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Managing post-sexual assault suicide risk

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Abstract

Purpose: Suicidal ideation and suicidal behavior are common after experiencing a sexual assault. Therefore, it is imperative to assess for and manage suicidal ideation using evidence-based techniques after a sexual assault medical forensic examination (SAMFE).

Methods: We assessed factors associated with higher suicidal ideation identified in a post-SAMFE mental health screening conducted over the phone and strategies to manage suicide risk. We also discuss three case examples and unique considerations when assessing post-SAMFE suicide risk.

Results: It was found that among individuals who completed a post-SAMFE screen, individuals who have been previously hospitalized for a mental health problem, who had higher posttraumatic stress symptoms, and who were homeless reported more suicidal ideation than those without those histories or symptom presentations.

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Compliance with Ethical Standards

Disclosure of potential conflicts of interest

The authors declare that they have no conflicts of interest to disclose.

Research involving human participants and/or animals

All study procedures were reviewed and approved by the University's IRB.

Informed consent

The current study involved a record review, therefore, the IRB did not require informed consent procedures. However, all participants in the current study did provide consent to have their medical records involved in research studies.

Conflict of Interest

All authors declare that they have no conflict of interest.

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Conclusions: Despite knowing potential risk factors for suicidal ideation post-SAMFE, it is essential to screen all individuals post-SAMFE due to their high risk for suicidal ideation and death by suicide.

Keywords

sexual assault; suicide; behavioral health

Sexual assault (SA), or nonconsensual sexual contact ranging from nonconsensual touching to nonconsensual sex, is a common experience in the US. Approximately one in five women report experiencing SA in their lifetime (Smith et al., 2017). SA has been consistently associated with suicidal thoughts and behaviors (STBs; for reviews, see Dworkin et al., 2017; Ullman, 2004). The Office on Violence Against Women recommends that individuals victimized by SA be evaluated for suicide risk as part of an SA medical forensic examination (SAMFE; U.S. Department of Justice, 2013) which occurs within days of the assault. There is neither research nor clinical practice guidelines focused on STBs after a SAMFE. Increased attention on STBs following a SAMFE is sorely needed to better understand and address suicidal risk among this population of individuals who experienced recent SA and may be in acute distress.

While suicidal ideation—thinking about, considering, or planning for suicide (Crosby et al., 2011)—does not perfectly predict who will go on to attempt or die by suicide, it is an important consideration in suicide risk assessment (Silverman & Berman, 2014). An international study yielded a lifetime suicidal ideation prevalence of approximately 9%, and 34% of people with suicidal ideation made a suicide plan (Nock et al., 2008). Further, 72% of people with a suicide plan attempted suicide and most of these transitions (e.g., from suicide ideation to suicide plan, from plan to attempt) occurred within the first five years of suicidal ideation onset (Nock et al., 2008). It is of utmost importance to conduct regular assessments of suicidal ideation, especially in potentially high-risk populations and in individuals who are newly experiencing suicidal ideation.

Among individuals with SA histories, demographic variables (e.g., age, sexual orientation, ethnicity; Ullman & Najdowski, 2009) and psychological symptoms (e.g., depression, post-traumatic stress disorder [PTSD], alcohol dependence; Ullman & Brecklin, 2002) are associated with increased rates of STBs. Of note, the relations between SA and STBs hold even when adjusting for demographic and psychological symptoms (e.g., Davidson et al., 1996; Ullman & Najdowski, 2009), suggesting that SA itself is a robust factor associated with STBs. Limited research has examined the temporal precedence of SA and STBs and available studies support the notion that mental health problems (including STBs) emerge after SA more frequently than before SAs. For example, Ullman and Brecklin (2002) used age at assault, age at first ideation, and age of first attempt to investigate the temporal order of these variables. STBs were three times as likely to occur after SA as to occur before or within the same year. Formal assessment of and follow-up care for suicidal ideation offers victims an opportunity to receive aid, information, and perceive greater control over recovery, all factors which have been found to be protective against suicidal ideation (Ullman & Najdowski, 2009).

