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Motivation to Self-harm in Middle Childhood: Relationship to Emotional Symptomatology and Home Environment

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Introduction

Self-harm in childhood is an important, though neglected area of empirical research. Research has, however, investigated the emotional and environmental factors associated with self-harm in adolescent and adult populations. This research provides a foundation from which to investigate desire to self-harm in childhood populations. With regard to emotional factors, self-injury research has a negative affect they wish to avoid (Perl & Liss, 2007). Further, emotion-focused reactions to emotional pain has been identified as the most prevalent motivation for self-harm across genders (Dowla, Marks, Stice, Gubbens, & Griffith, 2008). Blissett and Gid (1998) found self-injury is used in an attempt to decrease distress and emotional stress. Additionally, individuals who self-harm present with risk factors in their home environment. Perl and Liss (2007) concluded children with a history of home maltreatment experience a sense of hopelessness. Children who self-injure have a "good relationship with one parent and a sharply negative relationship with the other" and come from families in which anger is prohibited (Carell, Schallert, Anderson, & Abramovitch, 1988).

Further research has shown various types of maltreatment are related to self-harm. Blissett and Gid (1998) found childhood sexual abuse and post-traumatic symptoms are good predictors. Correlates with self-injury have also been found with childhood history of physical abuse, family violence, parental substance abuse, emotional maltreatment, and parental psychological abuse. Individuals who self-harm in seven to nine-year-olds who have been identified as "at-risk" for neglect and maltreatment. The present study uses a population comparison across gender to identify differences in motivations to self-harm. Our research hypothesis states children exhibiting emotional distress (e.g., anxiety, higher distress, suicidal ideation) would be more likely to want to self-harm than children not reporting such distress. Additionally, no hypothesized children who had environmental risk factors (e.g., limited physical abuse, emotional maltreatment, parental substance abuse) would be most likely to want to self-harm that their counterparts without such risk factors.

Methods

Participants

Participants in the study included 359 of the 1,375 children in the Longitudinal Study of Child Abuse and Neglect (LONGSCAN) cohort. Participants included in the analysis for the present study had completed the Trauma Symptom Checklist and Things I Have Seen and Heard measures. Also, Child Protective Services data was available for all included cases. The cohort is based at the University of North Carolina-Chapel Hill and consists of five sites across the United States. Recruitment procedures varied across the five sites, and 62-82% of participating families received government-supported ongoing intervention into the LONGSCAN study (Blissett, Cox, Thompson, Johnston, Maddox, King, & Lovis, 2002). The full LONGSCAN sample is 46% male, 53.7% Black, 21.3% White, 13.8% Hispanic, 13.8% from two or more ethnic groups, 23.7% from a region in the U.S., 26.6% with a family history of mental illness, 50% with a family history of drug use, 18.3% with a family history of suicide, 50% with a family history of alcoholism, 20% with a family history of cigarette smoking, 14% with a family history of severe abuse and neglect, and 0.2% with a family history of severe abuse and neglect for each child.

Demographic information, including age, gender and ethnic background, was collected from caregivers. Maltreatment data was collected by Child Protective Services for both physical and emotional abuse, physical abuse, emotional maltreatment, and neglect for each child.

Results

Discriminant analyses were used to determine if wanting to self-harm differed between boys and girls among those who never, occasionally, and always want to self-harm considering the factors of having been beaten up, feeling safe at home, wanting to kill yourself, anxiety, dysregulation, parental substance abuse and emotional maltreatment. As can be seen in Table 1a and Table 1b, most of the variables showed significant differences among the wanting to self-harm group. The model included the variables of having been beaten up, feeling safe at home, wanting to kill yourself, anxiety, parental substance abuse, dissociation and emotional maltreatment. which are shown in Figure 1a and Figure 1b. The multivariate analysis included the examination and comparison of the models derived from male and female children between the ages of seven and nine.

Multivariate analyses of the male group revealed one discriminant function reliably differentiated among two groups (Table 2a, Table 3a) accounting for 77% of the variance ($F = .410$, $X^2 = 14.850$, $p = .001$, $\alpha = .05$). The function differences between the never group and the intermediate group from the almost all the time group, with having been beaten up, feeling safe at home and wanting to kill yourself contributing to discrimination among groups. Table 2a shows the standardized canonical coefficient and the structure weights, which contribute to variance. Figure 2a gives a graphical depiction of the results in the function correctly classified 75.4% of the original group. Table 3a shows the classification results.

A comparison of the structures of the models from the two groups was conducted by applying the model derived from the male population to the data from the female population and comparing the resulting "crossed" X with the "male" X originally derived from the group. There were 124 correct classifications unique to the direct model and 23 correct classifications unique to the crossed model. McNemar’s tests showed the models were significantly different, $Z = 69.395$, $p < .01$, such that the direct model worked better than the crossed model.

| Table 1a. | Univariate Statistics and ANOVAs for the Discriminating Variables for Males (N = 180) |
| Table 1b. | Univariate Statistics and ANOVAs for the Discriminating Variables for Males (N = 173) |
| Table 2a. | Standardized Canonical Coefficients and Structure Weights for the Discriminant Model for Males (used +/- .30 as the cutoff) |
| Table 2b. | Standardized Canonical Coefficients and Structure Weights for the Discriminant Model for Females (used +/- .28 as the cutoff) |

Discussion

The purpose of this study was to better understand the desire to self-harm in middle childhood. Emotional symptomatology and home environment variables were analyzed between both genders. For males, having been beaten up, feeling safe at home and suicidality were significant as the function predicting wanting to self-harm. As was hypothesized, males in the “almost all the time” group had higher numbers for having been beaten up and suicidality and lower numbers for feeling safe at home. This is consistent with previous findings that indicate childhood history of severe abuse and neglect is correlated with self-injury (Himber, 1994). For females, suicidality contributed to the first function predicting wanting to self-harm. As was hypothesized, females in the “almost all the time” group had higher levels of suicidality. Feel safe at home, anxiety, dysregulation and parental substance abuse contributed to the second function for females. Table 2b shows the standardized canonical coefficients and the structure weights, which contribute to discrimination among groups. Table 2b shows the classification results. Table 3b shows the classification results. One possible explanation for the finding is that females in the “almost all the time” group had higher levels of feeling safe at home. This seems contrary to Carell, Schallert, Anderson, and Abramovitch’s (1988) finding that family violence is related to self-injurious behavior.

Conclusion

Building on Blissett, Marks, Stice, Gubbens, & Griffiths (2008), finding that reaction to emotional pain has been identified as the most prevalent motivation for self-harm across both genders, there are additional factors that should be considered. Research has shown that the male and female models are structurally different. This shows the desire to self-harm may have different origins between male and female children. Limitations of this study include initial equivalence because the children come from various backgrounds. Additionally, no hypothesized children who had environmental risk factors, such as limited physical abuse, emotional maltreatment, parental substance abuse and neglect for each child.