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Review Article

Identification of child sexual abuse and prevention of psychiatric morbidity

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ABSTRACT

Child sexual abuse (CSA) is a hidden and under-reported problem in psychiatry. CSA has been studied in various epidemiological data based studies and has been found to be a significant risk factor for the development of psychiatric illness in later life. Depression, suicide and suicidal attempts as well as self-injurious behaviour have all been reported to be significantly greater in patients than have been exposed to CSA versus those who have not been exposed to the same. There are studies that demonstrate higher rates of substance abuse, body image disturbances, eating disorders and cluster B personality traits in patients that have been exposed to CSA. The paper looks at the available data on lifetime occurrence of psychiatric disorders in patients that have been exposed to CSA. The various mechanisms by which CSA exposure can lead to psychiatric disorders in adulthood are discussed and the need for identification, assessment and clinically evaluating the presence of CSA in patients in routine clinical practice is highlighted.

Keywords: Psychiatric disorders, Child sexual abuse, Depression, Suicide, Eating disorders, Lifetime

INTRODUCTION

Risk factors play a very important role in the development and genesis of psychiatric disorders. The neurobiology and developmental trajectories by which various risk factors may lead to psychiatric illness is however poorly understood. The same goes for the fact on mechanisms of how two different individuals affected by the same trauma may or may not develop psychiatric morbidity. A number of such risk factors have been reported in literature.[1] In the last 15-20 years a large body of research points to trauma exposure as a risk factor contributing to a number of physical and psychiatric illnesses.[2]

Trauma and exposure to a traumatic event not only determines the manifestation of the illness but also influences the course and outcome as well as effectiveness of treatments in the occurring disorder.[3] Child sexual abuse is a form of trauma that has a long lasting impact in those exposed to it. It has many noted that victims of child sexual abuse have a greater preponderance to develop psychiatric disorders than the normal population. Patients exposed to the trauma of child sexual abuse present with often unexplained physical symptoms that may be symbolic of underlying depression and also use healthcare and psychological services more than other patients of the same age.[4-5] In this paper we try to briefly analyze the long term impact of child sexual abuse in the genesis of psychiatric

disorders and try to highlight the importance of this common yet neglected risk factor in clinical practice.

For the purpose of this paper, we shall restrict ourselves to child sexual abuse alone and not look at child physical abuse or other forms of maltreatment. We shall also highlight the long term sequel of child sexual abuse and look at various factors leading to its neglect as well the need to recognize its presence.

Child sexual abuse as a significant risk factor

Child sexual abuse (CSA) is a significant risk factor when compared to many other risk factors in childhood and adolescence. This stems from the fact that CSA is a repeated phenomenon and goes unreported for months and years till the problem comes to the fore. The cumulative burden of CSA is thus immense. One must note that the prevalence of CSA in population estimates ranges from 5-44% for women and 1-22% for men.[6] These are figures for CSA alone and the figures for all forms of child abuse and maltreatment must definitely be higher. CSA is also an important risk factor as it destroys the self-image and personal well-being of the victim along with mixed emotions ranging from anger to confusion and guilt being present in each event of CSA. Social support in many victims of CSA is minimal as the perpetrator is often a primary caregiver, parent or a family members and parents often tend to suppress what has happened, turn a deaf year to the problem and sometimes even blame the child in view of the shame and stigma associated with the problem.[7,8] Very often in psychiatric interviews, a history of CSA is not asked as doctors are not trained to ask every patient the same except when suspected and even patients may not bring up a history of CSA until the second or third visit once rapport and trust in the doctor is established. Thus many cases are missed in clinical practice too. CSA is an important risk factor as it occurs at a time the brain is in rapid development and can cause permanent and far reaching neuronal level and neurobiological abnormalities in the subjects exposed to the phenomenon. Lastly CSA also hampers psychological growth and causes the individual to be vulnerable to develop psychiatric disorders later in life.[9-10]