Suicide risk assessment is complex and inexact; as a result, suicide risk determinations are imperfect and warrant attention and improvement (Berman & Silverman 2014). Detecting suicidal ideation—or identifying individuals at elevated risk for developing suicidal ideation—may increase our ability to affect suicide risk by enabling more effective intervention efforts throughout the suicidal process. Currently, most clinical and research attention focuses on imminent, high-risk interventions (Monaghan & Harris, 2015); however, if less severe suicidal ideation is targeted, perhaps progression to suicide plans and attempts can be prevented. Although early intervention following the initial onset of STBs is intuitively compelling, few efforts to provide early intervention have been developed and/or evaluated (for a review, see Monaghan & Harris, 2015). Thus, examining factors that precipitate the onset of STBs as well as current procedures for identifying and managing suicidal ideation—even without an indication of imminent suicide risk—are important first steps toward identifying strengths of current approaches and potential areas for improvement in clinical practice. Because most individuals who die by suicide have had recent contact with a health care provider (Ahmedani et al., 2014; Luoma et al., 2002), screening for suicide risk based on acute and chronic risk factors for suicide and implementation of appropriate follow-up procedures is crucial.

The current study aimed to identify risk factors associated with suicidal ideation post-SAMFE among individuals completing a mental health follow-up screen within 30 days of the SA. Further, the current study presented three case examples of individuals endorsing suicidal ideation post-SAMFE to highlight unique factors associated with suicidal ideation after a SA.

Methods

Participants and Procedures

Individuals ($n = 193$) who presented to the emergency department for a SAMFE and expressed interest in follow-up services were contacted by phone beginning within 10 days of the SAMFE (up to three contact attempts were made). A total of 72 individuals completed the phone interview (40.9% of the participants interested in follow-up care). The interview was conducted by a bachelor's level case manager, a social worker, predoctoral clinical psychology interns, or a psychologist, and all cases were reviewed and supervised by a licensed clinical psychologist. The interview included screening and referral for additional mental health and medical services. Individuals who completed interviews within 30 days of the SAMFE and between November 2016 and January 2018 were included in the analyses. The interview and brief intervention were conducted as part of routine clinical care and were largely completed within one phone call, but subsequent phone calls were completed as needed. The procedures were approved by the local hospital IRB and all participants consented at the time of their visit to engage in hospital research including medical record review studies.

Participants were 72 adults (95.8% women) ages 18–58 ($M = 28.9$, $SD = 9.96$) and 63.9% were White/Caucasian, 26.4% Black/African American, 2.8% Hispanic, and 6.9% multiracial. Further, 12.5% of the sample identified as a sexual minority (“LGBTQ+”).

For the case studies, participants were three women, ages 21–31 ($M = 27.83$, $SD = 5.80$). One woman identified as White, one as Black/African American, and one as multi-racial. All cases described were de-identified; names and identifiable details were changed. Men were not included in the case studies to protect identities ($n = 3$ men).

Brief Intervention Skills

After completing a screen, coping skills were provided. For suicidal ideation, the Linehan Risk Assessment and Management Protocol (L-RAMP; Linehan et al., 2012) was followed which includes assessment of acute risk and protective factors for suicide as well as techniques to enact based on risk level. For depression, brief behavioral activation skills (Martell et al., 2013) were taught. For acute stress disorder or PTSD, brief in vivo exposure skills (Foa et al., 2007) were taught. For alcohol or drug use, brief motivational interviewing techniques were used (Miller & Rollnick, 2013). General skills were offered including mindfulness and distress tolerance skills (Linehan, 2015). After skills were taught, a follow-up call/session was scheduled to troubleshoot any difficulties with enacting the skills. Sleep hygiene skills were offered to individuals who reported difficulty sleeping. The following cases were chosen because the clinical staff viewed them as representative of the unique experiences presented related to suicide risk and recent sexual assault.

Measures

Demographics and assault characteristics were assessed during the interview. Participants were asked to identify their race, housing status (homeless vs. housed), sexual orientation, and gender identity. They were also asked if their most recent assault involved alcohol or drugs, if it was perpetrated by a known assailant (e.g., acquaintance, previous partner, current partner, etc.) or an unknown assailant (e.g., stranger), and if they had ever experienced a SA prior to the recent assault.

Suicidal ideation and depression symptoms.—The Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001) was administered. The full measure includes nine items rated on a scale from 0–3, with total scores ranging from 0–27. One item from the PHQ-9 was used to assess suicidal ideation. Specifically, participants were asked, “Over the last 2 weeks, how often have you been bothered by... Thoughts that you would be better off dead or of hurting yourself in some way?” Response options were 0 (*not at all*), 1 (*several days*), 2 (*more than half the days*), or 3 (*nearly every day*).

Item 9 on the PHQ-9 was used to identify suicidal ideation, consistent with prior research in healthcare settings (e.g., Bauer, Chan, Huang, Vannoy, & Unützer, 2013; Mackelprang, Bombardier, Fann, Temkin, Barber, & Dikmen, 2014). Previous research found that responses on this item were predictive of subsequent suicide attempts (Simon, Rutter, Peterson, Oliver, Whiteside, Operskalski, & Ludman, 2013) and deaths (Louzon, Bossarte, McCarthy, & Katz, 2016; Simon et al., 2013).

