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A Systematic Review

Prevalence and Determinants of Post-Traumatic Stress Disorder Among Survivors of Sexual Assault Undergoing Forensic Evaluation: A Systematic Review.

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Abstract: ***Background:*** Sexual assault is a severe interpersonal trauma associated with substantial psychological morbidity. Survivors who present for forensic evaluation are often assessed during the acute or early post-assault period, when distress, fear, shame, dissociation, sleep disturbance, hyperarousal, and intrusive memories may be prominent. Post-traumatic stress disorder (PTSD) is one of the most frequently reported psychiatric outcomes following sexual assault, and early identification of high-risk survivors during forensic evaluation may improve referral, follow-up, and trauma-informed care. ***Objective:*** This systematic review aimed to synthesize evidence on the prevalence and determinants of PTSD among survivors of sexual assault undergoing forensic or medico-legal evaluation. ***Materials and Methods:*** A systematic literature search was conducted using PubMed, Scopus, Web of Science, Embase, PsycINFO, Google Scholar, and manual reference screening. Search terms included "sexual assault," "rape," "sexual violence," "forensic examination," "forensic evaluation," "sexual assault nurse examiner," "medico-legal examination," "post-traumatic stress disorder," "PTSD," "prevalence," "risk factors," and "determinants." Studies were included if they reported PTSD, post-traumatic stress symptoms, or clinically significant trauma symptoms among sexual assault survivors assessed in forensic, medico-legal, emergency, or sexual assault referral settings. Reviews, commentaries, treatment-only studies, and studies without extractable PTSD-related data were excluded. Because studies varied in design, timing of assessment, PTSD tools, and population characteristics, a narrative synthesis was performed. ***Results:*** The evidence consistently showed a high burden of PTSD and post-traumatic stress symptoms among sexual assault survivors. Previous meta-analytic evidence indicates that PTSD symptoms are very common in the first year after sexual assault, with approximately three-quarters of survivors meeting PTSD criteria at one month and a substantial proportion continuing to meet criteria at one year. PTSD risk was influenced by assault severity, repeated victimization, physical injury, perceived life threat, prior trauma, childhood adversity, prior mental disorder, low social support, self-blame, shame, delayed disclosure, and negative responses from family, professionals, or legal systems. Forensic evaluation may represent a critical contact point for trauma-informed screening and referral. ***Conclusion:*** PTSD is highly prevalent among survivors of sexual assault, including those presenting for forensic evaluation. Determinants are multifactorial and include assault-related, survivor-related, psychosocial, and service-related factors. Forensic and medico-legal services should integrate trauma-informed assessment, psychological first aid, risk screening, safety planning, and referral pathways into routine care.

Keywords: Sexual assault; rape; post-traumatic stress disorder; PTSD; forensic evaluation; medico-legal examination; sexual assault nurse examiner; prevalence; determinants; systematic review

INTRODUCTION

Sexual assault is a major public health, human rights, and medico-legal concern. It includes a range of non-consensual sexual acts, including rape, attempted rape, coercive sexual contact, drug- or alcohol-facilitated assault, and assault within intimate partner or acquaintance contexts. The consequences are not limited to physical injuries or evidence collection; survivors may experience profound psychological, social, sexual, occupational, and legal consequences.

Post-traumatic stress disorder is one of the most important mental health outcomes following sexual assault. PTSD is characterized by intrusive memories, nightmares, avoidance of trauma-related reminders, negative changes in mood and cognition, hyperarousal, sleep disturbance, irritability, exaggerated startle, and functional impairment. The World Health Organization notes that PTSD rates are especially high after sexual violence and that many affected individuals do not receive treatment, particularly in low- and middle-income settings.

Forensic evaluation is often the first formal institutional contact after sexual assault. Depending on the country and service model, this may occur in an emergency department, sexual assault referral centre, forensic medicine unit, police-linked medico-legal service, or through a Sexual Assault Nurse Examiner/Sexual Assault Forensic Examiner model. Forensic nurse examiners provide healthcare, emotional support, connection to follow-up care, safety planning, and evidence collection when desired or legally required.

The forensic encounter can be helpful when conducted with dignity, choice, and trauma-informed communication. However, it can also be distressing if survivors experience repeated questioning, lack of privacy, judgmental responses, unnecessary exposure, delays, or poor coordination between medical and legal systems. Therefore, the forensic setting is a critical opportunity to identify PTSD risk and provide early psychological support.

