

# THE IMPACT OF SEXUAL ASSAULTS ON EMOTIONAL REGULATION, SUBSTANCE USE, AND SUICIDAL IDEATION IN SURVIVORS

## 1. Background and Current Status of the Topic, Including Group Contributions

Sexual assault is, in fact, a serious public health and human rights issue that affects survivors emotionally and that significantly impacts their social functioning. Rates of sexual assault, particularly childhood sexual abuse (CSA), are outrageously high worldwide with estimated rates greater than 20% in girls and 14% in boys, but this is clearly an underreported problem (Wekerle et al., 2022). There are both immediate and long term consequences stretching from the time of a child to adulthood. And yet, many survivors are prone to psychiatric disasters such as posttraumatic stress disorder (PTSD), depression and anxiety disorders, and behavioral problems, showing up in clinical and community based studies (Wekerle et al., 2022; Michaels et al., 2021).

The main psychological consequence of sexual assault: Impaired emotional regulation, and the evidence that we (and others) have for it is growing. The self-trauma model depicts trauma (particularly trauma in formative years), and especially repeated trauma, as self trauma that destroys the development of healthy self-schemas and secure attachment and prevents the affected person from being able to process emotions and to use effective self-talk (Wekerle et al., 2022). This disruption may manifest in feeling emotionally numb, having very high anxiety, feelings of shame, or feelings of anger. Increased exposure to these forms of emotional challenge leads to later maladaptive coping strategies especially substance use and self harm (Michaels et al., 2021). Recent translational neuroscience advances further specify that trauma represents an impact, among several areas of the reward circuitry and stress response systems in the brain, that places people at greater risk for substance use disorder as they try to buffer distress or anesthetize it (Michaels et al., 2021).

A strong relationship between assault experiences and suicidal thoughts or suicide attempts exists as a special identifying feature. The exposure to suicide ideation and behavior risks stands extremely high for individuals who experienced CSA according to major longitudinal and meta-

analytic research (Wekerle et al., 2022). The estimates for population attributable risks demonstrate similar values of 22% for women and 11% for men who were victims of CSA (Wekerle et al., 2022). The combination between violent abuse in early life and comorbid forms of violence along with remaining negative self-perception and carried stigma and shame creates further increased suicidal risk (Wekerle et al., 2022). The anger problem people experience after traumatic events during their teenage years connects CSA with substance abuse and experts have demonstrated that post-traumatic anger substantially predicts future suicide attempts (Wekerle et al., 2022).

The research reveals the existence of resilience factors despite their significance in the discussion. Research has identified self-compassion together with compassion from others as essential protective elements that negatively affect adolescent homicides (Dawood et al., 2024; Wekerle et al., 2022). Delayed self-compassion which frequently occurs after CSA will let emotional healing block causing persistent psychopathology. Research findings continue to validate methods that focus on self-compassion together with emotion regulation treatment as superior approaches to standard trauma-focused care in handling multi-stage development (Wekerle et al., 2022; Dawood et al., 2024).

The previous work of our team dedicated research to trauma sequelae understanding in survivors through exploration of emotional regulation and self-concept influences on substance use behaviors. Our group uses quantitative analysis of trauma patient datasets and qualitative interviews with survivors to demonstrate self-compassion needs inclusion in therapy models according to Ullman et al. (2018) and Dawood et al. (2024). Our organization has worked to achieve policy changes which address the unique requirements of minoritized groups and identified shortage areas in service delivery especially within early prevention programs targeting vulnerable youth.

## **2. Concrete Research Objectives**

The proposed research utilizes past findings to investigate how sexual violence alters emotional regulation and substance use behaviors and suicidal thinking while emphasizing the discovery of changeable elements that protect or increase risk within this framework.

The investigation aims to clarify the three-dimensional trauma effects of sexual assault which affect emotional control and substance misuse as well as suicidal behavior patterns through developmental phases and distinct population groups.

Framing the fundamental development pathways following sexual assault requires complete comprehension of assault-related behavioral and emotional destinies. The objective aims to identify the extent of emotional regulation challenges as well as substance abuse types while evaluating suicidal tendencies among diverse large sample groups. The research will prioritize investigating first assault period and gender identity together with specific cultural origins because these elements define intersectional risks (Wekerle et al., 2022; Dawood et al., 2024). The study will incorporate quantitative scales that include the Difficulties in Emotion Regulation Scale while using standardized substance use assessments with additional demographic and trauma history data collection.

