

BAR-ILAN UNIVERSITY

**The Role of Emotional Regulation in the  
Relationship between Depressive Symptoms  
to Non-Suicidal Self-Injury**

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## Summary

Non-suicidal self-injury (NSSI) refers to certain behaviors people perform to inflict self-injury, by deliberately destroying their body tissues, without suicidal intentions, such as: Cutting, severe scratching, self-burning, and self-hitting (Knock & Favazza, 2009; Nock, 2009; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). Non-suicidal self-injury is usually common among teenagers and young adults, between the ages of 14-24, and mostly among females (Nixon et al., 2008). The prevalence of NSSI is estimated at 17% among teenagers (Swannell, Martin, Page, Hasking, & St John, 2014). One of the most common explanations for non-suicidal self-injury is that the individual seeks to regulate undesired emotional experiences such as distress, anxiety, and frustration which are perceived as intolerable (Klonsky, 2007; Lewis, 2010) and the individual needs to reach emotional regulation or lower their levels of stress (Nixon et al., 2008). The present study will discuss the different types of cognitive emotion regulation and examine their roles in relation to NSSI.

People are dissimilar in their ability to regulate emotions. Some use better strategies than others (Mayer & Salovey, 1997; as cited in Lopes, Salovey, Cote, Beers, & Petty, 2005). For example the use of the adaptive emotion regulation strategies of positive refocusing and acceptance help them during or after they have experienced a stressful event (Garnefski & Kraaij, 2001). Adaptive emotion regulation entails regulating the experienced emotions and not the dismissal of certain ones. This regulation serves the purpose of reducing the urgency of that emotion so that the individual can take control of their behavior (Gratz & Roemer, 2004).

Much research has been conducted on non-suicidal self-injury and its relationship with emotion regulation (Klonsky, 2007; Franklin., et al, 2010; Hasking., et al, 2010). All of these previous studies found that there is a connection between NSSI and emotion regulation; however, one of the novel characteristics of this study is the reference to different types of cognitive emotion regulation and the distinction between the different cognitive emotion regulation strategies.

Nine cognitive emotion regulation strategies exist in the professional literature: self-blame, blaming others, acceptance, refocus on planning, positive refocusing, rumination or focus on thought, positive reappraisal, putting into perspective, and catastrophizing (Garnefski et al., 2001). In this research, I chose to examine five of the nine cognitive emotion regulation strategies because they deal with positive aspects of emotional regulation, as mentioned above: putting into perspective, positive refocusing, positive reappraisal, acceptance, and refocus on planning.

In addition to the studies conducted on the impact of cognitive emotion regulation on NSSI, many studies also examined the connection between NSSI and depression. The studies which examined this variable found that signs of depression preface NSSI (You & Leung, 2012; Guerry & Prinstein, 2009), and severe depression symptoms are correlated with a higher risk of NSSI and not with suicide attempts (Wilkinson, Kelvin, Roberts, Dubicka, & Goodyer, 2011).

In the past, the connection between cognitive emotion regulation strategies and depression was investigated (Garnefski & Kraaij, 2006) as well as the connection between depression symptoms and NSSI occurrences (Guerry & Prinstein, 2009), but the role of emotion regulation in relation to NSSI and depression symptoms was not considered and has yet to be researched. Based on those findings the hypotheses of this current research are:

- A. Different types of cognitive emotion regulation will be correlated to NSSI.
- B. Depression symptoms will be correlated to NSSI.
- C. Depression symptoms will mediate cognitive emotion regulation and NSSI.
- D. As the emotion regulation strategies are more adaptive, the strength of the connection between depression symptoms and NSSI will lessen.

In the present study, 594 students ages 14-18 from various schools across Israel participated (54% male, average age 14.96, standard deviation 1.33). As part of the study, the students answered 3 questionnaires: The Deliberate Self-Harm Inventory (DSHI) (Gratz, 2001), The Cognitive Emotion Regulation Questionnaire (CERQ) (Garnefski,

Kraaij, & Spinhoven, 2001), and a short version of the Children's Depression Inventory (CDI) (Kovacs, 1984; Zalsman et al., 2005). The participants were divided into three groups: 1) Teenagers who never hurt themselves – hereon referred to as the “no injury” group. 2) Teenagers who hurt themselves less than 6 times. As such, they inflicted at least one kind of injury, but overall hurting themselves fewer than 6 times – hereon referred to as the “inconsistent injury” group. 3) Teenagers who hurt themselves in more than one method, over 6 times – hereon referred to as the “consistent injury” group (Ammerman, Jacobucci, Kleiman, Muehlenkamp, & McCloskey, 2016).

