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Assessing Anxiety Depression and PTSD in Women Experiencing Abuse: Implications for Mental Health Services

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Abstract

Domination over women is a social violence that harms the mental health of an individual, with over 736 million women worldwide facing physical, sexual, or emotional violence at some point in their lifetime. The purpose of this study is to identify ways of improving mental health services for women experiencing abuse by investigating the co-occurrence and cross-correlation of anxiety, depression, and Post-Traumatic Stress Disorder (PTSD) with the general population of abused women. Additionally, it seeks to increase awareness of the potential future impact of abuse and the need to work on the quality of health care for such victims. This is a desk-based approach study that reviewed data from only recent high-impact papers dealing with the mental health of abused women. Articles were retrieved from databases such as ScienceDirect, SAGE Journals, SpringerLink, PubMed, and Wolters Kluwer Online. Many data were derived according to prevalence, demographic features, kinds of abuse, and intervention effectiveness. PTSD and depression have been identified to be very common in abused women, and many of these cases present with comorbidities. Cognitive-behavioral therapy (CBT) and Interpersonal Psychotherapy have been endorsed as practices that can potentially be effective for traumatized clients. However, insurance, cost and prejudice put an obstacle for people to receive these. In conclusion, culturally tailored community-formulated and inviting favorable modification together with other nonpharmacological approaches may be beneficial to mental health and promote reversibility.

Keywords: Anxiety, Depression, Post-traumatic stress disorder (PTSD), Mental health, and Abuse.

1. Introduction

Abuse against women around the globe implies that its consequences affect the mental state of women significantly, over 736 million women worldwide who faced physical, sexual, or emotional violence at some point in their lifetime (Organization, 2021). Women who have been subjected to different kinds of abuse, such as physical, emotional, sexual, or psychological types, are more likely to develop mental health disorders such as anxiety disorders, including Post-traumatic Stress Disorder (PTSD) (Dillon *et al*., 2013). These disorders are not mutually exclusive but are interconnected, so trauma experienced by the survivors is compounded by one or several other disorders,

and the progress of the recovery process is thus prolonged. Global rates of abuse among women differ by geographical and cultural areas, but the impact on mental health is always strong. Recent data show that at least one in three women worldwide have been victims of either Intimate Partner Violence (IPV) in their lifetime. Current research also reveals that survivors suffer associated psychological and emotional consequences long after the abuse (Devries *et al*., 2013; Women, 2021).

The three major psychiatric disorders seen in women who have a history of abuse include anxiety, depression, and PTSD. Alone or together, these disorders make it incredibly difficult for a woman to maintain an ordinary, productive lifestyle. It is constantly defined as fear and worry grounded on the signals of the abusive event, whereas depression may result in hopelessness, isolation, and lack of interest in daily endeavors (Branjerdporn *et al*., 2013; Lagdon *et al*., 2014). PTSD can be caused by severe trauma: the diagnosis can trigger the rehearsal of the abusive events, and it can lead to avoiding stimuli that remind one of the trauma (Tolin & Foa, 2008). Altogether, these mental health problems hinder individual social interactions and protons and interpose hindrances to the formation of a good self-image. If such impacts are not checked on time or managed appropriately, they can incapacitate individuals and adversely influence their families and society (Golding, 1999). Screening for anxiety, depression, and PTSD in abused women is essential in several ways. First, assessment gives information regarding the mental health of the child that should enable early intervention with a view to eliminating the impact of abuse in the future (Health, 2017). Secondly, the distinct mental health risks found help service providers to develop interventions that focus on those issues that survivors of these women face. For example, the treatment strategies accepted for solving PTSD can include trauma-focused cognitive-behavioral therapies as well as pharmaco-logical treatments. Furthermore, systematic evaluation guarantees that mental health services are well equipped for the task of responding to the needs of the abuse survivors, hence improving the functionality of available mental health systems (Golding, 1999; Herman, 2015).

