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Atypical and Severe Non-Suicidal Self-Injury as an Indicator of Severe Psychopathology: Findings from a Sample of High-Risk Community Mental Health Clients

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Atypical and Severe Non-Suicidal Self-Injury as an Indicator of Severe Psychopathology: Findings from a Sample of High-Risk Community Mental Health Clients

This study examined whether atypical/severe non-suicidal self-injury (NSSI; e.g., foreign body ingestion, cutting necessitating sutures) serves as a marker of severe psychopathology among 467 adult community mental health clients (*n*=33 with an atypical/severe NSSI history). Information regarding psychiatric risk indicators was extracted from participants' psychiatric records. Generalized linear models with negative binomial distribution and log link function, as well as chi-square tests, were utilized to address study aims. Clients with a lifetime atypical/severe NSSI history met criteria for a significantly greater number of psychiatric risk indicators than clients with a lifetime history of common NSSI only; however, these clients were not significantly more likely to report recent suicidal actions. Individuals with an atypical/severe NSSI history may demonstrate more severe psychopathology than those with a history of common NSSI only. Thus, it may be clinically useful to consider individuals with an atypical/severe NSSI history as a high-risk subgroup.

Keywords. non-suicidal self-injury; deliberate self-harm; suicide; psychopathology

Introduction

Non-suicidal self-injury (NSSI) has been identified as a significant public health problem worldwide (Institute of Medicine [IOM], 2002). The global pooled lifetime prevalence rate of NSSI among adults has been estimated at 5.5% (see Swannell et al., 2014, for meta-analytic review), with higher rates found among clinical samples (19-60%; Nock, 2010). NSSI is defined by the United States (U.S.) Centers for Disease Control and Prevention (CDC) as "behavior that is self-directed and deliberately results in injury or the potential for injury to oneself" (Crosby et al., 2011, p. 21). The *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* (DSM-5; American Psychiatric Association [APA], 2013) also notes that this behavior is repeated (i.e., occurs on five or more days in a 12-month period) and importantly emphasizes that NSSI is not enacted with suicidal intent or for purposes that are socially sanctioned. Common examples of NSSI include intentional cutting, scratching, hitting, biting, and burning of oneself (Klonsky, 2007; Nock and Prinstein, 2004).

A growing body of literature suggests that NSSI is a critical marker of psychopathology. For instance, repeated engagement in NSSI is a symptom of borderline personality disorder (BPD; APA, 2013), a disorder associated with high suicide risk (Chesney et al., 2014), as well as severe functional impairment and the presence of comorbid psychiatric disorders (Grant et al., 2008). NSSI has also been repeatedly identified among samples without BPD, underscoring the importance of its investigation in the broader population (Klonsky et al., 2003; Whitlock et al., 2008). For example, across clinical and non-clinical samples, a history of NSSI has been associated with increased risk for both internalizing and externalizing disorders (Klonsky et al., 2003; Nock et al., 2006). Furthermore, NSSI has been associated with clinically significant distress and impairment. A study of patients admitted to an acute care program designed to treat

NSSI found that the vast majority (98.2%) of participants reported significant functional impairments associated with their engagement in NSSI (e.g., interference in interpersonal, academic, and/or other areas of functioning; Washburn et al., 2015). Additionally, participants in the same study who were identified as meeting diagnostic criteria for nonsuicidal self-injury disorder—a condition for further study in the *DSM-5* (APA, 2013)—reported significantly lower quality of life than those not meeting criteria for this disorder (Washburn et al., 2015).

NSSI has also been consistently identified as a key correlate and robust predictor of suicidal thoughts and behaviors. A review of 31 studies examining NSSI as a risk factor for suicidal behavior found that a history of NSSI was associated with suicidal thoughts and behaviors, even after controlling for age, sex, ethnicity, and socioeconomic status (Hamza et al., 2012). NSSI also appears to be more strongly related to suicide risk than other conditions and symptoms often considered to be associated with suicidal thoughts and behaviors. For example, a study of 117 psychiatric inpatients found that both the presence and number of NSSI episodes were more strongly associated with a history of suicide attempts than depression symptoms, hopelessness, and BPD symptoms (Andover and Gibb, 2010). Similarly, a four-sample investigation of NSSI and suicide attempts found that NSSI was more strongly associated with suicide attempts than were depression, BPD, anxiety, and impulsivity (Klonsky et al., 2013). Taken together, it is evident that NSSI is an important signal of clinical severity and risk.

