Research article

Individual-level factors related to better mental health outcomes following child maltreatment among adolescents

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ABSTRACT

Research on factors associated with good mental health following child maltreatment is often based on unrepresentative adult samples. To address these limitations, the current study investigated the relationship between individual-level factors and overall mental health status among adolescents with and without a history of maltreatment in a representative sample.

The objectives of the present study were to: 1) compute the prevalence of mental health indicators by child maltreatment types, 2) estimate the prevalence of overall good, moderate, and poor mental health by child maltreatment types; and 3) examine the relationship between individual-level factors and overall mental health status of adolescents with and without a history of maltreatment. Data were from the National Comorbidity Survey of Adolescents (NCS-A; $n = 10,123$; data collection 2001–2004); a large, cross-sectional, nationally representative sample of adolescents aged 13–17 years from the United States. All types of child maltreatment were significantly associated with increased odds of having poor mental health (adjusted odds ratios ranged from 3.2 to 9.5). The individual-level factors significantly associated with increased odds of good mental health status included: being physically active in the winter; utilizing positive coping strategies; having positive self-esteem; and internal locus of control (adjusted odds ratios ranged from 1.7 to 38.2). Interventions targeted to adolescents with a history of child maltreatment may want to test for the efficacy of the factors identified above.

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Child maltreatment is a strong determinant of poor physical and mental health outcomes (Afifi, Mota, MacMillan, Sareen, 2013; Afifi et al., 2014, Afifi et al., 2016a; Barnes & Josefowitz, 2014; Kendall-Tackett, 2002; Kessler et al., 2010; Noll & Shenk, 2010; Norman et al., 2012). Not all individuals who have experienced child maltreatment will experience adverse outcomes (Nanni, Uher, & Danese, 2014; Norman et al., 2012). This finding can be understood through the resiliency theory, which suggests that specific individual, social, and contextual variables, known as promotive factors, inhibit the development of adverse outcomes after being exposed to risk (Fergus & Zimmerman, 2005; Zimmerman & Brenner, 2010). There are two types of promotive factors: (a) assets, which are positive factors within the individual, and (b) resources, which are positive factors outside of the individual, such as parental relationships. Moreover, the protective factor model within the resiliency theory posits that the presence of promotive factors might decrease the association between risk exposure and adverse outcomes. Researchers in the field of childhood adversity are attempting to identify factors that promote resiliency following child maltreatment, which can have implications for prevention and intervention strategies. Afifi and MacMillan (2011) published a review on resilience following child maltreatment, which included a list of protective factors that have been identified in studies published up to 2010. This review demonstrated that most research on resilience following child maltreatment has emphasized the importance of individual-level protective factors (i.e., assets; Afifi & MacMillan, 2011). Some of the most common individual-level factors that have emerged include positive coping strategies (Afifi & MacMillan, 2011; Afifi et al., 2016b; Marriott, Hamilton- Giachritsis, & Harrop, 2014; Simpson, 2010), positive self-esteem (Afifi & MacMillan, 2011; Domhardt, Münzer, Fegert, & Goldbeck, 2015; Marriott et al., 2014; Simpson, 2010), an internal locus of control (Afifi & MacMillan, 2011; Domhardt et al., 2015; Marriott et al., 2014), and hope/optimism (Afifi & MacMillan, 2011; Domhardt et al., 2015; Simpson, 2010; Williams & Nelson-Gardell, 2012). Furthermore, there is preliminary evidence that physical exercise may be important for positive health outcomes among children who are at risk for experiencing, or have experienced, maltreatment (Afifi et al., 2016b; Morgan, 2010; Waechter & Wekerle, 2015).

The research to date on the mental health outcomes of individuals with a history of child maltreatment has several limitations. First, most studies on individual-level factors have involved non-representative samples (Holmes, Yoon, Voith, Kobulsky, & Steigerwald, 2015; Williams & Nelson-Gardell, 2012). Second, most studies did not include a non-maltreatment comparison group, which precludes the examination of possible differences among individuals with and without a history of child maltreatment. Third, most studies have focused on a single type of child maltreatment. Fourth, most studies have defined mental health narrowly as the absence of mental disorders (Holmes et al., 2015; Marriott et al., 2014; Williams & Nelson-Gardell, 2012). Mental health is not only the absence of mental disorders, but according to the World Health Organization (2005), it includes the presence of positive functioning, a sense of well-being and the perceived ability to cope with life stress. Accordingly, a more comprehensive assessment of mental health in research should be multidimensional and include a measure of psychopathology, perceived mental health (Keyes, 2005) and thoughts about suicide.

To address the current limitations in the child maltreatment literature identified above, the present study has three main objectives: 1) to determine the prevalence of child maltreatment types across specific mental health indicators (i.e., perceived mental health for the past 30 days, past-year mental disorders, and past-year suicidal ideation); 2) to estimate the prevalence of overall good, moderate, and poor mental health by child maltreatment types; and 3) to examine the relationship between individual-level protective factors and overall mental health status of adolescents with and without a history of maltreatment. Based on a large body of literature supporting the association between child maltreatment and adverse outcomes, we hypothesized that adolescents with a history of any type of child maltreatment would have poorer mental health outcomes overall compared to adolescents without a history of child maltreatment. In line with the protective factor model and the resiliency theory, we also hypothesized that individual-level factors would be associated with better mental health outcomes among adolescents with a child maltreatment history.

1. Material and methods

1.1. Data and sample

The data were drawn from the National Comorbidity Survey of Adolescents (NCS-A) master file, which is a large, cross-sectional, nationally representative epidemiologic survey of adolescents aged 13 to 17 years from the United States ($N = 10,148$). The current study consists of a subset of the NCS-A sample, which includes adolescents who attended school at the time of data collection ($n = 10,123$). Data were collected between 2001 and 2004 (school sample response rate = 74.7%) through face-to-face interviews by trained interviewers using computer-assisted self-administered interviewing techniques (Kessler et al., 2009). Data were collected from a variety of Census regions (Northwest, Midwest, South, and West) and geographic settings (i.e., Census major metropolitan area, other urbanized county and rural county; Kessler et al., 2009; Kessler et al., 2012). Written informed consent from a parent and the adolescent was obtained before the administration of the interview (Kessler et al., 2009). The Human Subjects Committees of both Harvard Medical School and the University of Michigan approved the recruitment, consent, and data collection for the NCS-A (Kessler et al., 2009). The NCS-A is a publicly available dataset and has been used in recently published studies (e.g., Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015; Cheung et al., 2017; Lee-Winn, Townsend, Reinblatt, & Mendelson, 2016; Marshall, 2016).

1.2. Primary measures

1.2.1. Child maltreatment

The NCS-A measured child maltreatment by using questions adapted from the Conflict Tactics Scales (CTS; Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). The CTS includes questions about physical abuse, emotional abuse, sexual abuse, physical