Verbal abuse in particular plays an important role in the deterioration of women's mental condition. As any action that brings about pain, abuse can be physical, emotional, psychological, sexual, or financial. The study has revealed that verbal aggression in the form of verbal aggression, humiliation, and threats are directly connected with anxiety and PTSD (Sabri, 2021). Another type of abuse is strangulation, which leads to cognitive consequences, namely, anterograde amnesia and working memory dysfunction (Valera *et al*., 2022). The purpose of this study is to identify ways of improving mental health services for women experiencing abuse by investigating the co-occurrence and cross-correlation of anxiety, depression, and Post-Traumatic Stress Disorder (PTSD) with the general population of abused women. Additionally, it seeks to increase awareness of the potential future impact of abuse and the need to work on the quality of health care for such victims.

2. Review of Literature

The literature review focuses on the correlation between abuse experiences and the development of psychotic disorders, stating that particular abuse moved and changed women profoundly, negatively influencing their mental health. Several investigations show that women abused physically, emotionally, sexually, or psychologically are at a higher risk of adverse psychological responses that have been established with considerable evidence for anxiety, depression, and PTSD among women (Dillon *et al*., 2013; Organization, 2013). Women whom an intimate partner abused manifested way higher levels of anxious depressive symptoms than women who were abused (Golding, 1999). Similarly, Tolin and Foa, (2006) discussed the observation based on gender. They pointed out that women are more likely to develop PTSD than men, which is even explained by the fact that PTSD, resulting from the use of violence, becomes usual in equal societies (Tolin & Foa, 2008).

Many research findings directly provide evidence that correlates abuse with anxiety, depression, and PTSD in women. Depression often presents as persistent low mood, Social isolation, and lack of concern in day-to-day events, having negative impacts on survivors (Lagdon *et al*., 2014). However, the symptoms of PTSD include flashbacks or intrusive thoughts and

elevated levels of arousal, a higher risk of PTSD is evident in women, effectively experiencing more severe or extended forms of abuse, as trauma impacts normal stress regulation (Devries *et al*., 2013). Altogether, such circumstances impose a multiplied requirement on survivors' mental abilities, interfering with their individual and communal life spheres. Despite the clear empirical picture of various psychopathological consequences of abuse, there are still many deficiencies in the availability and utilization of mental health care for battered women. Most services that are available fail to provide trauma-informed care, which is essential when dealing with survivor's needs, and instead offer brief interventions (Herman, 2015). Challenges, including restricted access to expert services, exclusion, and a lack of education regarding trauma-focused services among caregivers, disprove these gaps, and a lot of survivors have poor mental health support (Health, 2017).

Moreover, there is often a lack of fit with existing mental health models and the cultural/social contexts so that abuse survivors can have access to culturally and socially appropriate support and services for the obstacles they face at present (Devries *et al*., 2013). Consequently, although empirical data indicates extensive psychological consequences of abuse on women and acknowledges anxiety, depression, and PTSD as joint disorders, there is still a severe shortage of adequately funded, culturally competent, sensitive to trauma, and appropriate for the lifelong needs of abused women mental health services.

3. Materials and Methods

Study Design and Approach

This research undertakes a desk-based cross-sectional approach to examine the psychological consequences of abuse on women, including anxiety, depression, and PTSD. The study relies on recent and highly cited literature to enrich the knowledge of the prevalence, severity, and implications of these mental health disorders in abuse survivors. Consequently, the integration of findings from these studies is designed to advance knowledge about service requirements and intervention approaches for abused women concerning mental health service requirements.

Data Collection and Sources

The literature sources include authentic research papers from the peer-reviewed database on psychological abuse and mental health service perspectives. The recent data available on anxiety, depression, PTSD, or the previous therapeutic intervention provided to women who have been through IPV, SA, or any other form of abuse were included. A comprehensive understanding of the prevalence, severity, and implications of these mental health conditions among abuse survivors was utilized. By synthesizing findings from these studies, the purpose is to inform and improve mental health service needs and intervention strategies targeted at abused women.

