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Why Do We Joke about Killing Ourselves? Suicide, Stigma, and Humor

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Abstract

Humor serves a variety of functions, and the current study seeks to understand the function of suicide-related humor. Through the creation of a novel suicide-humor scale, we measured participants' usage of suicidal humor and general humor, their experience with suicidality, and their stigma towards suicide. Our hypotheses that greater experience with suicidality will predict an increase in one's use of suicide-related humor and self-defeating humor were supported. However, stigma did not mediate this relationship as expected. Findings suggest that people who have experience with suicide are more likely to use suicidal humor, but more work is needed to determine why.

Why Do We Joke about Killing Ourselves: Suicide, Stigma, and Humor

Suicide has become one of the biggest public health issues in the United States, with it taking over 47,000 lives in 2017 alone (Leading Causes of Death Report, 2019). It is the second leading cause of death for those aged 10 to 34 and the tenth overall cause for all ages. Mental health education and preventative strategies have been employed on a national scale to alert people of the seriousness of suicide, yet humor surrounding the topic is quite common. Young people are disproportionately affected by suicide completion and attempt, and social media remains a popular place for these types of jokes (Leading Causes of Death Report, 2019). Sarcastic comments and jokes such as "I wish I was dead" and "Kill me now" have become so colloquial that acronyms like 'kms' (kill myself) are omnipresent; searching 'kms' on Instagram produces over 2 million hits.

Though these jokes may be interpreted as hostile and derogatory to those who are suicidal, many suicide prevention organizations have recognized these jokes as one of many potential warning signs for suicidal youth (American Foundation for Suicide Prevention, 2019). Though there are other ways to more transparently communicate one's feelings, the additional stigmatization that suicidal individuals experience may encourage one to use humor to express oneself as it doesn't put oneself in such a vulnerable state. Despite organizations' acknowledgement of suicide-related humor as well as the stigma that suicidal people face, no existing psychological literature exists that investigates the humor's recent popularity. The current study seeks to better understand the use of suicide-related humor especially in relation to suicide-specific stigma, and so we must draw upon existing general humor literature to inform our hypotheses.

Humor

There are many individual differences in the style and use of humor. Because of the variety of functions it serves, humor can be conceptualized as a cognitive ability, an emotional response, a social strategy, or a behavioral pattern, all of which are tested differently (Martin et al., 2003). Another conceptualization of humor is as a coping mechanism, as numerous studies have found that humor can have positive effects on mental health (Abel, 2002; Boerner, Joseph, & Murphy, 2017; Schneider, Voracek, & Tran, 2018). However, the style of how one uses humor is critical to understanding these effects as some uses are negatively correlated with mental health and wellbeing (Schneider, Voracek, & Tran, 2018). Martin et al.'s (2003) seminal paper detailed the development and initial reliability testing of the Humor Styles Questionnaire (HSQ), which presents four distinct humor styles that are conducive or deleterious to psychosocial wellbeing. Their conceptualization of these humor styles rates each style on two factors: the direction of enhancement (whether it enhances oneself or one's relationships with others) and whether the nature of the humor is benevolent or malevolent towards the self or others.

The two styles of benevolent-natured humor are affiliative and self-enhancing (Martin et al., 2003). The affiliative style seeks to enhance one's relationship with others, often with the purpose of making another person laugh or reducing tensions. Affiliative humor may include self-deprecating jokes, but the user still maintains a sense of self-acceptance and a jovial tone towards oneself (Martin et al., 2003). Self-enhancing humor is another benevolent humor style, but it differs from affiliative humor in that it directly benefits oneself rather than one's relationships with others. Self-enhancing humor shows the most direct positive effect on mental health and optimism, and even shares a positive relationship with posttraumatic growth (Boerner,

Joseph, & Murphy, 2017; Schneider, Voracek, & Tran, 2018). Absurdities and misfortunes throughout life are amusing through a self-enhancing lens, and this amusement serves as a defense mechanism against negative emotional states while allowing oneself to maintain a pragmatic mindset.

In contrast to these styles, aggressive and self-defeating humor consist of jokes that are injurious and generally more offensive and pessimistic (Martin, 2003). Aggressive humor seeks to enhance oneself similar to self-enhancing humor, but at the expense of others. Several studies have found it to be generally unrelated to the mental health and wellbeing of the user but it can have negative impacts on others and one's relationship with them (Kuiper, Grimshaw, Leite, & Kirsh, 2004; Schneider, Voracek, & Tran, 2018). Self-defeating humor is the fourth style of humor. It consists of self-injurious humor in order to enhance relationships with others. This style entails being 'the butt of the joke' and depreciating oneself for others' amusement. Though other styles (e.g. affiliative) may use self-deprecating jokes as well, self-defeating humor doesn't maintain the level of self-acceptance and light-heartedness that is needed to render the jokes benign. Jokes often reflect insecurity within oneself and can serve as a cover and an escape from constructively dealing with problems (Martin et al., 2003). Self-defeating humor shows the strongest correlates with low self-esteem, emotional instability, and depression (Boerner, Joseph, & Murphy, 2017; Erickson & Feldstein, 2007; Schneider, Voracek, & Tran, 2018).