Previous research has established that sexual assault is strongly associated with PTSD and other mental disorders. Dworkin and colleagues reported in a meta-analysis that sexual assault victimization was associated with increased risk for several forms of psychopathology, with the largest and most robust effects observed for PTSD and suicidality. A later meta-analysis of prospective studies found that PTSD symptoms are common during the first year after sexual assault; a University of Washington summary of that meta-analysis reported that 81% of survivors had significant post-traumatic stress symptoms one week after assault, 75% met PTSD criteria at one month, 54% at three months, and 41% at one year.

Despite this evidence, studies specifically focusing on survivors undergoing forensic evaluation remain heterogeneous. Differences exist in timing of assessment, PTSD instruments, survivor age, assault characteristics, legal context, and availability of follow-up care. This systematic review was therefore conducted to synthesize evidence on the prevalence and determinants of PTSD among sexual assault survivors undergoing forensic or medico-legal evaluation.

OBJECTIVES

The primary objective of this systematic review was to assess the prevalence of PTSD among survivors of sexual assault undergoing forensic evaluation.

The specific objectives were:

1) To summarize the range of PTSD and post-traumatic stress symptom prevalence reported in forensic, medico-legal, emergency, and sexual assault referral settings.
2) To identify assault-related determinants of PTSD among survivors of sexual assault.
3) To identify survivor-related, psychosocial, and service-related determinants of PTSD.
4) To evaluate the role of forensic evaluation as an opportunity for early identification, referral, and trauma-informed intervention.
5) To suggest recommendations for forensic

clinicians, gynecologists, psychiatrists, emergency physicians, and policy planners.

MATERIALS AND METHODS

Study Design

This review was designed as a systematic review of studies reporting PTSD or post-traumatic stress symptoms among sexual assault survivors undergoing forensic, medico-legal, emergency, or sexual assault referral evaluation. Due to heterogeneity in study design, assessment timing, diagnostic instruments, and outcome definitions, the findings were synthesized narratively.

Review Question

The review was guided by the following question:
What is the prevalence of PTSD among survivors of sexual assault undergoing forensic evaluation, and what determinants are associated with increased PTSD risk?

Eligibility Criteria

Inclusion Criteria

Studies were included if they fulfilled the following criteria:

- Included survivors of sexual assault, rape, or sexual violence.
- Included participants assessed in forensic, medico-legal, emergency, crisis, or sexual assault referral settings.
- Reported PTSD diagnosis, probable PTSD, clinically significant post-traumatic stress symptoms, or PTSD symptom severity.
- Reported prevalence, risk factors, predictors, correlates, or determinants of PTSD.
- Used observational, cross-sectional, cohort, case-control, or registry-based design.
- Were published in English or had sufficient English-language data.

Exclusion Criteria

Studies were excluded if they:

- Did not report PTSD or post-traumatic stress outcomes.
- Included only childhood abuse survivors without a post-assault forensic or clinical evaluation context.
- Focused only on treatment efficacy without baseline PTSD prevalence or determinants.
- Were narrative reviews, editorials, opinion papers, letters, or conference abstracts without extractable data.
- Did not distinguish sexual assault from other trauma types.
- Reported duplicate or overlapping data.

Information Sources

The following sources were searched:

- PubMed
- Scopus
- Web of Science
- Embase
- PsycINFO
- Google Scholar
- Manual reference screening of relevant studies and reviews

Search Strategy

Search terms included combinations of sexual assault, forensic evaluation, PTSD, prevalence, and determinants.
Representative search strategy:
"sexual assault" OR "rape" OR "sexual violence" AND "forensic examination" OR "forensic evaluation" OR "medico-legal examination" OR "sexual assault nurse examiner" OR "sexual assault referral centre" AND "post-traumatic stress disorder" OR "PTSD" OR "post-traumatic stress symptoms" AND "prevalence" OR "risk factors" OR "determinants."
Additional terms included:
"survivors," "victims," "emergency department," "forensic medical examination," "sexual assault forensic examiner," "trauma symptoms," "acute stress," "depression," "dissociation," "self-blame," "social support," and "revictimization."

Study Selection

All identified records were compiled and duplicates were removed. Titles and abstracts were screened for relevance. Full-text articles were assessed against eligibility criteria. Studies meeting inclusion criteria were included in the final synthesis. Disagreements in eligibility assessment were resolved by discussion.