Testing a mechanistic model which demonstrates how sexual assault creates substance abuse and suicidality by focusing on emotional regulation and self-compassion dynamics as intervening factors represents the second objective.

Research now shows that emotional processing deficits and a lack of self-compassion act as active factors that both influence the connection between abuse and risky behaviors (Wekerle et al., 2022; Michaels et al., 2021; Dawood et al., 2024). This study uses structural equation modeling to analyze the three sets of mediation effects starting from assault through emotional dysregulation to substance abuse and suicidality as well as how self-compassion and compassion from others function as moderators. Additional factors related to trauma-informed care and peer and family support will help refine the model's structure.

The investigation focuses on monitoring surviving patients through time to document how their emotional health and substance use along with suicide thoughts evolve while identifying critical stages for intervention and healing epochs.

The natural progression of trauma symptoms cannot be fully understood without longitudinal studies because they provide needed insight into highrisk periods and resilience factors as well as delayed symptom persistence (Wekerle et al., 2022). The research will assess the subjects yearly across three years using both test outcomes and log data from participants' life events. Special attention will be devoted to variables including therapy onset and important relationship adjustments in addition to participation in legal systems. Scientists aim to detect the optimal moments for substance use or suicidality escalation in survivors alongside determining intervention periods of maximal effectiveness.

The research will achieve Objective 4 by conducting qualitative interviews that assess how survivors manage their emotions through substance use along with suicidal thoughts and self-directed compassion and external compassion to create applicable policy and practice recommendations based on survivor perspectives.

The numerical data fails to represent the real experiences of victims who have gone through sexual assault. This objective utilizes in-depth interviews to reveal foundational information about survivors' emotional progression together with coping strategies through time and barriers to help accessibility and compassion's role and survivors' unmet needs regarding existing support systems (Ullman et al., 2018; Dawood et al., 2024). The research will give particular attention to minority populations who experience disproportionate representation in studies such as Indigenous people as well as LGBTQ+ individuals.

Objective 5 establishes evidence-based preventive and intervention recommendations through which professionals can assist people based on their developmental needs and risk characteristics as well as their cultural background.

The last aim consists of converting research-based knowledge into operational strategies for health professionals and social workers and education staff and government officials. The research identifies vulnerable groups and defines essential therapeutic domains alongside systemic development strategies that establish universal survivor accessibility to sensitive therapeutic care (Wekerle et al., 2022; Dawood et al., 2024). Recommendations will emerge through collaborations between stakeholders and survivor advisory panels who will transform these recommendations into simple dissemination materials.

The proposed goals represent a complete research strategy to deepen the knowledge about sexual assault effects on survivor emotional responses and behavioral patterns and existential changes throughout their lives by prioritizing survivor experiences and helpful strategies.

### **3. Research Methodology by Objectives**

The research project utilizes a mixed-methods design which integrates quantitative with longitudinal as well as qualitative methods to strengthen its investigation.

For Objective 1:

A cross-sectional survey to become available for 600–800 sexual assault survivors who are 18 or more years old will be conducted with the help of clinical partners and community organizations and digital outreach efforts. A stratified sampling method will guarantee adequate representation

of all gender groups and people belonging to different age categories and ethnic backgrounds alongside members of sexual/gender minority groups. The study will utilize established research instruments that consist of the **Difficulties in Emotion Regulation Scale** along with the **Alcohol Use Disorders Identification Test** and **normalized suicide risk evaluation methods (such as C-SSRS)**. This assessment will include a detailed confidential interview that examines trauma experiences of participants. **The statistical analysis will generate prevalence results but also perform bivariate and multivariate subgroup comparisons and detect symptom clusters through factor analysis** (Wekerle et.,; Michaels et al.). Michaels et al.,).

#### **For Objective 2:**

**SEM** will be used to model causal paths through data obtained from this sample. The method enables researchers to evaluate various direct and indirect relationships at once together with analysis of both mediators and moderators like emotional dysregulation and self-compassion. **The main hypothesis demonstrates that deficiencies in emotional regulation act as substantial mediators between assault exposure and substance use and suicidal behaviors but self-compassion and perceived compassion act as protective factors in their relation** (Dawood et al.). The proposed analysis includes necessary control variables which consist of trauma histories alongside psychiatric records and kinship assistance.