These four styles have been validated across literature and are used in most humor studies to date (e.g. Erikson & Feldstein, 2007; Schneider, Voracek, & Tran, 2018). The HSQ has been particularly helpful in research on mental health in both clinical and non-clinical populations as clinicians consider humor as a potential strategy during intervention (Boerner, Joseph, & Murphy, 2017; Tucker et al., 2013). Humor and its functions have been applied to several

clinical populations, such as depressed individuals. Schneider, Voracek, & Tran's (2018) meta-analysis of 37 studies (N = 12,734) found a moderate positive relationship between self-defeating humor and depression, while self-enhancing humor shared a moderate negative relationship with depression. Likewise, social anxiety, trauma-related outcomes, neuroticism, and life satisfaction have also been linked in a similar pattern such that self-defeating humor correlated positively with negative outcomes and self-enhancing humor is related to positive outcomes (Boerner, Joseph, & Murphy, 2017; Schneider, Voracek, & Tran, 2018; Tucker et al, 2013). Though this literature generalizes to many clinical and non-clinical groups, several populations are underrepresented.

One of these populations consists of those who are suicidal. Tucker et al. (2013) conducted the first empirical study looking directly at the relationship between humor and suicide. Consistent with their hypotheses, they found that suicidal ideation shared a weak positive correlation with self-defeating humor and a weak negative correlation with affiliative and self-enhancing humor (no relationship with aggressive humor). Meyer et al. (2017) found a similar pattern of results with affiliative and self-enhancing humor, but the positive relationship between suicidality and self-defeating humor failed to reach significance. Surprisingly, no other studies have directly investigated the link between suicidality and humor despite several significant findings and notable implications from their results. If studies continue to replicate these findings, affiliative and self-enhancing humor styles may serve as protective factors against suicidal thinking, and techniques to promote and reinforce this use of humor could be incorporated into therapeutic techniques. Likewise, if further literature replicates the positive relationship between self-defeating humor and suicidality, techniques to change this style of humor and thinking could be used with suicidal clients in therapy. The lack of studies in this

field is even more surprising considering the serious impact suicide has on the world, even without considering the impact of affective non-fatal suicidality.

Suicidality and Stigma

In 2013, 4.3% of the population reported having suicidal thoughts in the past year (Substance Abuse and Mental Health Administration, 2018). This number jumped to 17.0% for adolescents in grades 9-12 (CDC Youth Risk Behavior Prevention, 2015). For attempts, roughly 1.4 million people in the United States attempted suicide in 2017 alone (Substance Abuse and Mental Health Services Administration, 2018*).* Despite the high prevalence of suicidality, it remains a heavily stigmatized topic in both clinical and non-clinical populations (Batterham et al., 2018; Carpiniello & Pinna, 2017). Sheehan, Dubke, & Corrigan (2017) conducted a study comparing stigmatization between people in vignettes who committed suicide, attempted suicide, or displayed depressive symptoms with no mention of suicidality. As predicted, they found that participants held higher stigmatic attitudes towards both suicidal conditions as compared to the depressed condition on the stereotyping and prejudice aspects of stigma. This heightened level of stigmatization is important considering the negative outcomes that stigma can contribute to.

The effects of stigma towards mental illness in general have been measured in numerous studies. Livingston & Boyd's (2010) meta-analysis including 45 studies found significant negative correlations between internalized stigma and hope, self-esteem, self-efficacy, quality of life, and connectedness with social support independent of sociodemographic qualities such as age, race, gender, marital status, and income. This relationship is only exacerbated when limiting the focus to suicidality specifically. Bailey, Kral, & Dunham (1999) tested elements in the grieving process for bereaved students and found that students who were grieving someone who died by suicide reported significantly higher levels of rejection, responsibility for the death, and

shame than students whose loved one died by accident or disease, demonstrating the stigmatized attitudes they hold in regard to suicide over other causes of death. A meta-analysis of literature studying the grieving process after suicide supported these findings as those grieving suicide deaths reported higher levels of rejection, shame, stigma, need to conceal the cause of death, and blaming (Sveen & Walby, 2008). Though this research focuses on the grief after suicide, other studies focus on suicidal individuals themselves.

For those who are actively suicidal, stigmatization is just as present. Batterham, Calear, & Christensen (2013) found that more than 25% of participants rated suicidal individuals as "weak", "reckless", or "selfish". One consequence of this stigmatization is internalized stigma, in which one holds these negative attitudes towards themselves and is embarrassed by their suicidality such that they are more likely to hide their thoughts and feelings from others (Carpiniello & Pinna, 2017, Scocco, Toffol, & Preti, 2016). This effect is particularly unhelpful as the isolation that people feel from suicide's stigmatization often decreases help-seeking behavior, which can increase suicidality further (Carpiniello & Pinna, 2017). This leads to a cycle in which suicidality brings upon feelings of isolation and shame that reinforce one's existing suicidal thoughts. Some studies have even found that stigmatization of suicidality is even higher within those who are suicidal because of this cycle (Carpiniello & Pinna, 2017; Schwenk, Davis, & Wimsatt, 2010). Stigmatization of suicide has many negative impacts on both those who have lost loved ones to suicide and those who are suicidal themselves, but the social withdrawal and reluctance to share suicidal thoughts are particularly detrimental to help-seeking behavior that would benefit many suicidal individuals.