Inclusion Criteria

The selected studies included:

1. Studies published in high-impact journals within the past four years, from 2020 to 2024, focusing specifically on the mental health outcomes of anxiety, depression, and PTSD among women exposed to various forms of abuse.
2. Research that addresses interventions, including trauma-informed care, cognitive-behavioural therapy, and other therapeutic approaches for alleviating these mental health impacts.

Exclusion Criteria

To compare our findings with prior research, non-mental health (MH) studies were excluded if the sample was not abused women if the outcome was not MH (anxiety, depression, or PTSD), and if the survey was conducted more than 5 years before the present review. Furthermore, any research that included subjects with cognitive disabilities was excluded.

Search Strategy

A comprehensive literature review was conducted in electronic and print databases such as ScienceDirect, SAGE Journals, SpringerLink, PubMed, and Wolters Kluwer Online. The literature search was done using the following terms: women abuse, anxiety abuse, PTSD abuse, depression abuse, mental health services, domestic violence, partner violence, and intimate partner violence. This approach allowed us to achieve a higher level of relevance of the selected studies towards the topic and Evidence-Based Practice (EBP), as well as have a better understanding of the psy-

chological effects of abuse and the consequences for mental health services.

All resources identified in the different sources should be extracted and organized systematically. Data from the selected studies were extracted systematically, including the following data points:

1) Mental Health Outcomes*:* Self-report estimates of the proportion of abused women meeting DSM-IV criteria for current anxiety, depression, and PTSD.
2) Abuse Type: Subtypes of abuse (e.g., intimate terrorism, situational couple violence, sexual assault) and particular populations (e.g., college students, low income).
3) Demographic Factors: Gender, age, income, and other factors that might help recognize enhanced subgroups.
1. Interventions and Service Needs*:* Record any treatment model administered and assesses the perceived result.

According to the data, papers were categorized separately by the type of mental health problem investigated (anxiety, depression, or PTSD) and the kind of abuse mentioned. Other codes were developed to compare interventional types, population samples and critical results. **Table 1** outlines all the databases Included in the search strategy and the search terms used together with the number of papers returned in each database. Also, it demonstrates the specific keywords linked to mental health and abuse, the number of articles obtained through different sources.

Table 1: Search Strategy.

Database	Search Terms Used	Number of Papers Retrieved
SpringerLink	"mindfulness therapy," "art-making therapy," "sexual assault," "strangulation"	02
PubMed	"domestic violence," "intimate partner violence," "PTSD outcomes"	02
SAGE Journals	"psychological interventions," "common mental disorders," "IPV"	03
ScienceDirect	"neurobiological changes," "sexual assault," "depression," "anxiety"	01
Wolters Kluwer Online	"PTSD severity," "intimate partner violence," "mental health"	1

Data Analysis

Concerning the prevalence rate of anxiety, depression, and PTSD among abuse survivors, descriptive statistics were used to summarize the findings from various studies. This approach made it easier to assessment of mental health needs for specific demographic subgroups like adolescent female rape survivors, college women, and low-income groups. To compare and contrast the fluctuations in anxiety, depression, and PTSD when different subgroups were assessed, a comparative analysis was done, and possibilities of how various types of abuses influence different subgroups were anticipated. Secondly, thematic synthesis was also conducted for qualitative data related to enablers and impellers of mental health-related services to women who have been abused. This analysis offered valuable insight into areas where there appear to be gaps in service and where improvements could be made regarding the delivery of mental health services for those affected by abuse through discussion of themes like stigma, access, and the successes and failings of potential interventions like trauma-informed care.

Ethical Considerations

There is no information concerning the identity of the participants in the reviewed studies. Thus, their dignity and respect are preserved.

4. Results

Comparative Rates of PTSD and Depression in Survivors of Sexual Assault

PTSD as a Primary Outcome

Among the various outcomes of sexual assault, PTSD provocative statistic comes to light regarding more than half of the female victims. The condition includes reexperience of intrusive symptoms, increased arousal,

an effort to avoid trauma-related stimuli, and negative alterations in cognition and mood (D'Elia *et al*., 2021). High incidences and the fact that people who have PTSD experience neuropsychological differences based on stress responses and traumatic memory suggest that it is a chronic condition. These cases support results from research on the effects of sexual trauma on an individual's mental health because the identified risk of PTSD indicates that its effects can be felt in various capacities, such as interpersonal, occupational, and overall functioning (Rothman *et al*., 2021). Further, some physiological changes in the brains of sexual assault survivors, including stress and trauma, are different, which makes PTSD a complicated disorder.