It is noteworthy, however, that the vast majority of studies on NSSI to date have focused on common and often less medically severe forms of NSSI, including superficial cutting or carving on the arms, legs, and/or stomach; scratching or scraping; and burning (Klonsky, 2007; Nock, 2010). Relatively less attention has been dedicated to understanding forms of NSSI that involve atypical methods (e.g., foreign-body ingestion), atypical and often medically severe

injury of uncommon areas of the body (e.g., face, breasts, genitalia), and medically serious NSSI (e.g., cuts necessitating sutures). These various forms of atypical/severe NSSI have been documented in the scientific literature, primarily in case reports and clinical practice recommendations (e.g., Favazza, 1998; Gitlin et al., 2007; Poynter et al., 2011; Walsh, 2007, 2012); however, little is known regarding the clinical pictures and outcomes of individuals with an atypical/severe NSSI history. Indeed, though empirical studies have sought to evaluate correlates of what researchers have termed "severe" NSSI, it is questionable whether behaviors categorized as "severe NSSI" in these studies constitute high-risk NSSI. For instance, Lloyd-Richardson and colleagues (2007) define moderate/severe NSSI as the use of cutting/carving, burning, self-tattooing, scraping, and erasing skin because they identify these methods as being "more clinically severe in nature" (p. 3). Another study by Glenn and Klonsky (2011) describes severe NSSI as that which occurs more frequently and involves a greater number of methods. Unfortunately, these definitions fail to account for the medical severity of the NSSI and the possibility that infrequent NSSI may still result in significant physical harm. In their study of nonsuicidal self-injury disorder, Washburn and colleagues (2015) identify an array of factors that, together, comprise more severe NSSI (e.g., engaging in NSSI to resolve an interpersonal difficulty, greater difficulties controlling preoccupations about NSSI prior to engaging in NSSI). Again, however, these researchers do not account for medical severity or use of uncommon NSSI methods that may result in greater physical harm.

There are some indications from case studies, however, that atypical/severe NSSI may signal particularly severe psychopathology. For instance, in Gitlin and colleagues' (2007) review of case reports, they note that foreign-body ingestion may not only be recurrent but may also be resistant to psychiatric treatment and a signal of poor prognosis. Their review also identifies

these behaviors as occurring specifically among patients with severe personality disorders. A similar pattern of findings is reported in case study review by Reisner and colleagues (2013). They noted that NSSI in the form of foreign-object ingestion seemed to be associated with greater treatment resistance, a trauma history, multiple hospitalizations, and a long psychiatric treatment history. Beyond this, the literature on atypical/severe NSSI remains notably sparse. Though it is plausible based on theories of suicide (e.g., the Interpersonal Theory of Suicide; Joiner, 2005; Van Orden et al., 2010) that engagement in more severe forms of NSSI may increase risk for suicide attempts (e.g., by increasing capability for suicide and subsequently increasing one's potential to enact potentially lethal self-harm), the relationship between atypical/severe NSSI and suicide risk has been largely untested. Thus, further examination of atypical/severe NSSI and its associated clinical characteristics, including suicide risk, is indicated.