One key theme within these studies is a sense of isolation resulting from the stigma about suicide. Rejection from others, a need to conceal the cause of death, and lower connectedness

with social support all indicate some type of social exclusion/lack of acceptance (Livingston & Boyd, 2010; Sveen & Walby, 2008). Though suicidal individuals may be motivated to conceal their feelings, about 80% of those who commit/attempt suicide display warnings signs beforehand, many of which include talking and even joking about one's own death/suicide (Crisis Centre of British Columbia, 2018; World Health Organization, 2014). As one navigates the stigmatization that they believe others will enforce as they disclose their suicidality, one may try to avoid direct discussion about their thoughts until they can gauge how others will react. One way that this could manifest is through humor, as jokes can assist in building relationships with others that might make one more comfortable during their disclosure (Martin et al., 2003). General relationship-enhancing humor has the capacity to do this, but investigating the role of suicide-specific humor may reveal additional functions that benefit an individual trying to disclose their suicidality.

Suicidal Humor

To date, no studies have directly investigated suicide-related humor. This is surprising considering that multiple mental health organizations have recognized colloquial suicidal humor as a potential warning sign of suicidal ideation, especially in young people (Children's Hospital of Orange County, 2019; Crisis Centre of British Columbia, 2018). The current study seeks to fill this gap through the creation of a new measure of suicide-related humor and use this measure to test the relationships between one's own experience with suicidality, stigma towards suicidality, and suicidal humor. To create this measure, we used the HSQ as a model for our items and subscales because of its established reliability and widespread use in research on humor (Martin et al., 2003). Modelling our subscales from the HSQ allows us to evaluate the function of suicidal humor in relation to general humor. If suicide-related humor serves the same four

functions that general humor does, use of benevolent forms of suicidal humor could be acknowledged and accepted in a therapeutic setting. Likewise, injurious types of suicidal humor could be understood as warning signs that could be identified and used to assist suicidal individuals with getting the services that they need. As deaths from suicide have been steadily increasing for decades, a better understanding of the warning signs of suicide has the potential to help people who hint at their suicidality through humor as it may have otherwise gone unnoticed (Leading Causes of Death Report, 2018).

The current two-study package creates and tests the reliability of a novel suicidal humor scale. Using the results from these reliability analyses, we use this measure to investigate how past/current suicidality predicts use of suicidal humor with stigma towards suicide acting as a mediator. We also seek to replicate the findings that experience with suicidality will be positively associated with self-defeating humor, with stigma towards suicide acting as a novel mediator in this relationship. Study 1 details the development and reliability testing of the Suicidal Humor Scale, while Study 2 reports the findings from our hypothesis testing using the revised Suicidal Humor Scale from Study 1.

Study 1

Study 1 served as an initial testing of reliability for the Suicide Humor Scale that was created for this study in the absence of another available scale measuring use of suicide-related humor. This scale, alongside the Humor Styles Questionnaire (Martin et al., 2003) from which it was modelled, was analyzed for its overall reliability and subsequent subscale factoring.

Method

Participants

79 participants were recruited from several undergraduate psychology classes at a private Midwestern university. They were recruited through an oral presentation in their classes and were offered extra credit for participation in the present study. 3 participants were excluded from analyses for failing control questions, leaving a final total of 76 participants. 51 (66.2%) of participants were female and 23 (29.9%) were male. Regarding race/ethnicity, 51 (74%) were White, 11 (14.3%) Black/African American, 2 (2.6%) Latinx/Hispanic, and 2.6% (2) Other.

Materials

Humor Styles Questionnaire Participants took the 32-item HSQ, a scale designed to measure use of four different styles of humor. It employs a Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Participants are asked to rate if each item is descriptive of how they use humor. Higher scores indicate higher use of one of the four types of humor. The four subscales (humor styles) within the scale include affiliative (benevolent humor that enhances relationships with others; $\alpha = .80$), self-enhancing (benevolent humor that enhances the self; $\alpha = .77$), aggressive (injurious humor that enhances the self; $\alpha = .77$), and self-defeating (injurious humor that enhances relationships with others; $\alpha = .88$). An example item from the self-enhancing subscale is, “If I am feeling depressed, I can usually cheer myself up with humor.”

Suicidal Humor Scale Participants were also presented with the 21-item Suicide Humor Scale (SHS) that we created for this study ($\alpha = .94$). The scale measures general use of suicide-related humor, though we selected items to fit within one of four subscales that were modelled after the Humor Styles Questionnaire (Martin et al., 2003): affiliative, self-enhancing,

aggressive, and self-defeating humor (items listed in Table 1). To create the scale, we took each item we could from the HSQ that made sense to change from humor in general to suicide-humor specifically. Items were presented randomly. Each item was rated on a Likert scale with answers ranging from 1 (Strongly Disagree) to 7 (Strongly Agree), with higher scores reflecting higher use of suicidal humor. An example item from this scale modelled from the HSQ self-enhancing subscale is, “When I’m upset, I can cheer myself up by joking about depression or suicide.”