Depression and PTSD Comorbidity

Post-traumatic stress disorder and major depression often co-occur in women who have been sexually assaulted, and the two make up a double picture of distressed disorder that aggravates the mental health needs of the patient. Components of PTSD are combined with depressive symptoms, which include hopelessness, lack of interest, and fatigue, thus increasing the severity of PTSD by giving way to negative thoughts and diminishing the coping abilities to trauma stimuli (Ahmadabadi *et al*., 2020). More biochemical underpinnings are discovered suggesting that PTSD and depressive symptoms in these survivors are associated with a disharmonized Hypothalamic pituitary adrenal axis (HPA) sign where an increased amount of adrenocorticotropic hormone (ACTH) and cortisol are associated with increased PTSD and depressive symptoms severity (D'Elia *et al*., 2021). These neuroendocrine alterations combined with increased cortisol responses explain this increased risk and chronicity of both PTSD and depression in this population and underscore the importance of combined treatment for both conditions.

The Moderating Role of Trauma Type and Frequency on Mental Health Consequences

Changed Neural Brain Functioning and Sexual Assault

Forces accompanying rape and other types of sexual assault encourage unique neurobiological reactions that worsen the mental health condition. The experiments indicate that the survivors do have a damaged HPA axis, which results in average elevation of cortisol, a hormone that signals chronic stress and anxiety. They affect this component's ability to regulate emotions, and its chronicity helps establish states such as PTSD and depression (D'Elia *et al*., 2021). In addition, neuro-chemical findings reveal that due to traumatic changes in the neural connections within the areas associated with stress response, memory as well as affect regulation, there drudges a long-term effect on mental health, making the individual more predisposed to developing PTSD and depressive disorders (Ahmadabadi *et al*., 2020). Therefore, the results shown should encourage the development of trauma-informed methods for treating clients who experienced sexual abuse, focused on reestablishing normal function of the HPA axis and the related symptoms.

Strangulation is a severe factor in PTSD development

When violence includes strangulation, there is suspicion of sexual assault, and PTSD symptom severity is higher. There may be cognitive impairments that occur due to hypoxic brain injury (Valera *et al*., 2022). However, patients exposed to strangulation demonstrated higher PTSD rates and a decrease in several such parameters as memory, attention, and executive function. These cognitive effects aggravate the psychological consequences as they disallow a survivor from leading an everyday productive existence; they thus create dependence and yet more psychological suffering. Neurophysiological effects of strangulation reveal the need to consider trauma-related factors in the course of treatment since these clients experience cognitive disability.

Psychological Consequences and Functional Disability

Depression and Anxiety Duration

The ration of the rape incidences is increasing day by day and has the lethal physical effects, and psychopathology lasts for the entire life as anxiety and depression persist for years after rape. For instance, cross-sectional research concerning college sexual assault survivors shows that these people suffer severe academic and social disabilities because of persistent mental disorders (Rothman *et al*., 2021). The dysfunction profiles consist of pathological sustained

worry, including hypervigilance and features of generalized fear that further impair socio-occupational adjustment, leading to the perpetuation of a cycle of isolation and diminished quality of life. Since many of these presented symptoms are long-standing, there is a concern with having constant therapeutic intervention to help survivors cope with the other stressors they are bound to encounter in life as they try to reclaim their lives again.

Social and cognitive functioning

Researchers found that sexual assault survivors diagnosed with PTSD exhibited noticeable deficits in memory, attention, and executive function based on standardized neuropsychological testing, and these deficits were most significant among the victims displaying severe physical injury such as strangulation.