The Present Study

Overall, it appears that further characterization of individuals who engage in atypical/severe forms of NSSI may be clinically useful. To this end, this cross-sectional study sought to examine whether an atypical/severe NSSI history serves as a marker of severe psychopathology and suicide risk in a sample of U.S. community mental health clients. Specifically, using this sample, this study aimed to: (1) identify rates of recent (i.e., past six months) and lifetime atypical/severe NSSI; (2) whether individuals with an atypical/severe NSSI history met criteria for significantly more psychiatric risk indicators than those with (a) a history of common NSSI only and (b) no NSSI history; and (3) investigate whether individuals with a lifetime history of atypical/severe NSSI were more likely than those with a lifetime history of common NSSI only to report a history of suicidal thoughts, plans, and behaviors. Based on prior literature, it was hypothesized

that an atypical/severe NSSI history would be significantly associated with a greater number of psychiatric risk indicators and an increased risk for suicidal thoughts and behaviors as compared to a history of common NSSI only. We also note that participants across comparison groups, including the no NSSI history group, all reported clinically significant psychiatric symptoms at intake.

Methods

We emphasize at the outset that this investigation represents analyses of data collected to inform clinical care rather than to address our study aims. Thus, this study's psychiatric risk indicators are limited to those systematically collected by the human services agency from which this sample is drawn. Additionally, the time frames assessed (i.e., lifetime and past six months) are those routinely utilized by the agency from which clinical data were obtained.

Participants

The sample was composed of 467 adult community mental health clients engaged in treatment at a large community-based not-for-profit human services agency located in a Northeastern U.S. state. This agency provides mental health services, care management, housing and homelessness services, and health education resources to individuals with complex behavioral conditions. The agency is largely government funded and typically provides services to individuals of relatively low socioeconomic status within a defined catchment area. No inclusion or exclusion criteria were utilized; this sample represented a convenience sample of consecutively admitted clients presenting to the agency.

Demographic and diagnostic information was not available for this specific sample because these data were not originally extracted along with risk indicator data and the study authors do not have access to any records that link study and agency identifiers. However, the state's Department of Mental Health adult clients (of which the current sample represents a

subset) are majority male (56%; 44% female), with ages ranging from 19 to 84 years (*M*=42.23). The agency in this study provides evidence-based services to high-risk individuals with severe psychopathology, including dual diagnoses, elevated suicide risk, and severe and persistent mental illness. This agency does not formally assign psychiatric diagnoses to clients; however, common diagnoses assigned by previous clinicians include major depressive disorder, bipolar disorder, schizophrenia, schizoaffective disorder, posttraumatic stress disorder, and/or BPD. The majority of clients at this center have been discharged from state hospital facilities or short-term psychiatric units. A typical length of stay at this agency is at least two years. Clients are generally under 24-hour care through the agency (e.g., living in supervised group homes or supported housing apartments with on-site services and emergency on-call capabilities).

Measures

Medical and Psychiatric History. The Department of Mental Health, located in the same Northeastern U.S. state as the study site, referred all participants to the current agency following administration of a state-mandated comprehensive assessment. This assessment includes quantitative (e.g., assessing severity on a scale) and qualitative (e.g., open-ended response) questions probing psychosocial history, treatment services history, forensic history, and hospitalization history. The same measure is utilized to assess all clients seeking services through the state's Department of Mental Health (see http://www.mass.gov/dmh/policies). To our knowledge, psychometrics properties (e.g., norms) have yet to be established for this measure.

Risk Indicator History. During the intake interview process, trained mental health clinicians assessed a battery of risk indicators to inform treatment and clinical decision-making. Clinicians utilized a semi-structured interview approach to ensure that each risk indicator was

probed and to allow for follow-up questions and clarification. Risk indicators spanned the following domains: (1) suicide and self-injury, (2) eating disorders and eating conditions, (3) addiction behaviors, (4) treatment-interfering factors, (5) aggressive and impulsive behaviors, (6) medical concerns, (7) legal concerns, and (8) abuse history (see Table 1 for a complete list of all risk indicators). The agency assesses these specific risk indicators during the intake process due to their demonstrated associations with severe psychopathology, institutionalization, suicide risk, and/or poor treatment outcomes (Barrett et al., 2008; Bostwick et al., 2016; Franklin et al., 2017; Hom and Joiner, 2017; Norman et al., 2012; Swift and Greenberg, 2012). Importantly, these risk indicators also serve as key treatment targets to prevent re-hospitalization. Clinicians documented whether clients met criteria for a lifetime and/or recent (i.e., past six months) history of each indicator. The psychometric properties of this interview assessment have yet to be established; additionally, inter-rater reliability statistics are not available for this measure and no formal quality assurance procedures were utilized for the interview because these data were collected for clinical rather than research purposes. Regarding the operational definition of atypical/severe NSSI for this study, the agency considered foreign-body ingestion, injury of uncommon areas of the body (e.g., face, breasts, genitalia), and injury resulting requiring medical response to be atypical/severe forms of NSSI (Walsh, 2007).

