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# Emergency Department Nurses' Perceptions of Patient Substance Use, Impact on Sexual Assault Care, and Access to Follow-up Behavioral Health Resources

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**Abstract**

**Introduction:** Patients presenting to the emergency department (ED) after sexual assault may have unique needs related to substance use. Despite this, emergency nurses may not be adequately prepared to address these needs or aware of available behavioral health resources for follow-up care. This study aimed to (1) review current resources and referral processes for behavioral health services after sexual assault care, (2) investigate emergency nurses' attitudes and actions concerning patient substance use, and (3) explore nurses' views on mobile health interventions for post-assault behavioral healthcare and identify potential barriers to their implementation.

**Methods:** Semi-structured qualitative interviews were conducted with fifteen emergency nurses.

**Results:** Participants had varying perceptions of managing intoxicated patients during sexual assault care, preferring discussions about substance use after the ED visit. They acknowledged the opportunity to link ED patients with substance use support but noted limited local service options. Most nurses did not refer patients with substance use issues to behavioral health services post-assault, citing a lack of referral processes in their EDs. While nurses expressed interest in mobile health for follow-up care, concerns about patient privacy and internet access were raised. Recommendations were provided to enhance referral practices and patient engagement with mobile health tools.

**Discussion:** This research underscores the importance of emergency nurses considering patient intoxication during sexual assault care and the potential to facilitate patient access to post-assault resources.

**Keywords:** Emergency department, Sexual assault, Substance use, Behavioral health care, Digital health, Mobile health

## Introduction

Substance use and sexual assault often intersect, with studies indicating that a significant proportion of adolescent and college-age female sexual assault survivors had consumed alcohol at the time of the assault. Although illicit drug use during assaults is less common, cannabis use has been noted in about one-third of cases. Intoxication from drugs or alcohol can heighten vulnerability to sexual assault, as evidenced by past research showing higher assault rates among women who use substances compared to those who do not. (Tadros et al., 2018)

The aftermath of sexual assault can lead to various behavioral health issues, including substance misuse, acute stress and depression, suicide risk, and symptoms of post-traumatic stress disorder (PTSD). Survivors

may turn to substance use as a coping mechanism or as a means to manage trauma-related symptoms, leading to a complex interplay between assault trauma and substance use. Moreover, previous studies have found a strong association between assault history, substance misuse, and subsequent substance use disorder onset. (Sheridan & Evans, 2019)

When sexual assault survivors seek emergency care, their intoxication status or recent substance use must be considered, as it can affect their immediate and long-term healthcare needs. However, emergency nurses often lack specific training to address the unique challenges posed by sexual assault patients, particularly those with substance use concerns. Additionally, there is a gap in understanding nurses' perspectives on caring for sexual assault patients, especially regarding referrals to behavioral health services and follow-up care. (Ledray, 2008)

This study aims to fill these gaps by examining current resources and referral processes for sexual assault patients in a Southern state, exploring emergency nurses' attitudes and behaviors regarding patient substance use, and investigating the potential role of mobile health (mHealth) interventions in enhancing follow-up behavioral healthcare. The research also seeks to identify barriers and facilitators to implementing such interventions, with the overarching goal of improving care for sexual assault survivors with substance use concerns. (Kaysen et al., 2011)

**Methods**

**Participants:** Fifteen nurses from 13 emergency departments (EDs) participated in this study, including 11 rural and 2 urban settings. The average nursing experience among participants was 15.7 years (range: 3–35 years), with an average of 9.7 years (range: 1–20 years) in their current ED and 9 years (range: 2–18 years) in their current nursing role. Nearly half of the participants (46%) had previous roles within their current hospital before becoming nurses.

**Procedure:** Data collection occurred between August and December 2020 as part of a larger project investigating sexual assault care processes and telemedicine use EDs. Initially, leadership from 16 EDs was surveyed, and based on their responses, contact was established with 48 non-Sexual Assault Nurse Examiner (SANE) nurses from these EDs via email. These nurses were informed about the study aims and methods and invited to participate in a phone interview if they met the eligibility criteria: current employment in an ED, absence of SANE certification, and involvement in facilitating a sexual assault forensic medical exam within the past year. An 81% response rate was achieved from the EDs.

