Child Abuse & Neglect 72 (2017) 360–369

Contents lists available at ScienceDirect

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg

Full length article

Childhood maltreatment, psychological resources, and depressive symptoms in women with breast cancer

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ARTICLE INFO

Keywords:
Childhood maltreatment
Psychological resources
Depressive symptoms
Breast cancer
Optimism
Mindfulness
Risk factor

ABSTRACT

Childhood maltreatment is associated with elevated risk for depression across the human lifespan. Identifying the pathways through which childhood maltreatment relates to depressive symptoms may elucidate intervention targets that have the potential to reduce the lifelong negative health sequelae of maltreatment exposure. In this cross-sectional study, 271 women with early-stage breast cancer were assessed after their diagnosis but before the start of adjuvant treatment (chemotherapy, radiation, endocrine therapy). Participants completed measures of childhood maltreatment exposure, psychological resources (optimism, mastery, self-esteem, mindfulness), and depressive symptoms. Using multiple mediation analyses, we examined which psychological resources uniquely mediated the relationship between childhood maltreatment and depressive symptoms. Exposure to maltreatment during childhood was robustly associated with lower psychological resources and elevated depressive symptoms. Further, lower optimism and mindfulness mediated the association between childhood maltreatment and elevated depressive symptoms. These results support existing theory that childhood maltreatment is associated with lower psychological resources, which partially explains elevated depressive symptoms in a sample of women facing breast cancer diagnosis and treatment. These findings warrant replication in populations facing other major life events and highlight the need for additional studies examining childhood maltreatment as a moderator of treatment outcomes.

1. Introduction

Childhood maltreatment is behavior toward a person under the age of 18 years that results in actual or potential harm to the child's health, survival, development or dignity and is perpetrated by a person of responsibility, trust, or power in that child's life ("WHO | Child maltreatment," 2016). Childhood maltreatment includes abuse and/or neglect during childhood that can be physical, sexual, or emotional in nature (Bernstein & Fink, 1998). Childhood maltreatment exposure is associated with persistent symptoms of

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http://dx.doi.org/10.1016/j.chiabu.2017.08.025
Received 22 March 2017; Received in revised form 21 August 2017; Accepted 23 August 2017

depression throughout the lifespan (Chapman et al., 2004; Kessler et al., 2010; Nanni, Uher, & Danese, 2012), and is among the most robust associations in clinical psychology and psychiatry. For example, a meta-analysis of 16 studies reflecting data from more than 23,000 participants demonstrated that maltreatment exposure increased the risk of developing depression in adulthood, and was associated with persistent or recurrent illness, and lack of response to treatment (Nanni et al., 2012). In fact, it is estimated that childhood adversity accounts for 30% of all psychiatric morbidity (Kessler et al., 2010). Childhood maltreatment may increase risk for depression by interfering with the development of a robust and functional store of psychological resources during childhood (Repetti et al., 2002; Taylor & Stanton, 2007; Taylor et al., 2004), which help individuals effectively cope with adult life stress. Indeed, the vast majority of depressive episodes occur in the wake of a major life stressor (Hammen, 2005; Hammen, Henry, & Daley, 2000). Thus, lower psychological resources may have the largest implications during this vulnerable time. The purpose of this study was to examine psychological resources as a mechanism through which childhood maltreatment is associated with depressive symptoms in women recently diagnosed with breast cancer.

Psychological resources are skills, beliefs, and individual personality factors that influence how people manage stressful events (Donaldson, Csikszentmihalyi, & Nakamura, 2011; Taylor & Stanton, 2007). Healthy environments are safe environments that allow children to emotionally and socially develop in ways that will help them pay attention to, learn what to expect from, and respond to their environment. Living in a family characterized by low nurturance, abuse, or a high degree of unpredictability has long been theorized to predict lower psychological resources (Repetti et al., 2002). In particular, unsafe environments can foster negative expectations about future events, bias attention toward negative or threatening aspects of the environment, and impede the development of a wide range of socioemotional abilities. For example, adults exposed to childhood maltreatment have lower reports of dispositional optimism (Broekhof et al., 2015; Korkeila et al., 2004; Murthi & Espelage, 2005), and demonstrate biased attention to potentially threatening aspects of the environment (McLaughlin, Sheridan, & Lambert, 2014; Pollak & Sinha, 2002). Yet, empirical tests of the link between childhood maltreatment and specific psychological resources remain rare. In this study, we examined the associations between childhood maltreatment and optimism, mastery, self-esteem, and mindfulness in a sample of women following their recent diagnosis with breast cancer.