Posttraumatic stress symptoms.—The PTSD Checklist (PCL-5; Weathers et al., 2013) includes 20 items corresponding to the DSM-5 (APA, 2013) symptoms of PTSD. Participants rated how much they had been bothered by each symptom since the recent SA,

on a scale from 0 (*not at all*) to 4 (*extremely*). Total scores >33 indicate clinically significant PTSD symptoms (Bovin et al., 2015). Internal reliability and validity have been supported by past work (Blevins, Weathers, Davis, Witte, & Domino, 2015), and internal reliability is reflected in the current sample, $\alpha=.93$.

Psychiatric hospitalization.—Participants were asked, “Have you ever been hospitalized for a mental health problem?” Responses were coded as 0 (*no*) or 1 (*yes*).

Homelessness.—Participants were asked whether they identified as homeless. Responses were coded as 0 (*no*) or 1 (*yes*).

Alcohol misuse.—Alcohol misuse was identified in the case studies using the AUDIT-C (Alcohol Use Disorders Identification Test-C; Bush et al., 1998), a 3-item questionnaire assessing problematic alcohol use. Answer choices range from 0–4, and items are summed for a total score. Total scores of ≥ 3 indicate problematic alcohol use among women.

Analytic Plan

A linear regression model was used for the quantitative analyses using MPlus 8.0 with maximum likelihood and suicidal ideation was outcome. Predictors included: demographic factors (homelessness, race/ethnicity, sexual minority status, gender identity, and prior SA), sexual assault characteristics (intoxicated sexual assault vs. no alcohol or drugs, known perpetrator vs. unknown perpetrator), and mental health symptoms (previous mental health hospitalization and posttraumatic stress symptom severity). Prior to conducting analyses, suicidal ideation was examined to ensure that it was not skewed or kurtotic to determine the need for alternate analyses will be implemented (e.g., logistic regression or negative binomial regression).

Results

Quantitative Results

Eight participants (11.1%) identified as homeless. In terms of SA characteristics, 58.3% ($n = 42$) knew the perpetrator (vs. a stranger) and 30.6% ($n=22$) of assaults involved alcohol or drugs (intoxicated SAs). Twenty-eight participants (41.8%) had a prior SA and twenty-four (36.9%) had a previous psychiatric hospitalization. On average, individuals reported clinically significant symptoms of depression ($M=15.43$, $SD=6.46$; scores of 15 or above on the PHQ-9 indicate moderate to severe depression; Kroenke et al., 2001), and alcohol use ($M=3.39$, $SD=3.21$; scores of 3 or above indicate alcohol misuse among women; Bush et al., 1998). Individuals reported symptoms of posttraumatic stress ($M=26.05$, $SD=18.51$) but on average they did not reach a clinical level (scores of 33 or above indicate clinical symptoms of posttraumatic stress; Bovin et al., 2015). Further, 38.5% ($n=15$) individuals reported suicidal ideation ($M=0.63$; $SD=0.93$). Suicidal ideation was within the acceptable limits of skewness (1.49) and kurtosis (1.19), therefore, the original analysis plan of conducting a linear regression was conducted instead of alternative methods.

A linear regression was used to determine factors associated with suicidal ideation. Homelessness ($B=.317$, $p=.006$), previous mental health hospitalization ($B=.260$, $p=.031$),

and higher posttraumatic stress symptom severity ($B=.377$, $p=.001$) were significantly associated with more suicidal ideation post-SAMFE. No significant associations emerged between suicidal ideation and prior SA ($B=-.029$, $p=.801$), intoxicated SA (vs. no alcohol or drugs; $B=.027$, $p=.786$), known perpetrator (vs. unknown perpetrator; $B=-.092$, $p=.378$), gender ($B=-.112$, $p=.267$), race/ethnicity ($B=.088$, $p=.421$), or sexual minority status ($B=-.203$, $p=.059$).