Semi-structured phone interviews were conducted using an interview guide covering topics such as current resources for sexual assault patients, attitudes towards patient substance use, and perceptions of web-based interventions for follow-up behavioral healthcare. The interview guide included questions on referral protocols, available resources for follow-up care, perceptions of web-based interventions, and attitudes towards substance use screening and referral to treatment. Interviews were audio recorded, transcribed verbatim, and analyzed for themes.

**Data Analysis:** Data analysis followed an iterative process of coding and thematic identification. Initially, three coders independently coded five interviews to identify preliminary codes, which were then discussed and organized into major themes to establish a preliminary codebook. The coding process was refined through group discussions and coding of additional interviews. The finalized codebook was used to code the remaining interviews, with coding discrepancies resolved through consensus or third-party review.

**Results**

Qualitative analysis of the data revealed six main themes:

**1. Limited Follow-up Resources Provided to Sexual Assault Patients:** Participants noted a lack of sexual assault-specific follow-up resources in their local communities. They relied on a small number of behavioral healthcare providers, especially in rural areas, but often did not help sexual assault patients make follow-up appointments with these providers.

**2. Emergency Departments Lacking Processes for Referral to Local Behavioral Health Services:** Most EDs lacked formal referral processes to behavioral health services. Nurses relied on individual decisions to

connect patients to resources, but availability of services was a concern, leading to challenges in making effective referrals.

**3. Mixed Perceptions of Patient Intoxication Frequency and Impact on Sexual Assault Care:** Participants had varied opinions on how frequently they encountered intoxicated patients during sexual assault care. Some perceived a significant impact on patient consent for exams and forensic evidence collection, while others noted sobering up before ED visits.

**4. Hesitance Towards Substance Use Screening and Referral:** Nurses were comfortable discussing substance use generally but hesitated to address it during sexual assault exams due to concerns about victim blaming. They saw the ED visit as an opportunity for substance use disorder help but felt it might be more appropriate post-exam.

**5. Utility of mHealth for Follow-up Behavioral Health Intervention:** Participants viewed mobile health (mHealth) interventions positively for post-assault care due to anonymity and accessibility. However, concerns about patient privacy, access to smartphones, and preexisting mental health issues were raised.

**6. Needed Strategies for mHealth Dissemination:** Recommendations included patient-level strategies like providing information at discharge, reminders, and active outreach. Provider-level strategies involved integrating mHealth into workflows, EHR documentation, in-service education, and visual cues in the ED. These findings highlight challenges in follow-up care coordination, substance use discussions, and the potential of mHealth interventions in improving post-assault behavioral healthcare, while also emphasizing the need for systematic strategies for successful implementation and dissemination.

## Discussion

The qualitative study explored several critical aspects related to sexual assault care, substance use discussions, and the potential of mobile health (mHealth) interventions for follow-up behavioral healthcare. Here are some key points and recommendations based on the findings:

**Improving Linkage to Follow-up Care:**

- **Resource Lists:** Participants suggested an up-to-date resource list for national, state, and local behavioral health services to improve linkage to follow-up care. Implementing systems to maintain and disseminate such lists would be beneficial, especially in rural areas with limited local services. (Kilpatrick et al., 2003)
- **Sensitive Conversations:** Due to hesitancy in discussing substance use during the sexual assault exam, follow-up phone calls or digital communications could be effective for addressing substance use prevention resources sensitively and without stigmatization. (Gilmore & Flanagan, 2020)

**mHealth for Behavioral Health Care Post-Sexual Assault:**

- **Patient Engagement:** Digital health and mHealth interventions, such as text message programs, can improve patient engagement with follow-up behavioral health services. Educating nurses about patient receptiveness to mHealth interventions and ensuring patient privacy can encourage their use.
- **Provider Referral:** To facilitate provider referral to mHealth interventions, integrating referral processes into workflows, EHR documentation, and providing in-service education on mHealth technology are recommended. Active outreach and reminders can also enhance provider engagement with these interventions. (Ullman et al., 2013)

