIPAA regulations, which require records to be retained for at least 6 years after a participant has signed an authorization. Finally, funded research projects may require longer retention periods, you may need to follow the sponsoring agency guidelines.

After completion of the study, all copies of data will be permanently deleted from computers and flash drives. Data and consent forms will be stored by the principle investigator for at least seven years after completion of this study; after this point, electronic information will be permanently deleted. The Principal Investigator of this study is responsible for the storage, oversight, dissemination, and disposal of all data associated with this study.

7. Funding

	Is this study externally funded?
7A.	For example, this research is funded by a source outside Missouri State; a federal agency, non-profit organization, etc.
	Yes
	✓ No
	Potentially (this study is being submitted for funding, but has not yet been awarded)
7B.	Is this study internally funded?
76.	For example, this research is funded by a source inside Missouri State; departmental funds, the Graduate College, etc.
	Yes
	✓ No
	Potentially (this study is being submitted for funding, but has not yet been awarded)
8. HIF	AA
_	Does your study contain protected health information (PHI)?
8A.	PHI is any information in a medical record or designated record set that can be used to identify an individual and that was created, used, or disclosed in the course of providing a a health care service, such as a diagnosis or treatment.
	Yes
	✓ No

9. Supporting Documentation

Human Subjects Training Certificates

9A.

Attach human subjects training certificates for all listed personnel. To access your training documents, please go to CITI Training. citiBasicCourseCompletionReport.pdf

HIPAA Training Certificates

9B.

Attach HIPAA training certificates for all listed personnel, if applicable. To get more information about HIPAA training and/or to access your training documents, please go to HIPAA Information for Researchers.

HIPPA Training Certificate.pdf

Informed Consent Documents

9C.

Attach all copies of informed consent documents (written or verbal) that will be used for this study.

Informed Consent.docxSample documents: Informed Consent Examples

Assent Documents

9D.

Attach all copies of assent documents (written or verbal) that will be used for this study. Sample documents: Assent Examples

9E	Recruitment Tools
	Attach copies of proposed recruitment tools.
	Surveys/Questionnaires/Other Social-Behavioral Measurement Tools
9F.	Attach surveys, questionnaires, and other social-behavioral measurement tools. NEO PI 3 Scale.docx Revised Facts on Suicide Quiz.docx Stigma of Suicide Scale.docx Suicide Intervention Response Inventory.docx Demographic Form.docx
	Other Documents
9G.	Attach any other documents that have not been specified in previous questions, but are needed for IRB review. Demographic Form.docx
10. /	Additional Information
10A.	Would you like to add additional information?
	Yes
	✓ No