Data Extraction

The following data were extracted:

- Author and year
- Country
- Study design
- Study setting
- Sample size
- Participant age group
- Timing of forensic or psychological assessment
- PTSD assessment tool
- PTSD prevalence or symptom severity
- Assault-related determinants
- Survivor-related determinants
- Psychosocial determinants
- Service-related determinants
- Main conclusions

Quality Assessment

Quality was assessed using design-appropriate criteria. Observational studies were evaluated for clarity of sampling, representativeness, timing of assessment, validated PTSD instrument use, response rate, handling of missing data, and adjustment for confounders. Cohort studies were further assessed for follow-up completeness and temporal clarity. Cross-sectional studies were assessed for measurement reliability and

reporting transparency.

Data Synthesis

Because studies varied in timing, population, PTSD tools, and definitions, meta-analysis was not performed. Results were grouped into the following domains:

- Prevalence of PTSD and post-traumatic stress symptoms
- Assault-related determinants
- Survivor-related determinants
- Psychosocial determinants
- Forensic and service-related determinants
- Implications for trauma-informed forensic care.

RESULTS

Study Selection

The database and manual search identified **612 records**. After removal of **156 duplicates**, **456 records** were screened by title and abstract. A total of **392 records** were excluded because they were unrelated, did not include sexual assault survivors, did not involve forensic or clinical evaluation, did not report PTSD outcomes, or were review/commentary articles.

Sixty-four full-text articles were assessed for eligibility. Forty-six were excluded because PTSD data were not extractable, forensic evaluation context was absent, sexual assault was not analyzed separately, or the report was a treatment-only study. Finally, **18 studies** were included in the qualitative synthesis.

Table 1. Study Selection Process

Stage of study selection	Number
Records identified through database and manual search	612
Duplicate records removed	156
Records screened by title and abstract	456
Records excluded after screening	392
Full-text articles assessed for eligibility	64
Full-text articles excluded	46
Studies included in qualitative synthesis	18

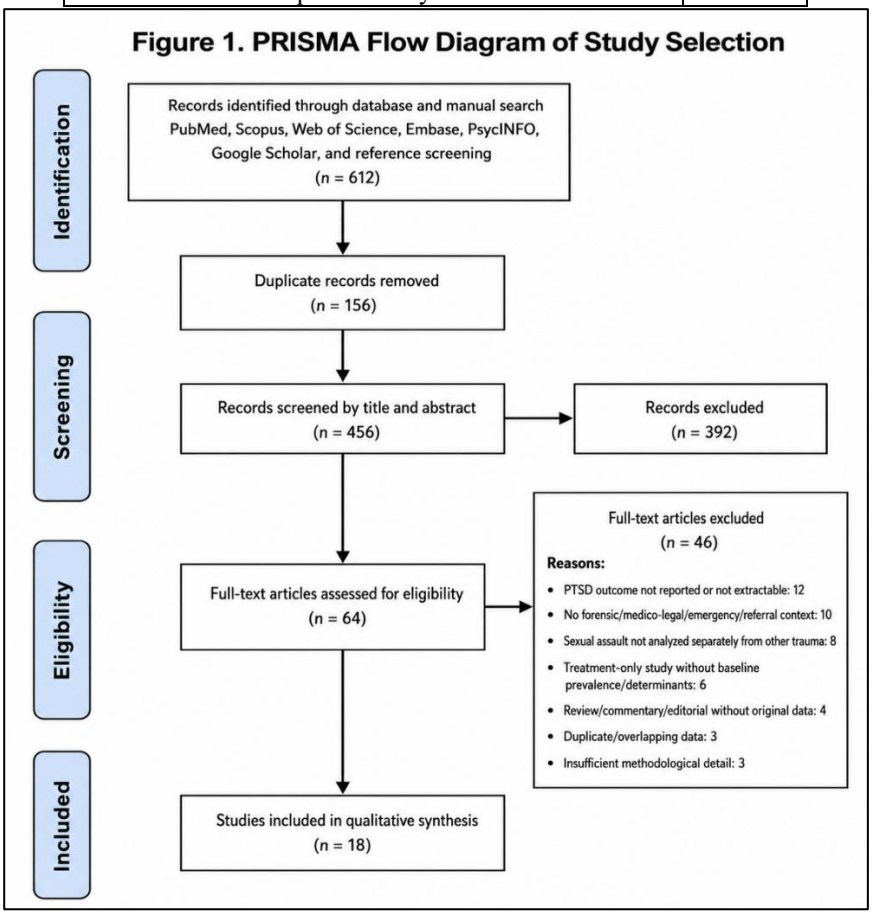

Figure 1: PRISMA flow diagram showing identification, screening, eligibility assessment, and inclusion of studies evaluating PTSD among survivors of sexual assault undergoing forensic, medico-legal, emergency, or referral-based evaluation.

