Conference Paper

Non-Suicidal Self-Injury in Those Dealing With Borderline Personality Disorder or Separation from Parents

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Abstract

Non-suicidal self-injury (NSSI) is a deliberate destruction of one’s own body tissue without suicidal intention that causes physical injury. NSSI is mostly found in adolescents or young adults (Paul, Tsypes, Eidlitz, Ernhout, & Whitlock, 2015). Borderline personality disorder (BPD) is one of the risk factors for developing NSSI. Individuals with borderline personality disorder also experience invalidation during their childhood, this can cause individuals with BPD to feel that they deserve to receive NSSI as a form of self-punishment (Sadeh et al., 2014). In addition, children who experience parental separation (through death, divorce or employment) have a higher risk factor for developing NSSI (Astrup, Pedersen, Mok, Carr, & Webb, 2017). A literature search was conducted in six databases, and a total of 20 relevant articles were found. The explanation of the relationship between non-suicidal self-injury, borderline personality disorder, and loss of or separation from a parent are explored in this study, in order to increase understanding of how NSSI behaviours can be prevented.

Keywords: NSSI, Borderline Personality, Separation Parent

1. Introduction

Non-suicidal self-injury (NSSI) is a deliberate destruction of one’s own body tissue without suicidal intention and not socially sanctioned behavior that causes physical injury. NSSI is mostly found in adolescents or young adults (Paul et al., 2015). Individuals who perform NSSI usually don’t do just one method. NSSI can also be categorized based on lethality of the injury which can be mild, moderate, and severe. The most common method is self-cutting (cutting wrist, arms, or other parts of body). Inpatient with NSSI found it was difficult to be too aware of their mental states, emotions, desire and beliefs and physical sensations, to adapt to these and adopt effective strategies to achieve a desired state, that is, to reduce their psychological suffering (Laghi et al., 2016).

In Western countries, it was found that there was an increase in individuals who did NSSI, especially adolescents and young adults. Meanwhile, it was found in the United...
States that there were between 23% and 38% in community samples of young adults and adolescents who conducted NSSI (Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007; Muehlenkamp, Brausch, & Washburn, 2017; Ross & Heath, 2002; Whitlock, 2006). There are 17.5% of adolescents and 13.4% of adults experience NSSI at least once in his lifetime. Adolescents and young adults who are still developing have a higher risk of NSSI behavior because there is still emotional disturbance in the development period, combined with the immature development of the regulatory system in the brain, so there is the possibility of increased impulsive behavior including NSSI (Martin et al., 2016).

Countries in Asia also have quite high NSSI numbers. 11% Chinese students (Tresno, Ito, & Mearns, 2012; Wong, Stewart, Ho, & Lam, 2007). and 7% of Japanese students have done NSSI (Tresno et al., 2012; Yamaguchi et al., 2004). In Indonesia alone, 38% of college students do NSSI, this is mostly done to women. Skin cutting is a common method for NSSI whereas wrist cutting is a common method for suicidal attempts which is followed by poisoning, jumping from a height, and overdosing (Tresno et al., 2012).

Individuals with borderline personality disorder also experience invalidating in their childhood, this can cause individuals with BPD to feel that they deserve to receive NSSI as a form of self-punishment (Spitzen et al., 2020). Self-conscious being one of the causes of the pathology borderline personality disorder that causes NSSI. There are also indirect relations to borderline personality disorder like negative relationship, affective instability, identity problems, and NSSI with the presence of NSSI and in the next 12 months of NSSI (Spitzen et al., 2020).

In a study conducted on female adolescents who performed NSSI, it was found that there were 51.7% with BPD criteria (Nock, Joinerjr, Gordon, Lloyd-richardson, & Prinstein, 2006; Sadeh et al., 2014). It was also found that individuals with BPD have a higher risk of recurring the NSSI behavior. There are several factors that cause BPD to be strongly associated with NSSI and suicide attempts, this is due to chaotic relationships and history of suicide (Muehlenkamp, Ertelt, Miller, & Claes, 2011; Sadeh et al., 2014). Patients with BPD symptoms that can cause NSSI due to intrapersonal functions such as affect regulation and self-punishment. In the previous study also found that the BPD who carried out NSSI was because it was a form of self-punishment (Brown, Comtois, & Linehan, 2002; Sadeh et al., 2014). Apart from being self-punishment, NSSI is also a form of avoiding and temporarily alleviating feelings of shame or guilt (Chapman, Gratz, & Brown, 2006; Sadeh et al., 2014).