Procedure

After receiving a link to the study that they could access on their own devices, participants gave informed consent and were first presented with the SHS, followed by the HSQ. Within both measures, a control question (“Select ‘Agree’ for this question”) was randomly displayed to participants. After the end of all survey measures, participants were then presented with a mood enhancing prompt (‘Write a few sentences about your happiest memory’) to reduce any mental discomfort experienced during the study. Debriefing immediately followed the mood enhancer and participants were given a link through which they could receive extra credit if they wished.

Results

Factor Analysis

The purpose of Study 1 was to test the subscale loadings and overall reliability of the Suicidal Humor Scale. Figure 1 displays a histogram of the means scores on the SHS. There is a slight negative skew on the means, indicating that suicidal humor is used less often than other forms of normally distributed humor (Martin et al., 2003). The SHS (M = 3.12, SD = 1.29) was modelled from the four-factor HSQ, this analysis was exploratory as suicidal humor has

remained largely unstudied and it is unknown how humor about suicide functions differently than humor about other topics. In the factor analyses, 5 factors were found to have Eigenvalues greater than 1, and the loadings for each factor is listed in Table 1.

Though 5 factors were found, factors 2-5 have Eigenvalues less than 2.5, while factor 1's Eigenvalue is 9.82. All but three items loaded onto factor one, showing a unidimensional factor for the measure holistically. Additionally, a scree plot listed below shows the elbow of the curve turning on factor 1 (see Figure 2 below). This suggests that a unidimensional measure may be more suitable for this scale, especially considering the exceptional overall reliability of the scale, $\alpha = .94$.

Correlations

In addition to this factor analysis, we ran Pearson's correlations between mean consummate SHS scores and means scores from each subscale of the HSQ to measure convergent validity of the SHS and test if it is holistically related to any type of humor. Results are as follow: affiliative, $r = .06$, $p = .47$; self-enhancing, $r = .01$, $p = .87$; aggressive, $r = .48$, $p < .001$; self-defeating, $r = .50$, $p < .001$. Interestingly, both injurious styles of humor (aggressive & self-defeating) shared a moderate positive correlation with scores on the SHS while neither benevolent style (affiliative & self-enhancing) shared any relationship. This suggests that although questions on the SHS were modelled from all four subscales on the HSQ, the use of humor about suicide may function similarly to injurious styles of humor regardless of the style that the humor would be used in another non-suicidal context.

Item Changes

Regarding changes in items and their wordings, we made one change to Item 10, “When I feel upset, joking about the issue makes me feel worse”. This item loaded highly onto two factors in the five-factor solution, with a loading of .51 on factor 1 and .66 on factor 4. Loadings for this item on all other factors were under the .2 level. In addition to the poor factor loadings, we changed this item on the theoretical basis that this item could be measuring general self-enhancing humor rather than humor that is specific to suicide. The original item was, “When I feel upset, joking about *the issue* makes me feel worse”, and was changed to appear as follows, “When I feel upset, joking about *suicide* makes me feel worse”. Because our findings suggest a unidimensional factor in use of suicidal humor, no other items were changed as the measure will be used as a measure of general use of suicidal humor.

Discussion

Our findings support the idea that suicide-specific humor functions differently than general humor as items adapted from the HSQ did not factor onto their intended subscales. Items largely factored onto one subscale, suggesting that use of suicidal humor may be less dynamic than use of general humor. As humor in general is ubiquitous while humor specific to suicide is not, it is possible that suicide-related humor is one of many topical humor styles that may function differently than the four styles presented by Martin et al. (2003). Further research is needed to address if there are other variables that shape suicide humor as a unique type of humor.

Though our factor analysis suggests that the SHS functions as a unidimensional measure, our correlation analyses revealed that those who use more suicidal humor also use more injurious humor. Elevated self-defeating humor has been associated with suicidal and clinical populations in prior literature, but the SHS’ relationship with aggressive humor is novel as existing literature has found it generally unrelated to mental health outcomes (Tucker et al., 2013; Meyer et al.,

2017). Future work is needed that investigates how aggressive humor interacts with humor about suicide, especially regarding those who have or do not have experience with suicidality themselves.

Study 2

Using the findings from this scale, we entered into study 2 using the SHS as a unidimensional measure of suicide-related humor use. For study 2, we hypothesize that (1) increased experience with suicidality will predict higher use of suicidal humor. This relationship will be mediated by stigmatic attitudes towards suicidal individuals, with higher stigmatic attitudes exacerbating the relationship. We also hypothesize that (2) increased experience with suicidality will predict higher use of general self-defeating humor, and that heightened stigmatic attitudes will also exacerbate this relationship.

Method

Participants

Participants were 149 undergraduate students at a small Midwest university. 16 participants were excluded from analyses for incomplete data or failed control questions, leaving a sample of 133 participants. 95 (74.2%) of participants were female, while 31 (24.2%) were male. 109 (85.2%) of participants were White, 15 (11.7%) were Black/African-American, 7 (5.5%) were Latinx/Hispanic, 3 (2.3%) were Alaskan Native/American Indian, 2 (1.6%) were Asian, and 2 (1.6%) were Native Hawaiian/Pacific Islander.