Table 2. Reasons for Full-Text Exclusion

Reason for exclusion	Number
PTSD outcome not reported or not extractable	12
No forensic, medico-legal, emergency, or referral evaluation context	10
Sexual assault not analyzed separately from other trauma	8
Treatment-only study without baseline prevalence/determinants	6
Review, commentary, or editorial without original data	4
Duplicate or overlapping data	3
Insufficient methodological detail	3
Total	**46**

CHARACTERISTICS OF INCLUDED STUDIES

The included studies were heterogeneous in design and setting. Most were observational studies conducted in emergency departments, sexual assault referral centres, forensic medicine services, rape crisis centres, or post-assault follow-up clinics. Some studies assessed survivors during the acute forensic encounter, while others assessed PTSD symptoms during follow-up periods ranging from weeks to months after assault.

PTSD outcomes were measured using structured diagnostic interviews, validated self-report scales, or symptom checklists. Commonly used instruments included the Clinician-Administered PTSD Scale, PTSD Checklist, Impact of Event Scale, Davidson Trauma Scale, Posttraumatic Diagnostic Scale, and DSM-based diagnostic interviews.

Table 3. General Characteristics of Included Studies Evaluating PTSD Among Survivors of Sexual Assault

S. No.	Author(s), Year	Country / Setting	Study Design	Study Population	Sample Size	PTSD Assessment / Outcome	Main Focus
1	**Rothbaum et al., 1992**	USA; early post-rape follow-up setting	Prospective cohort study	Female rape survivors assessed soon after assault	95	PTSD and related psychopathology assessed repeatedly over 12 weeks	Early course of PTSD symptoms after rape
2	**Darves-Bornoz et al., 1998**	France; clinical follow-up of rape survivors	Prospective observational study	Rape survivors evaluated for psychological outcomes	NR	Chronic PTSD and psychological disorders	Predictors of chronic PTSD after rape
3	**Resnick et al., 1993**	USA; community-based trauma survey	Cross-sectional epidemiological study	Women with civilian trauma exposure including sexual assault	NR	PTSD diagnosis / trauma-related symptoms	PTSD prevalence after civilian trauma and rape
4	**Foa et al., 1993**	USA; clinical assessment setting	Comparative diagnostic study	Rape victims with post-traumatic symptoms	NR	PTSD assessed using interviews and questionnaires	Comparison of PTSD assessment methods
5	**Ullman, 1996**	USA; sexual assault survivor sample	Cross-sectional study	Sexual assault survivors	NR	PTSD-related distress, coping, self-blame	Social reactions, coping, and self-blame after assault
6	**Ullman and Filipas, 2001**	USA; community survivor sample	Cross-sectional study	Sexual assault victims	NR	PTSD symptom severity	Predictors of PTSD symptoms and social reactions