REVIEW OF LITERATURE

The aim of this review was to highlight that CSA is a significant risk factor for the development of psychiatric disorders later in life. A comprehensive search for articles was performed amongst all age groups, all languages and populations between 1980 and 2015 in databases like Pubmed, Google Scholar, Scopus, EMBASE and the Cochrane Review database. Relevant keywords were used to define the concept areas of sexual abuse and psychiatric disorders and mainly epidemiological studies were selected for this paper. The studies selected were longitudinal observational studies that compared individuals with a history of CSA and a control group. CSA included child rape (vaginal, anal and/or oral penetration) and other forms of CSA which included sexual violence including but not limited to threatened sexual violence, non-contact exposure of genitalia and exposure to pornography or sexual imagery. A totally of 138 studies was extracted via the search and studies most relevant for the paper were reviewed for the study. The study all had victims exposed to CSA and prevalence rates of one or many psychiatric disorders occurring as a result.

CSA and the risk of psychiatric disorders in later life

General data

Recent research shows that CSA is common in psychiatric patient populations.[11] Further psychiatric illnesses are also highly prevalent among people who have undergone CSA and childhood adversities. Estimates of CSA in a retrospective population based sample were found to be 8-32% in females and 1-16% for men.[12] In a community sample responders to a questionnaire, 14.2% of men 32.3% of women reported experiencing sexual abuse.[13] Data from National Comorbidity Survey indicated a relationship between CSA and subsequent onset of psychiatric disorders, which include major depressive disorder, post-traumatic stress disorder, social phobia, and substance use disorder. 78% of women and 82% of men who reported sexual abuse in childhood met the criteria for at least one life time psychiatric disorder versus 49% and 51% for those who did not report CSA.[14]

Depression

CSA is associated with early onset of depression in patients. Lifetime rates of major depressive disorder have been reported to be significantly higher in populations that have experienced CSA than those who have not.[15] A linear dose response relationship has been reported between the severity of CSA and major depression in later life. Depression rates increase further when CSA is coupled with other forms of abuse as well.[16] Increased rates of chronic or recurrent depression have been reported in cases that documented CSA during their history taking sessions. Sexual abuse involving intercourse and penetration has been associated with far greater rates of depressive disorder than other forms of CSA.[17] A history of CSA has also been reported as a marker for an earlier onset of depression, a longer course of the illness, greater number of depressive episodes and even longer duration of time taken to respond to conventional drug treatments.[18] Combined use of medication and psychotherapy has been demonstrated to benefit patients with CSA and depression better than medication when used alone though one study demonstrates that psychotherapy may be more effective in patients exposed to CSA.[19,20] Female gender has been found to be predisposed to a greater risk of depression than males when exposed to CSA.[21] Self-esteem

impairment and somatoform symptoms have been reported in a large proportion of subjects with depression and exposed to CSA compared to other subjects with depression.[22]

Suicide and self-injurious behaviour

The experience of CSA has also been linked to greater number of suicide attempts in adulthood. Few primary care studies replicate this finding.[23,24] The number of suicide attempts and self-injurious behaviour increase with increase in the duration and severity of abuse.[25] Exposure to CSA has also been linked to non-suicidal self-injurious behaviour in both adults and adolescents while some studies have a reported a small moderately significant association between a history of CSA and the development of borderline personality disorder later in life.[26]

Anxiety disorders

High incidences of post-traumatic stress disorder (PTSD) have been reported after exposure to CSA. In these subjects there has been observation of a larger number of dissociative symptoms than patients with PTSD exposed to other trauma.[27,28] High proportion of panic attacks, social anxiety and behavioural inhibition as a trait have been reported in victims of CSA.[29] Anxiety disorders in this group shows female preponderance and is greater when the abuse has been more severe, of longer duration and repeated.[30]