All of these impairments hinder daily living and decrease the quality of life by impairing the survivor to manage daily tasks, diminishing the capacity to work, operate social relationships, and timely independence (Valera *et al*., 2022). Based on these findings, there is an indication of the areas that call for the need for cognitive rehabilitation and skills training: It may be understood that there is a necessity to increase the perception skills and apply the usage of new skills, which would enable the PTBI survivors to become more independent and lead better lives.

Cognitive Behavioral Therapy: A Case for Facilitated Acceptance

Trauma-Focused Cognitive-Behavioral Therapy

Trauma-focused CBT is beneficial for managing PTSD symptoms among sexual assault survivors. This therapy is aimed at targeting traumatic thoughts and avoidance behaviours Thus, promoting the ability of the survivor to manage difficult memories in a clinical setting (Keynejad *et al*., 2020).

The literature high-lights that trauma-focused CBT makes a vast difference in eliminating intrusive thoughts and hyperarousal symptoms to get a handle on triggers and regain normal emotional functioning. Due to JMPD's sustained existence in SA survivors, Trauma-focused CBT is a well-articulated and empirical technique for eradicating symptoms, making it one of the best-recommended reforms.

Complementary Therapies

Complementray therapies are known as beneficial modifications for survivors having difficulties with direct exposure therapies. Some studies show that integrating mind art with mindfulness has an impact on decreasing such negative emotions as anxiety, depression, and shame. The survivors can have indirect coping styles with trauma experiences (Goodarzi *et al*., 2020).

These therapies help moderate self-organizing capacities, dealing with the expression of affect, specifically fancy, nonverbal therapies that provide a protected and contained procedure to discharge sophisticated feeling states. Furthermore, mindfulness helps survivors learn self-compassionate and how to be accepting of themselves, thus reducing trauma shame, which has been a limitation of verbal talk therapies.

Interpersonal Psychotherapy for PTSD (IPT-PTSD)

IPT-PTSD, the non-exposure-based therapeutic model, also emerged as a competent strategy that identifies interpersonal psychotherapy for the treatment of PTSD through interpersonal transactions and management of coping strategies in a sample of recent sexual assault survivors. This approach is specific for those survivors who may not be willing to participate in trauma-reminded therapies that involve remembering terrible incidents (D'Elia *et al*., 2021). IPT-PTSD helps to establish social support and focuses on acquiring skills that enable the client to avoid experiencing the adverse psychological effects of trauma, something which has the benefit of not requiring direct exposure to the traumatizing event. It has been assisting the survivors in their efforts to deal with emotions and develop new interpersonal relationships on the road to achieving a state of permanent psychological equilibrium.

Table 2 shows the effects of different types of abuse on women and the effects which include depression, anxiety, PTSD, cognitive symptoms and references to the respective studies. It involves data from various populations such as: adolescents, college learners, and IPV survivors zeroing in on the various psychological consequences of abuse.

Table 2: Abuse Impact Summary.

Number of Women	Type of Abuse	Outcome of Abuse	Study
31 adolescent females	Rape	22.6% had Major Depressive Episode, 12.9% had Stress-Related Disorders, 16.1% had Anxiety Disorders	Immediate and Long-Term Mental Health Outcomes in Adolescent Female Rape Survivors (Oshodi *et al*., 2020)
640 college students	Childhood Maltreatment	Increased odds of PTSD, Anxiety, and Depression, with social support as a significant mediator	Assessing the Mediating Role of Social Support in Childhood Maltreatment and Psychopathology (Lagdon *et al*., 2021)
201 college students	Sexual Assault (College)	Long-term depression, anxiety, PTSD, lower emotional/sexual intimacy, and academic challenges	Sexual Assault Among Women in College: Immediate and Long-Term Associations (Rothman *et al*., 2021)
16 women	Sexual Assault (General)	Mindfulness and art-making significantly reduced depression, anxiety, and shame symptoms	The Effectiveness of Combining Mindfulness and Art-Making on Mental Health (Goodarzi *et al*., 2020)
2940 women	Intimate Partner Violence (IPV)	Anxiety reduced post-intervention (dSMD 0.31), but no improvement in PTSD and Depression	Psychological Interventions for Common Mental Disorders in IPV Survivors (Keynejad *et al*., 2020)
1529 women	IPV (Emotional and Physical)	New cases of major depression in adulthood, anxiety linked with prior diagnoses; emotional abuse significant	Intimate Partner Violence and Subsequent Depression and Anxiety Disorders (Ahmadabadi *et al*., 2020)
58 women with PTSD	Sexual Assault	PTSD with elevated cortisol and ACTH levels; comorbid depression associated with greater HPA-axis dysregulation	PTSD and Depression Severity in Sexually Assaulted Women (D'Elia *et al*., 2021)
99 women	IPV (Strangulation)	Cognitive impairments (memory loss, working memory deficits) and heightened PTSD/depression	Strangulation as an Acquired Brain Injury in IPV Survivors (Valera *et al*., 2022)