Indonesia, which is included in developing countries, has become children and adolescents in Indonesia, many of whom experience separation from their parents. Separation of parent can be in the form of death, employment, and also divorce.
There are several classifications on separation of parent, one of which is child-parent separation at birth and at 15 birthday, those who are separated from their father or mother have a greater risk of experiencing NSSI and this risk is even greater if the child is separated from both parents (5-6 times higher) compared to children who experienced separation of parents after 15 years of age (Astrup et al., 2017).

There are three research questions in the central of this review. The first question tries to explain the process of the occurrence of NSSI in a person: (1) how is the process of arising NSSI in the subject? Secondly, it is essential to know personality can lead NSSI, so the second question is formulated as: (2) Does borderline personality play a position as a factor that triggers NSSI? The third question focused on the role of separation of parent effect NSSI (3) What is the role of separation of parent in NSSI?

2. Method

The literature search was conducted by ScienceDirect, JAMAPEDS, SAGE, The Journal of Child and Psychiatry, Springer, Taylor & Francis using the term 'self-harm', 'NSSI', 'self-injury', 'self-mutilation', 'parental separation', “separation of parent”, “borderline” and ‘BPD’. Keywords are used by the author independently or in combination to maximize the range of literature searches.

The search was conducted in September 2020. The following steps carried out screening of research journals: (1) Evaluating study title, whether there were two study variables or not; (2) Examining the research abstract. Literature with abstracts. Literatures with appropriate abstracts were collected for further screening according to inclusion and exclusion criteria.

2.1. Inclusion and Exclusion

The literature obtained was then selected based on inclusion criteria. Studies that selected are (1) have gone through a peer-reviewed process, (2) were published during 2010-2020 (3) are written in English, (4) there is information on the number of samples (n) and involved participants. Incomplete data will be excluded when a review of the full article reveals that the study did not answer the research questions raised in this review.

Instead, in order to make sense of the reviewed evidence, the findings were arranged in a table that also illustrated the features of the studies (Table 1). Furthermore, the results were synthesized in accordance with the three research questions. Findings from the
reviews that concerned about NSSI and the relation between personality and parental separation