Case Examples

Case One: Jasmine.—Jasmine completed a phone-based follow-up screen eleven days post-SAMFE. Jasmine was in her early twenties with no history of mental health disorders but reported that several of her mental health symptoms pre-dated the SA. She endorsed symptoms of PTSD (PCL-5=65), moderate symptoms of depression (PHQ-9=16), and denied alcohol use (AUDIT-C=0). On the PHQ-9, she endorsed suicidal thoughts more than half the days in the past two weeks and increased isolation and withdrawal. Jasmine's suicide risk factors included: recent SA, being in continued close proximity to the perpetrator, access to lethal means, and a suicide plan. The risk assessment Jasmine also identified protective factors such as religious beliefs and feeling support from family after the assault. Jasmine completed a safety plan, which involved informing a family member about the suicidal ideation. Jasmine agreed to not harm herself for two days and to call the National Suicide Hotline if she became acutely suicidal. During a call two days later, Jasmine reported that she had not harmed herself and she was connected to mental health services for treatment of depression and PTSD symptoms. Jasmine also attended an appointment for a medical SA follow-up. The mental health team attended the appointment and worked with the medical professionals to ensure trauma-informed care was provided because she was highly emotional due to SA-specific triggers during the examination including undressing and genital examination. Mindfulness and relaxation skills prior to and during the exam as well as helping Jasmine and her medical team communicate regarding potential trauma-cues and coaching Jasmine to ask if she would like a break or to stop the exam.

Brief behavioral skills were also taught during the phone screens. Specifically, distress tolerance skills including paced breathing and distraction were taught alongside assisting Jasmine with increasing social support.

Case Two: Mia.—Five days post-SAMFE, Mia completed a follow-up screen in-person. Mia was in her late twenties, had a history of substance use, and was homeless. The night of the SA, Mia was admitted to an inpatient psychiatric unit for suicidal ideation and auditory hallucinations. Mia endorsed symptoms of PTSD (PCL-5=71) and severe symptoms of depression (PHQ-9=24). Mia endorsed problematic alcohol use (AUDIT-C=9). Risk factors for suicide included recent SA, suicidal ideation, severe hopelessness, current psychiatric hospitalization, problematic alcohol use, PTSD from prior SAs, and PTSD symptoms from the recent SA. Mia was experiencing high levels of hypervigilance which may have contributed to the psychiatric hospital admittance, paired with alcohol use and difficulty with obtaining housing.

Although Mia was being monitored on the inpatient unit, she still requested to complete a post-SAMFE follow-up and expressed interest in learning more about medical care and advocacy services. Mia presented as tearful and stressed, and expressed gratitude for having an SA-specific mental health professional to follow-up with post-discharge.

Psychoeducation was provided regarding the impact of alcohol use on mental health symptoms. Mia was advised on how substance use can affect depression and PTSD symptoms using behavioral activation and in vivo exposure techniques. When Mia was discharged, she had completed all treatment recommendations from the inpatient providers, was no longer endorsing suicidal ideation, and was receptive to the mental health treatment referrals.

Case Three: Aniya.—Six days post-SAMFE, Aniya completed a phone-based follow-up screen. Aniya was in her early thirties and had young children. She endorsed symptoms of PTSD (PCL-5 = 64), moderate depression (PHQ-9 = 22), and problematic alcohol use (AUDIT-C = 4). Aniya endorsed suicidal ideation with a plan to overdose on her prescribed medications. Aniya's suicide risk factors included recent SA, easy availability of her preferred method for suicide, difficulty sleeping, diminished concentration, and impaired decision-making. The clinician created a safety plan with her that included Aniya calling her neighbor or husband if the suicidal ideation or plan severity increased. Reasons for living, including her children and family, were also discussed. Aniya expressed interest in psychotherapy for PTSD symptoms as well as a psychiatric medication evaluation, specifically for difficulty sleeping. Aniya was scheduled for a psychiatric medical evaluation.

Brief behavioral skills were also taught during the phone screens. Specifically, sleep hygiene skills were reviewed with Aniya due to the distress she was experiencing related to difficulties sleeping.

Discussion

The current study adds to the literature by informing suicide prevention efforts including screening and interventions for people who receive SAMFE. A total of 38.5% of the sample reported suicidal ideation, indicating the importance of emphasizing suicide assessment and prevention for this population. Our findings identify previous psychiatric hospitalizations, homelessness, and greater PTSD symptom severity as risk factors for suicidal ideation among a high-risk population of recent SA victims (Dworkin et al., 2017; Ullman, 2004). These findings inform suicide risk assessment and intervention strategies during a crucial time-period when high-risk individuals are engaging with the healthcare system.