**Education on Substance Use and Treatment Options:**

- **Bias and Stigma:** Education should address biases and stigma related to substance use and treatment, especially concerning intoxicated patients and those with substance use disorders. Training on delivering Screening, Brief Intervention, and Referral to Treatment (SBIRT) can improve attitudes and care delivery. (Steenkamp et al., 2012)
- **Awareness of Services:** Continuing education should increase awareness of substance use treatment options and prevention resources specific to trauma survivors. It should also cover processes for obtaining patient consent for forensic evidence collection post-substance use. (Newins et al., 2020)

By implementing these strategies and addressing the identified barriers, healthcare providers can improve the linkage to follow-up care, enhance patient engagement with mHealth interventions, and promote more effective discussions about substance use in the context of sexual assault care.

**Conclusion:** The study underscores the importance of enhancing emergency nurses' training to effectively manage substance use issues among patients seeking sexual assault care. It also highlights the need for structured processes for referrals and follow-up care, particularly in resource-constrained environments. The favorable views towards mHealth interventions among emergency nurses suggest potential for leveraging digital solutions to improve post-ED care and prevent negative behavioral health outcomes. Future research should delve deeper into the role of mHealth in addressing substance use post-sexual assault and explore opportunities for EDs in connecting patients with digital interventions for better follow-up care.

**References**

1. Resnick, H. S., Walsh, K., McCauley, J. L., Schumacher, J. A., Kilpatrick, D. G., & Acierno, R. E. (2012). Assault related substance use as a predictor of substance use over time within a sample of recent victims of sexual assault. Addictive Behaviors, 37(8), 914–921. https://doi.org/10.1016/j.addbeh.2012.03.017
2. Tadros, A., Sharon, M. J., Hoffman, S. M., & Davidov, D. M. (2018). Emergency department visits for sexual assault by emerging adults: Is alcohol a factor? Western Journal of Emergency Medicine, 19(5), 797–802. https://doi.org/10.5811/westjem.2018.6.38219
3. Sheridan, T., & Evans, D. D. (2019). Alcohol Use and Sexual Assault Among College Students. Advanced Emergency Nursing Journal, 41(1), 2–9. https://doi.org/10.1097/TME.0000000000000233
4. Abbey, A. (2002). Alcohol-related sexual assault: A common problem among college students. Journal of Studies on Alcohol, 63(SUPPL. 14), 118–128. https://doi.org/10.15288/jsas.2002.s14.118
5. Hindmarch, I., ElSohly, M., Gambles, J., & Salamone, S. (2001). Forensic urinalysis of drug use in cases of alleged sexual assault. Journal of Clinical Forensic Medicine, 8(4), 197–205. https://doi.org/10.1054/JCFM.2001.0513
6. Ledray, L. E. (2008). Alcohol and sexual assault: what can/should we do in the emergency department? Journal of forensic nursing, 4(2), 91–93. https://doi.org/10.1111/J.1939-3938.2008.00014.X
7. Kilpatrick, D., Acierno, R., Resnick, H., Saunders, B., & Best, C. (1997). A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. Journal of consulting and clinical psychology, 65(5), 834–847. https://doi.org/10.1037//0022-006X.65.5.834
8. Leeies, M., Pagura, J., Sareen, J., & Bolton, J. M. (2010). The use of alcohol and drugs to self-medicate symptoms of posttraumatic stress disorder. Depression and Anxiety, 27(8), 731–736. https://doi.org/10.1002/da.20677
9. Kaysen, D., Atkins, D. C., Moore, S. A., Lindgren, K. P., Dillworth, T., & Simpson, T. (2011). Alcohol use, problems, and the course of posttraumatic stress disorder: A prospective study of female crime victims. Journal of Dual Diagnosis, 7(4), 262–279. https://doi.org/10.1080/15504263.2011.620449
10. Gilmore, A. K., & Flanagan, J. C. (2020). Acute mental health symptoms among individuals receiving a sexual assault medical forensic exam: the role of previous intimate partner violence victimization. Archives of Women's Mental Health, 23(1), 81–89. https://doi.org/10.1007/s00737-019-0947-1
11. Kilpatrick, D. G., Edmunds, C. N., & Seymour, A. K. (1992). Rape in America: A Report to the Nation.
12. Davidson, J. R. T., Hughes, D. C., George, L. K., & Blazer, D. G. (1996). The association of sexual assault and attempted suicide within the community. Archives of General Psychiatry, 53(6), 550–555. https://doi.org/10.1001/archpsyc.1996.01830060096013
13. Ullman, S. E., Relyea, M., Peter-Hagene, L., & Vasquez, A. L. (2013). Trauma histories, substance use coping, PTSD, and problem substance use among sexual assault victims. Addictive Behaviors, 38(6), 2219–2223. https://doi.org/10.1016/j.addbeh.2013.01.027

