



AN EXAMINATION OF THE DIFFERENCES BETWEEN SUICIDE GESTURES AND THREATS

Miles O. Kovnick, Julia A. Harris, Craig J. Bryan
Department of Psychology

Research aims:

Across suicide nomenclature systems, suicide gestures have been included and defined inconsistently (Crosby et al., 2011, De Leo et al., 2006; Silverman et al., 2007a, 2007b; Silverman & De Leo, 2016). For instance, some definitions specify gestures having to be “cry for help” (Nock & Kessler, 2006) or “physical act or behavior” (Silverman et al., 2007a). There is discrepancy regarding whether this “physical act or behavior” includes verbal threats, or if the term ‘gesture’ should be reserved for solely physical actions. Meanwhile, a ‘suicide threat’ is more universally defined as verbal statements expressing false intention to commit suicide, with low intent (Silverman et al., 2007a). Studies have shown that suicide attempters differ from individuals who make suicide gestures (García-Nieto et al., 2014; Lersch, 2020) in the difference of their motivations and intent. Similar to suicide gestures, both terms carry a negative connotation due to the assumed manipulative behavior of conveying a desire to die without completing the action (Crosby et al., 2011; Heilbron et al., 2010, Wedig et al., 2013).

This study examines the differences between people who endorse suicide gestures and suicide threats using the Self-Injurious Thoughts and Behaviors Interview (SITBI). Both behaviors have been found to have interpersonal, communicatory functions in order to convey a need for help (García-Nieto et al., 2014; Kovnick et al., 2020; Nock & Kessler, 2006, Wedig et al., 2013). Within literature these two categories are typically grouped together, yet the verbal versus behavioral implications may contain different functions (Fox et al., 2020, Silverman 2007a, 2007b). This study also aims to analyze the differences in functions behind suicide gestures and suicide threats as well as any possible associations with other suicidal thoughts or behaviors such as suicidal ideation and suicide attempts. Given that little is known about the populations of individuals who make suicide gestures and suicide threats, we have no apriori hypothesis about the differences between these groups or of any association with other suicidal behaviors. For the functions, we hypothesize that suicide gestures would endorse more social positive reinforcement, or communicatory behaviors, due to previous research, although we have no apriori hypothesis about the functions behind suicide threats.

Methods:

Participants included 630 individuals who were aged 18-81 years old ($M = 37.89$, $SD = 13.11$), with 48.8% male, and 78.1% Caucasian. They were recruited through a Qualtrics survey accessing suicidal ideation. Eligibility criteria included being over 18, English-speaking, having a past history of suicide ideation, and meeting the minimum time requirement for the survey. Roughly half were civilians and the other half reported a history of military service. In order to examine differences between these two behaviors, the first step was examining demographics for differences within the population, followed by examining functions of each of these behaviors, and finally analyzing any associations with other suicidal behaviors. Suicide gestures were

assessed with the question: “*Have you ever said or done something to purposely lead someone to believe that you wanted to kill yourself when you really had no intention of dying?*” Of the original sample, 263 participants endorsed this question and were asked: “*What did you do?*” and given five options: 1) verbally said something 2) wrote it down 3) posted online 4) took an action 5) some combination of above answers. The individuals who took actions were placed within the category of suicide gestures, while any verbal or written threat was counted as a suicide threat. Therefore, answers 1-3 were grouped together to categorize threats, while option 4 reflected suicide gestures. In order to examine the functions of these behaviors, the Functional Assessment for Self-Mutilation (FASM) questionnaire was utilized and grouped into four categories of: 1) automatic negative reinforcement 2) automatic positive reinforcement 3) social negative reinforcement and 4) social positive reinforcement with guidelines from Nock and Prinstein (2004). The study also asked about lifetime suicidal ideation with the question: “*Have you ever had thoughts of killing yourself?*” and suicide attempts: “*Have you ever tried to kill yourself? In other words, have you ever purposefully hurt yourself with some intent to die?*”

Results:

From the sample, 14.8% ($n = 39$) of individuals endorsed a lifetime history of suicide gesture and 71.5% (188) endorsed threatening suicide. The remaining 13.7% (36) individuals endorsed some combination of either threats or gestures and were excluded from the current analysis. Suicide gesturers were 71.8% male and 35.9 years old on average ($SD = 11.7$, range: 20-66). The majority of those who endorsed suicide gestures (66.7%) reported a history of military service, of which 73.1% reported exposure to combat. Most (79.5%) self-identified as White/Caucasian, followed by 10.3% Black/African American. For participants who endorsed suicide threats, 62.2% were male, and the mean age was 34.7 years ($SD = 9.6$, range: 18-77). Most who endorsed a history of suicide threats (66.5%) reported a history of military service, and of those, 91.2% were exposed to combat. Most (76.6%) self-identified as White/Caucasian followed by 13.3% Black/African American. There was no statistically significant difference between the ages ($t = 0.64$, $p = 0.40$) or gender ($\chi^2 = 1.54$, $p = 0.46$) of participants who endorsed threats versus gestures. There was also no statistically significant difference in military participation, but there was a significant positive association between suicide gestures/threats and combat exposure ($\chi^2 = 6.73$, $p = 0.01$). There were no differences between a lifetime history of suicide attempts ($\chi^2 = 5.94$, $p = 0.20$) and suicidal ideation ($\chi^2 = 7.67$, $p = 0.10$), across those who made lifetime suicide gestures or threats. A one-way chi-square analysis was conducted to examine potential differences the four functions. Results revealed that there was a statistically significant difference in functions amongst groups ($\chi^2 = 29.04$, $p < .001$). Out of the 227 participants, 39.8% endorsed automatic negative reinforcement, or to stop bad feelings, 23.9% said it was for automatic positive reinforcement, or to feel something, 19.9% endorsed social negative reinforcement, or to get out/away from situations, and the final 16.4% endorsed social positive reinforcement, or for communication with others. Running a chi-square analysis for the differences in functions between suicide gestures and suicide threats revealed no significant differences for automatic negative reinforcement ($\chi^2 = 0.94$, $p = .33$), automatic positive reinforcement ($\chi^2 = 1.06$, $p = .30$), social negative reinforcement ($\chi^2 = 0.03$, $p = .87$), or social positive reinforcement ($\chi^2 = 0.63$, $p = .43$).

Conclusions:

Findings suggest that there is not a significant difference in demographic features such as age or gender among people who make suicide threats versus suicide gestures. There was a positive association between individuals who made suicide gestures and their exposure to

combat. When examining the functions of suicide gestures versus threats, there were significant differences results among the groups, but there are no significant differences between the functions for participants who endorsed suicide gestures versus suicide threats. More individuals endorsed automatic negative reinforcement compared to social positive reinforcement, therefore our hypothesis was rejected. Upon examination, there is an important limitation of this study to consider. Primarily, study inclusion criteria included past suicidal ideation, therefore the sample is only applicable to suicide gesturers who have history of suicidal ideation. This may explain why the functions were more leaning towards preventing bad feelings instead of communication, as found in previous studies. It could also be indicative of the feelings behind why these individuals are trying to communicate with others. These findings are still important in how it shows that this is a population that may need further research and assistance. Another limitation includes that this was an online self-report survey, which could lead to unreliability within the participants to accurately report their experiences. Future research should re-examine any possible differences between individuals who make suicide threats versus suicide gestures within a larger, more inclusive sample. Suicide threats should be researched further as well as the intent behind individuals who make suicide threats. Although there weren't many significant differences between these behaviors, if future research shows continued similarities between threats and gestures then it shows the behaviors can be grouped together in future assessments.