| No | Autor(s) | Design/Approach | Participants | Setting | Instruments used to measure attitudes or influencing factors | Relevant findings |
|----|----------|-----------------|--------------|---------|-------------------------------------------------|-------------------|
| 1  | Andover, M. S., & Gibb, B. E. (2010) | Cohort Study | 117 patients | Adult psychiatry unit at a not-for-profit hospital in the Northeastern United States | McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD) | NSSI history and frequency predicted attempted suicide as well as current suicidal ideation and more strongly than depression, hopelessness, and borderline personality disorder characteristics. |
| 2  | Andover, M. S. (2014) | Cross sectional study | 564 MTurk worker | United States | McLean Screening Instrument for Borderline Disorder (MSI-BPD) | Individuals who conducted NSSI were engaged with NSSI for the last 1 year and conducted NSSI for at least 5 days. Engaging NSSI to relieve negative affection |
| 3  | Astrup, A., Pedersen, C. B., Mok, P. L., Carr, M. J., & Webb, R. T. (2017) | Cohort study | 1,343,129 persons | individuals born in Denmark and living there on their 15th birthday, with both parents | Survey instruments (not specified in the article) | Acute shock and disruption, along with an ongoing sense of loss of family togetherness, could lead directly to later psychological distress, mental illness and self-harming behaviour. |
| No | Autor (s) | Design/Approach | Participants | Setting | Instruments used to measure attitudes or influencing factors | Relevant findings |
|----|-----------|-----------------|--------------|---------|-------------------------------------------------------------|------------------|
| 4  | Baetens, I et al., (2014). | Cross sectional design | 1439 (aged 12 years and their parents) | Belgium | Parental Behavior Scale (PBS) Adolescent report measures for NSSI | Parental warmth and supporting behavior have a significant interaction effect to NSSI, controlling parent (low support and high control) is a risk factor for NSSI |
| 5  | Beckman et al. (2016) | Cohort Study | Patient age 18-24 years, hospitalized after self-harm in 1990 and 2003 | Hospital in Sweden | ICD 9 (E950-9, E980-9) and ICD 10 (X60-84, Y10-34) (International Classification of Disease) | Factors associated with adverse outcome after self-harm: family history, psychotic disorders, are factors that can cause self-harm |
| 6  | Beckman, Mittendorfer-Rutz, Waern, Larsson, Runeson & Dahlin (2018) | Cohort study | Inpatient and outpatient age 10-24 years during 2000-2009 years | Hospital in Sweden | ICD 10 (X60-84, Y10-34) (International Classification of Disease) | - At the age of 10-17 years, many use severe methods so that the suicide death rate is higher at this age  
- Attention is needed to adolescents and young adults who commit self-harm because of the high suicide death rates among adolescents and young adults |
| 7  | Borschmann et al (2017) | Cohort study | 1943 adolescents (14-15 years old) | 44 schools in Victoria, Australia | Survey instruments (not specified in the article) | Adolescents who reported parental divorced, a common mental disorder, and antisocial were more likely to do self-harm |
| No | Autor (s)                                      | Design/Approach     | Participants                  | Setting                                                                 | Instruments used to measure attitudes or influencing factors                                                                 | Relevant findings                                                                 |
|----|-----------------------------------------------|---------------------|-------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 8  | Bureau, Martin, Freynet, Poirier, Lafontaine, & Cloutier (2010) | Experimental study  | 1238 students (aged 17 and 24 years) | English and French introductory psychology courses in an Eastern Canadian University | The Ottawa Self-Injury Inventory (OSI) (AUAQ) to assessed parent and child relationship                                      | Poor quality of relationship between child and parent is one of dimension can cause NSSI |
| 9  | Guvendeger Doksat, Zahmacioglu, Ciftci Demirci, Kocaman, & Erdogan, (2017). | Cross sectional study | 2667 children                | Bakirkoy Hospital for Psychiatric and Neurologic Disorders in Istanbul | Lifetime history of physical and sexual abuse, NSSI, and HSA were assessed via a clinical intake interview and noted on the semi-structured questionnaire. | Parental separation/divorce were the risk of HAS (High Suicidal Attempt) and NSSI |
| 10 | Grenklo et al (2013).                          | Population-based study | 952 youth                    | Sweden 2009 and 2010                                                    | Unadjusted and adjusted odds ratios (ORs) of self-injury                                                                    | Loss of parent can be a risk factor to self-injury in youth                    |
|    |                                               |                      |                               |                                                                        | Depression and emotional numbness are potentially factor for self-injury                                                  | Depression and emotional numbness are potentially factor for self-injury                                                  |
| No | Autor (s) | Design/Approach | Participants | Setting | Instruments used to measure attitudes or influencing factors | Relevant findings |
|----|-----------|-----------------|--------------|---------|-------------------------------------------------------------|------------------|
| 11 | Hawton, Bergen, Kapur, Cooper, Steeg, Ness & Waters (2012). | Cohort study | individuals aged 10–18 years between 2000 and 2007, and national death information on these individuals to the end of 2010 | General hospital (Emergency Department) 1 in Oxford, 3 in Manchester, and 2 in Derby | ICD 10 (International Classification of Disease) | - proportion dying by suicide was six times greater in those aged 15 years and older at first presentation - self-harm with cutting method at both the initial episode of self-harm and (for repeaters) at the last episode of self-harm carried greater risk of eventual suicide than self-harm with poisoning |
| 12 | Law & Shek (2013). | Cohort study | 2579 participants 8 grades | 28 secondary schools in Hongkong | Chinese Family Assessment Inventory (Shek DTL, Ma, 2010) Checklist of self-harm behaviour | - Cutting or scratching is the most common self-harm among Chinese adolescents - Girls is more sensitive to interpersonal relationship like parents or peers, this makes high prevalence of self-harm and suicide in girls compared with boys - Correlation between self-harm and suicide attempt is moderate high |
| No | Autor (s) | Design/Approach | Participants | Setting | Instruments used to measure attitudes or influencing factors | Relevant findings |
|----|-----------|-----------------|--------------|---------|-------------------------------------------------------------|------------------|
| 13 | Marco, García-Alandete, Pérez, Guillen, Jorquera, Espallargas, & Botella (2015). | Cohort study | 80 patients with BPD diagnosis | Public mental health service | Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID II) | Participants diagnosed with BPD who felt low meaning in life had more depression, hopelessness, frequency of NSSI at baseline, and frequency of NSSI during the follow-up than participants with high meaning in life |
| 14 | Muehlenkamp, Brausch & Washburn (2017) | Cross sectional study | 825 adolescent patient | Patient admitted to an acute care treatment program designed to treat NSSI and/or suicidal behavior | Alexian Brothers Assessment of Self-Injury (ABASI) Borderline Evaluation of Severity Over Time (BEST) | High-NSSI group reported higher levels of depressive, psychotic, borderline personality, and substance abuse symptoms indicating that these adolescents are experiencing high levels of psychiatric distress |
| 15 | Perez, Lorca, & Marco (2020) | Cross sectional study | 127 patients | BPD intervention clinic | Structured Clinical Interview for DSM-5 disorder (SCID-5) | - NSSI as a form of borderline personality disorder to regulate emotions - There is a relationship between father and NSSI in BPD patients who have a background of abuse, neglected, maltreatment, or any other type of distant |
| No | Autor(s)                  | Design/Approach         | Participants               | Setting                                      | Instruments used to measure attitudes or influencing factors                                                                 | Relevant findings                                                                                                                                 |
|----|---------------------------|-------------------------|----------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 | Sadeh et al (2014)        | Mixed-method design     | 36 adolescent and young adult | Outpatient psychotherapy clinic              | Structured Clinical Interview for DSM-IV-II (SCID-II) Inventory of Statement about Self-Injury (ISAS)                      | - BPD affect regulation have a significant association with intrapersonal function of NSSI  
- Affect regulation and self-punishment are particularly relevant to maintain NSSI  
- Emotional instability were positively associated with NSSI |
| 17 | Spitzen et al (2020)      | Mixed-method design     | 50 participants             | BPD Outpatient psychiatric treatment in the LWL - University Hospital Bochum, Germany | Structured Clinical Interview for DSM-IV                                                                                 | - NSSI has been associated with emotional regulation function  
- Inner emptiness, fear, and aggression lead patient to do NSSI  
- NSSI + BPD subjects deliberate to cut themselves in more exposed region |
| 18 | Spitzen et al (2020)      | Mixed-method design     | 84 adult Western Canada and Southern United States | Deliberate Self-Harm Inventory (DSHI) Personality Assessment Inventory - Borderline Features Scale (PAI-BOR; Morey, 1991) | - The pathology of BPD which has a relationship with self-conscious emotion has a strong relationship to the occurrence of NSSI  
- Individuals with BPD who are motivated to do NSSI as self-punishing will have a higher risk of doing NSSI again in the future |
Findings that addressed influencing factors to these attitudes were also grouped together, as were findings that regarded the influence of NSSI.

