Personality and Individual Differences 112 (2017) 37–41

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Do thought control strategies applied to thoughts of suicide influence suicide ideation and suicide risk?

Raymond P. Tucker, Caitlin E. Smith, David W. Hollingsworth, Ashley B. Cole, LaRicka R. Wingate *

Oklahoma State University, 116 North Murray, Stillwater, OK 74078, United States

ARTICLE INFO

Article history:
Received 21 July 2016
Received in revised form 8 October 2016
Accepted 13 January 2017
Available online xxxx

Keywords:
Suicide
Thought control
Thought suppression

ABSTRACT

This study investigated whether the use of thought control strategies specific to suicidal thoughts influenced suicide ideation and suicide risk in a sample of adult students (N = 135) who were selectively recruited after endorsing a history of suicide ideation on a pre-screen assessment. An adapted version of the Thought Control Questionnaire (TCQ; Wells & Davies, 1994) specific to controlling thoughts of suicide was employed to assess whether participants responded to thoughts of suicide with worry, self-punishment, reappraisal, concealment, and distraction. The suicide-specific thought control questionnaire demonstrated a reliable factor structure similar to the original measure. Results indicated that distraction from suicidal thoughts was negatively correlated with suicide ideation and risk, whereas self-punishment for having these thoughts and worrying about other thoughts were positively correlated with suicide ideation and suicide risk. Clinical implications and future research directions are discussed.

1. Introduction

Suicide is a pervasive concern in the US. Recent mortality data indicates that over 42,000 Americans died by suicide in 2014, at a rate of 13.4 deaths per every 100,000 individuals (Drapeau & McIntosh, 2015). Although suicide likely occurs due to a complex culmination of factors (O'Connor & Nock, 2014), the way that individuals respond to unwanted thoughts may influence suicide risk. Of particular importance may be the tendency to suppress unwanted thoughts. The propensity to suppress unwanted thoughts stems from the ironic process theory (Wegner, 1994). This theory posits that when conscious effort is devoted to directing attention away from an unwanted thought, the opposite occurs (i.e., rebound effect) via an unconscious mechanism that brings the thought back to conscious awareness, and increases the frequency and intensity of the intrusive thought. Research has supported this rebound effect in clinical samples with acute stress disorder (Harvey & Bryant, 1998) and both with and without posttraumatic stress disorder following a motor vehicle accident (Beck, Gudmundsdottir, Palyo, Miller, & Grant, 2006).

Thought suppression has also been explicitly linked to suicide-related outcomes. Results of a study by Najmi, Wegner, and Nock (2007) indicated that adolescents with a history of non-suicidal self-injury, suicide ideation, and at least one suicide attempt endorsed increased propensity to suppress unwanted thoughts in comparison to adolescents without a history of self-injurious thoughts and behaviors. Similarly, Pettit et al. (2009) found a positive correlation between suicide ideation and both thought suppression broadly and thought suppression specific to thoughts of suicide in samples of undergraduate students and adolescent in-patients.

Thought control strategies other than thought suppression may also influence suicide risk. Within the psychopathology literature, additional thought control strategies have been identified and studied in relationship to symptom severity. Specific thought control strategies, as measured by the Thought Control Questionnaire (TCQ; Wells & Davies, 1994), have been linked to severity of Generalized Anxiety Disorder (GAD), Major Depressive Disorder (MDD), Post-Traumatic Stress Disorder (PTSD), and Obsessive-Compulsive Disorder (OCD) symptoms in multiple samples. The five thought control strategies measured by the TCQ include *distraction* (e.g., "I think about something else"), *reappraisal* (e.g., "I try a different way of thinking about it"), *worry* ("I dwell on other worries"), *social control* ("I keep the thought to myself"), and *punishment* ("I tell myself not to be so stupid"). The use of these thought control strategies seem to be differentially related to psychopathology. For example, MDD symptoms have been positively correlated to punishment and worry, and negatively associated with distraction and reappraisal in samples of adolescents (Gill, Papageorgiou, Gaskell, & Wells, 2013) and clinical samples of adults (Ree, 2010; Reynolds & Wells, 1999). A similar trend can be seen for anxiety symptoms, as positive associations have been found between anxiety symptoms and thought control strategies of worry and punishment in multiple samples (Gill et al., 2013; Ree, 2010), and negative associations have been found with distraction (Ree, 2010). Avoidance in both those suffering from

* Corresponding author at: Oklahoma State University, Department of Psychology, 116 North Murray Hall, Stillwater, OK 74078, United States.
E-mail address: laricka.wingate@okstate.edu (L.R. Wingate).

http://dx.doi.org/10.1016/j.paid.2017.01.019
0191-8869/

MDD and PTSD has been positively correlated with social control (Reynolds & Wells, 1999). Collectively, this research suggests that strategies employed to attempt to control negative thoughts may differentially influence psychopathology symptoms.

It stands to reason that the same thought control strategies that have been associated with psychopathology symptoms may also be utilized by those experiencing suicidal thinking in an attempt to control thoughts of suicide. Suicide ideation has been closely linked to psychopathology symptoms associated with these thought control strategies, including MDD (Goldney, Dal Grande, Fisher, & Wilson, 2003), OCD (Allen, Krompinger, Mathes, Crosby, & Elias, 2016), GAD, and PTSD (Sareen, Houlahan, Cox, & Asmundson, 2005). Potentially, thought control strategies used in response to general intrusive negative thoughts (which influence psychopathology) also extend to the experience of suicidal thoughts, and in turn influence the severity of suicide ideation. Allen et al. (2016) examined the role of suicidality and use of thought control strategies in predicting treatment-related changes from admission to discharge among patients with severe OCD. Results demonstrated that suicide risk moderated changes in the use of thought control strategies, such that high-risk patients increased their use of distraction and social control, and decreased their use of punishment and worry after receiving intensive residential treatment. Findings also indicated that these patients experienced a reduction in both OCD and depression symptoms. These findings illustrate the differential role of thought control strategies in a high-risk clinical population.

