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Methods Matter: Nonsuicidal Self-Injury in the Form of Cutting is Uniquely Associated with Suicide Attempt Severity in Patients with Substance Use Disorders

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Abstract

Despite the robust relation between nonsuicidal self-injury (NSSI) and suicidal behaviors, there is considerable heterogeneity in NSSI characteristics that may have implications for the strength of the NSSI-suicide attempt relation. Past research highlights the relevance of both more severe NSSI methods and NSSI in the form of cutting in particular to suicide attempts. To further explore the relations of specific NSSI methods to suicide attempts, this study examined relations between different NSSI methods (i.e., those involving cutting, burning, blunt force, or resulting in minor tissue damage) and both overall suicide attempts and two indicators of suicide attempt severity (attempts requiring medical attention and non-ambivalent attempts) in 203 substance dependent patients in residential treatment. Participants were administered questionnaires and semi-structured interviews assessing the variables of interest. Cutting was the only NSSI method to demonstrate significant relations with overall suicide attempts, non-ambivalent suicide attempts, and suicide attempts requiring medical attention. Results remained when considering relevant covariates. Given the unique nature of our sample, results may not generalize to other clinical populations. Results highlight an important link between NSSI methods involving cutting and suicide attempts among patients with substance use disorders. Findings also highlight the importance of more fine-grained characterizations of NSSI subgroups.

Keywords

Deliberate Self-Harm; Nonsuicidal Self-Injury; Substance Dependence; Suicide Attempts; Suicide Ideation

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Author Statement

The first author (MMB) was involved in the interpretation of results, writing initial drafts of the manuscript and critical revision of the manuscript for important intellectual content. The second author (MTT) was involved in study conceptualization, data collection and analysis, interpretation of results, writing initial drafts of the manuscript, and critical revision of the manuscript for important intellectual content. The third author (CNF) was involved in study conceptualization, assisting the first author in writing initial drafts of the manuscript (the introduction), and critical revision of the manuscript for important intellectual content. The fourth author (JRR) was involved in study conceptualization, assisting the first author in writing initial drafts of the manuscript (the discussion), and critical revision of the manuscript for important intellectual content. The fifth author (KLG) was involved in study conceptualization, data collection and analysis, interpretation of results, and critical revision of the manuscript for important intellectual content.

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Introduction

Nonsuicidal self-injury (NSSI) is the deliberate, self-inflicted, destruction of body tissue without suicidal intent and for purposes not socially sanctioned (also referred to as deliberate self-harm; Gratz, 2001; International Society for the Study of Self-Injury [ISSI], 2018). NSSI is observed across a variety of populations, including adolescents (13.0%–56.4%; Hilt et al., 2008; Jacobson and Gould, 2007), college students (15.3%–35%; Gratz, 2001; Whitlock et al., 2011), community adults (3.1% – 5.9%; Klonsky, 2011; Plener et al., 2016) and psychiatric patients (43.5% – 51.2% Claes et al., 2010a, 2010b; Baer et al., 2018). Notably, despite the fact that NSSI, by definition, does not involve any suicidal intent, this behavior has been found to be one of the strongest predictors of suicide attempts and death by suicide (Asarnow et al., 2011; Guan et al., 2012; Ribeiro et al., 2016; Wilkinson and Goodyer, 2011). NSSI is also associated with an increased likelihood of transitioning from suicidal ideation to a subsequent suicide plan, as well as from a suicide plan to a subsequent attempt (Kiekens et al., 2018).