Challenges to Receiving Mental Health Services

Identity Crisis, Mental Health and Legal Issues

A victim of sexual assault will suffer from social isolation, and this acts as a discouragement to engage in any form of mental health services seeking or reporting of the assault. This is even more so where sexual violence is associated with social or familial consequences – the survivor takes on elements of shame and guilt (Goodarzi *et al*., 2020). Chronic internalized stigma is not only the worst of mental health but also works to the detriment of response latency, leading to chronic psychological suffering. One needs to connect with like-minded people who have grown up with similar disgusting tales and then ensure that the world does not judge them when they speak out.

Resource Constriction in Low-Income Context

In low-income settings, mainly, mental health services are hard to come by *et al.* one specialized trauma therapies. All this hampers a survivor from getting the proper care that they require; this means that there is a continuity of mental health problems such as PTSD and depression in the long run. Poor-resource settings include brief, task-shared psychological treatments that involve healthcare workers have been reported to be somewhat effective, especially in reducing anxiety as well as psychological distress (Keynejad *et al*., 2020). Expanding these interventions for the treatment of trauma, as well as contextualizing them for culture, should help increase mental health among survivors.

Table 3: Thematic analysis of PTSD, depression, and intervention strategies.

Theme	Sub-theme	Findings	Citations
Prevalence and Severity of	PTSD as a Primary	PTSD is prevalent in up to 50% of sexual assault survivors and is characterized by intrusive symptoms, hypervigilance, avoidance, and	(D'Elia *et al*., 2021)

PTSD and Depression	Outcome	mood alterations. This high prevalence underlines the need for trauma-specific interventions.	
	Comorbidity of Depression and PTSD	Depression often coexists with PTSD in sexual assault survivors, intensifying the overall mental health burden. HPA axis dysregulation (e.g., elevated ACTH, cortisol) correlates with depressive symptom severity, supporting an integrated treatment approach.	(Ahmadabadi *et al*., 2020)
Impact of Trauma Type and Intensity	Sexual Assault and Neurobiological Changes	Sexual trauma induces HPA axis dysregulation, causing elevated cortisol levels, impacting emotion regulation, and reinforcing PTSD and depression. These neurobiological changes suggest trauma-sensitive therapies targeting HPA dysregulation.	(D'Elia *et al*., 2021)
	Strangulation and PTSD Development	Strangulation during assault is associated with hypoxic brain injury, leading to higher PTSD rates and cognitive impairments, such as memory loss and attention deficits. These severe impacts necessitate specialized interventions focusing on both cognitive and psychological support.	(Valera *et al*., 2022)
Long-Term Psychological and Functional Impacts	Persistent Anxiety and Depression	Sexual assault leads to long-term anxiety and depression, affecting survivors' interpersonal relationships, academic performance, and professional life. Persistent symptoms indicate the need for ongoing mental health support.	(Rothman *et al*., 2021)
	Social and Cognitive Functioning	Survivors, especially those with physical trauma (e.g., strangulation), exhibit cognitive impairments that interfere with daily functioning. These impairments highlight the importance of cognitive rehabilitation and skill-building interventions.	(Valera *et al*., 2022)
Effective Interventions	Trauma-Focused CBT	Trauma-focused CBT is effective for PTSD in sexual assault survivors, reducing intrusive thoughts and avoidance symptoms. It is a structured, evidence-based therapy beneficial for emotional regulation.	(Keynejad *et al*., 2020)
	Alternative Therapies (Mindfulness, Art-Making)	Mindfulness and art-making therapies reduce anxiety, depression, and shame by providing non-verbal emotional outlets. These approaches benefit survivors who struggle with verbal expression of trauma.	(Goodarzi *et al*., 2020)
	Interpersonal Psychotherapy for PTSD (IPT-PTSD)	IPT-PTSD, a non-exposure-based therapy, is effective for recent sexual assault survivors, fostering emotional support and coping without direct trauma confrontation, making it suitable for sensitive cases.	(D'Elia *et al*., 2021)
Barriers to Accessing Mental Health Care	Stigma and Underreporting	The cultural stigma surrounding sexual violence prevents survivors from seeking mental health support, leading to untreated chronic distress. Addressing stigma is crucial for improving help-seeking behaviours among survivors.	(Goodarzi *et al*., 2020)
	Resource Limitations in Low-Income Settings	Mental health resources are limited in low-income regions, preventing survivors from accessing trauma care. Task-shared psychological interventions offer a scalable solution for these settings, especially for managing anxiety and distress.	(Keynejad *et al*., 2020)