Other psychiatric disorders

Higher incidences of alcohol related problems, alcohol dependence, opioid dependence, substance abuse in general have been reported in patients with a history of CSA when compared to the general population.[31] Higher incidence of eating disorders, anorexia nervosa and bulimia along with body image disturbances have also been reported in this population. History of CSA leads to number of physical disorders, sleep disturbances, and schizophrenia.[32-36] Higher incidences of medical visits, unexplained medical symptoms like backache, headache, abdominal pains and pelvic pains undiagnosed by medical investigations have been reported in victims of CSA leading to increased healthcare utilization.[37] Cases of CSA living in families having conflict within themselves and less cohesive families are at a greater risk for the development of psychological distress and psychiatric disorders in general.[38] History of CSA has also been documented to increase the risk for bipolar disorder, mood swings in general, and cluster B personality disorders.[39] All these illnesses when seen in victims of CSA have early onset, high prevalence of comorbid psychiatric disorders, show a downhill course and relatively poorer response.[40] They also lead to greater psychiatric disability, increased general disability, higher rates of hospitalisations, severe non-compliance and increased utilisation of health care facilities.[41]

Mechanisms on the links between CSA and psychiatric disorders

There are two possible mechanisms involved in manifestation of mental health problems those exposed to CSA. Children and adolescents regardless of their race, culture or economic status appear to be at approximately equal risk for sexual victimisation.[42] Girls are sexually abused to a greater extent than boys.[43] However boys and later men have a tendency not to report their victimisation and this may affect gender statistics. In general CSA remains a hidden problem. It is not very frequently disclosed in the family and not very often reported to law enforcement agencies. Consequently the experience of shame, guilt and trauma remains within the person and causes severe distress. It affects almost all areas of their functioning until it is dealt with in psychotherapeutic intervention.[44] Patients with a history of CSA show problems in the areas of work, occupational functioning, social functioning, marital happiness, sexual functioning and sexual satisfaction, which in turn may lead to psychopathology.[45]

Another important mechanism to explain mental health problems related to CSA is based on psychological pathways. As it is widely known that such traumatic events happen while the personality is developing, self-esteem is being formatted and preadolescents and adolescents are learning skills of coping mechanisms. These traumatic events cause a devastating impact which arrests the healthy growth of personality, self-esteem and coping with which consequently the person grows with a poor self-esteem and self-image, poor frustration tolerance and abnormal psychological defence mechanisms. All these factors collectively lead to physical, behavioural and mental health issues.[46,47]

It is important to realise that suffering of consequences of CSA gets further complicated due to presence of adverse life situations, e.g. single parenting, legal problems, poor economic conditions, frequent setbacks in interpersonal relationships and presence of mental disorders in parents. Research has not adequately looked into cumulative effect of CSA and other childhood adversities which remains an area for future enquiry.[48]

Due to limitations in growth of personality individual's 'psychological reserve' remains poor leading to low functioning, poor quality of life, and high medical and psychiatric morbidity. The most important pathway for development of psychiatric disorders after exposure to CSA is neurobiological. Identification of neurobiological substrates of early adverse experiences is of paramount importance in order to develop strategies to prevent or reverse its detrimental effect. It is well known that preadolescent and adolescent periods are ones in which significant brain maturation goes on and any insult at this stage may hamper neuronal growth, distribution and brain circuit connectivity in a reversible manner. Before we begin discussing the biological mechanisms (which is

definitely beyond the scope of this review), we need to remember that these neurobiological mechanisms are not necessarily mediated by the traumatic event in childhood.[49,50]

The traumatic events in preadolescent and early ages itself causes neurobiological changes and therefore in some individuals these changes are caused only due to childhood adversities however in a significant number of patients these brain changes are cumulative effect of factors discussed above. Tremendous inroads have been made into understanding the neurobiological basis of psychiatric disorders and the influence of life events on risk and resilience. Persistent sensitisation of CNS circuits as a consequence of early life stress which are integrally involved in the regulation of stress and emotion may represent underlying biological substrate of an increased vulnerability to subsequent stress as well as development of mental disorders. This is further enhanced with the effect of exposure to CSA. Broadly the current understanding of neurobiological changes seen in mental disorders are collective evidence obtained from the field of neurochemistry, neuroendocrinology, neurophysiology, genetics, and gene environment interaction as well as epigenetics.[51-53]