Despite the robust relation between NSSI and suicidal behaviors, there is considerable heterogeneity in NSSI characteristics that may have implications for the strength of the NSSI-suicide attempt relation. One characteristic that may be particularly important to examine in this regard is the method of NSSI. Specifically, the Interpersonal Psychological Theory of Suicide (IPT; Van Orden et al., 2010) suggests that the relation of NSSI to suicide attempts can be explained by the fact that NSSI serves as a painful and provocative event that increases an individual's capacity for enacting lethal or near-lethal suicidal behaviors (i.e., acquired capability) by increasing pain tolerance (Koenig et al., 2017) and fearlessness about death (Willoughby et al., 2015). Thus, according to this theory, NSSI methods that are more severe/painful would be expected to be more likely to increase an individual's acquired capability and, thus, the likelihood of more severe suicidal behaviors. The Integrated Model of NSSI (Hamza et al., 2012) expands upon the IPT by proposing that the severity of NSSI methods may moderate the association between NSSI and the acquired capability, such that this relation is stronger among individuals with more severe NSSI methods (i.e., those associated with greater tissue damage, such as cutting).

Notably, however, little research has examined the relations of specific NSSI methods to suicide attempts, with most of the research in this area examining the number of different NSSI methods used. This research suggests that a positive relation between the number of NSSI methods and both suicide attempts (Anestis et al., 2015; Stewart et al., 2017; Turner et al., 2013) and a suicide plan (Kiekens et al., 2018). Other studies have distinguished between moderate/severe (i.e., cutting/carving, burning, self-tattooing, scraping, and erasing) and minor (hitting self, biting self, hair-pulling, skin-picking, inserting objects under nails/skin) NSSI (Lloyd-Richardson et al., 2007; Tang et al., 2011), finding that individuals with moderate/severe (vs. minor) NSSI had more severe suicidal ideation (Lloyd-Richardson et al., 2007) and were more likely to have attempted suicide (Lloyd-Richardson et al., 2007; Tang et al., 2011). Similarly, Whitlock et al. (2008) found that university students with NSSI characterized by “high severity tissue damage” (i.e., cutting/carving, burning, breaking bones, dripping acid onto skin, ingesting a caustic substance or sharp object) reported higher rates of lifetime suicidality (defined as ever considering or attempting suicide) than those

with NSSI characterized by “moderate tissue damage” (including self-punching/banging, sticking sharp objects into the skin, self-bruising) or “superficial tissue damage” (including scratching or pinching and preventing wounds from healing).

Although these studies provide preliminary support for the theorized relation of NSSI method severity to suicide attempts, they did not isolate the relations of specific NSSI methods to suicide attempt history or severity. However, preliminary research provides suggestive support for the particular relevance of NSSI in the form of cutting to suicidal behaviors. For example, in a study identifying subgroups of self-injurers based on a number of NSSI characteristics (including method), Klonsky and Olino (2008) found that the group characterized by a high probability of cutting reported a greater number of both overall suicide attempts and suicide attempts requiring medical attention than groups characterized by less severe NSSI methods (including a moderate-high probability of self-banging/hitting self and a high probability of self-biting, pinching, hair pulling, and self-banging/hitting). Likewise, in a study using exploratory data mining techniques to identify the strongest predictors of suicide attempts in a large undergraduate sample, cutting was the only NSSI method to emerge as one of the top 10 predictors of suicide attempts, and carving was the only method among the top predictors of past week suicidal ideation (Burke et al., 2018). Finally, Kiekens et al. (2018) found that undergraduates who had planned or attempted suicide after the onset of NSSI were more likely to report cutting as an NSSI method than those who did not plan or attempt suicide.

To extend extant research on the relations of NSSI methods to suicidal behaviors, the current study examined the relations between specific NSSI methods and both overall suicide attempts and two indicators of suicide attempt severity (i.e., attempts requiring medical attention and non-ambivalent attempts) in an at-risk clinical sample of patients receiving residential treatment for substance use disorders (SUDs) – a population with elevated rates of both NSSI (Moller et al., 2013) and suicide attempts (Poorolajal et al., 2016). Given past research highlighting the relevance of both more severe NSSI methods and cutting in particular to suicide attempts, we predicted that NSSI in the form of cutting/carving would be associated with a greater number of lifetime suicide attempts, suicide attempts requiring medical attention, and non-ambivalent suicide attempts relative to all other NSSI methods.