Optimism, mastery, self-esteem, and mindfulness have all emerged as important psychological resources that promote health and well-being (Brown, Ryan, & Creswell, 2007; Taylor & Seeman, 1999), including in the wake of stressful life events such cancer diagnosis and treatment (Taylor, 1983; Taylor & Armor, 1996; Taylor & Stanton, 2007). Optimism is the extent to which an individual holds a generalized, favorable expectancy for the future (Carver, Scheier, & Segerstrom, 2010). Mastery reflects the extent to which an individual feels they have control over events in their lives (Pearlin & Schooler, 1978). Self-esteem is an individual's global positive or negative attitude toward the self as a totality (Rosenberg, 1965; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Mindfulness is an individual's degree of awareness of and attention to external and internal stimuli (Brown, Ryan, & Creswell, 2007). Each of these resources likely play a role in an individual's adaptation to a breast cancer diagnosis and motivation to actively participate in treatment and recovery.

Optimism, self-esteem, mastery, and mindfulness are all psychological resources that have been linked to better health and specifically fewer depressive symptoms. Higher reported optimism has been repeatedly linked to positive health outcomes (Carver et al., 2010; Scheier & Carver, 1987), including lower depressive symptoms in medical populations (Milaniak et al., 2016). Mastery is protective against negative health outcomes in older adults (Pudrovska, Schieman, Pearlin, & Nguyen, 2005), including depressive symptoms (King, Wardecker, & Edelstein, 2015). Low self-esteem has often been prospectively linked to depression and other health outcomes (Abela & Payne, 2003 Abela & Skitch, 2007; McCaulay, Mintz, & Glenn, 1988). Finally, interventions targeting mindfulness can be effective in reducing symptoms of depression and anxiety (Hofmann, Sawyer, Witt, & Oh, 2010).

Past studies have also posited psychological resources as mediators in the relationship between childhood adversity and depression (Schetter & Dolbier, 2011; Scott Heller, Larrieu, D'Imperio, & Boris, 1999), yet only a few studies have provided empirical support for this hypothesis. For example, adults exposed to childhood maltreatment have lower reports of dispositional optimism (Broekhof et al., 2015), and higher reported optimism in adults exposed to childhood maltreatment is a predictor of psychological adjustment (Himelein & McElrath, 1996; Scott Heller et al., 1999). Further, high reported mastery attenuates the association between childhood sexual abuse and depressive symptoms (King et al., 2015). In a large sample of homeless women, self-esteem mediated the association between childhood abuse and depressive symptoms (Stein, Leslie, & Nyamathi, 2002). Further, mindfulness-based interventions are effective in reducing symptoms of depression and anxiety (Hofmann et al., 2010), including among adult survivors of childhood abuse (Kimbrough, Magyari, Langenberg, Chesney, & Berman, 2010). These studies offer initial evidence that optimism, mastery, self-esteem, and mindfulness may all explain variability in depressive symptoms among individuals exposed to maltreatment in childhood. Yet, empirical support for their role remains rare and no study to date has examined these potential mediators simultaneously which would isolate important intervention targets during a period of high risk for depressive symptoms.

Optimism, mastery, self-esteem, and mindfulness may play an important role in resilience to symptoms of depression in the context of cancer. One in eight women will be diagnosed with breast cancer (American Cancer Society, 2016). Depressive symptoms remain elevated during the year after breast cancer diagnosis and can interfere with effective treatment, reduce quality of life, and impair recovery after treatment completion (Antoni et al., 2006; Giese-Davis et al., 2011; Stanton et al., 2005; Stanton et al., 2015; Stanton & Bower, 2015). Further, childhood adversity has been linked to important outcomes in women with breast cancer, including depression (McFarland et al., 2016; Witek Janusek, Tell, Albuquerque, & Mathews, 2013), but also fatigue (Bower, Crosswell, & Slavich, 2014), inflammation (Crosswell, Bower, & Ganz, 2014), and cancer-related distress (Fagundes, Lindgren, Shapiro, & Kiecolt-Glaser, 2012; Goldsmith et al., 2010).

Examining the role of psychological resources in the relationship between childhood maltreatment and depressive symptoms in women recently diagnosed with breast cancer may be an important step toward identifying psychosocial intervention targets. Yet, no