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Differences in psychological symptoms and self-competencies in non-suicidal self-injurious Flemish adolescents

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A B S T R A C T

The aim of the present study was to examine differences in psychological symptoms and sense of self-competence between adolescents with and without non-suicidal self-injurious behavior. We collected data in a sample of 281 Flemish adolescents. Psychological symptoms and self-competencies were assessed by means of the Youth Self-Report (YSR) and NSSI was assessed using the Self-Harm Inventory (SHI-22). Results showed significant differences between adolescents with and without NSSI on all psychopathological subscales. Furthermore, adolescents engaging in NSSI reported significantly lower scores on social competence, but equal levels on other competencies. Results revealed that externalizing problems and attention/thought/social problems are significantly associated with NSSI. Results also showed that having a higher score on aggressive behavior or thought problems increases the chance of belonging to the NSSI group; whereas a higher score on the social competence scale decreases the chance of belonging to the NSSI group. Clinical implications of these findings are discussed.

Non-suicidal self-injury (NSSI) refers to socially unaccepted behavior involving deliberate and direct injury of one's own body tissue without suicidal intent (Nock & Favazza, 2009). Typical methods of NSSI in adolescent community samples include scratching, cutting, burning and hitting oneself (Jacobson & Gould, 2007), and high levels of banging were reported in a community sample of university students (Whitlock et al., in press). Furthermore, most individuals who are engaging in NSSI report using multiple methods (e.g., Plener, Libal, Keller, Fegert, & Muehlenkamp, 2009). In community adolescent samples, NSSI rates vary from 12% to 23.2% (Jacobson & Gould, 2007). The prevalence rates increase up to 68% in clinical adolescent samples (Makikyro et al., 2004; Nixon, Cloutier, & Aggarwal, 2002).

For many decades, NSSI was solely viewed as an associated symptom of borderline personality disorder, but current research shows that NSSI is exhibited by individuals with a wide variety of DSM-IV Axis-I and Axis-II disorders (Jacobson, Muehlenkamp, Miller, & Turner, 2008; Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). Studies in both adolescent clinical and non-clinical samples identified elevated rates of mood disorders, anxiety disorders (e.g., Kumar, Pepe, & Steer, 2004), eating disorders (e.g., Claes,Vandereycken, & Vertommen, 2003), substance abuse, conduct disorders, and posttraumatic stress disorder (e.g., Jacobson et al., 2008; Nock et al., 2006) among self-injurious adolescents compared to those without NSSI. Internalizing disorders (e.g., depression, anxiety) are commonly identified in adolescents engaging in NSSI (e.g., Andover, Pepper, Ryabchencko, Orrico, & Gibb, 2005), but Nock et al. (2006) also found higher rates of *externalizing* problems in

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self-injurious adolescent patients. Higher rates of externalizing problems (e.g., conduct disorder, oppositional defiant disorder) have also been reported in non-clinical samples of adolescents (Brunner, Parzer, Haffner, Steen, & Roos, 2007; Hintikka et al., 2009). Related to externalizing disorders, one study found a strong relation between attention/thought/social problems (e.g., attention deficit disorder) and NSSI among adolescents (e.g., Nixon, Cloutier, & Jansson, 2008). All these findings demonstrate the diagnostic heterogeneity of adolescents engaging in NSSI (Nock et al., 2006); yet also leave open the question whether specific diagnoses are unique to NSSI or if NSSI is a reflection of a general psychological dysfunction.

Besides internalizing and externalizing symptoms, a lack of social skills seems to be an important risk factor for the development of NSSI in both community and clinical samples. Nock and Mendes (2008), for example, showed that non-clinical adolescents engaging in NSSI had more deficits in their social problem-solving skills, which interferes with the performance of more adaptive social responses. Additionally, Claes, Houben, Vandereycken, Bijttebier, and Muehlenkamp (2010) showed that adolescents with NSSI rated themselves lower with respect to academic intelligence and social skills compared to adolescents without NSSI. These results suggest that perceived self-competencies (sense of academic competence, and social skills) might be correlates of NSSI. Nonetheless, self-competencies in NSSI have received very little examination in current research.

Indeed a vast majority of prior work has focused upon the associations between NSSI and internalizing/externalizing symptoms. However, a paucity of research examines whether internalizing/externalizing symptoms can reliably predict the occurrence of NSSI in adolescents. For instance, it has been suggested that adolescents engaging in NSSI have higher rates of internalizing problems (Ghaziuddin, Tsai, Naylor, & Ghaziuddin, 1992), however the predictive power of internalizing symptoms (in relationship with externalizing problems) has never been examined. It has also been suggested that lack of self-competencies are correlated with NSSI; but, the predictive relationship to discriminate NSSI from non-NSSI adolescents has thus far never been examined.

The main aims of this study are fourfold: (1) replicate in a Flemish community-based sample of adolescents the association between NSSI and psychopathological complaints (both internalizing and externalizing), and examine (2) the predictive relationships of internalizing and externalizing symptoms relative to each other on NSSI group membership. Additionally, it is imperative to expand research to examine (3) the association between perceived self-competencies (e.g., interpersonal and academic self-competencies) and NSSI. It was hypothesized that NSSI would be related to higher scores on both internalizing and externalizing symptoms, but that the relationship with internalizing symptoms would be significantly stronger. Given the lack of research on the association between NSSI and self-competencies, we generated an exploratory hypothesis that self-injurious adolescents would report an overall lack of self-competencies (e.g., less socially competent and lower levels of activities and academic competence) compared to the control group. Finally, we investigated which risk (e.g., internalizing and externalizing symptoms, social competence, and academic competence) influenced the probability of belonging to the NSSI group.

Method

Participants and procedures

Two hundred and eighty-one 9th to 12th graders (80.78% females), with a mean age of 16.18 ($SD = 1.15$) were randomly selected from two schools in the Dutch speaking part of Belgium and from follow-up research through the Internet.

Community school participants

More than half (150/281) of the adolescents were gathered via a school community and filled out the paper and pencil questionnaires during a 50 min class period. Schools and parents were informed about the aim of the study and adolescents were sent home with a letter inviting them to take part in the research and ask parental permission for participation in this study.

Follow-up to Internet study participants

The other participants (131/281) were gathered via a follow-up of a previous study (Baetens et al., 2011) and answered the same questionnaires via an online survey, which involved passive parental and active adolescent consent procedures.

The aim of the present study was described as follows: Participate in a study on self-care and self-injury in relation to problem behaviors and competencies, being conducted by a Belgian University. The participants recruited from the schools and online did not significantly differ from each other in gender, age, NSSI (presence and methods of NSSI) and all Youth Self-Report subscales.

Twenty incentives (e.g., mp3-player, movie ticket) were distributed among all the participants using a lottery procedure. Efforts were made to safeguard the welfare of the adolescents (e.g., informing school principals about NSSI in adolescents, class talk about their feelings after completion of the questionnaire), and participants received a letter/email with phone numbers and e-mail addresses of professional and informal help centers. The study was approved by the ethical board of the first author's university.

Instruments

All participants completed an adapted Dutch version of the Self-Harm Inventory (SHI-22; Sansone, Songer, & Sellbom, 2006), a 22 yes/no item self-report questionnaire assessing different types of self-harming behaviors (e.g., risk taking behavior, suicide