Methods

Participants

Participants were 203 patients (50.7% women) in a residential SUD treatment facility. Participants ranged from 18 to 65 years of age ($M_{age} = 34.53$, $SD = 10.29$) and were ethnically diverse (60.1% White; 36.9% African American; 1.5% Latina/o, 1.0% Native American, 0.5% Asian American). Most participants were single (62.6%), unemployed (69.5%), and did not have education beyond high school (61.1%). Approximately half reported an annual household income of less than \$10,000 (49.8%). Over one third of participants (36.5%) reported a history of NSSI, and 22.2% reported at least one past suicide attempt. Additional clinical and diagnostic data for participants are presented in Table 1.

Procedure

All procedures were reviewed and approved by the relevant institutions supporting this research. Data were collected as part of a larger study examining risk-taking behaviors in SUD patients (see Tull et al., 2019). To be eligible for inclusion in the larger study, participants were required to: 1) be dependent on cocaine and/or alcohol (a requirement of the larger study from which these data were drawn; however, participants could be dependent on other substances besides alcohol and/or cocaine); 2) have a Mini-Mental Status Exam (Folstein et al., 1975) score of ≥ 24 (indicative of no significant cognitive impairment); and 3) have no current psychotic disorder (as determined by the psychosis screener from the SCID-IV; First et al., 1996). Eligible participants were recruited for this study no sooner than 72 hours after entry into the facility to limit the possible interference of withdrawal symptoms on study engagement. Those meeting inclusion criteria were provided with information about study procedures and associated risks, following which written informed consent was obtained. The larger study involved three study sessions conducted across different days. Data for the current study were collected during the first assessment session. Participants were provided with \$25 following this session.

Measures

The *Deliberate Self-Harm Inventory* (DSHI; Gratz, 2001) is a 17-item questionnaire assessing lifetime history of various aspects of NSSI, including NSSI frequency, duration, and method. Specifically, the DSHI asks participants whether and how often they have engaged in a variety of behaviors “intentionally (i.e., on purpose),” as well as the last time they engaged in each of the behaviors. The DSHI has demonstrated high internal consistency, adequate test-retest reliability, and adequate construct, discriminant, and convergent validity among undergraduate student and patient samples (Fliege et al., 2006; Gratz, 2001).

For the purposes of this study, participants were classified based on the NSSI methods they endorsed on the DSHI: (1) tissue damage through cutting (CUT); (2) tissue damage through burning (BURN); (3) tissue damage through blunt force (BLUNT); and (4) minor tissue damage (MINOR). Given that participants may have engaged in multiple forms of NSSI, participants could be included in more than one group. CUT consisted of the following behaviors: cutting oneself, and carving words, pictures, or designs on the skin. BURN included burning oneself with a cigarette, lighter, or match. BLUNT include breaking one’s bones, banging one’s head, and punching oneself. Finally, MINOR consisted of preventing wounds from healing, severe scratching, needle-sticking, and self-biting. If participants endorsed any of the behaviors included in each group, they were assigned a “1” for that group. If any of the behaviors for a group was not endorsed, participants were assigned a “0” for that group.

The *Lifetime Parasuicide Count* (LPC; Linehan and Comtois, 1997) was used to assess lifetime history of suicide attempts. The LPC is a structured interview designed to assess lifetime frequency of suicidal and nonsuicidal self-injurious behaviors. Participants are asked about the frequency of various methods of self-injury, as well as their intent to die (clear, ambivalent, and none) and the level of medical attention required. Consistent with

past research (Andover and Gibb, 2010; Chapman and Dixon-Gordon, 2007; Muehlenkamp and Gutierrez, 2007), behaviors were categorized as suicide attempts if participants endorse any intent to die (either ambivalent or clear). The LPC provides a measure of the total number of past suicide attempts, as well as the number of attempts involving ambivalent intent, clear intent to die (hereafter termed “non-ambivalent”), and medical attention. All four of these variations in suicide attempts were examined as dichotomous outcomes (i.e., present vs. absent) in this study.

