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Non suicidal self-injury

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Introduction

Self-injury with or without the intent of ending one's life has been reported frequently in literature. The act of self-injury has been referred to by a plethora of terms like para suicide, suicidal attempt, deliberate self-harm, deliberate self-injury. These terms have been used interchangeably, possibly clubbing together different disorders. For instance deliberate self-harm (DSH) is defined as self-poisoning or injury with a non-fatal outcome irrespective of the purpose of the act, using it as an umbrella term for both suicidal and non-suicidal self-injury (NSSI).

Separating the self-injury depending on the intent to die while committing the act, such behavior has been divided into suicidal attempt/behavior and NSSI. Suicide attempt is defined as a purposeful self-inflicted non-fatal injury performed with intent to die. NSSI on the other hand is defined as the deliberate, self-inflicted destruction of body tissue without suicidal intent and for purposes not socially sanctioned, includes behaviors such as cutting, burning, biting and scratching skin.[2]

Various differences are pointed out between NSSI and suicidal injury. Suicidal self-injury is often associated with thoughts of death and dying, use of single high fatality methods and reactions of compassion and care from the environment. NSSI on the other hand is associated more with thoughts of alleviating distress, use of multiple low lethality methods evokes hostility from the environment.[3]

The difference between NSSI and suicide attempts is however far from being so clear cut and defined. Critics of the categorical separation of suicidal and non-suicidal self-injury have argued in favor of a more dimensional construct owing to the difficulty in accurately delineating suicidal intent.[4]

There is also a considerable overlap between the two, with higher frequency of NSSI increasing the risk for suicidal behaviour.[5] Not only do they increase the risk, often they tend to co- occur. 14-70% of clinical samples of adolescents and 3.8% to 7% of community samples showed co-occurrence. Generally, individuals with a history of both types of self-injurious behaviors demonstrate increased symptomology in comparison with individuals with NSSI or attempted suicide alone.[6]

Till diagnostic and statistical manual (DSM 5) NSSI has always been studied as a part of other psychiatric disorders. The recent understanding that the risk and protective factors for suicidal and non-suicidal self-injury maybe different and that the NSSI can occur independent of other psychiatric disorders has led to the inclusion of NSSI in DSM 5, under section III as a condition for further study

Supporting the view that NSSI is indeed an independent diagnosis despite the overlap with suicidal injury, a recent study in community samples of adolescents has shown prevalence of NSSI to be 17-18%.[7] And in clinical samples of adolescents to be 40%.[8] In a community sample of very young adolescents between the age groups of 12-16, 27% reported thoughts of self-harm and 15% reported at least one act of self-harm.[9] The prevalence was reported to be 4–23% among adults.[10] Self cutting was reported to be common among women, whereas hitting, burning and banging more among men.[11]

Clinical and psychosocial correlates

NSSI is reported to be more common in adolescents, females, low socioeconomic level families. Parent's marital status also seemed to have a significant effect in adolescents. Especially when parents had divorced and remarried. Other family factors like lack of parent-adolescent communication, low levels of family cohesion and support, and family conflict were also associated with adolescent suicidal attempts and NSSI. It is hypothesized that adolescents were possibly using self-harm methods to cope with the distress produced by such conflicts.

However a well-functioning family possibly has a protective role as well. Protective role of good communication and harmonious relationships cannot be more emphasized. Other factors like high self-esteem, social problem solving were also found to be protective.[12]

On being asked about the reason behind NSSI, the functions most often endorsed by those with NSSI are affect regulation, self-punishment and anti-dissociation feeling-generation.[13]

To elaborate further, NSSI can produce relief from inner turmoil, help distract from severe anxiety states and help to belong by formation of a cultural identity. It may also be done to get a sense of control over the pain and their lives, and sometimes to deal with strong feelings of guilt, shame, or self-hatred.

It is worth noting that some self-harm behaviors like tattooing are culturally accepted and therefore not considered abnormal.

Various psychiatric disorders also can present with self-harm. Affective disorders, schizophrenia, obsessive

compulsive disorder, dissociative disorders, eating disorders, substance use disorders are some of the axis 1 disorders associated. Depression was found to co-occur in 72.5% to 79.5% of the cases.[14]Anxiety disorders were also commonly reported in 72.5–89%, as was posttraumatic stress disorder (PTSD) with rates of 25.0–28.2%. In two studies of clinical adolescents with NSSID, 51.7% and 20.5% met criteria for borderline personality disorder.(4)

Antisocial and histrionic personalities were also found to be associated with self-harm.(15)

In a community sample of very young adolescents between the age groups of 12-16,insecure peer relationships, being bullied and low mood were some risk factors reported.(9)