Materials

Suicidal Humor Scale. The SHS (α = .93) is presented to participants identically as it was presented in Study 1 with the exception of a change in wording for one item as explained in the discussion. As results from the factor analysis revealed that the SHS is reliable as a unidimensional scale, we will calculate scores from this measure in analyses as a composite score with higher scores indicating a higher use of suicide-related humor.

Humor Styles Questionnaire. The HSQ by Martin et al. (2003) used in Study 1 was used again identically in Study 2. It consists of four subscales representing differing styles/functions of humor: affiliative, self-enhancing, aggressive, and self-defeating. We gave participants the entire 32-item measure, though we only used the self-defeating humor subscale (α = .81) in analyses.

Stigma of Suicide Scale (SOSS). In addition to these measures, we used the Stigma of Suicide Scale (SOSS) Short-Form by Batterham, Calear, & Christensen (2013). This 16-item shortened version of the original 58-item scale measures negative attitudes towards those who kill themselves on three dimensions: stigma (α = .88), isolation (α = .91), and glorification (α = .84). Though we collected data for the whole 16-item scale, we only used the stigma subscale in analyses. The measure employs a Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree), asking participants to rate if they believe that a given word is characteristic of someone who kills themselves. For the 8-item stigma subscale, items like ‘immoral’, ‘an embarrassment’, and ‘cowardly’ are rated to calculate general negative affect towards suicidal people with higher scores indicating higher levels of stigma.

Suicide Ideation Measure. To measure suicidality, we utilized the 6-item Suicide Ideation Measure (Light et al., 2003). It uses a Likert scale with answers ranging from 1 (Never) to 4 (Often) on which participants indicate how often they feel suicidal. The SIM (α = .93) has

two subscales, with three items representing affective suicidality (e.g. “felt that life was not worth living”) and the remaining three items reflecting ideation of suicide-relevant behavior (e.g. “felt that you would kill yourself if you could”). Given our interest in suicidality as a whole, we used the SIM as a holistic measure of emotional and behavioral suicidality and did not separate the two subscales in analyses.

Procedure

After following a link given to participants through email, participants gave informed consent and took the SHS followed by the HSQ. Both measures included a control question randomly placed within the measure (“Select ‘Agree’ for this question”). They then took the SOSS followed by the SIM. Demographics for gender and race/ethnicity were collected along with an exploratory question asking if participants ever had a close friend or family member commit suicide. Finally, participants were also asked to write about their happiest memory to heighten their mood before exiting the survey and had the opportunity to receive course credit for their participation.

Results and Discussion

Means and standard deviations for variables are reported below in Table 2. We performed linear regression through the Sobel test to test the mediating role of stigma towards suicide on the relationship between suicidality and suicidal humor. Figure 3 displays the statistics for the mediation paths in the analysis. The *a* path was significant as the SIM was a significant predictor of the SOSS-Stigma subscale, such that higher suicidal ideation predicted lower stigmatic attitudes, t (132) = -2.92, β = -.25, p = .004. Dissimilarly, the *b* path was not significant; scores on the SOSS-Stigma subscale did not predict scores on the SHS, t(132) = -.52, β = -.05, p = .601.

The *c* path was significant as the SIM was a significant predictor of the SHS, such that heightened suicidality predicted increased use of suicidal humor, t (132)= 4.71, $\beta = .39$, $p < .001$. These results indicate that scores on the SOSS-Stigma subscale do not mediate the relationship between scores on the SIM and SHS.

In addition to suicidal humor as the predicted variable, we also examined self-defeating humor. We performed linear regression through the Sobel test to test the mediating role of stigma towards suicide on the relationship between suicidality and self-defeating humor. Each path is shown in Figure 4. The *a* path in this model was significant such that higher suicidal ideation predicted lower stigmatic attitudes, t (132) = -2.92, $\beta = -.25$, $p = .004$. Similar to the SHS, the *b* path was not significant as SOSS-Stigma was not a predictor of HSQ Self-Defeating scores, t (132) = .31 , $\beta = .03$, $p = .758$, but the *c* path was significant as the SIM was a significant predictor of HSQ Self-Defeating scores so that higher suicidal ideation indicates increased used of self-defeating humor, t (132) = 5.34, $\beta = .43$, $p < .001$. These results indicate the scores on the SOSS-Stigma subscale do also not mediate the relationship between scores on the SIM and SHS.

Study 2 tested the mediating role of stigmatic attitudes toward suicidal individuals in the relationship between experience with suicidality and use of suicide-related humor as well as self-defeating humor. Though there were significant relationships between suicidality and stigma, suicidality and suicidal humor, and suicidality and self-defeating humor, stigma did not significantly predict suicidal humor or self-defeating humor and did not mediate the relationship.