Participants also completed a series of structured diagnostic interviews to assess for the presence of lifetime psychiatric disorders with strong relations to suicide attempts, including major depressive disorder (Avenevoli et al., 2015), posttraumatic stress disorder (PTSD; Panagioti et al., 2009), and borderline personality disorder (Yen et al., 2004). These disorders were evaluated as potential covariates in primary analyses. Specifically, the DSM-IV version of the *Clinician-Administered PTSD Scale* (CAPS; Blake et al., 1995) was used to assess lifetime PTSD. The CAPS measures the frequency and intensity of the 17 DSM-IV PTSD symptoms. Frequency items are rated from 0 (never or none/not at all) to 4 (daily or almost every day or more than 80%). Intensity items are rated from 0 (none) to 4 (extreme). Frequency and intensity ratings were used to generate a categorical diagnosis based on the Item Severity ≥ 4 (ISEV4) rule, which requires that at least one re-experiencing, three avoidance/emotional numbing, and two hyperarousal symptoms have a severity rating (frequency + intensity) of ≥ 4 (Weathers et al., 1999). The CAPS has adequate interrater reliability (.92–.99) and convergent validity with the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-IV; First et al., 1996) and other established measures of PTSD (Weathers et al., 2001).

Lifetime major depressive disorder was assessed using the *Mini International Neuropsychiatric Interview, Version 6.0* (MINI; Sheehan et al., 1998). The MINI has shown adequate reliability and validity in the assessment of psychiatric disorders, as well as strong test-retest and inter-rater reliability (Sheehan et al., 1997). Finally, borderline personality disorder was assessed using the borderline personality disorder module of the *Diagnostic Interview for DSM-IV Personality Disorders* (DIPD-IV; Zanarini et al., 1987). Past research indicates that the DIPD-IV demonstrates good inter-rater and test-retest reliability for the assessment of borderline personality disorder (Zanarini et al., 2000), with an inter-rater kappa coefficient of .68 and a test-retest kappa coefficient of .69.

All interviews were conducted by bachelors- or masters-level clinical assessors previously trained to reliability (diagnostic agreement $> 90\%$) with the principal investigator (MTT) and co-investigator (KLG). Detailed information on each criterion was collected by interviewers, and all ratings were reviewed by the principal investigator. In the case of disagreements, ratings were discussed by the principal investigator and interviewer until a consensus was reached.

Data Analysis Plan

A series of binomial logistic regressions were conducted with the four NSSI method variables (CUT, BURN, BLUNT, and MINOR) included as independent variables and the dichotomous variables representing the presence versus absence of overall suicide attempts,

ambivalent suicide attempts, non-ambivalent suicide attempts, and suicide attempts requiring medical attention serving as the dependent variables. Further, to ensure that any findings obtained were not due to the presence of other participant characteristics that may be associated with the dependent variables, analyses with significant results were repeated with relevant demographic and/or diagnostic variables (i.e., those significantly associated with the dependent variables; Tabachnick and Fidell, 2007) and lifetime frequency of NSSI included as covariates.

Results

Preliminary Analyses

Forty-five participants (22.2%) reported a lifetime suicide attempt, with 8.9% ($n = 18$) reporting an ambivalent suicide attempt, 15.8% ($n = 32$) reporting a non-ambivalent suicide attempt, and 18.2% ($n = 37$) reporting a suicide attempt that required medical attention. As for NSSI, 21.7% of participants ($n = 44$) reported using CUT methods, 9.4% ($n = 19$) reported BURN methods, 11.8% ($n = 24$) reported BLUNT methods, and 8.4% ($n = 17$) reported MINOR methods.

Identification of Covariates

To identify covariates for subsequent analyses, analyses were first conducted to examine the relations between the suicide attempt outcomes and demographic variables (i.e., age, gender, racial/ethnic background, income, education, marital status, and employment), as well as lifetime major depressive disorder, lifetime PTSD, and borderline personality disorder.

