Int J High Risk Behav Addict.2012;1(1):9-13. DOI: 10.5812/ijhrba.4624

International Journal of High Risk Behaviors & Addiction

Trauma, Dissociation,and High-Risk Behaviors

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ARTICLE INFO

Article type:
Review Article

Article history:
Received: 07 Dec 2011
Revised: 20 Dec 2011
Accepted: 01 Feb 2012

Keywords:
Wounds and Injuries
Dissociative Disorders
Risky Behaviors

ABSTRACT

Epidemiological studies and clinical findings have shown an association between trauma and dissociation; dissociative experiences are also more prevalent among select populations such as substance dependent individuals and criminal offenders. In the present non-systematic review, we explored the association between trauma, dissociation, and high-risk behaviors. We aimed to find if the presence of dissociative symptoms could lead us to better understand and recognize those who are prone to high-risk behaviors, among individuals exposed to psychological trauma.

The present overview indicated a substantial relationship between dissociation and high-risk behaviors. We concluded that designing and establishing appropriate studies regarding the relationship between trauma, dissociation, and high-risk behaviors would enable health professionals to have a better understanding and recognition of people prone to high-risk behaviors, as well as implement more effective strategies to prevent high-risk behaviors among at-risk populations.

Implication for health policy/practice/research/medical education:
Implementing effective strategies to prevent high risk behaviors among at risk populations.

Please cite this paper as:
Kianpoor M, Bakhshani NM. Trauma, Dissociation and High Risk Behaviors. *Int J High Risk Behav Addict*. 2012;1(1). 9-13. DOI: 10.5812/ijhrba.4624

1. Introduction

Substance use disorders (SUDs), HIV risk behavior, violence, and other high-risk behaviors are major health problems in our country, especially among the younger population. Both high-risk behaviors and dissociation have been found to be related to psychological trauma (1). In the present paper,to see if we could determine which populations are prone to high-risk behaviors, we explored the nature of this relationship through a non-systematic review of the relevant literature. This would allow for the development of better preventive and treatment programs, by applying the trauma and dissociation theories of psychopathology.

We will define trauma, high-risk behavior, and dissociation in the initial paragraphs and subsequently discuss the main studies on the relationship between trauma, dissociation, and well-known high-risk behaviors. Finally, some suggestions for further study are provided.

1. 1. Psychological Trauma

The word “trauma” means a serious shock or injury to the body. Psychologically, it is defined as a single experience, or an enduring or repeating event that threatens one’s physical integrity, sense of self, safety, survival, or the physical safety of one loved one. Trauma can be experienced as a result of different circumstances, including the following (1).

1) Abuse, especially in childhood
2) Exposure to domestic violence
3) Natural disaster
4) War
5) Abandonment

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DOI: 10.5812/ijhrba.4624

6) Personal attack by another person or animal
7) Witnessing catastrophic accidents or violence to others
8) Becoming a victim of kidnapping, rape, or torture
9) Experiencing a medical procedure, accident, or serious illness.

Trauma affects many levels of functioning—somatic, emotional, cognitive, behavioral, and characterlogical. More specifically, exposure to trauma during childhood and adolescence has been shown to be directly linked to psychiatric disorders, such as dissociative disorder (2, 3),borderline personality disorder (4, 5), and SUD (6, 7),as well as behavioral problems such as self-mutilation (8), alcohol use, and other risk-taking behaviors such as violence, delinquency, teen pregnancy, and higher HIV risk behavior (9-14).

1. 2. High-Risk Behavior

High-risk behaviors are defined as volitional behaviors with an uncertain outcome that entail negative consequences (15). Although it may be seen during any period of life, adolescents are more prone to high-risk behaviors such as the use of illicit drugs, heavy drinking, delinquency, dangerous driving, and HIV-risk behavior (16-18). Other forms of high-risk behaviors are violence (9, 10), teen pregnancy, and weapon carrying (9, 11).Suicidal attempts and self-mutilating behavior, or deliberate self-harm (DSH), is also frequent among adolescents (8).

Adolescents are confronted with the task of defining their own identities, roles, and social functions during this stage of development. It is often during this transitional stage of life that the youth begin to express their discomfort through their bodies, enacting risky behaviors that function to release and express aversive emotional distress and tension. In other words, high-risk behaviors that often begin in adolescence may function as ways to escape or regulate painful emotions (8). Other authors such as Goldich (12) have attributed the association between psychological trauma and high-risk behavior to the tendency toward behavioral enactment, which is described as the repetition of the actions, performed or imagined, that occurred during the traumatic event (19). From this perspective, high-risk behavior is conceptualized as a way of remembering, or as an unconscious attempt to gain mastery over the trauma (12, 20). As mentioned above, many authors have shown the strong dose-response relationship between trauma and high-risk behavior (21) and have suggested that a history of maltreatment or other forms of psychological trauma is a precursor to health-risk behaviors in both adolescence and adulthood (17).