Through the application of covariance analysis (ANOVA), a few critical findings were made:

- 1) There's a clear difference between the NSSI groups in the emotion regulation strategies of acceptance, refocus on planning, putting into perspective, as well as positive reappraisal. In relation to the emotion regulation of acceptance, the “no injury” group reported use of acceptance as emotion regulation to a significantly lesser degree compared to the “inconsistent injury” group. Also, it was determined that the “no injury” group used positive reappraisal as well as refocus on planning more than the “consistent injury” group. Similarly, the “inconsistent injury” group used the strategy of putting into perspective more compared to the “consistent injury” group.
- 2) A clear difference was found between the NSSI groups regarding depression symptoms. The “no injury” group presented fewer symptoms of depression compared to the “consistent injury” group. In addition, it was found that the “inconsistent injury” group presented fewer depression symptoms than the “consistent injury” group.
- 3) Depression symptoms mediate between emotion regulation, in the form of putting into perspective, positive refocusing, positive reappraisal and refocus on planning, and NSSI.

- 4) The fourth hypothesis, in which the more adaptive emotion regulation strategies are, the weaker is the connection between depression symptoms and NSSI, was not confirmed.

According to these findings, a number of significant and important conclusions arise. First, we must consider the fact that the emotion regulation strategy of acceptance is being used more within the "inconsistent injury" group compared to the "no injury" group. Even though prior researchers have treated this form of emotion regulation as adaptive-positive (Garnefski & Kraaij, 2001) it is apparent it can be treated also in its negative form, as done in previous studies (Wilson, 1996; Garnefski & Kraaij, 2006).

The research at hand found that depression symptoms are related to NSSI, as was found in earlier studies (Wilkinson, Kelvin, Roberts, Dubicka, & Goodyer, 2011) and that depression symptoms mediate between types of cognitive emotion regulation - such as putting into perspective, positive refocusing, positive reappraisal as well as refocus on planning, and NSSI.

The identity of teenagers suffering from depression is highly important. Teenagers, until the age of 18, spend most of their time at school, as such the educational staff are in most cases the present adults who can be a significant influence in the students' lives. Despite the fact that many educators testify to their lack of tools and knowledge in dealing with NSSI (Heath, Toste, Sornberger, & Wagner, 2011), there's a growing need to train educators how to help these teenagers using the findings of this study and others before it. The findings of this study strengthen and recognize the importance of cognitive emotion regulation, depression symptoms and their correlation with NSSI, and the crucial importance of identifying teenagers with difficulties in emotion regulation and depression symptoms.

With that said, there are a few limitations to the study. The present study is a coordinated study with the purposes of better describing the non-suicidal self-injury phenomenon, defining its prevalence, and examining the connections between the variables of NSSI, emotion regulation and depression symptoms. In light of the kind of study conducted,

causation cannot be deduced from this study's findings. In addition, the present study related to only five kinds of cognitive emotion regulation. It is possible that the implementation of all kinds of cognitive emotion regulation, both adaptive and non-adaptive, may shed more light on the phenomenon of NSSI. The fact that this study was conducted in schools and its participants were minors prompted many discretionary actions and precautions to prevent any emotional harm from the participants answering the research questionnaires.

Therefore, my recommendations for future research include a longitudinal study which follows the subjects for an extended period of time, and in so doing, it may be able to identify processes in the teenagers' lives. Also, an intervention study using different intervention methods; for example, practicing emotion regulation methods to reduce stress or to deal with preliminary depression symptoms, which may reduce the use of NSSI. By using these and other intervention methods, we will be able to examine their effectiveness on the phenomenon of self-injury as well as identify other related factors.