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Adverse family experiences and flourishing amongst children ages 6–17 years: 2011/12 National Survey of Children's Health

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ABSTRACT

Adverse Childhood Experiences (ACEs) are prevalent in the population and linked to various negative long-term health and social consequences. However, due to the retrospective nature of most studies on the topic, little is currently known regarding ACEs' immediate health impact. This study aims to provide insight into this area by examining the association between a new measurement, Adverse Family Experiences (AFEs), and flourishing amongst children ages 6–17 years in the United States. Data from the 2011/12 National Survey of Children's Health were analyzed. Adjusted prevalence ratios assessed flourishing by the number of AFEs (0 events versus 1, 2, 3/3+) controlling for individual/household characteristics. A sub-analysis examined characteristics of flourishing children ages 12–17 years with 3/3+ AFEs. The results showed children with 1 AFE (APR = 0.87; 95% CI = 0.83-0.91), 2 AFEs (0.74; 0.69–0.79), and 3/3+ AFEs (0.68; 0.62–0.72) were less likely to flourish compared to those without any AFEs. Sub-analysis of children ages 12–17 years with 3/3+ AFEs revealed a higher proportion of flourishing children volunteering, participating in extracurricular activities, and working for pay compared to those who did not flourish. Findings show significant differences in flourishing by number of AFEs and suggest that social connectedness may play a role in determining flourishing amongst children with 3/3+ AFEs. Furthermore, the results highlight the potential importance of identifying children with high AFE counts and helping them build resilience outside of the home.

1. Introduction

Adverse Childhood Experiences (ACEs) are traumatic events that occur prior to the age of 18 years. Studies on the topic have shown that ACEs are prevalent, with approximately 10% of children reported to have been neglected or psychologically abused in high-income countries (Gilbert et al., 2009). These children, due to their exposure to ACEs, are at an elevated risk of developing behavioral and psychological problems such as depression, eating disorders, and substance abuse in adulthood (Chartier, Walker, & Naimark, 2010; Danese et al., 2009; Dube, Felitti, Dong, Giles, & Anda, 2003). Because of the broad range of long-term health and social consequences, ACEs have emerged as a serious public health issue.

Childhood adversity can transform into disease through a variety of mechanisms. A growing body of evidence highlights the

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disruptive effects of ACEs at both behavioral and social levels. For example, adolescents who have experienced multiple traumatic experiences in childhood are more likely to initiate alcohol consumption at a younger age and to report using alcohol as a way of coping with stress (Rothman, Edwards, Heeren, & Hingson, 2008). This increased tendency to adopt unhealthy coping behaviors may also explain why higher exposures to ACEs are associated with tobacco use, illicit drug abuse, promiscuity, and pathologic gambling (Anda et al., 1999; Anda et al., 2006; Felitti, 2009). In addition, a dose response has been described. An increasing number of ACEs among individuals is related to increasing risk of developing poorer coping skills compared to their counterparts with a lower number of ACEs (Mc Elroy & Hevey, 2014; Tanaka et al., 2008). The adoption of unhealthy lifestyles further exacerbates socioeconomic inequalities since adults with behavioral and psychological problems are at a higher risk of unemployment, homelessness, and incarceration (Shonkoff & Garner, 2012). Ultimately, an intergenerational cycle of toxic stress may be created, with maltreated individuals who grow up lacking social support and stability in their lives unable to reach their full potentials as adults, and then exposing their own children to the same ACEs they have faced growing up (Braveman & Barclay, 2009; Kahn, Brandt, & Whitaker, 2004; Shonkoff & Garner, 2012; Wickrama, Conger, Lorenz, & Jung, 2008).

In the 2011/12 NSCH, a measure of Adverse Family Experiences (AFEs) was developed to understand the potentially destructive events or circumstances children may face from a more contextual and environmental perspective. The list of AFEs includes items adopted from the original ACE scale as well as four new stressors. These new items include: 1) death of a parent, 2) witness/victim of neighborhood violence, 3) socioeconomic hardship, and 4) perceived discrimination. Together, these items broaden the framework for understanding toxic stress and reflect a focus on negative experiences that extend beyond direct abuse or neglect (Shonkoff & Garner, 2012). Despite the growing interest in understanding early childhood adversity and its influence on health later on in life, little is known as to whether stressors like AFEs have any immediate impact on the behavioral and social development of maltreated children. Understanding this relationship can help guide public health efforts in preventing the negative health outcomes associated with toxic stress.

Flourishing, or thriving, has been identified as a "building block" of positive wellbeing and can serve as a marker for behavioral and social wellbeing (Lippman, Moore, & McIntosh, 2011; Moore and Lippman, 2005). Aspects of flourishing within the period of infancy and toddlerhood include "healthy attachment relationships; curiosity and interest in learning; the ability to regain equilibrium after an upset; and expressions of joy or happiness"("Measures of flourishing," 2013). For older children, flourishing qualities include "personal attitudes or beliefs; positive interpersonal relationships; and task-related characteristics, such as diligence and initiative" (Lippman et al., 2011). These character strengths reflect positive youth development and promote the capacity to recover from the impact of adverse events (Moore and Lippman, 2005). Flourishing, as an outcome measure, may therefore serve as a possible mediator between AFEs and related health issues in adulthood.

The primary aim of this paper is to examine the relationship between AFEs and a child's ability to flourish.

2. Methods

2.1. Study population

Data from the 2011/12 NSCH were analyzed in 2013. The NSCH is a population based, cross-sectional, telephone survey administered by the Centers for Disease Control and Prevention's National Center of Health Statistics as a module of the State and Local Area Integrated Telephone Survey program. From February 2011 to June 2012, households with children under age 18 years were selected for the sample to provide estimates representative of children under age 18 years. Survey questions were asked of parents (or guardians) on several topics ranging from socio-demographics to age-specific developmental health status. The response rate was 23.0%. Detailed information on the complex, multi-cluster, probability sampling methodology is available online from the National Center for Health Statistics (Centers for Disease Control and Prevention, 2013; Initiative, 2014). This paper specifically focused on children ages 6–17 years.

2.2. AFE assessment

ACEs are stressful or traumatic experiences that occur prior to the age of 18 years. This variable was first collected in the original ACE study, an ongoing longitudinal study exploring whether childhood trauma is associated with elevated health, social, and economic risks amongst members of the San Diego, California Kaiser Health Plan (Anda et al., 2006; Felitti et al., 1998). Since then, many other surveys including the Behavioral Risk Factor Surveillance System (BRFSS) have used results from the original ACE study to guide the development of their own ACE assessment questions.

In the NSCH, a new measurement known as Adverse Family Experiences (AFEs) was developed. Items from the BRFSS ACE Module deemed appropriate for reporting by parents and guardians were incorporated. The NSCH created four additional questions specifically adapted to the survey population. These items included potentially destructive events or circumstances experienced during childhood that were more contextual and environmental. A Technical Expert Panel, consisting of experts in the field of survey methodology and children's health, provided guidance on this process. Input from the community was also gathered through a public comment period before the finalization of the new assessment questions (CAHMI, 2013; Maternal and Child Health Bureau, 2010).

The AFE measurements in this survey used to capture risk factors affecting children include: socioeconomic hardship, divorce/separation of parent, death of parent, parent incarceration, witness of domestic violence, victim of neighborhood violence, lived with someone who was mentally ill or suicidal, lived with someone with alcohol/drug problem, and unfair treatment or judgment due to race/ethnicity.