Procedures

The state's Department of Mental Health referred all study participants to the agency used as our study site. During the intake process, a trained mental health clinician at the treatment center conducted semi-structured interviews with the client, the client's family members (if involved in care), and current providers. Through these interviews, and utilizing referral information provided by the state's Department of Mental Health, the lifetime and recent

(i.e., past six months) presence/absence of each risk indicator was assessed. All data were entered into clients' electronic psychiatric medical records and then extracted into SPSS for the current study. Participants provided informed consent for their psychiatric and medical record data to be utilized for research purposes at intake. Information regarding the proportion of clients who declined participation in research at the clinical site was not systematically collected. The appropriate Institutional Review Board approved all study procedures.

Data Analysis

Descriptive statistics were utilized to characterize the study sample and identify recent (i.e., past six months) rates of each risk indicator among individuals with a lifetime history of (1) atypical/severe NSSI, (2) common NSSI only, (3) and no NSSI. Number of recent (i.e., past six months) risk indicators was an overdispersed (i.e., $S^2 > M$; $S^2 = 8.67$, $M = 2.43$) and non-normally distributed (skew = 1.93; kurtosis = 4.55) count variable. Thus, we utilized generalized linear models (GLMs) with a negative binomial distribution and log link function to compare the mean total number of recent (i.e., past six months) risk indicators present among individuals with a *lifetime* history of (1) atypical/severe NSSI, (2) common NSSI only, (3) and no NSSI. GLMs with a negative binomial distribution and log link function were also used to compare the mean total number of recent (i.e., past six months) risk indicators present among individuals with a *recent* (i.e., past six months) history of (1) atypical/severe NSSI, (2) common NSSI only, (3) and no NSSI. Finally, chi-square tests were conducted to evaluate whether individuals with a lifetime atypical/severe NSSI history were more likely to report a (1) lifetime and (2) recent (i.e., past six months) history of suicidal thoughts, plans, and actions than those with a lifetime history of common NSSI only. Chi-square tests were not conducted to examine suicidality among individuals with a history of recent atypical/severe NSSI given its low rate in this sample ($n = 7$).

Results

Prevalence of NSSI and Suicidality

Of the sample, 33 (7.1%) reported a lifetime history of atypical/severe NSSI, with 7 (1.5% of the total sample) of these clients additionally reporting engaging in atypical/severe NSSI in the six months prior to treatment intake. Atypical/severe NSSI in this sample included recurrent foreign body ingestion (e.g., ingestion of objects resulting in potential esophageal damage) and cutting necessitating numerous sutures. By comparison, 127 (27.2%) reported a lifetime history of common NSSI only, of which 31 (6.6% of the total sample) also reported a recent history of common NSSI. Lastly, 307 (65.7%) clients denied a lifetime history of NSSI. With regard to suicidality, in the total sample, lifetime rates of suicidal thoughts disclosed, suicidal plans disclosed, and suicidal actions were 54.2% (*n*=253), 36.4% (*n*=170), and 37.3% (*n*=174), respectively, and rates of these risk indicators in the past six months were 22.1% (*n*=103), 7.7% (*n*=36), and 5.6% (*n*=26), respectively.