Rates of overall suicide attempts were higher among participants who were single ($\chi^2 [1] = 4.17, p = .041$), had a lifetime diagnosis of PTSD ($\chi^2 [1] = 4.50, p = .034$), and had a diagnosis of borderline personality disorder ($\chi^2 [1] = 22.08, p < .001$). These variables were evaluated as covariates in the analysis of overall suicide attempts. Rates of ambivalent suicide attempts were higher among participants with borderline personality disorder, $\chi^2 (1) = 5.93, p = .015$, resulting in its inclusion as a covariate in the analysis of ambivalent suicide attempts. Rates of non-ambivalent suicide attempts were higher among participants with education post-high school ($\chi^2 [1] = 4.80, p = .028$), lifetime major depressive disorder ($\chi^2 [1] = 6.25, p = .012$), and a diagnosis of borderline personality disorder ($\chi^2 [1] = 26.76, p < .001$). Consequently, these variables were included as covariates in analyses of non-ambivalent suicide attempts. Finally, rates of suicide attempts requiring medical attention were higher among participants who were single ($\chi^2 [1] = 4.83, p = .028$), White ($\chi^2 [1] = 4.58, p = .032$), had lifetime PTSD ($\chi^2 [1] = 6.74, p = .009$), and had borderline personality disorder ($\chi^2 [1] = 11.93, p = .001$). Thus, these variables were included in the analysis of suicide attempts requiring medical attention. As stated previously, lifetime frequency of NSSI was included as a covariate in all analyses.

Primary Analyses

CUT was the only NSSI method variable significantly associated with the presence (vs. absence) of overall suicide attempts, suicide attempts requiring medical attention, and non-

ambivalent suicide attempts. None of the NSSI method variables was significantly associated with ambivalent suicide attempts (see Table 2).

Analyses were repeated with relevant covariates included in the models. The analysis focused on suicide attempts with ambivalent intent was not conducted given that no NSSI variable was found to be significantly related to this suicide outcome. When covariates were included into the model involving overall suicide attempts, CUT remained the only form of NSSI behavior significantly associated with overall suicide attempts ($B = 0.85$, $SE_B = 0.43$, Wald = 3.98, $p = .046$, $OR = 2.35$, 95% CI = 1.02, 5.42). Borderline personality disorder also emerged as significantly associated with overall suicide attempts ($B = 1.49$, $SE_B = 0.38$, Wald = 15.02, $p < .001$, $OR = 4.44$, 95% CI = 2.09, 9.42).

CUT also remained significantly associated with non-ambivalent suicide attempts ($B = 1.41$, $SE_B = 0.53$, Wald = 7.17, $p = .007$, $OR = 4.10$, 95% CI = 1.46, 11.52). The covariates of borderline personality disorder ($B = 2.03$, $SE_B = 0.48$, Wald = 17.77, $p < .001$, $OR = 7.63$, 95% CI = 2.97, 19.64) and education status ($B = 1.21$, $SE_B = 0.49$, Wald = 6.19, $p = .013$, $OR = 3.34$, 95% CI = 1.29, 8.63) also demonstrated significant associations with the presence of a non-ambivalent suicide attempt.

CUT also remained significantly associated with suicide attempts requiring medical attention ($B = 1.21$, $SE_B = 0.48$, Wald = 6.27, $p = .012$, $OR = 3.35$, 95% CI = 1.30, 8.63). Relationship status ($B = -0.98$, $SE_B = 0.48$, Wald = 4.28, $p = .039$, $OR = 0.37$, 95% CI = 0.15, 0.95), racial/ethnic background ($B = -1.00$, $SE_B = 0.46$, Wald = 4.66, $p = .031$, $OR = 0.37$, 95% CI = 0.15, 0.91), and borderline personality disorder ($B = 1.01$, $SE_B = 0.42$, Wald = 5.88, $p = .015$, $OR = 2.74$, 95% CI = 1.21, 6.17) also demonstrated significant associations with the presence of a suicide attempt requiring medical attention.