5. Discussion

The results of the present study contribute to the existing knowledge about the multifaceted psychological and neurobiological consequences of sexual trauma for women, including PTSD and depression rates, neurochemical changes associated with trauma, and the benefits of targeted psychological treatments. These outcomes share prior findings which indicate that PTSD is common among survivors, with PTSD prevalence in women who have faced sexual violence at up to 49% (D'Elia *et al*., 2021). This correlates with research done by Sabri (2021), which established that women who are subjected to IPV have higher PTSD than men, as well as those who receive multiple types of IPA (Sabri, 2021).

Depression escalates the emotional trauma and increases the severity of the case, making the process of getting over it very hard when PTSD accompanies it. This comorbidity has substantial neurobiological substrates supported by disruption of the HPA axis involving increased cortisol and ACTH. These modifications are directly associated with the intensity of both PTSD and depressive symptoms, indicating that the overall stress response remains elevated and continues to contribute to psychological dysfunction and indicate traumatic stress and inflammation as robust contributors toward persistent mental illness (Ahmadabadi *et al*., 2020). These neurobiological findings are in line with the World Health Organization's 2013 global research that estimates that one in every three women experiences some IPV or sexual violence (Organization, 2013). The neurobiological impact of trauma, especially where violence involves physical aggression such as strangulation, is almost devastating. Choking is connected with hypoxic encephalopathies, causing memory, attention, and prefrontal cortex dysfunction. Cognitive difficulties of this nature combined with PTSD can hamper the survivor's simple daily functioning and well-being (Valera *et al*., 2022).