1. 3. Dissociation

Dissociation is the main characteristic of dissociative disorder, and it is defined as a conscious and/or unconscious separation of mental processes that are ordinarily integrated into and accessible to conscious awareness. This may manifest as an adaptation to stress in a healthy or pathological manner (22). The DSM-IV defines dissociation as "a disruption of the usually integrated functions of consciousness, memory, identity or perception of the environment."

The main pathological dissociative symptoms include feeling like everything is unreal (derealization); feeling disconnected from one's body or feeling (depersonalization); amnesia for personal information or events that are too extensive to be explained by ordinary forgetfulness (dissociative amnesia); and finding evidence of, or learning from others about activities of alternate identities, feeling possessed or controlled, and experiencing internal images and voices (identity alteration) (23). In contemporary psychology and psychiatry, the term dissociation can pertain to (a) symptoms; (b) a presumed cause of symptoms, including the presumed function such as psychological defense; and (c) normal and pathological alteration of consciousness including hypnosis (24).

Theoretically, the association between trauma and dissociation was first noted by the pioneers of psychology such as Janet and Freud (25),and has been supported by many studies (24). In an attempt to declare the possible mechanisms behind this association, Terr hypothesized that dissociation begins as an individual's defense against an overwhelming negative experience. If the negative experience recurs, then this pattern of behavior becomes entrenched over time in one's behavioral repertoire as an automatic and uncontrollable response to stress. This theory has received general support from empirical research, in which the level of dissociation has been consistently related to both chronicity and severity of trauma in retrospective self-report studies (25). During a traumatic experience, dissociation allows a person to observe the event as a spectator, limits feelings of pain or distress, and protects against awareness of the full impact of what has occurred (26).

2. Trauma, Dissociation, and SUD

Much researchs, have shown a positive correlation between history of psychological trauma, frequency of dissociative experiences, and SUD (27-34). In a more recent study, Tamor-Gurol *et al.* (34) showed that among 104 consecutive patients at an addiction treatment center, 37 patients had scores ≥ 30, compared with 21 patients with scores<10 on the Dissociative Experience Scale (DES), while 59.3% of 27 patients who had co-morbid dissociative disorder reported that dissociative experiences had existed prior to substance use. They also found that a history of attempted suicide or childhood emotional abuse were significant predictors of a dissociative disorder.

In an Iranian study on Shiraz prisoners, Kianpoor *et al.* (31) found that 74% of prisoners with SUD versus 43% of those without it had DES scores greater than 30. in their study, depersonalization and absorption/ derealization subscale symptoms were more frequent as a whole, the symptoms that are aggravated by using opioids as its main effect on thought and emotion of users. It was con-

cluded that at least for a group of prisoners, or people under unbearable stress, using substances is a way to control emotional pain by amplifying old problematic dissociative strategies.

It has been proposed that drug use is an attempt at self-medication, or a chemical means of achieving a dissociative state (chemical dissociation) (35).

3. Trauma, Dissociation, Sexual and Other High-Risk Behaviors

Past history of trauma in the form of physical/sexual abuse during childhood or any other period has been found to be significantly related to sexual risk behaviors, in both clinical and community-based samples (36). In describing the results of interviews with 2,676 men enrolled in a multi-level HIV prevention trial, Dilorio *et al.* found that men who reported trauma from childhood sexual abuse also reported greater frequency of risky sexual behavior and HIV infection (36). These results were replicated in a study on 827 men and women attending a sexually transmitted disease clinic (37), and in many other studies (38). Injection drug use was also shown to be associated with traumas from childhood abuse (39), exposure to violence, and lifetime sexual abuse (17). These and many other authors tried to explain the mechanism or mediator that specifically associates trauma from childhood and lifetime sexual abuse, as well as violence victimization, to HIV-risk behavior. For example, in a longitudinal multicenter study on 1,288 women infected with HIV, and 357 uninfected women, Cohen *et al.* concluded that childhood sexual abuse was strongly associated with a lifetime history of domestic violence, as well as an increased frequency of behaviors that led to HIV infection (40). More than any other mediator, dissociation has been the focus of such research. From this point of view, both the ongoing distress related to trauma and the avoidance via dissociation to overcome intrusive and aversive memories may maintain these patterns of sexual risk behavior and increase risk for STD/HIV infection. In other words, this model suggests that early traumatic experiences in family contexts are related to victims' use of dissociative and avoidant responses to keep threatening information below awareness (41). The study by Shutterland clearly confirmed this theory; This study on 189 women suggested that dissociation and intimate partner sexual coercion are important mediators of childhood sexual abuse and sexually transmitted infection diagnosis. Other studies have implied the role of alcohol and illicit drug use to allow victims to escape from the painful emotions of unbearable traumatic experiences through "chemical dissociation" (17, 42-44).