Discussion

The current study offers several important contributions to the growing body of research on the relation between NSSI and suicide attempts. Within a sample of patients with SUDs, NSSI methods involving cutting were the only NSSI methods uniquely associated with overall, medically serious, and non-ambivalent suicide attempts. These findings are consistent with past research highlighting the particular relevance of cutting (vs. other NSSI methods) to suicidal behaviors (Burke et al., 2018; Klonsky & Olino, 2008; Kiekens et al., 2018). Although results could suggest that there is something specific to cutting oneself that increases risk for suicidal behaviors, it is also possible that NSSI methods involving cutting may be a proxy for NSSI severity (given past research characterizing cutting as a more severe method of NSSI associated with greater tissue damage; see Whitlock et al., 2008). Thus, cutting may be more likely than other NSSI methods to increase the capacity for suicide, thereby strengthening the relation between NSSI and suicide attempts. This suggestion is consistent with the Integrated Model of NSSI (Hamza et al., 2012) and past research indicating a relation between NSSI severity and suicidal behaviors (Guan et al., 2012; Lloyd-Richardson et al., 2007; Ribeiro et al., 2016; Tang et al., 2011; Whitlock et al., 2008).

Notably, results highlighting the unique relevance of NSSI methods involving cutting to suicide attempts suggest that models of the NSSI-suicide attempt relation may need to be refined to focus specifically on cutting/carving behaviors, rather than NSSI in general. Future research examining why these particular NSSI methods may be uniquely associated with suicidal behaviors is needed. In particular, research should examine if there is something unique to cutting that increases the acquired capability for suicide or other suicide risk factors, or if individuals who choose to engage in NSSI methods characterized by cutting differ from those who engage in other NSSI methods in relevant ways (e.g., severity of clinical presentation, engagement in other self-destructive behaviors, co-occurring psychopathology).

Limitations and Future Directions

Several study limitations are worth noting. First, data were cross-sectional and correlational, prohibiting conclusions regarding the precise nature and direction of the relations examined. Moreover, given that we did not collect data on the temporal ordering of NSSI onset and suicide attempts, we have no way of determining if NSSI (and in particular, NSSI in the form of cutting) preceded suicide attempts. Future research examining prospective associations between NSSI methods and suicidal behaviors are needed to clarify the NSSI-suicide attempt link. Additionally, although our use of a clinical sample of patients with SUDs is arguably a strength of this study, results may not generalize to individuals without SUDs or other clinical samples. Substance use, particularly intravenous drug use (Darke and Kaye, 2004), is itself a painful and provocative event (Poindexter et al., 2017) that is associated with suicidal ideation, suicide attempts, death by suicide (Poorolajal et al., 2016), and NSSI (Moller et al., 2013). Thus, it is possible that in a less severe sample with less exposure to overall painful and provocative events, additional NSSI methods may be associated with suicide attempts. Finally, although each NSSI method was examined individually in the current study (in order to examine their unique relations to suicide attempts), most self-injurers use multiple methods (Klonsky, 2009). Thus, whether and to what extent NSSI methods involving cutting only (i.e., in the absence of other NSSI methods) are specifically linked to suicide attempts remains unknown. Future research examining the extent to which the cutting-suicide attempt relation is moderated by the presence or absence of other NSSI methods is needed.

Despite limitations, results have potential clinical and research implications. First, results highlight an important link between NSSI methods involving cutting and suicide attempts among patients in treatment for SUDs – an understudied population at high risk for both NSSI and suicide. Second, findings build upon prior research demonstrating important differences in outcomes as a function of NSSI characteristics (e.g., Lloyd-Richardson et al., 2007; Whitlock et al., 2013) and highlight the importance of more fine-grained characterizations of NSSI subgroups. Specifically, given that NSSI is comprised of different behaviors that vary in form, function, frequency, and severity (among others), it is important for future research to clarify the specific characteristics and behaviors most likely to increase risk for suicidal behaviors and other negative outcomes. Finally, results highlight the potential utility of directly assessing all current and past NSSI methods (vs. NSSI in

general), as methods involving cutting may reflect greater risk for more lethal suicide attempts.