Prevalence of Recent Risk Indicators

Among individuals with a lifetime history of atypical/severe NSSI, the most common recent risk indicators were suicidal thoughts disclosed (*n*=18, 54.5%), unpredictable/rapid mental status changes (*n*=16, 48.5%), and failure to take medications as prescribed (*n*=15, 45.5%). For individuals with a lifetime history of common NSSI only, the most common recent risk indicators were suicidal thoughts disclosed (*n*=53, 41.7%), obesity (*n*=45, 35.4%), and failure to take medications as prescribed (*n*=39, 30.7%). Lastly, for individuals without a lifetime history of NSSI, the most common recent risk indicators were obesity (*n*=25.1%), failure to take medications as prescribed (*n*=54, 17.6%), and substance abuse (*n*=53, 17.2%). See Table 1 for detailed results regarding the prevalence of recent risk indicators across NSSI groups.

Mean Number of Recent Risk Indicators by NSSI Group

Lifetime NSSI. The omnibus test revealed a significant difference in mean number of recent risk indicators between lifetime NSSI groups ($\chi^2[2]=71.30$, $p<.001$). Parameter contrasts indicated that individuals with a lifetime history of atypical/severe NSSI ($M=5.61$, $SD=4.49$) met criteria for a significantly greater number of risk indicators than individuals with a lifetime history of common NSSI only ($M=3.59$, $SD=3.27$, Wald $\chi^2=4.34$, $p=.037$) and individuals without a lifetime history of NSSI ($M=1.60$, $SD=2.09$, Wald $\chi^2=38.25$, $p<.001$). See Table 2 for detailed results.

Recent NSSI. The omnibus test also revealed a significant difference in mean number of recent risk indicators between recent NSSI groups ($\chi^2[2]=65.12$, $p<.001$). Parameter contrasts indicated that individuals with a recent history of atypical/severe NSSI ($M=10.29$, $SD=4.89$) met criteria for a significantly greater number of risk indicators than individuals without a recent history of NSSI ($M=1.99$, $SD=2.40$; Wald $\chi^2=16.81$, $p<.001$) but not individuals with a recent history of common NSSI only ($M=6.64$, $SD=3.44$; Wald $\chi^2=0.98$, $p=.321$). See Table 2 for detailed results.

Comparing Suicidality History Among Individuals with Lifetime Atypical/Severe NSSI vs. Common NSSI Only

Lifetime Suicidality. Individuals with a lifetime history of atypical/severe NSSI were not found to have significantly higher rates of *lifetime* suicidal thoughts disclosed, suicidal plans disclosed, or suicidal actions than those with a lifetime history of common NSSI only ($ps>.05$). See Table 3 for detailed results.

Recent Suicidality Likewise, individuals with a lifetime history of atypical/severe NSSI were not significantly more likely to have *recently* disclosed suicidal plans or to have *recently*

made suicidal actions than those with a lifetime history of common NSSI only (*p*s>.05). See Table 3 for detailed results.

Discussion

This study examined atypical/severe NSSI as a signal of severe psychopathology and suicide risk in a sample of adult community mental health clients. In this sample, 7.1% of participants reported a lifetime history of atypical/severe NSSI (e.g., foreign body ingestion, cutting necessitating numerous sutures). Broadly, results indicate that a history of atypical/severe NSSI may be associated with a cluster of high-risk symptoms and behaviors. Specific findings have implications both for research examining atypical/severe NSSI and for clinical practice, though further research is needed to replicate these findings given the relatively low numbers of individuals with a history of atypical/severe NSSI in our sample.

First, the study sample represented a group of elevated clinical severity, increasing the relevance of findings to other clinical samples. Lifetime rates of suicidal thoughts disclosed (54.2%), suicidal plans disclosed (36.4%), and suicidal actions (37.3%) markedly exceeded lifetime rates of suicide ideation, plans, and attempts in the U.S. general population (5.6-14.3%, 3.9%, and 1.9-8.7%, respectively; Nock et al., 2008). In particular, a notable proportion of individuals with a lifetime history of NSSI (i.e., atypical/severe or common only) met criteria for a range of other risk factors in the past six months, including common NSSI (42.4% and 18.9%, respectively), suicidal thoughts disclosed (54.5% and 41.7%, respectively), suicidal plans disclosed (27.3% and 14.2%, respectively), suicidal actions (24.2% and 11.8%, respectively), substance abuse (36.4% and 22.8%, respectively), failure to take medications as prescribed (45.5% and 30.7%, respectively), and unpredictable and/or rapid mental status changes (48.5% and 28.3%, respectively). These findings are consistent with the treatment setting given that the

human services agency utilized in this study specializes in the treatment and management of chronically ill and high-risk clients.