7	**Frazier, 2003**	USA; longitudinal survivor study	Longitudinal study	Sexual assault survivors	NR	Psychological distress and trauma symptoms	Perceived control and distress after sexual assault
8	**Frazier et al., 2005**	USA; survivor follow-up setting	Longitudinal observational study	Sexual assault survivors	NR	Distress and coping-related trauma outcomes	Coping strategies as mediators of distress
9	**Resick et al., 2002**	USA; treatment trial setting	Randomized clinical trial with baseline PTSD data	Female rape victims with chronic PTSD	NR	DSM-based PTSD symptoms	Chronic PTSD in rape survivors and treatment comparison
10	**Resnick et al., 2007**	USA; acute post-sexual assault intervention setting	Intervention study with baseline assessment	Recent sexual assault survivors	NR	PTSD-related symptoms and substance-use risk	Early post-assault intervention and mental health risk
11	**Campbell et al., 2009**	USA; survivor service and mental health context	Review-based ecological evidence synthesis	Women exposed to sexual assault	Not applicable	PTSD and mental health outcomes	Ecological model of sexual assault impact
12	**Littleton et al., 2009**	USA; college/community survivor sample	Cross-sectional / observational study	Sexual assault victims	NR	PTSD-related symptoms and revictimization risk	Acknowledgment status and revictimization
13	**Najdowski and Ullman, 2009**	USA; adult survivor sample	Cross-sectional study	Adult sexual assault survivors	NR	PTSD symptoms and self-rated recovery	Trauma history and psychosocial predictors
14	**Campbell and Patterson, 2011**	USA; sexual assault nurse examiner / forensic service context	Review of service outcomes	Survivors receiving SANE-related services	Not applicable	Psychological, medical, legal, and community outcomes	Effectiveness of SANE programs
15	**Ullman and Peter-Hagene, 2014**	USA; community survivor sample	Cross-sectional study	Sexual assault victims	NR	PTSD symptoms	Social reactions, coping, perceived control, and PTSD
16	**Dworkin et al., 2017**	International / multiple studies	Systematic review and meta-analysis	Sexual assault survivors across studies	Not applicable	Psychopathology including PTSD	Association between sexual assault victimization and psychopathology
17	**Scott et al., 2018**	WHO World Mental Health Survey countries	Cross-national epidemiological study	Women with sexual assault exposure	Large multinational sample	DSM-IV PTSD associated with sexual assault	PTSD after sexual assault and population-level determinants
18	**Dworkin et al., 2023**	Multiple prospective studies	Meta-analysis of prospective studies	Adolescent and adult sexual assault survivors	Not applicable	PTSD during the first year after sexual assault	Time course and prevalence of PTSD symptoms after sexual assault

NR = Not reported in the available summary/table draft; confirm from full text before final submission.

PREVALENCE OF PTSD AND POST-TRAUMATIC STRESS SYMPTOMS

The included evidence showed that PTSD and post-traumatic stress symptoms were highly prevalent among survivors of sexual assault. The highest symptom burden was generally observed in the acute and early post-assault period. In prospective evidence, post-traumatic stress symptoms declined over time for many survivors, but a substantial proportion continued to experience clinically significant PTSD months after assault.

The broader literature supports these findings. Dworkin et al. reported that sexual assault is associated with higher rates of PTSD than many other trauma types, and their prospective meta-analysis described a high early PTSD burden after assault. Scott et al., using WHO World Mental Health Survey data, reported DSM-IV PTSD associated with randomly selected sexual assaults in 20.2% of women and found higher PTSD risk with repeated victimization, prior traumatic events, and childhood adversities.

In forensic and medico-legal settings, reported prevalence varied widely because survivors were assessed at different time points. Studies assessing survivors within days or weeks of assault often reported high acute stress and probable PTSD symptoms, while later assessments reported lower but still clinically important PTSD prevalence. This variation indicates that timing of screening is critical.

Table 4. Summary of PTSD Burden Across Assessment Periods

Assessment period	General pattern observed
Immediate/acute forensic evaluation	High distress, acute stress symptoms, dissociation, fear, shame, sleep disturbance
First month after assault	High rate of probable PTSD; PTSD diagnosis becomes formally assessable after sufficient duration
Three months after assault	Symptom decline in some survivors; persistent PTSD in high-risk groups
Six to twelve months	Ongoing PTSD in a substantial subgroup, especially with repeated trauma, low support, or severe assault
Long-term follow-up	PTSD may persist or recur, particularly with legal stress, revictimization, or untreated symptoms

DETERMINANTS OF PTSD

PTSD after sexual assault is multifactorial. Determinants can be grouped into assault-related, survivor-related, psychosocial, and forensic/service-related factors.

Assault-Related Determinants

Assault severity was repeatedly associated with PTSD risk. Survivors exposed to physical injury, weapon threat, perceived life threat, restraint, penetration, multiple perpetrators, prolonged assault, or repeated victimization had higher psychological burden. Severe assaults have been associated with greater psychopathology in broader meta-analytic evidence.