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Table 1.

Demographic and Clinical Characteristics (N = 203)

Variable	% (n)
Education	
High School Diploma or Less	61.1 % (124)
Some College, No Degree	23.6% (48)
College or Technical School Degree	15.3% (31)
Income	
Under 10,000	49.8% (101)
10,000–19,999	17.7% (36)
20,000 and Over	32.5% (66)
Current Alcohol Use Disorder	67.0% (136)
Current Cannabis Use Disorder	29.1% (59)
Current Sedative Use Disorder	20.7% (42)
Current Stimulant Use Disorder	21.2% (43)
Current Opioid Use Disorder	24.1% (49)
Current Cocaine Use Disorder	57% (117)
Current Hallucinogen Use Disorder	3.4% (7)
Current Polysubstance Use Disorder	8.9% (18)
Borderline Personality Disorder	35.0% (71)
Lifetime Major Depressive Disorder	65.0% (132)
Lifetime Posttraumatic Stress Disorder	48.3% (98)

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Table 2.

Results of Binomial Logistic Regressions Examining Relations between NSSI Methods and Suicide Attempt Type (N = 203).

DV = Overall Suicide Attempts^a					
	B	SE	Wald (p)	OR	95% CI
CUT	1.11	0.39	8.08 (.004)	3.02	1.41, 6.47
BURN	0.60	0.58	1.08 (.300)	1.82	0.59, 5.64
BLUNT	0.38	0.52	0.54 (.461)	1.46	0.53, 4.02
MINOR	-0.54	0.67	0.64 (.424)	0.59	0.16, 2.17
DV = Ambivalent Suicide Attempts^b					
	B	SE	Wald (p)	OR	95% CI
CUT	0.91	0.54	2.80 (.094)	2.49	0.86, 7.22
BURN	-0.39	0.91	0.18 (.668)	0.68	0.11, 4.02
BLUNT	0.88	0.65	1.83 (.176)	2.40	0.68, 8.54
MINOR	0.94	0.73	1.67 (.197)	2.55	0.62, 10.55
DV = Non-ambivalent Suicide Attempts^c					
	B	SE	Wald (p)	OR	95% CI
CUT	1.29	0.40	9.05 (.003)	3.64	1.57, 8.46
BURN	0.74	0.66	1.24 (.265)	2.09	0.57, 7.62
BLUNT	0.25	0.60	0.18 (.674)	1.29	0.40, 4.13
MINOR	-1.92	1.12	2.93 (.087)	0.15	0.02, 1.32
DV = Suicide Attempts Requiring Medical Attention^d					
	B	SE	Wald (p)	OR	95% CI
CUT	1.18	0.41	8.35 (.004)	3.25	1.46, 7.24
BURN	0.22	0.65	0.11 (.737)	1.24	0.35, 4.44
BLUNT	0.54	0.54	0.98 (.322)	1.71	0.59, 4.93
MINOR	-0.64	0.74	0.76 (.384)	0.53	0.12, 2.24

Note. DV = Dependent Variable. 95% CI = 95% Confidence Interval; CUT = NSSI methods involving cutting; BURN = NSSI methods involving burning; BLUNT = NSSI methods involving blunt force; MINOR = NSSI methods that involve minor tissue damage.

^aModel $\chi^2(4) = 10.20, p = .037$, Nagelkerke $R^2 = .075$.

^bModel $\chi^2(4) = 9.11, p = .059$, Nagelkerke $R^2 = .097$.

^cModel $\chi^2(4) = 11.99, p = .017$, Nagelkerke $R^2 = .099$.

^dModel $\chi^2(4) = 10.12, p = .039$, Nagelkerke $R^2 = .079$.