General Discussion

This two-study package seeks to fill a gap in existing literature about how suicidal individuals use humor, specifically on how they use suicide-specific humor. Study 1 tested the

reliability and validity of the new Suicidal Humor Scale, which was used to measure the overall use of suicide-related humor in Study 2. The Suicidal Humor Scale did not factor into the four distinct subscales of the scale that items were modelled from, suggesting that humor centering on suicide serves different functions than humor in general. In Study 2, we used the Suicidal Humor Scale along with measures of suicidality and stigma towards suicide and found although suicidality predicts both stigma and suicidal humor, stigma does not predict suicidal humor and thus does not mediate the relationship. Self-defeating humor was also tested in this mediation model, and we found the same pattern of results such that suicidality predicted self-defeating humor as well as stigma towards suicide, but stigma did not predict self-defeating humor and therefore did not mediate the relationship.

Though we did not find support for our main hypothesis, we did replicate past findings that suicidality predicts use of self-defeating humor (Tucker et al, 2013). Despite this relationship, stigmatic attitudes towards suicide did not predict use of self-defeating humor, and therefore did not mediate the relationship. Self-defeating humor seeks to enhance relationships with others by making injurious jokes at one's expense, and is associated with lower self-esteem and depression, both of which are factors in suicidality (Martin et al., 2003; Schneider, Voracek, & Tran, 2018). Our hypothesis posited that because of the shame that an individual scoring high on the SOSS would feel, they would be more likely to use self-defeating humor as it functions to connect with others while reinforcing the negative affect they have towards themselves. Likewise, we hypothesized that stigma would predict use of suicide-related humor, a relationship that was not significant in the current study. These findings suggest that stigma doesn't play a role in how one uses humor. Future work may pursue other variables that could contribute to one's use of suicidal humor like isolation or low self-esteem.

Regarding suicide-specific humor and suicidality, we did find a novel relationship such that increased suicidality predicted higher use of suicidal humor. Though we found this relationship, the current study cannot draw conclusions about its directionality whether this humor is helpful or harmful to the individuals using it. With stigma not predicting suicide-related humor, suicidal individuals do not seem to be using humor as a method of sharing their experiences without openly facing stigmatization, as we would expect suicidal individuals with high rates of stigma to use more self-defeating and suicidal humor than those with low stigma if this were true. We also found a negative relationship between suicidality and suicide-stigma that differs from previous literature that found that suicide-stigma and suicidality can operate in a cyclic pattern (Schwenk, Davis, & Wimsatt, 2010; Carpiniello & Pinna, 2017). These mixed findings provide several directions for future research, especially in regard to the Suicidal Humor Scale and its validity.

Limitations

Several limitations within the present studies also provide opportunities for future research to improve upon. Though our sample size was adequate, a larger sample may have yielded more powerful results given the positive skew of several of our measures including the SIM and SOSS. As most people scored low on the SIM and SOSS, our sample represented far less suicidal participants than non-suicidal participants. Another limitation falls within our use of the SIM to measure suicidal ideation. Participants reported their level of suicidal ideation within the past six months, with no delineation between current or past suicidality. Collecting this information from individuals with past suicidality (even if their ideation hasn't been present for years) and current suicidality allows for analysis of differences in use of humor between these groups.

A final limitation for the current study is within the items chosen for the SHS. We modelled the 21-item SHS from the 32-item HSQ, which left many questions from the HSQ non-adapted to be suicide-relevant. These 21 items were adapted because of their relatively easy application to suicidality, though other items could have been changed more dramatically to fit the topic of suicide. If other items are adapted or created, subscale and whole scale validity may differ. Future studies may want to utilize new items of suicidal humor as it may provide a more nuanced view of suicidal humor in addition to improving its reliability.

Future Directions

The findings from this study package have several implications for future research. Firstly, our measure of suicidal humor is the first to measure this construct, and we were able to collect meaningful scores from participants who were self-aware of their use of suicidal-related humor. Though questions about more subtle and casual use of suicidal humor may yield differing responses, participants noticed and reported their use of suicide-related humor, which suggests that this humor is conscious and deliberate for at least some participants. Furthermore, it may be of interest to future researchers to ask qualitative questions about how participants view their use of this humor as they may reveal other variables that impact how one uses suicidal humor. Qualitative analyses may reveal themes that the current quantitative study could not account for. Additionally, our measure functioned as a unidimensional measure, but it remains unknown if the use of suicidal humor is truly based solely on how much it is used overall or if there are different ‘types’ of suicidal humor based on variables that went untested in the present study. For example, there may be a functional difference between those who use suicide-related humor focused on the suicidality of others versus oneself, which was not accounted for in our methodology. The recency of one’s suicidality, existence of suicidality in one’s family and peer

groups, and explicit approval/disapproval of suicide-related humor are variables that may impact how one uses humor that were not accounted for in our study. More literature on suicidal humor is needed to draw any generalizable conclusions about the form that suicidal humor takes.

The relationship between suicidality and suicidal humor is novel and carries potential to serve as an additional warning sign of suicidal ideation. If additional variables within suicidal humor are identified and tested on their relationship with suicidality, mental health providers may be able to recognize these differences and recognize humor that is deleterious to mental health. The relationship between suicidality and suicidal humor also may be a starting point for researchers to generalize these findings to other clinical issues that may be joked about by the people dealing with the issues themselves, leading to a better understanding of the value of humor in those areas as well.