References:

- Bryan, C. J., Rudd, M. D., & Wertenberger, E. (2013). Reasons for suicide attempts in a clinical sample of active duty soldiers. *Journal of Affective Disorders, 144*(1-2), 148-152.
- Crosby, A. E., Ortega, L., & Melanson, C. (2011). Self-directed violence surveillance: Uniform definitions and recommended data elements. Centers for Disease Control and Prevention. *National Center for Injury Prevention and Control, Division of Violence Prevention*.
- De Leo, D., Burgis, S., Bertolote, J. M., Kerkhof, A. J., & Bille-Brahe, U. (2006). Definitions of suicidal behavior: lessons learned from the WHO/EURO multicentre Study. *Crisis, 27*(1), 4–15. <https://doi.org/10.1027/0227-5910.27.1.4>
- Fox, K. R., Harris, J. A., Wang, S. B., Millner, A. J., Deming, C. A., & Nock, M. K. (2020). Self-Injurious Thoughts and Behaviors Interview—Revised: Development, reliability, and validity. *Psychological assessment, 32*(7), 677-689.
- García-Nieto, R., Blasco-Fontecilla, H., de León-Martínez, V., & Baca-García, E. (2014). Clinical features associated with suicide attempts versus suicide gestures in an inpatient sample. *Archives Of Suicide Research, 18*(4), 419-431.
- Heilbron, N., Compton, J. S., Daniel, S. S., & Goldston, D. B. (2010). The problematic label of suicide gesture: Alternatives for clinical research and practice. *Professional Psychology: Research And Practice, 41*(3), 221-227. doi:10.1037/a0018712
- Kovnick, M.O., Harris, J.A., May, A.M., Cheney, T.D., Russell, W.A., Arne, K., Williams, S.R., Bryan, A.O., & Bryan, C.J. (2020). "Factors that differentiate socially-motivated non-suicidal self-injury from internally-motivated suicide attempts and non-suicidal self-injury." [Manuscript submitted for publication].
- Lersch, K. M. (2020). Exploring the geography of suicide threats and suicide attempts: An application of Risk Terrain Modeling. *Social Science & Medicine, 249*, 112860.
- Nock, M. K. (2009). Why do people hurt themselves? New insights into the nature and functions of self-injury. *Current directions in psychological science, 18*(2), 78-83.

- Nock, M. K., Holmberg, E. B., Photos, V. I., & Michel, B. D. (2007). Self-Injurious Thoughts and Behaviors Interview: Development, reliability, and validity in an adolescent sample.
- Nock, M. K., & Kessler, R. C. (2006). Prevalence of and risk factors for suicide attempts versus suicide gestures: Analysis of the National Comorbidity Survey. *Journal Of Abnormal Psychology, 115*(3), 616-623. doi:10.1037/0021-843X.115.3.616
- Nock, M. K., & Prinstein, M. J. (2004). A functional approach to the assessment of self-mutilative behavior. *Journal of Consulting and Clinical Psychology, 72*(5), 885.
- Silverman, M. M., Berman, A. L., Sanddal, N. D., O'Carroll, P. W. and Joiner, T. E. (2007), Rebuilding the Tower of Babel: A Revised Nomenclature for the Study of Suicide and Suicidal Behaviors Part 1: Background, Rationale, and Methodology. *Suicide and Life-Threatening Behavior, 37*: 248-263. doi:10.1521/suli.2007.37.3.248
- Silverman, M. M., Berman, A. L., Sanddal, N. D., O'Carroll, P. W. and Joiner, T. E. (2007), Rebuilding the Tower of Babel: A Revised Nomenclature for the Study of Suicide and Suicidal Behaviors Part 2: Suicide-Related Ideations, Communications, and Behaviors. *Suicide and Life-Threatening Behavior, 37*: 264-277. doi:10.1521/suli.2007.37.3.264
- Silverman, M. M., & De Leo, D. (2016). Why there is a need for an international nomenclature and classification system for suicide.
- Wedig, M. M., Frankenburg, F. R., Reich, D. B., Fitzmaurice, G., & Zanarini, M. C. (2013). Predictors of suicide threats in patients with borderline personality disorder over 16 years of prospective follow-up. *Psychiatry research, 208*(3), 252-256.