Second, consistent with study hypotheses, individuals with a lifetime history of atypical/severe NSSI met criteria for significantly more risk indicators than those without a lifetime history of any type of NSSI. Strikingly, individuals with a lifetime history of NSSI also met criteria for significantly more risk indicators than those with a lifetime history of common NSSI only. These findings support prior work indicating that NSSI may be associated with a cluster of high-risk psychiatric symptoms and behaviors (Nock, 2010). Furthermore, these quantitative results align with prior qualitative work suggesting that atypical/severe NSSI may serve as a signal of severe psychopathology, potentially even more so than common or less medically severe forms of NSSI (Gitlin et al., 2007; Poynter et al., 2011; Reisner et al., 2013; Walsh, 2007, 2012). It is worth noting that there were certain risk indicators that appeared to be more prevalent among individuals with a lifetime history of common NSSI only as compared to those with a lifetime history of atypical/severe NSSI. For instance, rates of violence against others were higher among those with a lifetime history of common NSSI (12.6% vs. 6.1%). It is possible that atypical/severe NSSI may be associated with greater functional impairment, thus limiting engagement in such violence. However, because of the relatively low prevalence of violence against others across both groups, we caution against over-interpreting this result and recommend further research to replicate and probe this finding. In sum, though the nature of data collected limited our ability to further delineate the relationship between atypical/severe NSSI and various risk indicators (e.g., we were unable to evaluate the severity and frequency of indicators over time), these initial findings underscore the need for further work aimed at understanding atypical/severe NSSI as a robust indicator of concerning psychopathology.

With regard to the relationship between atypical/severe NSSI and suicide risk, in contrast with study hypotheses, individuals with a lifetime history of atypical/severe NSSI did not demonstrate significantly higher rates of recent suicidal ideation disclosed, plans disclosed, or actions than individuals with a lifetime history of common NSSI only. It may be, then, that atypical/severe NSSI does not differentially impact suicide risk, as would have been expected based on theoretical accounts of suicide (e.g., the aforementioned Interpersonal Theory of Suicide; Joiner, 2005; Van Orden et al., 2010). However, because relatively few individuals had a lifetime history of atypical/severe NSSI, we emphasize that these findings should be interpreted tentatively as we were likely underpowered to detect significant results.

Finally, in terms of clinical implications, this study highlights the importance of not only assessing whether individuals have a history of NSSI but also probing the specific *types* of NSSI in which they have engaged (Walsh, 2007). Though this assessment approach may seem obvious, many standardized assessments of self-injurious thoughts and behaviors do not explicitly list certain forms of atypical/severe NSSI (e.g., foreign-body ingestion) as options for selection (e.g., Self-Injurious Thoughts and Behaviors Interview [SITBI; Nock et al., 2007], Inventory of Statements About Self-Injury [ISAS; Klonsky and May, 2014]). Detailed probing of NSSI means and location is also important since this line of inquiry can reveal whether self-injury is enacted with an atypical body part or area (e.g., genitalia rather than arms). Of note, to date, empirically supported treatments for NSSI remain limited (Nock, 2010), though emerging work by Franklin and colleagues (2016) suggests that technology-based intervention may bear promise in increasing individuals' aversion to NSSI. Thus, although identification of a history of atypical/severe NSSI may not result in direct treatment of these behaviors, this risk indicator may help clinicians to identify individuals who may warrant more intensive clinical care.

