Is Non-Suicidal Self-Injury a Useful Distinction in Self-Harm Behavior?

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This Research is supported by:
- A Canadian Institutes of Health Research (CIHR) Frederick Banting and Charles Best Doctoral Award
- A Manitoba Graduate Scholarship
- CIHR Establishment Grant and CIHR New Investigator Award
- Manitoba Health Research Council Grant
Disclosure Statement

- The authors have no conflicts of interest to declare.
Purpose

- To compare correlates of different methods of self-harm to determine whether people who harm themselves by cutting are a distinct subgroup.
Importance

- Non-suicidal self-injury (NSSI) is frequently encountered in the ER by clinicians.
- Literature examining NSSI growing in recent years, however, still have a poor understanding.
- Importance of NSSI underscored by inclusion in DSM-5 in the section of conditions requiring further study.

(APA, 2013; Kapur, Cooper, O’Connor, & Hawton, 2013)
Non-suicidal self-injury (NSSI) in DSM-5 as a condition requiring further study.

“...engaged in intentional self-inflicted damage to the surface of his or her body... (e.g., cutting, burning, stabbing, hitting, excessive rubbing), with ...no suicidal intent,” (APA, 2013).

Definition excludes intentional overdose even if no intent to die.

There are individuals who self-poison and report no suicidal intent (O’Connor et al., 2007).
Limitations

- It is unknown whether individuals who self-harm by damaging the surface of the skin differ from those who self-poison and report no suicidal intent.
Objectives

1. To compare correlates of individuals who engage in NSSI by overdose to those who engage in NSSI by cutting.

2. To determine whether those who self-harm by overdose are more or less likely to re-present to emergency services in 6 months compared to those who self-harm by cutting.
Method

Sample

- Suicide Assessment Form in Emergency Psychiatry (SAFE) database
- Consecutive adults assessed by psychiatry at 2 tertiary-care hospitals in Winnipeg, Manitoba.
- January 1, 2009 and December 31, 2011.
- N=6,919
- All patients assessed by physicians
- Chart reviews of NSSI (n =228) conducted to obtain demographic and clinical information.
Method

Measures

- Columbia Classification Algorithm of Suicide Assessment (C-CASA)
  - Categorize type of self-harm at presentation
  - NSSI: “definition”- Self-injurious behavior associated with no intent to die
Method

Correlates

- Demographic variables: sex, age, marital status, education, employment status
- Psychiatric comorbidity
  - Axis I disorders
    - Depression, adjustment disorder, alcohol use disorder, drug use disorder, and anxiety disorder
  - Axis II disorders
    - Cluster B traits/disorder, borderline personality traits/disorder, and narcissistic personality traits/disorder
- Previous history of self-harm
Analyses

- Multiple Logistic Regression
- People presenting with cutting (n=40) were compared to those presenting with drug overdose (n=90) (reference group).
  - Correlates (e.g., demographic variables, psychiatric comorbidity)
- Representation to emergency services in 6 months
- Descriptive Statistics
  - Prevalence of types of representations to emergency services in 6 months
## Results

### Method of NSSI in SAFE Database sample

<table>
<thead>
<tr>
<th></th>
<th>NSSI by Overdose Only N=90</th>
<th>NSSI by Cutting Only N=40</th>
<th>OR – Overdose Only (Reference) versus Cutting Only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>52(57.8)</td>
<td>22(55.0)</td>
<td>0.87(0.41-1.85)</td>
</tr>
<tr>
<td>Male</td>
<td>37(41.1)</td>
<td>18(45.0)</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older Age</td>
<td>50(55.6)</td>
<td>14(35.0)</td>
<td>1.00</td>
</tr>
<tr>
<td>(36 years and older)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger Age</td>
<td>37(41.1)</td>
<td>26(65.0)</td>
<td>2.51(1.16-5.46)*</td>
</tr>
<tr>
<td>(35 years and younger)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td>N=51</td>
<td>N=29</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>18(37.3)</td>
<td>11(37.9)</td>
<td>1.00</td>
</tr>
<tr>
<td>Not Married</td>
<td>33(64.7)</td>
<td>18(62.1)</td>
<td>0.89(0.35-2.30)</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
<td>N=68</td>
<td>N=33</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>19(27.9)</td>
<td>12(36.4)</td>
<td>1.00</td>
</tr>
<tr>
<td>Unemployed</td>
<td>49(72.1)</td>
<td>21(63.6)</td>
<td>0.68(0.28-1.65)</td>
</tr>
<tr>
<td><strong>Highest Education</strong></td>
<td>N=24</td>
<td>N=17</td>
<td></td>
</tr>
<tr>
<td>Level Achieved</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than High School</td>
<td>16(66.7)</td>
<td>6(35.3)</td>
<td>1.00</td>
</tr>
<tr>
<td>High School Graduate or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher</td>
<td>8(33.3)</td>
<td>11(64.7)</td>
<td>3.67(0.99-13.56)</td>
</tr>
</tbody>
</table>
Results

**NSSI by Overdose (reference) vs. NSSI by cutting**

- **Axis I mental disorders**
  - Major depression – 13% OD, 20% cutting
  - Anxiety disorder – 8% OD, 10% cutting
  - Adjustment disorder – 23% OD, 20% cutting
  - Alcohol use disorder – 23% OD, 30% cutting
  - Drug use disorder – 22% OD, 13% cutting

- **Axis II mental disorders**
  - Cluster B traits/disorder – 38% OD, 50% cutting
  - Borderline personality traits/disorder – 17% OD, 25% cutting
  - Narcissistic personality traits/disorder – 4% OD, 8% cutting

- Previous history of NSSI 4.5 times more common in cutting group
# Results

## Method of NSSI in SAFE Database sample

<table>
<thead>
<tr>
<th>Representations within 6 months</th>
<th>NSSI by Overdose Only (N=90)</th>
<th>NSSI by Cutting Only (N=40)</th>
<th>Overdose Only (Reference) versus Cutting Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Representation</td>
<td>(n=75) 10 (13.3)</td>
<td>(n=39) 5 (12.8)</td>
<td>Fisher’s Exact Test p=1.00</td>
</tr>
<tr>
<td>Multiple Representations</td>
<td>(n=75) 5 (6.7)</td>
<td>(n=39) 2 (5.1)</td>
<td>Fisher’s Exact Test p=1.00</td>
</tr>
<tr>
<td>Mean number of Presentations</td>
<td>M=0.24 (SD=0.71)</td>
<td>M=0.26 (SD=0.88)</td>
<td>N/A</td>
</tr>
<tr>
<td>NSSI representations</td>
<td>(n=75) 1 (1.3)</td>
<td>(n=39) 1 (2.6)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Prevalence of Type of Representation Within 6 Months

[Bar chart showing the prevalence of different types of representation, including NSSI by OD only and NSSI by Cutting only.]

- NSSI
- Suicide Attempt
- Suicidal Ideation
- Self-Harm Intent Unknown
- Preparatory Acts Toward Self...
- No Self-Harm or Suicidal...

Colors:
- Red: NSSI by OD only
- Yellow: NSSI by Cutting only
Limitations

- Does not use structured interviews for diagnosis
- Only certain measures were assessed
  - Enhance feasibility of the assessment
- Small sample size for NSSI by cutting (n=40) and NSSI by overdose (n=90) groups
- Cannot detect completed suicide
Conclusion

- NSSI by cutting and NSSI by overdose groups appear similar on most demographic and mental disorder correlates.
- Groups also similar in frequency of re-presentations to emergency services within 6 months
- Further study required to determine if NSSI definition should be broadened to include other methods of self-harm like overdose.