Studies in children with attention deficit hyperactivity disorder (ADHD) showed significant association between ADHD and self-harm. Combined type ADHD and male gender were found to be more across studies. However females exhibiting ADHD tend to be more impaired with self-harm behavior followed up over the years.(16)

Impulsivity and self-harm

Before the advent of DSM5 ,NSSI was conceptualized only as a part of borderline personality disorder(BPD).However studies have shown difference in patients having NSSI with BPD and NSSI without BPD. Patients with NSSI and BPD showed more frequent and severe NSSI, greater diagnostic comorbidity, more severe depressive symptomatology, suicidal ideation, and emotion dysregulation than patients with NSSI without BPD.(17)

Much is talked about the association between impulsivity and DSH. However distinction between various types of impulsivity is not made. The mood based impulsivity and cognitive facets of impulsivity, each have different effects on NSSI .NSSI was found to be most consistently associated with mood-based impulsivity-related traits. However, cognitive facets of impulsivity (relating to difficulties maintaining focus or acting without forethought) differentiated current self-harm from past self-harm. These facets also distinguished those with thoughts of self-harm (ideation) from those who acted on thoughts .The findings suggested that mood-based impulsivity is related to the initiation of self-harm, while cognitive facets of impulsivity are associated with the maintenance of self-harm.(18)

Neurobiology

Proposed mechanism of NSSI is the chronic reduction in endogenous opioids beta-endorphins and met-enkephalin following childhood trauma. These endogenous opioids play a role in pain threshold and pain perception and therefore are likely to be implicated in NSSI, where there is a need for pain and reduction in emotional distress. An increase in endogenous opioids probably explains the increase in positive affect and reduction in negative affect following an episode of NSSI. This could also explain the use of opioid receptor blockers like naloxone and naltrexone which block the opioid receptors, prevent the reward associated with NSSI and gradually lead to extinction of the behavior.(19)

Role of social media in NSSI

Studies evaluating the role of social media platforms in self-harm have shown that they were commonly supportive and provided a sense of community among users. Support included suggestions for formal treatment, advice on stopping self-harming behavior, and encouragement. However it proved to be a double edged sword which harmed as much as it helped. Harm included normalizing and accepting self-harming behavior, discussion of motivation or triggers, and live depictions of self-harm acts.(20)

Risk factors for NSSI

The potential etiologic factors of NSSI may be divided into two major categories: individual (e.g., emotional dysregulation, psychiatric disorders) and environmental (e.g., childhood maltreatments, attachment disruption). Childhood maltreatment including sexual abuse and emotional neglect have emerged as predictors of NSSI within adolescents and college students. Of these sexual abuse has emerged as a significant predictor.(11)

However it's not the abuse alone but also the quality of the family context in which it occurs, that contributes to self-injury. Early maltreatment and less optimal upbringing experiences are thought to influence the capacity for emotion regulation and communication skills, increasing the need for NSSI as a coping behavior.(21)

Management

NSSI can be managed both pharmacologically and non-pharmacologically, often a combination of both.

Several psychotherapeutic interventions appear to hold promise for reducing NSSI, including

Dialectical behavior therapy (DBT), emotion regulation group therapy (ERGT), manual-assisted cognitive therapy (MACT) dynamic deconstructive psychotherapy. Psychotherapeutic management in adults with DSH in borderline personality disorders and other mixed personality disorders using psychoeducation, group and individual therapy, that incorporated DBT skills showed significant reduction in DSH.

No matter which psychotherapeutic approach is used, all stipulate two preconditions essential for treatment to be met: a supportive, collaborative therapeutic relationship and motivation for treatment. All the therapies proven to be effective are of short duration. (ERGT: 14 weeks, MACT: 6 sessions) and

studies suggest that initial treatment effects may persist up to 6 months beyond termination.

Pharmacological management has used antipsychotics, SSRIS, SNRIS to name a few. Of these evidence for efficacy is strongest for Ariprazole and ziprasidone, although in adults. In keeping with the proposed role of endogenous opioids in NSSI, Augmentation with naltrexone has also shown promise.[22]

Conclusion

NSSI is a matter requiring independent clinical attention as the morbidity associated with it is high. The vulnerable adolescent period is most susceptible to it, though the seeds for it are laid earlier in childhood. Exposure to trauma, unstable families and inability to regulate emotions lead to NSSI as a form of coping. Not all NSSI remain non-suicidal acts, a significant number end up in suicidal attempts, especially those acts that are repetitive. DSM 5 has already taken a step in the right direction by separating NSSI from other psychiatric disorders and including them in other conditions requiring attention. It is necessary therefore that more research be focused on this area to understand it further.

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