Limitations and Future Directions

This study was not without its limitations. First, as noted, these data were collected to inform clinical care rather than for research purposes. Consequently, detailed information regarding the severity, frequency, and duration of each risk indicator was not systematically collected across participants. Second, neither the Department of Mental Health's assessment nor the agency's clinical interview has yet to undergo psychometric evaluation, which may have impacted the quality of our data. Indeed, because psychiatric risk indicators were not assessed with validated self-report or clinician interview measures, we emphasize that our findings should be interpreted with caution. Future investigations of atypical/severe NSSI would benefit from the use of established measures designed to more thoroughly capture the nature of each indicator. Additionally, the use of multiple raters and calculation of inter-rater reliability would enhance confidence in the identification of the presence of each risk indicator. At the same time, it is important to note that this study represents only an initial step toward empirically examining atypical/severe NSSI; further research utilizing more rigorous assessment methods is certainly needed before definitive conclusions regarding atypical/severe NSSI can be established.

Another significant limitation of the current study is that sociodemographic and clinical data were not available for this sample, preventing us from evaluating whether these factors might influence the relationship between NSSI status, psychiatric risk indicators, and suicide risk. Data were also only collected from one agency; thus, findings may not be generalizable to other geographic regions or populations. Fourth, only the risk indicators utilized to inform clinical practices at the specific human services agency in which this study was conducted were available to the study authors. Other indicators of risk (e.g., BPD symptomatology, sleep problems) might be useful to include in future investigations. Fifth, only suicidal thoughts and

plans *disclosed* were assessed. It is possible, then, that rates of suicidal ideation and plans *experienced* were even higher in the current sample (Hom et al., 2017). Sixth, due to the relatively low rates of atypical/severe NSSI in this sample, additional analyses (e.g., regression analyses) were not possible. Relatedly, we reiterate that our results should not be over-interpreted given the relatively low numbers of individuals with a history of atypical/severe NSSI, especially recent NSSI. In future studies, it may be useful to aggregate data across sites. Finally, only cross-sectional and retrospective data were collected; longitudinal designs are warranted. For future studies, collection of information regarding proportion of potentially eligible individuals who decline to participate and who drop out of the study may also inform whether findings are generalizable.

Conclusions

This study investigated atypical/severe NSSI as a marker of severe psychopathology and suicide risk in a sample of high-risk adult community mental health clients. Results suggest that a history of atypical/severe NSSI may be associated with experiencing a cluster of high-risk psychiatric symptoms and behaviors. Specifically, as compared to clients with a history of common NSSI only, individuals with a history of atypical/severe NSSI met criteria for a greater number of psychiatric risk factors. Overall, findings suggest that individuals with an atypical/severe NSSI history may comprise a group deserving of clinical attention. We look forward to additional work that addresses the limitations of the current study and that seeks to further understand the clinical features and trajectories of atypical/severe NSSI across other samples and settings.

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Table 1

Prevalence of Recent Risk Indicators among Individuals with a Lifetime History of Atypical/Severe NSSI, Common NSSI Only, and No NSSI (*N* = 467)

