Strangulation during sexual assault predicts increased posttraumatic stress symptoms six weeks after assault

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Introduction

• Worldwide, an estimated 10–27% of women are sexually assaulted during their lifetime.
• Data from a previous pilot study indicate that acute and chronic musculoskeletal pain, and other adverse health outcomes, are common after sexual assault.2,3
• Sexual assault (SA) is associated with higher prevalence of posttraumatic stress symptoms in women than other forms of trauma; however, to date, few studies have evaluated assault characteristics associated with posttraumatic stress (PTS)4.

Methods

• Data for this analysis came from the ongoing Women’s Health Study (R01 AR064700), the first large-scale, multisite prospective study of sexual assault survivors.
• When a potentially eligible adult woman sexual assault survivor ≥ 18 years of age presents to a network study site (“Better Tomorrow Network”, Figure 1) to receive care from a sexual assault nurse examiner (SANE), a research assistant (RA) is paged.
• The RA approaches the survivor for consent to contact the participant in 48-72 hours, collect blood samples, and access medical records. These records include SANE detailed forensic records regarding the assault history and medical services provided to the patient.
• Follow-up evaluation of enrolled participants is performed at 1 week, 6 weeks, 6 months, and 1 year. These evaluations include an assessment of PTS symptoms (PCL-S), anxiety symptoms (PROMIS), and somatic symptoms (0-10 NRS).
• Substantial PT symptoms were defined by a PCL-S score of ≥ 30.
• Strangulation was defined as application of external pressure on the neck either by bare hands, a ligature, or other material.
• Multiple forms of assault was defined as two or more of the following methods of penetration: penile-vaginal, penile-anal, penile-oral, vaginal-anal, digital, and/or foreign object.
• Drug facilitated sexual assault (DFSA) was defined as sexual assault after the patient became incapacitated due to having consumed alcohol and/or drugs but was intentionally administered another date rape drug.

Table 1. Sexual Assault Survivor Characteristics (n=228)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SD)</th>
<th>PCL-S Score in those with characteristic present vs. absent t value p value</th>
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</thead>
<tbody>
<tr>
<td>Threat of physical injury to patient or patient's loved one</td>
<td>21%</td>
<td>51 (19) vs. 51 (18)</td>
</tr>
<tr>
<td>Possession of weapon</td>
<td>16%</td>
<td>54 (18) vs. 50 (18)</td>
</tr>
<tr>
<td>Assisted known (includes relative)</td>
<td>72%</td>
<td>52 (18) vs. 51 (17)</td>
</tr>
<tr>
<td>Drug facilitated</td>
<td>35%</td>
<td>51 (16) vs. 52 (18)</td>
</tr>
<tr>
<td>European American</td>
<td>62%</td>
<td>54 (17) vs. 47 (18)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>28%</td>
<td>55 (16) vs. 50 (18)</td>
</tr>
<tr>
<td>+10 years of age</td>
<td>27%</td>
<td>52 (21) vs. 51 (16)</td>
</tr>
<tr>
<td>Earn &gt; $20,000 annually</td>
<td>56%</td>
<td>50 (16) vs. 54 (19)</td>
</tr>
<tr>
<td>High School Education or higher</td>
<td>93%</td>
<td>51 (17) vs. 56 (22)</td>
</tr>
</tbody>
</table>

Results

• Characteristics of initial participants enrolled are shown in Table 1.
• Posttraumatic stress symptoms were universal 6 weeks after sexual assault; with 150/181 (83%) women meeting criteria for substantial posttraumatic stress symptoms.
• Strangulation during assault and European American ethnicity (vs. other) predicted greater posttraumatic stress symptoms at six weeks (Table 2).
• Strangulation during assault was also associated with more severe anxiety symptoms [27 (8) vs. 22 (10), p < 0.05] and a greater number of worrisome somatic symptoms [7 (3) vs. 5 (4), p < 0.05].
• Example qualitative comments from enrolled participants are shown in Figure 3.

Conclusion

• In general, among SA survivors there was little association between posttraumatic stress symptom severity at 6 weeks and the presence or absence of specific assault-related characteristics. This may in part be due to the high burden of posttraumatic stress symptoms among all survivors.
• Strangulation-associated sexual assault, but not other sexual assault-related characteristics, predicted increased posttraumatic stress, anxiety, and worsening somatic symptoms 6 weeks after assault.
• Further analyses will evaluate the association between assault characteristics and outcomes in the full cohort at later time points.

References


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