In Study 1, we found that increased use of suicidal humor was related to both injurious styles of humor (aggressive & self-defeating) despite not sharing any significant relationship with non-injurious humor. This implies that suicidal humor may be more of a negative force than previously thought, and future work may be able to better answer if suicidal humor is truly injurious to all users or if there are other variables not currently examined that would moderate the effect, such as frequency of use, past versus current suicidality, and self-esteem. These findings impact the interpretation of Study 2 such that if suicidality predicts suicidal humor, it is important to distinguish if suicidality better predicts aggressive or self-defeating humor as compared to the other. Moreover, future researchers may also seek to understand if affiliative or self-enhancing suicidal humor exists, and how suicidality may predict use of these benevolent styles too.

Concluding Remarks

In conclusion, our study successfully developed the first measure of suicidal humor and used it in our testing of how suicidality predicts suicide-related and self-defeating humor as mediated by stigma towards suicide. Past literature suggests that humor can serve a variety of functions, and the current study has provided evidence that suicidal humor may serve a different function than other topics in humor. We found that suicidal individuals were more likely to use suicidal humor, and that suicidal humor shares a positive relationship with both general aggressive and self-defeating humor. In addition to replicating these findings, future projects may seek to expand upon our current measure by testing new factors that were not specified within our measure such as past versus current suicidality and self-esteem. From our results, suicidality and suicidal humor share some relationship with one another, but further investigation into the nuances of this relationship is necessary before any generalizable conclusions can be drawn.

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Table 1. *Factor Loadings for Suicidal Humor Scale in Study 1*

Item	*1*	*2*	*3*	*4*	*5*
I don't usually joke about suicide with my friends.	.869	-.059	-.090	.077	-.148
I joke about killing myself when I know other people will find it funny.	.857	-.188	.027	-.097	.024
I find it funny when other people joke about killing themselves.	.702	.152	.410	-.098	-.118
If others joke about suicide I would have no problem joining in.	.826	.042	.071	-.061	-.152
I laugh when others make jokes about suicide but tend not to make them myself	.266	.183	.500	-.016	.711
When I'm upset, I can cheer myself up by joking about depression or suicide.	.730	-.250	-.005	.204	-.022
Joking about suicide makes me feel better	.744	-.315	-.046	.107	-.208
Even when it is only to myself, I joke about killing myself when I'm upset.	.625	-.324	-.237	-.441	.029
I cope with depressive/negative/upsetting thoughts by joking about them.	.725	-.210	.059	.366	.168
When I feel upset, joking about the issue makes me feel worse.	.511	.049	.161	.660	-.131
Suicide jokes about other people are never funny.	.537	.347	.488	-.124	-.208
I don't have a filter for when I make humorous comments, even if they are about suicide.	.704	.401	-.111	-.044	-.045
I sarcastically tell other people to kill themselves	.434	.777	-.175	.066	-.044
I sarcastically joke about my friends being worthless/stupid/better off dead.	.387	.482	-.474	.150	.363
If I think of a really funny comment, I can't help but tell it to others regardless of the situation even if it's about suicide.	.628	.340	-.137	-.342	-.149
I never joke about suicide, even when others are doing it.	.902	-.027	.037	-.036	-.037
I joke about being worthless/stupid/better off dead with others.	.684	-.173	-.281	-.041	.370

I sarcastically tell other people that I want to kill myself.	.765	-.238	-.176	-.178	.097
When I feel upset, joking about suicide helps me cover up how I'm actually feeling.	.768	-.388	-.170	.154	-.011
If my friends were to joke about me killing myself, I would find it funny.	.673	.465	-.063	.028	-.045
If I were to joke about killing myself, it would allow me to be accepted and relate to others.	.629	-.204	.420	-.207	.134

Note: N = 79, $\alpha = .94$

Table 2. *Means and Standard Deviations for the Suicidal Humor Scale, Humor Styles Questionnaire (Self-Defeating Subscale), Stigma of Suicide Scale (Stigma Subscale), and Suicidal Ideation Measure in Study 2*

Measure	*M*	*SD*
SHS	2.80	1.08
HSQ- Self Defeating	3.71	1.17
SOSS- Stigma	2.09	.90
SIM	1.72	.79