4. Trauma, Dissociation, Violence, Self-Destructive and Other High-Risk Behaviors

In her book, "Prologue to Violence: Child Abuse, Dissociation and Crime," Abbey Stein says that all stories of violence are stories of dissociation, both large and small. This book introduces dissociation as the mediator of the etiological association between psychological trauma and violence, and suggests that any form of rehabilitation that does not take into account the profoundly dissociative nature of most forms of violence is doomed to failure (45). The clearest relationship between dissociative stress, psychomotor agitation and violent behaviors is seen in culture-bound trance and possession states, such as brief dissociative stupor or madness attacks. According to Zar and Djinnati (46), Kianpoor and Rhoades have also found the presence of psychological trauma in the form of childhood sexual abuse in the past history of presented cases.

Many other studies have proclaimed the association of DSH in patterns of self-mutilating behavior and repeated suicide attempts with dissociative experiences. Cerutti *et al.* (8), in a study on 234 adolescents in an Italian secondary school, revealed that those with a history of DSH and specific life stressors reported higher rates of pathological dissociation. They concluded that the dissociative process might play a role in both the development and maintenance of DSH. Foote *et al.* (47) also found in their study on 231 psychiatric outpatients that the presence of a dissociative disorder was strongly associated with all measures of self-harm and repeated suicide attempts. Self-mutilating behavior was also shown to be frequently associated with dissociation both in patients with dissociative disorder (22), and those with borderline personality disorder who had higher dissociative experiences (23).

Other high-risk behaviors shown to be related to psychological trauma and dissociation are aggressive behavior, eating disorders, and teen pregnancy (48-50).

5. Discussion

As van der Kolk explained, traumatized people employ a variety of methods to cope with stressful situations. These methods are often self-destructive and bizarre and present themselves as high-risk behaviors including SUDs, unusual and unsafe sexual practices, self-mutilation, and repeated suicidal attempts (26). We reached the same conclusion after reviewing the studies mentioned above. Overall, many studies found that dissociation acts as a mediator between psychological trauma and high-risk behaviors.

This review, however, intentionally followed the notion that dissociation can be considered a mediator, as it primarily co-occurs with trauma and high-risk behavior.

As mentioned, many authors have proposed that drug use is an attempt at self-medication, or a chemical means of achieving a dissociative state to avoid the memories and feelings associated with the trauma (35, 48). The positive psychological effects of alcohol and illicit drugs, such as stress reduction through the potentiation of dissociation as a defense, might be particularly rewarding to individuals with high levels of psychological stress (17, 31).

Researchers have pointed out that despite having the

apparent knowledge and skills necessary to avoid risk of HIV infection, many at-risk people continue to manifest high-risk sexual behaviors (51). It is likely that such people employ maladaptive coping responses, such as avoidance via substance abuse and dissociation, in situations that trigger intrusive and aversive memories (41).

Dissociation has also been shown to be related to DSH (8, 22). The subjective sense of dissociation that primarily may have helped self-mutilators to cope with their psychological trauma is also quite a dysphoric experience (26). Indeed, many self-mutilators feel little or no physical pain during the act and feel more real and much better following their self-mutilation and other DSH behaviors (22), even after engaging in other high-risk behaviors.

As mentioned by dynamic theoreticians, dissociation occurs when the energy of an extra psychic trauma is much greater than the psychological and biological capacity of one's mental apparatus. This defense produces forgetting effects regarding the explicit memory between different dissociative parts of the mind. This lack of integration, however, usually comes at a price: most of these individuals are bound to re-experience their traumatizing events at some point (24).

Finally, most of the reviewed studies had some limitations, including (a) using self-report data and a lack of comprehensive measurements; (b) studying only specific populations, making generalization of the findings difficult; and (c) failing to precisely work on the role of dissociation as a mediator in the relationship between trauma and high-risk behaviors. We believe that if we could design and establish appropriate studies regarding the relationship between trauma, dissociation, and high-risk behaviors, we would be able to better understand and recognize those prone to high-risk behavior. Employing valid instruments for detecting dissociation such as the DES can help mental health workers screen those at risk of high-risk behaviors; similarly, using effective methods for dealing with trauma patients who show symptoms of dissociation would enable clinicians to provide better treatment and prevention programs.

Acknowledgments

The authors appreciative of Dr. M . Ziaei, Miss S. Babaei and Miss S. Moallemi for their cooperation in preparing data and submitting this article.

Financial Disclosure

No Financial disclosure.

Funding/Support

No Supported.

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