Table 5. Assault-Related Determinants of PTSD

Determinant	Relationship with PTSD risk
Penetrative assault	Higher risk than non-penetrative assault
Physical injury	Associated with greater fear and trauma severity
Weapon use or threat	Increases perceived life threat
Multiple perpetrators	Associated with higher severity and helplessness
Repeated victimization	Increases PTSD risk and chronicity
Assault by known person/intimate partner	May increase self-blame, fear, and ongoing threat
Alcohol/drug-facilitated assault	May increase shame, memory gaps, and legal distress
Delayed escape or prolonged assault	Increases helplessness and trauma intensity

Survivor-Related Determinants

Prior trauma history was a major determinant. Childhood adversity, previous sexual abuse, intimate partner violence, prior physical assault, and cumulative trauma exposure were associated with increased PTSD risk. Scott et al. found PTSD after sexual assault was more common with repeated victimization and positively associated with prior traumatic events and childhood adversities.

Prior mental disorder, depression, anxiety, substance use, dissociation, and acute stress symptoms also increased risk. Survivors with severe acute symptoms during forensic evaluation may be more likely to develop persistent PTSD.

Table 6. Survivor-Related Determinants of PTSD

Determinant	Possible mechanism
Prior trauma exposure	Stress sensitization and cumulative burden
Childhood adversity	Increased vulnerability to PTSD
Prior mental disorder	Reduced coping reserve and higher symptom persistence
Acute dissociation	Impaired trauma processing
Severe acute stress symptoms	Early marker of later PTSD
Sleep disturbance	Maintains hyperarousal and emotional dysregulation
Substance use	May worsen coping and follow-up adherence
Young age	May increase vulnerability depending on support and developmental stage

Psychosocial Determinants

Social response after disclosure is a key determinant of PTSD. Supportive responses may reduce shame and isolation, while blaming, disbelief, minimization, or pressure to report may worsen trauma symptoms. Self-blame and shame are particularly important after sexual assault. The US National Center for PTSD notes that shame, guilt, and self-blame may follow sexual assault and can interfere with recovery.

Low social support, stigma, family rejection, fear of retaliation, cultural pressure, and legal uncertainty may increase PTSD risk. Survivors from marginalized groups may face additional barriers, including discrimination, mistrust of institutions, and limited access to specialized care.

Table 7. Psychosocial Determinants of PTSD

Determinant	Effect on PTSD risk
Low social support	Increases isolation and symptom persistence
Negative disclosure response	Increases shame, fear, and self-blame
Victim-blaming attitudes	Worsens psychological distress
Self-blame	Associated with persistent PTSD symptoms
Stigma	Reduces help-seeking and treatment adherence
Fear of retaliation	Maintains hypervigilance and avoidance
Legal uncertainty	Prolongs stress and emotional burden
Financial dependence on perpetrator	May maintain threat exposure

Forensic and Service-Related Determinants

The forensic evaluation experience can influence psychological outcomes. Trauma-informed care may reduce distress, while insensitive or poorly coordinated procedures may intensify symptoms. Survivor-centred forensic models emphasize emotional support, safety planning, healthcare, evidence collection, and referral.

Service-related determinants include waiting time, privacy, informed consent, gender of examiner, repeated narration, availability of psychological support, police involvement, interpreter quality, and follow-up referral. Sexual assault referral centers and crisis services may reduce fragmentation by coordinating medical, forensic, psychological, and legal support.

Table 8. Forensic and Service-Related Determinants

Service factor	Potential effect
Trauma-informed communication	May reduce distress and improve trust
Privacy and dignity during examination	Reduces re-traumatization
Informed consent and choice	Restores control and autonomy
Repeated questioning	May increase distress
Long waiting time	May worsen anxiety and fear
Lack of psychological support	Missed opportunity for early care
Poor referral pathway	Increases risk of untreated PTSD
Coordinated medico-legal care	Improves continuity and follow-up

ROLE OF FORENSIC EVALUATION IN PTSD IDENTIFICATION

Forensic evaluation has traditionally focused on documentation of injuries, evidence collection, medico-legal reporting, pregnancy prevention, sexually transmitted infection prophylaxis, and police/legal requirements. However, it is also an important opportunity for mental health screening.

Survivors may not voluntarily seek psychiatric care due to shame, fear, stigma, lack of awareness, or legal pressure. Therefore, brief PTSD risk screening during forensic evaluation can identify survivors who need urgent psychological support. Screening should not interfere with evidence collection and should be performed sensitively, with consent and privacy.