14. Newins, A. R., Glenn, J. J., Wilson, L. C., et al. (2020). Psychological outcomes following sexual assault: Differences by sexual assault setting. Psychological Services. https://doi.org/10.1037/ser0000426
15. Steenkamp, M. M., Dickstein, B. D., Salters-Pedneault, K., Hofmann, S. G., & Litz, B. T. (2012). Trajectories of PTSD symptoms following sexual assault: Is resilience the modal outcome? Journal of Traumatic Stress, 25(4), 469–474. https://doi.org/10.1002/jts.21718
16. Kilpatrick, D. G., Ruggiero, K. J., Acierno, R., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the national survey of adolescents. Journal of Consulting and Clinical Psychology, 71(4), 692–700. https://doi.org/10.1037/0022-006X.71.4.692
17. Resnick, P. A. (1993). The Psychological Impact of Rape. Journal of Interpersonal Violence, 8(2), 223–255. https://doi.org/10.1177/088626093008002005
18. Steketee, G., & Foa, E. B. (1987). Rape victims: Post-traumatic stress responses and their treatment: A review of the literature. Journal of Anxiety Disorders, 1(1), 69–86. https://doi.org/10.1016/0887-6185(87)90024-7
19. Resnick, H. S., Walsh, K., Schumacher, J. A., Kilpatrick, D. G., & Acierno, R. (2013). Prior substance abuse and related treatment history reported by recent victims of sexual assault. Addictive Behaviors, 38(4), 2074–2079. https://doi.org/10.1016/j.addbeh.2012.12.010
20. Liebschutz, J., Savetsky, J. B., Saitz, R., Horton, N. J., Lloyd-Travaglini, C., & Samet, J. H. The Relationship between Sexual and Physical Abuse and Substance Abuse Consequences.
21. Avegno, J., Mills, T., & Mills, L. (2009). Sexual assault victims in the emergency department: analysis by demographic and event characteristics. The Journal of Emergency Medicine, 37(3), 328–334. https://doi.org/10.1016/J.JEMERMED.2007.10.025
22. Nielson, M. H., Strong, L., & Stewart, J. G. (2015). Does sexual assault nurse examiner (SANE) training affect attitudes of emergency department nurses toward sexual assault survivors? Journal of Forensic Nursing, 11(3), 137–143. https://doi.org/10.1097/JFN.0000000000000081
23. Chu, C., & Galang, A. (2013). Hospital nurses' attitudes toward patients with a history of illicit drug use. The Canadian Nurse, 109(6).
24. Hannan, S. M., Orcutt, H. K., Miron, L. R., & Thompson, K. L. (2017). Childhood Sexual Abuse and Later Alcohol-Related Problems: Investigating the Roles of Revictimization, PTSD, and Drinking Motivations Among College Women. Journal of Interpersonal Violence, 32(14), 2118–2138. https://doi.org/10.1177/0886260515591276
25. Ackerman, D. R., Sugar, N. F., Fine, D. N., & Eckert, L. O. (2006). Sexual assault victims: Factors associated with follow-up care. American Journal of Obstetrics and Gynecology, 194(6), 1653–1659. https://doi.org/10.1016/j.ajog.2006.03.014
26. Choi, E. S. (2019). The Care Of The Sexual Assault Patient.