The current study explored whether individuals responded to thoughts of suicide with the thought control strategies of distraction, reappraisal, worry, social control, and self-punishment. This study also investigated the extent to which these suicide-specific thought control strategies related to suicide ideation severity and other elements of suicide risk, including history of planning for suicide and past suicide attempts.

2. Method

2.1. Participants

Participants included 135 college students selectively recruited from a participant pool at a large, Midwestern university. All participants endorsed lifetime suicide ideation, and 76 (56.3%) participants endorsed experiencing suicide ideation in the past two weeks, which was determined by a score of one or greater on the Hopelessness Depression Symptom Questionnaire-Suicidality Subscale (HDSQ-SS; Metalsky & Joiner, 1997). Participants' ages ranged from 18 to 32 ($M = 19.76$, $SD = 2.26$), and the sample included 105 (77.8%) females and 30 (22.2%) males. The ethnic composition of this sample included 106 (78.5%) White/Caucasians, 11 (8.1%) American Indian/Native Americans, 8 (5.9%) Hispanic or Latino(a)s, 7 (5.2%) who identified as Mixed (parents from two different groups), 2 (1.5%) Asian/Asian Americans, and 1 individual (0.7%) who identified as Black/African American.

2.2. Measures

2.2.1. Demographics questionnaire

Participants completed questions that assessed age, sex, and ethnicity.

2.2.2. Suicidal Thought Control Questionnaire (STCQ)

The STCQ is a 30-item self-report measure of thought control strategies specifically related to suicidal thinking. The STCQ was adapted from the Thought Control Questionnaire (TCQ; Wells & Davies, 1994), which assess tendency to control general unwanted, intrusive thoughts. The directions of the measure were edited so that mentions of unwanted, negative thoughts were replaced with "suicidal thoughts." Additionally, item content was edited, so that mentions of intrusive, negative thoughts were changed to "thoughts of suicide" or "suicidal thinking." Response options are scored on a 4-point Likert scale from 1 (*never*) to 4 (*almost always*). The STCQ yields the following five suicidal thought control strategy subscales: distraction, social control, worry, punishment, and reappraisal. The original TCQ (Wells & Davies, 1994) yields the same five subscales, distraction ($\alpha = 0.72$), social control ($\alpha = 0.79$), worry ($\alpha = 0.71$), punishment ($\alpha = 0.64$), and reappraisal ($\alpha = 0.67$). Each subscale from the TCQ demonstrated acceptable internal consistency (see above) in the validation sample.

2.2.3. Hopelessness Depression Symptom Questionnaire – Suicidality Subscale (HDSQ-SS; Metalsky & Joiner, 1997)

The HDSQ-SS is a four-item self-report measure of suicide ideation experienced within the past two weeks. Items are scored on a 4-point Likert scale from 0 to 3, with differing response options per item. The HDSQ-SS demonstrated good internal consistency ($\alpha = 0.86$) within the validation sample (Metalsky & Joiner, 1997). An example item from the HDSQ-SS includes the following response options: "I do not have thoughts of killing myself;" "Sometimes I have thoughts of killing myself;" "Most of the time I have thoughts of killing myself;" and "I always have thoughts of killing myself." Higher scores indicate higher risk severity. The HDSQ-SS demonstrated excellent reliability in the current study ($\alpha = 0.94$).

2.2.4. Suicidal Behaviors Questionnaire – Revised (SBQ-R; Osman et al., 2001)

The SBQ-R is a four-item self-report measure of suicidal behaviors. Each item assesses different dimensions of suicidality, including lifetime ideation, suicide planning and/or attempts, frequency of suicide ideation over the past year, frequency and intent of telling others that one may attempt suicide, and perceived likelihood that one will attempt suicide in the future. Taken together, all four items produce an assessment of suicide risk. Response options are scored on a Likert scale, and vary for each item. An example item includes, "Have you ever thought about or attempted to kill yourself?" Response options for this item range from "*never*" to "*I have attempted to kill myself, and really hoped to die*." The SBQ-R demonstrated adequate reliability in the current study ($\alpha = 0.74$). Additionally, the SBQ-R demonstrated excellent internal consistency in both clinical ($\alpha = 0.94$) and non-clinical ($\alpha = 0.97$) validation samples (Osman et al., 2001).

2.3. Procedure

Participants completed a pre-screener questionnaire at the beginning of each semester, which assessed lifetime suicide ideation using the first item of the SBQR. This question reads, "Have you ever thought about or attempted to kill yourself," with a response range from 0 (*never*) to 4 (*I have attempted to kill myself, and really hoped to die*). Participants who endorsed lifetime suicide ideation (scored one or above on item one of the SBQ-R) were sent an email inviting them to participate in this study; however, selection criteria was not specified. Participants completed all materials online and received course credit as compensation.[1] All participants were provided with emergency resources and local and national mental health resources after completing the study. All procedures were in compliance with the university human subjects' research office.

2.4. Analytical strategy

Bivariate correlations were conducted to determine the relationships between study variables. The factor structure of the STCQ was determined via a Principal Components Analysis (PCA) with direct oblimin

[1] Data was collected over the course of three semesters. Over 2000 students completed the first item of the SBQ-R per semester (average across all three semesters equaled 2309). Over the course of these three semesters, 26.59% ($N = 614$) of these students endorsed a score of 1 or more indicating a history of suicide ideation.