	Atypical/ Severe NSSI (*n* = 33)		**Common NSSI Only** (*n* = 127)		**No NSSI** (*n* = 307)	
	n	%	*n*	%	*n*	%
Suicide and Self-Injury						
Common NSSI	14	42.4%	24	18.9%	0	0%
Suicidal Thoughts Disclosed	18	54.5%	53	41.7%	32	10.4%
Suicidal Plans Disclosed	9	27.3%	18	14.2%	9	2.9%
Suicidal Actions	8	24.2%	15	11.8%	3	1.0%
Eating Disorder/Condition						
Anorexia	3	9.1%	9	7.1%	2	0.7%
Bulimia	6	18.2%	8	6.2%	5	1.6%
Obesity	10	30.3%	45	35.4%	77	25.1%
Addiction Behaviors						
Substance Abuse	12	36.4%	29	22.8%	53	17.3%
Fire-Setting Behavior	1	3.0%	0	0%	1	0.3%
Treatment-Interfering Factors						
Failure to Take Medications as Prescribed	15	45.5%	39	30.7%	54	17.6%
Leave Program Against Recommendations	8	24.2%	21	16.5%	15	4.9%
Negative Perception of Intense Family Involvement	9	27.3%	25	19.7%	24	7.8%
Diagnosis for Which Program Has Limited Training/Experience	3	9.1%	5	3.9%	6	2.0%
Unpredictable/Rapid Mental Status Changes	16	48.5%	36	28.3%	40	13.0%
Aggressive/Impulsive Behaviors						
Physical Violence Toward Others	2	6.1%	16	12.6%	14	4.6%
Inability to Avoid Dangerous Situations	6	18.2%	24	18.9%	25	8.1%
Physical Restraint Needed	5	15.2%	9	7.1%	4	1.3%
Problematic Sexual Behavior	1	3.0%	3	2.4%	6	2.0%
Medical Concerns						
Life-Threatening/Complex Medical Status	6	18.2%	16	12.6%	38	12.4%
Physical Challenges Affecting Service Delivery	1	3.0%	5	3.9%	8	2.6%
Legal Concerns						
Registered Sex Offender	0	0%	0	0%	5	1.6%
High Risk Boundary Violations	5	15.2%	6	4.7%	12	3.9%
Significant Legal Involvement	6	18.2%	14	11.0%	27	8.8%
Criminal Behavior	2	6.1%	12	9.4%	16	5.2%
Frequent 911 Calls	3	9.1%	7	5.5%	3	1.0%
Abuse History						
Physical/Sexual Abuse History	4	12.1%	5	3.9%	3	1.0%
Repeated Victimization	5	15.2%	12	9.4%	10	3.3%

Note. NSSI = non-suicidal self-injury

Table 2

Generalized Linear Models with a Negative Binomial Distribution and Log Link Function to Compare Mean Number of Recent (Past 6 Months) Risk Indicators Between Individuals with a Lifetime and Recent History of Atypical/Severe NSSI, Common NSSI Only, and No NSSI History (N = 467)

	# of Recent Risk Indicators		*B*	*SE*	95% CI	Wald χ^2	*p*
	M	*SD*					
LIFETIME (χ^2[2] = 71.30, p < .001)							
Atypical/Severe NSSI	**5.61**	**4.49**					
vs. Common NSSI Only	3.59	3.27	-0.45	0.21	-0.87, -0.03	4.34	.037
vs. No NSSI History	1.60	2.09	-1.25	0.20	-1.65, -0.86	38.25	< .001
Common NSSI Only	**3.59**	**3.27**					
vs. No NSSI History	1.60	2.09	-0.81	0.12	-1.05, -0.56	42.37	< .001
No NSSI History	**1.60**	**2.09**					
RECENT (χ^2[2] = 65.12, p < .001)							
Atypical/Severe NSSI	**10.29**	**4.89**					
vs. Common NSSI Only	6.64	3.44	-0.44	0.44	-1.30, 0.43	0.98	.321
vs. No NSSI History	1.99	2.40	-1.64	0.40	-2.43, -0.86	16.81	< .001
Common NSSI Only	**6.64**	**3.44**					
vs. No NSSI History	1.99	2.40	-1.20	0.20	-1.60, -0.81	35.71	< .001
No NSSI History	**1.99**	**2.40**					

Table 3

Chi-Square Tests Comparing Prevalence of Lifetime and Recent Suicidality Among Individuals with a Lifetime History of Atypical/Severe NSSI vs. Common NSSI Only (n = 160)

	Lifetime Atypical/ Severe NSSI (n = 33)		**Lifetime Common NSSI Only** (n = 127)		χ^2	p	ϕ
	n	%	*n*	%			
LIFETIME							
Suicidal Thoughts Disclosed	28	84.8%	110	86.6%	0.07	.793	-.02
Suicidal Plans Disclosed	24	72.7%	85	66.9%	0.41	.524	.05
Suicidal Actions	23	69.7%	82	64.6%	.306	.580	.04
RECENT							
Suicidal Thoughts Disclosed	18	54.5%	53	41.7%	1.74	.187	.10
Suicidal Plans Disclosed	9	27.3%	18	14.2%	3.20	.073	.14
Suicidal Actions	8	24.2%	15	11.8%	3.29	.070	.14

Note. NSSI = Non-suicidal self-injury