The finding that previous psychiatric hospitalization was a risk factor for ideation among people who received a SAMFE is consistent with previous research indicating an association with increased risk of death by suicide (Olfson, 2017). Screening for previous hospitalization both at the time of the SAMFE and in post-SAMFE follow-up may assist with identifying those at highest risk for suicidal ideation post-SAMFE. Further, people who are homeless are up to nine times more likely than the general population to die by suicide (Peate, 2013) and homelessness is associated with increased risk to report an SA history

(Weinrich et al., 2016). Our findings suggest that experiencing a recent SA may further exacerbate risk for suicide among people who are homeless. People who are homeless often lack social support which, when available, may buffer suicidal ideation (Poon et al., 2017). A SA may exacerbate feelings of isolation, stigmatization, and shame. Therefore, providing brief psychoeducation and coping skills alongside connecting people who are homeless with social support sources (e.g., patient advocates, SA support groups, shelters specializing in helping victims of interpersonal violence) at the SAMFE are likely to be beneficial. It may be useful to screen for homelessness during the SAMFE to ensure that these individuals are identified and connected to appropriate care (e.g., housing referrals) at the time of the SAMFE.

We found that acute stress symptoms predicted suicidal ideation post-SA. It should be noted that these symptoms were 1) identified within 30 days of the assault instead of over 30 days after, as required for a PTSD diagnosis, and 2) assessed at the same time as suicidal ideation. Previous researchers have reported that posttraumatic stress symptoms are associated with suicidal ideation and attempts after controlling for comorbid physical and mental health conditions (Sareen et al., 2005; Sareen et al., 2007). Potential mechanisms driving the association between posttraumatic stress symptom severity and suicidal ideation among people with recent SA include distress associated with intrusive memories (Amir et al., 1999), exacerbation of individual differences in impulsivity (Kotler et al., 2001), and comorbid depressive symptoms (Ying et al., 2014). Intrusive memories immediately post-assault can be particularly intense, and may be a unique risk factor for suicide risk post-assault. Follow-up screening that provides assessment for suicidal ideation but also interventions to decrease symptoms that lead to ideation are essential.

The case examples outline unique considerations post-SAMFE that may be associated with suicide risk. First, it is imperative to assess for vulnerability to suicide risk including homelessness, lack of social support, lack of sleep, intrusive memories, hypervigilance, and substance use. These factors are pronounced immediately post-assault, and these symptoms may subside one month post-SA (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). Assessing and addressing these symptoms within the high-risk period post-SAMFE is indicated. It is impossible to address large issues like homelessness within a single phone session. Instead, brief skills over the phone for issues that can be addressed, like sleep hygiene, in addition to comprehensive suicide risk assessment and management may facilitate individuals' belief that interventions may be helpful, which may increase the likelihood that they will access further treatment. Alongside the brief interventions described here, referrals were made for more in-depth interventions with social workers or psychologists to address long-term problems. Assessment and brief management of suicide risk can be provided over the phone or in person, if available. Individuals are generally receptive to receiving follow-up care post-SAMFE and engaging in suicide risk management.

Strengths, Limitations, and Future Directions

A major strength of the current study is the examination of suicidal ideation among a high-risk and difficult-to-reach sample within 30 days of experiencing a SA. Given the high risk

of suicide among people with SA histories and the limited research in this unique population, this study provides clinical insights into preventing STBs. The use of clinical case examples highlights different issues that may arise when treating recent victims of SA (e.g., need for psychiatric referral, medication evaluation). The study demonstrates the need for diverse approaches to managing STBs among people who receive a SAMFE. Study results need to be interpreted in the context of limitations including participants included those who received a SAMFE and who completed follow-up screening and may not generalize to those who are not engaged in the medical system post-SA. The initial screening completed for suicide risk was a single item question from a well-validated survey that has clinical utility; however, future research should include a more thorough assessment of suicide risk and risk of self-harm using validated measures. All mental health symptoms were assessed at the same time point so a temporal association was not able to be determined in the current study. Future work should use prospective designs to assess for potential mediation models as well as longitudinal examinations of associations. The current study did not systematically assess for social support. Future research should examine social support as a protective factor for suicide risk after sexual assault. Future research should assess the acceptability of this intervention as well as its efficacy. Further, the current study includes a small sample size, therefore, the nonsignificant results may be reflective of the small sample size rather than lack of associations between the predictors and suicidal ideation.

Conclusion

The current study suggests that among individuals who completed a post-SAMFE screen, those with previous mental health-related hospitalizations, who had higher PTSD symptoms, and who were homeless reported more suicidal ideation than those without those histories or symptom presentations. The case examples presented unique factors to consider when assessing for and addressing post-SA suicide risk including utilization of strategies like safety planning and skills training. In sum, it is essential to screen all individuals post-SAMFE due to their high risk for suicidal ideation and death by suicide.

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