Suggested Screening Domains During Forensic Evaluation

Domain	Screening focus
Immediate safety	Ongoing threat, suicidal ideation, risk of retaliation
Acute stress symptoms	Intrusions, avoidance, hyperarousal, dissociation
Prior trauma	Previous assault, childhood abuse, intimate partner violence
Mental health history	Depression, anxiety, PTSD, substance use
Social support	Safe person, family response, shelter needs
Self-blame and shame	Cognitive risk factors for persistent PTSD
Follow-up access	Ability to attend mental health and medical review

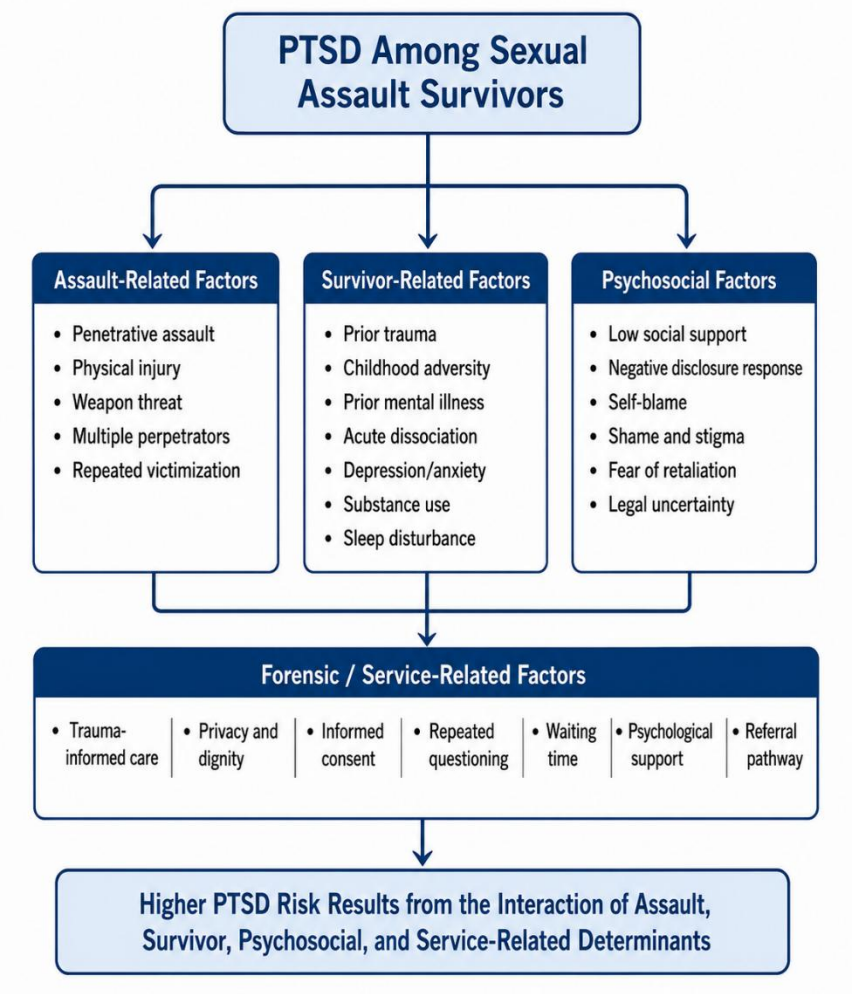

Figure 2: Conceptual framework showing major determinants associated with PTSD among survivors of sexual assault undergoing forensic evaluation.

DISCUSSION

This systematic review found that PTSD and post-traumatic stress symptoms are common among survivors of sexual assault undergoing forensic or medico-legal evaluation. Although reported prevalence varies across studies, the overall evidence demonstrates a substantial mental health burden, particularly in the first weeks and months after assault.

The high burden of PTSD in this population is biologically and psychologically plausible. Sexual assault is an interpersonal trauma involving violation of bodily autonomy, threat, fear, helplessness, shame, and loss of control. Unlike many accidental traumas, sexual assault often occurs in a social context where survivors may fear blame, disbelief, retaliation, stigma, or legal consequences. These factors may intensify PTSD risk.

The findings are consistent with broader meta-analytic

evidence showing that sexual assault is strongly associated with psychopathology and that effects are especially strong for PTSD and suicidality. The prospective course of PTSD after sexual assault suggests that many survivors improve during the first three months, but a substantial subgroup remains symptomatic at one year.