Further, dysregulation of the HPA axis, for example, increased cortisol levels, suggests a chronic stress response underlying heightened awareness and altered emotional regulation leading to aggravation of PTSD later in life (D'Elia *et al*., 2021). Therefore, there is evidence that to support trauma survivors, neurobiological ones should assist psychological therapeutic approaches for a lasting effect (Golding, 1999). Survivors also have residual deficits based on social and cognitive adaptive behaviour. Chronic anxiety and depression can contribute to problems in maintaining relationships and achieving in school and on the job (Rothman *et al*., 2021). Cognitive impairments are especially severe in the survivors of severe physical trauma like strangulation, and such a disability hampers the everyday functioning and autonomy of such an individual (Valera *et al*., 2022). Therefore, the present results underscore the necessity of comprehensive mental health care, including psychological treatment and cognitive recovery, for their rehabilitation and quality of life enhancement. The findings also identify specific kinds of therapies, including trauma-centered CBT and IPT-PTSD, employed in the treatment of sexual assault survivors with unique needs. It means that trauma-focused cognitive behavioural interventions help to alleviate symptoms such as intrusive thoughts and avoidance behaviors by allowing survivors to process trauma memories in a controlled environment (Keynejad *et al*., 2020). Also, complementary treatments can be defined as non-verbal techniques that help the survivors find ways of processing trauma, anxiety, depression, and shame, getting emotional release and when speaking may be difficult (Goodarzi *et al*., 2020). IPT-PTSD that does not involve learning homework traumatic narratives is the second empirically supported treatment for survivors, especially for those who experience high severity of trauma symptoms while undergoing trauma-focused therapies. IPT-PTSD focuses on enhancing support and coping, letting clients know they have no reason to go over the events that caused them harm and feel secure (D'. These available therapeutic types show survivors' treatment requires diverse, flexible management approaches. Unfortunately, even though such treatments are helpful, mental health care remains inaccessible to a large number of survivors (Goodarzi *et al*., 2020). Furthermore, under developed nations have been reported to have strained access to several mental health services. Integrated interventions carried out by community health workers have also been identified to have the potential for effective delivery of mental health services because they can be cost-effective and easily scaled up to reach a large number of people affected, thereby helping a significant number of people living with PTSD and other mental health disorders in underserved settings (Keynejad *et al*., 2020). More such community-based interventions and dismantling the cultural mentality of stigma are two strategies that need to be bolstered and put in place to enhance the mental health of the survivors and improve recovery in the community. This study underscores the urgent post-rape psychological and neurobiological change interventions alongside system advocacy for mental health services. These findings highlight the need for global, long-term, evidence-based, easily accessible, and survivor-centered mental health care for IPV and Non-Partner Sexual Violence

(NPVSV) survivors. Clinical studies of specific neurobiological instances relevant to trauma reactions and treatment based on the interaction of various psychological, cognitive, and social processes in promoting the survivors' successful functioning.

6. Conclusion and Recommendations

This study provides an overview of the severe psychological and neurobiological effects of sexual assault for females, nucleus PTSD, depression, and cognitive deficits that interfere with the recovery process. Research studies indicate that organic alterations in the brain that are a result of trauma, such as HPA axis and hypoxic brain injuries, impair the ability to cope with PTSD symptoms and limit cognition effectively. Using a full range of appropriate therapeutic models, including but not limited to the currently recommended trauma-focused CBT, IPT-PTSD, and other complementary and alternative treatments, can provide clients with a practical, integrated treatment that is sensitive to their particular needs and issues. However, the main obstacles, like structural stigma and insufficient funding in poor regions, contribute to the denial of necessary treatment by many survivors. More community programming and the lack of stereotypes portraying cultures are profound steps toward improved mental health. Finally, trauma-informed, accessible, and holistic mental health services are required to enhance the resilience and recovery of the survivors; in addition, additional studies on neurobiological correlates and malleability of the treatment methods for improving the effectiveness of the strategies for survivors' treatment are needed. Some of the study's limitations include the fact that the study is based on an analysis of published literature, which may not include experiences of hard-to-reach groups such as older women, ethnic minorities, and poor people, or settings. Furthermore, while presenting neurobiological effects such as alterations in the HPA axis, the study lacks physiological indices, so a more objective diffusion, including biomarkers and neuro-imaging, may be helpful in a subsequent study. Likewise, most interventions-to-recovery studies also mainly consider short-term outcomes of the treatment, raising questions regarding long-term recovery. The following research studies should consider offering samples of various demographic characteristics, adding physiological parameters, and creating culturally tailored treatment approaches, particularly for the least privileged communities. Additional examination of non-conventional strategies, like Mindfulness and creative art, might help improve the range and quality of trauma-informed practices for survivors who do not tend to benefit from standard approaches to treatment.

7. Author Contributions

The author has contributed to writing, designing, compiling, and editing the final manuscript.

8. Ethical Clearance

Not applicable

9. Acknowledgement

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10. Conflicts of Interest

The author does not have any conflict of interest.

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