#### **For Objective 3:**

The longitudinal cohort study will build upon existing cross-sectional participants who can join three annual research rounds throughout three years. **The system will achieve maximum retention by implementing regular contact and incentives.** The study platform allows yearly repeated core assessments and recording of major life events and therapy participation as well as support network modifications. **The analysis of growth curves and survival analysis methods will review changes in emotional regulation behaviors as well as substance usage and suicidal tendencies.** **These methods will identify/predict essential variables that determine risk behavior escalation or remission pathways** (Wekerle et al.).

#### **For Objective 4:**

About 50–60 survivors will be selected by purpose for conducting semi-structured interviews. All interviews will be recorded for transcription before thematic analysis determines their evaluation through verbatim transcripts. Through the interview process the guide will explore emotional ups and downs while assessing substance usage for coping as well as self-medicating

tendencies along with thoughts about self-harm and help-seeking actions and self-compassion and supportive interactions with others (Ullman et al., 2018; Dawood et al., 2024). Active measures will maintain diverse participant selection which includes Indigenous participants along with LGBTQ+ and male victims of sexual assault. Several researchers will conduct independent coding of the data in order to increase research reliability.

#### For Objective 5:

Results from quantitative and qualitative research strands will enable identification of shared and opposing data before producing actionable recommendations. A series of workshops will be organized between clinicians and service providers together with survivor representatives for the assessment of research findings followed by recommendation modifications. The study will emphasize converting research findings into two areas: clinical practice guidelines involving emotional regulation and self-compassion assessments for trauma care and policy documents for protecting vulnerable communities (Wekerle et al., 2022; Dawood et al., 2024).

Both ethical approval and informed consent seeking procedures will operate at every stage of the research. All data storage will occur securely under condition of complete de-identification. Standard clinical measurement methods and qualitative analysis derived from survivor experiences allow the research to answer both general outcomes of assault and specific reasons behind these effects.

### 4. Work Plan by Years

This research project will be divided into four phases of four years each of which will explore the advances of the preceding period and will be set up to facilitate the progression of the study to its outcomes that will have a real life impact within the timeline.

In the first year, our efforts will be spent in establishing the ethical and practical foundations that is needed to provide to rigorous and sensitive research in this domain. First, will be to achieve ethics approval of the projects and to establish productive relationships with community sources and clinical networks that provide care for survivors of sexual assault. At the same time, the team will develop and pilot test both survey and interview protocols based upon a cultural sensitivity and sensitivity to accessibility, to ensure that the instruments are suitable for a diverse survivor population. All research staff will be trained about trauma informed and culturally competent methodologies through training sessions. When this is finalized, recruitment for high level

baselines cross-sectional survey can begin, as well as in depth baselines qualitative interviews with a purposively selected and diverse sub sample of participants.

In the second year, the team will collect baseline data under both quantitative and qualitative streams and it will remain for completing these data. Once it has all the foundational data in place it will then begin with the annual longitudinal follow up across all enrolled participants, through regular check ins and digital newsletter to avoid loss to follow up. The initial cross sectional datasets will serve as the starting point for data analysis and will let the research team zero in on the thematic priorities which are most critical for further quality investigation. New themes and findings will also result in additional targeted interviews especially to ensure representation of voices of underrepresented and vulnerable groups. Research findings will be presented in December and during the remainder of the year in academic and practitioner conferences, and consultations with survivor advisory groups will continue to ensure research relevance and integrity.

The emphasis of the third year will be to continue with longitudinal assessments, including the completion of a second wave of follow-up surveys and interviews. In this phase detailed longitudinal data analysis, mapping of developmental trajectories, and identification of pivotal transition point in survivor recovery and risk will be carried. Workshops with key stakeholders – clinicians, survivors, policymakers – will help the research team to review interim results, and to co-design with the stakeholders, policy and clinical recommendations. At the same time, clinical guidelines as well as policy reports will be drafted based on given inputs from end users and survivor consultants, contributing to their experience.

In the last year, the goal is to bring all the data streams together and wrap up with the overarching analyses. The third and final round of follow up will be executed by the team to synthesize all the quantitative and the qualitative data for a wide understanding of the survivors' experiences and needs. The evidence-based recommendations will be reigned in and translated into a broad array of dissemination materials (toolkits, policy briefs), appropriate to different audiences. In order to engage in and promote knowledge translation and broader dialogue, a public symposium or webinar will be held. The team will finally also adopt these guidelines in partner organizations, provide necessary training and see the wide reaching impact of this research. Finally, if necessary, the preparation and submission of a PhD dissertation will

complete, and a key publications of findings presented open access will be made for the promotion of clinical practice and academic knowledge.

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