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Childhood adversity and adult depression: The protective role of psychological resilience

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ABSTRACT

Adverse childhood experiences (ACEs), such as childhood abuse, neglect, and household dysfunction, have been identified as salient risk factors for adult depression. However, not all individuals who experience ACEs go on to develop depression. The extent to which resilience- or the ability to demonstrate stable levels of functioning despite adversity- may act as a buffer against depression among individuals with a history of ACEs has not been adequately examined. To address the associations between ACEs, depression, and resilience, 4006 adult participants were recruited from primary care clinics. Participants completed self-report questionnaires including: the Adverse Childhood Experiences Questionnaire, a retrospective measure of childhood adversity; the Patient Health Questionnaire-9, a measure of the presence and severity of the major symptoms of depression; and the Connor Davidson Resilience Scale, a measure of psychological resilience. Results from regression analyses indicated that, while controlling for a range of demographic variables, both ACEs and resilience independently predicted symptoms of depression, $F(9, 3040) = 184.81$, $R^2 = 0.354$. Further, resilience moderated the association between ACEs and depression, $F(10, 3039) = 174.36$, $p < 0.001$, $R^2 = 0.365$. Specifically, the association between ACEs and depression was stronger among individuals with low resilience relative to those with high resilience. This research provides important information regarding the relationships among ACEs, resilience, and depression. Results have the potential to inform the development of treatments aimed to reduce symptoms of depression among primary care patients with a history of childhood adversity.

1. Introduction

The literature demonstrates robust associations between adverse childhood experiences (ACEs) and ensuing psychosocial problems (Anda et al., 2002), health-risk behaviours (Dube et al., 2006; Ford et al., 2011), disease (Anda et al., 2008; Dong et al., 2004), and other undesirable long-term outcomes. One area of particular interest has been the influence of ACEs on the development and maintenance of depressive symptoms in adulthood. Research in this area suggests that childhood adversity is predictive of an increased prevalence of lifetime and recent depressive disorders in adulthood (see Heim, Newport, Mletzko, Miller, & Nemeroff, 2008 for a review).

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Although ACEs are widely accepted as an important risk factor for the development of major depressive disorder (MDD), not all individuals who experience ACEs go on to develop MDD as adults. Individuals who demonstrate stable and healthy levels of functioning despite experiences of adversity are commonly referred to as "resilient". Psychological resilience is conceptualized as a multidimensional construct that includes characteristics of tenacity, self-efficacy, emotional and cognitive control under pressure, adaptability, tolerance of negative affect, and goal orientation (Connor & Davidson, 2003). To date, no research has adequately explored the role of resilience as a protective factor of depression among adults with a history of ACEs.

1.1. Major depressive disorder (MDD) in adulthood

MDD is one of the most commonly diagnosed disorders among adults (Kessler et al., 2003) and ranks third among all disorders responsible for the global disease burden (Mathers & Loncar, 2006). Individuals with MDD experience a range of symptoms, such as depressed or irritable mood and decreased interest in most activities, and rates of suicide attempts and completions are elevated among individuals with MDD relative to the population at large (American Psychiatric Association, 2013; Coryell & Young, 2005). Individuals who suffer from MDD also report increased use of social and medical services, functional impairment (e.g., social and/or work impairment), and lost productivity as a result of impairment at work or absenteeism (Kessler et al., 2003; Simon, 2003; Wang, Simon, & Kessler, 2006).

Given the tremendous consequences of MDD, it is critical to develop empirically sound models of depression and associated risk and protective factors. Beck's (2008) cognitive model of depression proposes that experiences of adversity early in life represent a risk factor for the formation of dysfunctional attitudes and negative cognitions. When such attitudes and cognitions are activated by daily life events, they produce attentional biases, negatively biased interpretations, and symptoms of depression. With repeated activation prior to and following depressive episodes, these attitudes and cognitions become more salient and resistant to change, resulting in chronic and recurring major depressive disorder. Indeed, many contemporary theoretical models highlight the role of childhood experiences in the development and maintenance of subsequent depression (Morris, Kouros, Fox, Rao, & Garber, 2014).

1.2. The association between adverse childhood experiences and depression

Adverse childhood experiences (ACEs) are defined as exposure to childhood emotional, physical, and sexual abuse; emotional and physical neglect; and household dysfunction (i.e., household substance abuse, mental illness, and criminal behavior; interparental violence; parental separation or divorce) prior to the age of 18 years. Approximately two thirds of Americans report exposure to at least one type of childhood adversity and 12% report at least four types of exposures (Dube et al., 2001). Moreover, the majority of respondents exposed to one type of childhood adversity are typically exposed to another (Edwards, Holden, Felitti, & Anda, 2003).

Past research has shown strong dose-response relationships between ACEs and symptoms of depression across the lifespan (Afifi et al., 2008; Chapman et al., 2004; Kendler et al., 2000; Nelson et al., 2002). For instance, Chapman et al. (2004) found that women who reported five or more types of ACEs were 4.4 times more likely to report recent depressive symptoms in adulthood than women who reported no ACEs. Dube et al. (2001) found that each ACE increased risk of attempted suicide across the lifespan 2- to 5-fold. These findings highlight the importance of research that evaluates the cumulative impact of multiple types of ACEs.

1.3. ACEs, depression, and psychological resilience

A burgeoning field of empirical and theoretical research on protective factors associated with depression may explain why certain individuals achieve positive developmental outcomes despite exposure to childhood adversity. One such factor is psychological resilience. Broadly, resilience is conceptualized as the adaptive ability to cope with adversity or trauma (Bonanno, 2004), and is generally viewed as a multidimensional construct that arises from the interaction among constitutional, biological, cognitive factors, and interpersonal factors (e.g., Caspi et al., 2002; Feder, Nestler, & Charney, 2009; Luthar & Cicchetti, 2000; Wright, Masten, & Narayan, 2013). Resilience is a dynamic construct and, although it is often seen to possess trait-like characteristics, longitudinal research suggests that it is modifiable (Montpetit, Bergeman, Deboeck, Tiberio, & Boker, 2010). Characteristics associated with psychological resilience include the use of active and adaptive coping strategies (Southwick, Vythilingam, & Charney, 2005), dispositional optimism and positive emotions (Charney, 2004; Ong, Bergeman, Bisconti, & Wallace, 2006), and purpose in life (Alim et al., 2008; Southwick et al., 2005). The study of resilience holds the potential to inform practice, prevention, and policy efforts that aim to foster positive adaptation, particularly among vulnerable populations (Wright et al., 2013).

Only three studies to date have simultaneously examined the associations among childhood adversity, psychiatric symptoms (e.g., depression), and resilience (Campbell-Sills, Cohan, & Stein, 2006; Seok et al., 2012; Wingo et al., 2010). While each study offers unique and valuable findings, all suffer from significant methodological limitations, such as the failure to capture a wide range of ACEs (i.e., examining only childhood neglect; Campbell-Sills et al., 2006), the utilization of small sample sizes (Seok et al., 2012), and analysis of samples that are not representative of general populations (Wingo et al.,