3. Result

There are 20 articles; these relevant, qualitative, and quantitative studies. Other articles include NSSI, neuroticism, impulsivity, and parental separation. The settings of some of these articles vary. Detailed study characteristics and relevant findings of each study are presented in Table 1.
3.1. Non-Suicidal Self-Injury

The literature reviewed provides the definition of Non-suicidal self-injury (NSSI) is a deliberate destruction of one’s own body tissue without suicidal intention and not socially sanctioned behavior that causes physical injury. NSSI is mostly found in adolescents or young adults (Plener et al., 2016). Adolescence with NSSI there is a relationship with interpersonal chaos, namely the greater the level of interpersonal chaos, the greater the adolescence it engages with NSSI. Interpersonal chaos referred to here is fear of abandonment, experiencing many conflicted or off/on-again relationships, and tendencies to do anything to stop others from leaving the relationship (Muehlenkamp et al., 2017).

3.2. Non-Suicidal Self-Injury and Borderline Personality Disorder

There are five of the literature reviews that discuss the relationship between NSSI and borderline personality disorder. Borderline personality disorder is measured by MSI-BPD (McLean Screening Instrument for Borderline Personality Disorder), BEST (Borderline Evaluation of Severity Over Time), PAI-DOR (Personality Assessment Inventory-Borderline Features Scale), and SCID-5 (Structured Clinical Interview) for DSM-5 disorder. From the five literature reviews, it is found that there is a relationship between borderline personality disorder. Borderline personality disorder there are factors that cause borderline personality disorder to return to NSSI at a later date, namely self-conscious emotions and identity problems (Spitzen et al., 2020).