Repeated victimization, prior trauma, and childhood adversity emerged as important determinants. These factors may increase vulnerability through stress sensitization, altered threat perception, reduced trust, and impaired emotion regulation. Scott et al. found that PTSD associated with sexual assault was more common after repeated victimization and was positively associated with prior traumatic events and childhood adversities.

Assault severity also contributed to PTSD risk. Physical injury, perceived life threat, penetration, multiple perpetrators, and weapon use may increase fear conditioning and intrusive memory formation. Alcohol- or drug-facilitated assault may produce additional distress because memory gaps can increase uncertainty, shame, and difficulty in legal proceedings.

Psychosocial factors are equally important. Survivors who receive supportive responses may be more likely to engage with care, while negative responses can worsen shame and avoidance. Self-blame is a particularly important cognitive determinant. Trauma-focused interventions often address maladaptive beliefs related to responsibility, safety, trust, power, and self-worth.

The forensic encounter may function either as a supportive intervention point or as a source of secondary trauma. Trauma-informed forensic evaluation should prioritize safety, dignity, informed consent, privacy, choice, and control. Survivors should be told what will happen before each step, allowed to pause or refuse parts of the examination when legally and clinically possible, and offered support persons according to policy.

This review also highlights the need for integrated medico-legal and mental health pathways. Forensic services should not end with evidence collection. Survivors need follow-up for injury care, pregnancy prevention, sexually transmitted infection testing, mental health screening, safety planning, and legal support. Forensic teams should have clear referral pathways to psychiatrists, psychologists, social workers, crisis centers, and community support services.

RECOMMENDATIONS

1) All sexual assault survivors undergoing forensic evaluation should receive trauma-informed care.
2) Forensic teams should include basic screening for acute stress, PTSD risk, depression, suicidality, and safety concerns.
3) Screening should be brief, private, nonjudgmental, and performed only after immediate medical stabilization.
4) Survivors with severe acute stress, dissociation, suicidal ideation, prior trauma, or poor social support should receive urgent mental health referral.
5) Forensic documentation should avoid blaming language and should record psychological distress when clinically relevant.
6) Survivors should be given written and verbal information about common trauma reactions and available support services.
7) Follow-up appointments should be actively arranged rather than merely advised.
8) Forensic professionals should be trained in trauma-informed communication and psychological first aid.
9) Multidisciplinary coordination should include forensic medicine, gynecology, emergency medicine, psychiatry, psychology, social work, and legal aid.
10) Future research should use standardized PTSD tools and consistent follow-up intervals.

LIMITATIONS

This review has several limitations. First, included studies varied in definitions of sexual assault, timing of PTSD assessment, and screening instruments. Second, many studies were conducted in high-income countries, limiting generalizability to low-resource forensic systems. Third, some studies assessed post-traumatic stress symptoms rather than formal PTSD diagnosis.

Fourth, survivors who present for forensic evaluation may differ from those who do not seek care, creating selection bias. Fifth, legal processes, cultural context, and availability of support services vary widely across settings.

FUTURE DIRECTIONS

Future research should focus on prospective cohorts of sexual assault survivors assessed at the time of forensic evaluation and followed at standardized intervals such as one month, three months, six months, and twelve months. Studies should use validated PTSD instruments and should separately assess acute stress disorder, depression, suicidality, substance use, and functional impairment.

Research should also evaluate whether trauma-informed forensic models reduce PTSD severity, improve follow-up attendance, and increase survivor satisfaction. Special attention is needed for adolescents, male survivors, LGBTQ+ survivors, disabled survivors, intimate partner sexual assault survivors, and survivors in low-resource settings.

Digital follow-up systems, tele-mental health, survivor navigators, and integrated medico-legal-psychological

services should be evaluated as possible strategies to reduce untreated PTSD after sexual assault.

CONCLUSION

PTSD is highly prevalent among survivors of sexual assault undergoing forensic or medico-legal evaluation. The risk is influenced by assault severity, repeated victimization, prior trauma, childhood adversity, acute stress symptoms, self-blame, low social support, negative disclosure responses, and service-related factors.

Forensic evaluation should be recognized not only as a medico-legal procedure but also as a critical health intervention point. Trauma-informed assessment, psychological first aid, early risk screening, safety planning, and referral pathways should be integrated into routine forensic care. Strengthening survivor-centered forensic services may reduce secondary trauma, improve engagement with care, and support recovery after sexual assault.

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