Figure 1. *Frequency Histogram for Mean Scores of the SHS*

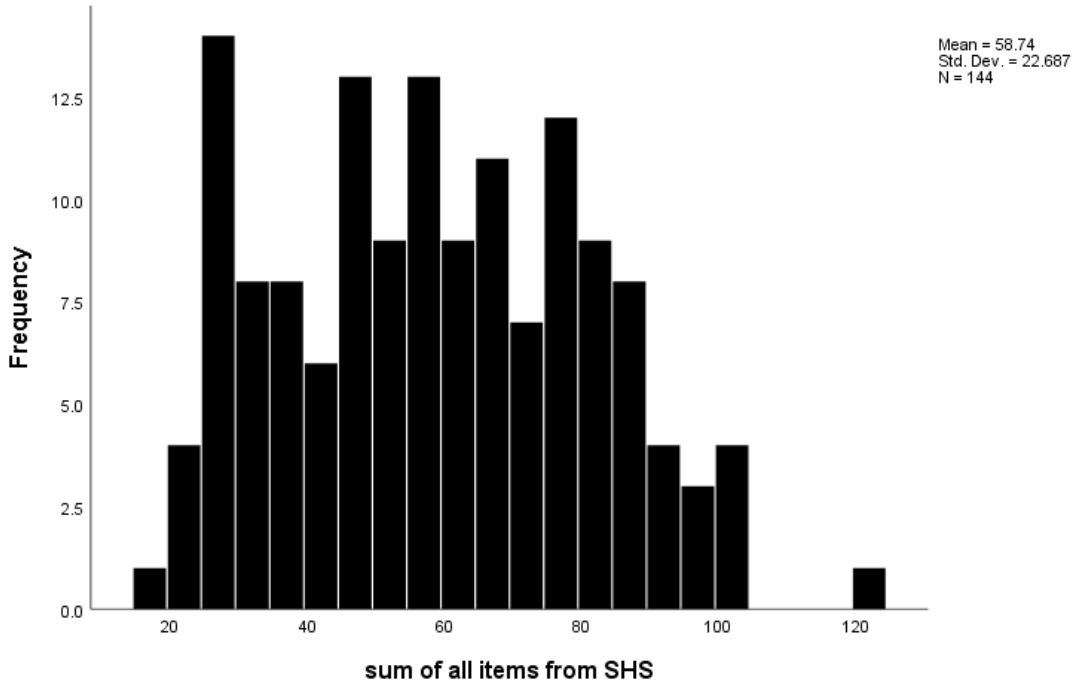

Figure 2. *Scree plot of Eigenvalues for the Suicidal Humor Scale for Study 1*

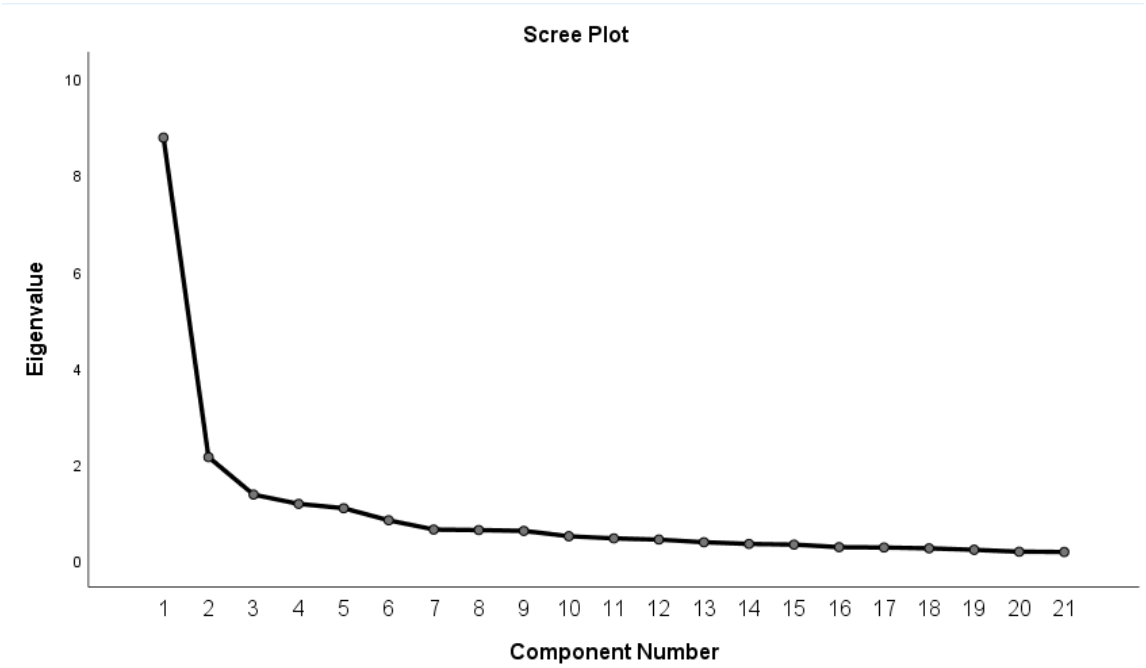

Figure 3. *Sobel Test for Suicidality, Stigma, and Self-Defeating Humor*

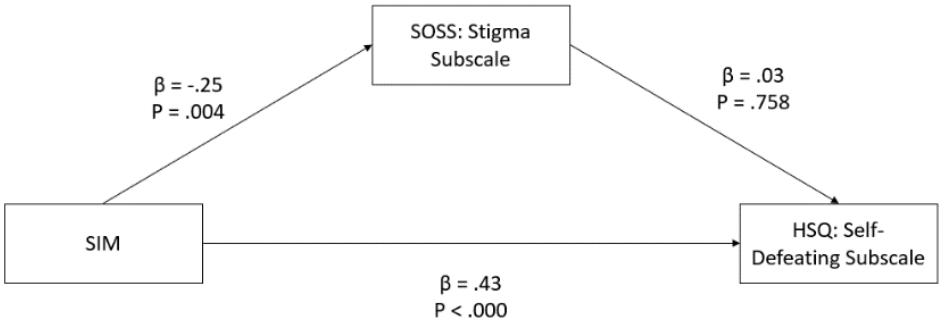

Figure 4. *Sobel Test for Suicidality, Stigma, and Suicidal Humor*