3.3. Non-Suicidal Self-Injury and separation of parent

Separation of parent is one of the factors that play a role in individuals who carry out NSSI. There are 6 literature reviews which state that there is a relationship between NSSI and separation of parent. It was found that individuals who experienced separation of parent at the age of 15 years or in their early adolescence had a higher tendency to do NSSI than individuals who experienced parental separation during their childhood (Astrup et al., 2017).

The type of parent also influences the individual who performs NSSI. Parents with low support and high expectations provide a greater risk than warm parental and behavior relations (Bureau et al., 2010). The association between NSSI parental separation can also be due to the death of the parents. Individuals who experience the loss of their
parents will experience grief and grief leading to depression and emotional numbness. The individual commits NSSI as an expression of the grief (Grenklo et al., 2013).

4. Discussion

This review has aimed to develop insight into NSSI and the factors that influence this behavior such as borderline personality disorder and separation of parent. The results show that both borderline personality disorder and separation of parent towards NSSI appears to exist among individuals with NSSI. Furthermore, there is reason to believe that borderline personality disorder and separation of parent effect on NSSI relating to the use some scale to measure NSSI in several studies featured in this review (see Table 1).

Patients with BPD symptoms can cause NSSI due to intrapersonal functions (i.e., affect regulation and self-punishment). It was also found that the BPD who carried out NSSI was because it was a form of self-punishment. Apart from being self-punishment, NSSI is also a form of avoiding and temporarily alleviating feelings of shame or guilt (Chapman et al., 2006; Sadeh et al., 2014). The differences in NSSI performed in BPD patients were more common in adolescents than in adults. It was also found that individuals with BPD have a higher risk of recurring the NSSI behavior. There are several factors that cause BPD to be strongly associated with NSSI and suicide attempts, this is due to chaotic relationships and history of suicide (Muehlenkamp et al., 2011; Sadeh et al., 2014).

There are factors that cause borderline personality disorder to return to NSSI at a later date, namely self-conscious emotions and identity problems. In borderline personality disorder, there are also negative emotions such as anger, empathy, sadness, and anxiety (Spitzen et al., 2020). These emotions can be a reinforcement on borderline personality and NSSI.

The type of parent (low support and high expectations) also influences the individual who performs NSSI. Parents with low support and high expectations provide a greater risk than warm parental and behavior relations. In this study, it can be seen that warm parental plays a very important role in NSSI behavior that occurs in individuals (Bureau et al., 2010). There are parental factors as well in NSSI behavior. Based on a report from the National Child Development Study (NDCS), it was found that parental separation that occurs at the age of 11-16 years old impacts mental health in young adults. There is an effect of parental separation duration that individuals who live with their parents for 15 years have a lower risk of NSSI behavior than those who experience parental
separation before 15 years old (Astrup et al., 2017). So, it was found that there was a relationship between parental separation and the occurrence of NSSI.

As it may, improving NSSI in individuals with borderline personality disorder and experiencing separation of parent is not easy. It is a complex matter that might most successfully be resolved with a multifaceted approach and can provide immediate treatment so that individuals with NSSI do not commit suicide or continue on suicidal attempt. The literature reviewed indicates that this approach focuses on the main areas: NSSI relation to borderline personality disorder and separation of parent.

5. Conclusion

Although individuals engaging in the NSSI had the borderline personality disorder. Individuals who engage with NSSI associations discussed in this literature review were borderline personality disorder as well as risk factors for separation of parents. Inter-personal chaos is one of the causes of borderline personality disorder engaged with NSSI. Separation is also a factor causing NSSI due to traumatizing children and parents, loss of family togetherness. In addition to borderline personality disorder being a risk factor for NSSI, borderline personality disorder is also a risk for suicidal attempts.

Limitations

This review has several limitations. Considering the small number of studies included and the methodological issues described, the findings should be treated with caution. This applies especially to the results on the second and third research questions, focusing on the factors that personality, parental separation, and NSSI toward suicidal. Therefore, all comments made about this are preliminary and warrant further investigation in future research.

Recommendations

This review suggests that future research into the effects of borderline personality disorder and separation of parent, risk factors for NSSI, towards suicidal attempt is needed. The number of studies on this topic is too small when considering the urgent and evident need because the death rate in adolescents and young people due to suicide is increasing, there is a need for randomized control trials and experimental trials that focus on the effect of NSSI. More research using reliable and valid instruments
into suicidal attempt and NSSI is required. Furthermore, the limited ability of self-report questionnaires to NSSI accurately indicates an urgent need for observational and research on this topic.

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