It still remains undetermined as to how much of these neurobiological changes are a reflection of pre-existing brain changes and how much are they the result of direct biological effect of risk factor experienced during the developing phase of CNS.A possible simplistic understanding comes from intensive research efforts which have been expanded to better characterise the genetic underpinnings of mental illnesses. Recent technological advances including the completion of human genome inventory, chromosomal mapping, high DNA sequencing and others offer the promise of someday identifying the genetic basis of mental illness.[54] The important neurobiological changes seen in psychiatric disorders amongst individuals who have experienced CSA are serotonin and CRF [corticotrophin release factor], neuroimaging, cognitive changes, electrophysiological changes, and findings from gene environment interaction. Studies have confirmed the link between reduced serotonergic function and serious suicidal acts.[55-57] They have localised the changes in ventral prefrontal cortex.[58] There is some suggestion how genetics, childhood rearing, alcoholism, substance abuse can modulate suicide rates through effects on serotonergic system.[59]

Early life adversities result in long lasting changes in CRF-mediated stress response, as well as leads to HPA-axis [hypothalamic pituitary adrenal] activation.[60] Both these changes increase risk of depression in genetically predisposed person. Identification and cloning of CRF receptors and characterisation of their role in stress response have enabled a better understanding of maladaptive response to early life adversity. Thus there are neurochemical and neuro endocrinal changes which appear to be specific to a particular stress resembling childhood adversity which can be physical or emotional trauma or CSA.[61] Early severe stress and maltreatment produces a cascade of neurobiological events that have the potential to cause enduring changes in the brain as discussed above this is perhaps most important condition which increases biological vulnerability. These changes though occur on multiple levels from structural and functional changes however their mechanism remains undetermined. It is less like that it may be the consequence of straight forward neurochemical changes. It is not known whether neuroprotective and neuroplasticity mechanisms are also involved.[62] The major structural consequences of early stress include reduced size of the corpus callosum, left neocortex, hippocampus and amygdale.[63-66] These changes provide a framework for developing PTSD, depression, ADHD, borderline personality disorder, identity disorder and polysubstance abuse.[67]

Major functional consequences include increased electrical irritability in limbic structure and reduced functional activity. Animal experiments also show that both positive and negative events early in life can influence neurobiological development in unique ways. Early stressors such as maternal separation result in lasting effect on stress responsive neurobiological changes including HPA-axis and NA-axis [noradrenergic system]. To summarise despite limitations and clear understanding, CSA is not merely a psychological risk but also a potential biological risk. These factors lead to the changes in brain function which increases individual's vulnerability and inconjunction with several genetic and neurobiological factors that lead to a psychiatric syndrome. Though a host of research advances have been made, their findings stand alone in isolation. There is a lack of longitudinal studies which can help develop a clear pathway due to which CSA leads to psychiatric morbidity, either alone or in combination of a number of other psychosocial stressors.[68,69]

The need to clinically assess for CSA

Epidemiological, phenomenological and neurobiological data described above pose newer clinical challenges. It has been highlighted that presence of trauma, childhood adversity, physical emotional and sexual abuse are the factors which will determine diagnosis course and outcome in day to day work. Thus it would be necessary to explicitly explore these factors and take it into account when a care plan is being developed for both outpatient and inpatient.[70] A very small number of patients express this while giving their history. Therefore it needs to be a mandatory part of clinical inquiry during history taking itself. Since it affect effectiveness of treatment it is also important to enter into partnership in care with the patients to support and encourage undergoing psychological intervention for CSA. A management howsoever comprehensive it is, which does not take into account clinical aspects of childhood trauma, shall remain

incomplete. Success of treatment obtaining good level of compliance, prevention of rehospitalisation, and repeated suicide attempts can be minimised by appropriate psychological management. Clinician should realise that flash backs of the event of trauma can be life threatening because it can precipitate an incident of self-harm. As more research data becomes available better patient centric management would be possible.[71]

CONCLUSION

CSA is thus a problem though highly prevalent often hidden and not revealed in clinical practice. CSA is highly traumatic in nature and has long lasting psychological and neurobiological ramifications that result in the genesis of psychiatric disorders in adulthood many years after the CSA has occurred. It is prudent that we recognize CSA as a risk factor for psychiatric illness and facilitate its detection and management at the earliest in patients presenting to either clinics or the outpatient departments. Students and clinicians need to be sensitized into the habit of asking about CSA in every patient seen in routine clinical practice.

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