Child Abuse & Neglect 65 (2017) 88–98

Contents lists available at ScienceDirect

Child Abuse & Neglect

Health effects of adverse childhood events: Identifying promising protective factors at the intersection of mental and physical well-being

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ARTICLE INFO

Article history:
Received 16 September 2016
Received in revised form 3 January 2017
Accepted 12 January 2017
Available online 25 January 2017

Keywords:
Adverse childhood events
Resilience
Health quality of life

ABSTRACT

Research documents how exposure to adversity in childhood leads to negative health outcomes across the lifespan. Less is known about protective factors – aspects of the individual, family, and community that promote good health despite exposure to adversity. Guided by the Resilience Portfolio Model, this study examined protective factors associated with physical health in a sample of adolescents and adults exposed to high levels of adversity including child abuse. A rural community sample of 2565 individuals with average age of 30 participated in surveys via computer assisted software. Participants completed self-report measures of physical health, adversity, and a range of protective factors drawn from research on resilience. Participants reporting a greater burden of childhood victimization and current financial strain (but not other adverse life events) had poorer physical health, but those with strengths in emotion regulation, meaning making, community support, social support, and practicing forgiveness reported better health. As hypothesized, strengths across resilience portfolio domains (regulatory, meaning making, and interpersonal) had independent, positive associations with health related quality of life after accounting for participants' exposure to adversity. Prevention and intervention efforts for child maltreatment should focus on bolstering a portfolio of strengths. The foundation of the work needs to begin with families early in the lifespan.

1. Introduction

Decades of research now make clear that exposure to adverse events in childhood is associated with a range of negative physical and mental health outcomes (Banyard et al., 2008Banyard, Edwards, & Kendall-Tackett, 2008; Shonkoff & Garner, 2012). These events include child maltreatment, witnessing violence, having family members with substance use problems, but also an array of other forms of youth victimization including bullying (Finkelhor, Shattuck, Turner, & Hamby, 2013; Finkelhor, Turner, Ormrod, & Hamby, 2009). Exposure to greater adversity is associated with negative outcomes that range from increased perpetration of violence in adolescence (Duke, Pettingell, McMorris, & Borowsky, 2010) to emotional distress (Briggs-Gowan, Carter, & Ford, 2012; Norman et al., 2012; Tucker, Finkelhor, Turner, & Shattuck, 2013; Turner, Finkelhor,

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http://dx.doi.org/10.1016/j.chiabu.2017.01.011
0145-2134/

Shattuck, & Hamby, 2012) to physical health problems (Del Gaizo, Elhai, & Weaver, 2011; Flaherty et al., 2013; Hager & Runtz, 2012; Widom, Czaja, Bentley, & Johnson, 2012). These associations have been found using both cross-sectional and longitudinal designs using a variety of samples including older adults, ethnically diverse samples, military personnel, and (Maschi, Baer, Morrissey, & Moreno, 2013; Merskya, Topitzesb, & Reynolds, 2013; Sareen et al., 2013). The importance of this link is highlighted by Shonkoff, Garner, Fa, Depe, and Pediat (2012) who state, "many adult diseases should be viewed as developmental disorders that begin early in life." They urge a lifespan perspective on the impact of childhood trauma (Afifi, Mota, MacMillan, & Sareen, 2013) for example, one type of adverse event, harsh physical punishment in childhood, was associated with increased odds of several diseases in adulthood including cardiovascular problems. Healthcare and mental health professionals can play a key role in addressing and seeking to prevent these problems by attending to opportunities to reduce stress and stress responses but also to promote buffering processes that may protect individuals (Garner et al., 2012; Sege & Linkenbach, 2014; Shonkoff & Garner, 2012). To date, however, we know far less about protective factors and resilience.

A number of definitions have been used in research on resilience (Masten, 2014; Sabina & Banyard, 2015; Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014). It has been described as an outcome where an individual shows some high level of functioning following a significant adversity or trauma. It has also been described as a process of adaptation such that an individual is able to recover positive physical or mental health after adversity (Masten, 2014) or demonstrate a steady state of mental health through periods of exposure to stress (Southwick et al., 2014). Researchers have often studied resilience in terms of its correlates, or what are termed protective factors, assets, or resources. These are the variables within an individual or her or his social network or community that help promote this well-being in the face of adversity. The current study uses a model, described in more detail below, that draws and seeks to integrate all of these lines of inquiry.

While researchers in child development have long been at the forefront of work in resilience science, child maltreatment researchers more specifically have shown increasing attention to this topic (Afifi & MacMillan, Tanaka, Duku, Vaillancourt, & Boyle, 2013; Cicchetti, 2013). For example, a review by Afifi and MacMillan (2011) described factors related to resilience across the ecological model. They highlighted the importance of personality factors like self esteem and easy temperament and the key role of interpersonal relationships especially those within the family for resilience. They noted that most research on this topic has focused on samples of children rather than investigating adult survivors of childhood maltreatment. A review focused more specifically on child sexual abuse created a long list of factors including optimism and hope, coping skills and sense of control and community social support (Marriott, Hamilton-Giachritsis, & Harrop, 2014) while work by Ungar (2013a, 2013b) highlighted the need to also attend to cultural contexts that may affect both how markers of resilient functioning manifest themselves and the mechanisms for promoting it. Indeed, a special issue of the journal *Child Abuse and Neglect* in 2013 was devoted to studies examining factors related to more positive outcomes among maltreated children and adolescents (Ungar, 2013a, 2013b; Wolfe, 2013).

A number of limitations have been noted, however, and much remains to be learned about resilience in the context of adverse childhood experiences (Cicchetti, 2013). Sabina and Banyard (2015) discussed the need for violence researchers to look at combinations of protective factors related to resilient functioning rather than studies that focus on one at a time. A recent study by Lenzi et al. (2015) on school victimization among high school students found that the quantity of assets (including self-efficacy, social support and positive family relationships, optimism, emotional regulation) an individual reported (for example having four to nine assets) seemed to create an important tipping point for protecting against victimization. They also found that the variety of domains of protective factors (collections of types of factors) was also important. Youth with at least one asset in different domains (believing in self, engaged living) had better outcomes. Studies are needed that examine more than one protective factor at a time. Researchers have also called for an expanded lifespan perspective, engaging participants beyond childhood and adolescence to understand patterns of resilient functioning (Sabina & Banyard, 2015). The current study employed a large community survey to investigate resilience across adolescence and adulthood.

Work by Ungar (2013a, 2013b) and Masten (2014) discussed how resilience may look different in various cultural contexts. This reminds us of the importance of studying resilience across cultural and geographic locations as well. Geography has been important to understanding risk for child maltreatment. MacMillian et al. (2013) found urban residence was a risk factor for child maltreatment. Other studies described high rates of family violence such as intimate partner violence in rural communities (Rennison, DeKeseredy, & Dragiewicz, 2013), noting how aspects of stress and isolation that are part of rural life may enhance risk for child maltreatment (Rosenberg & Reppucci, 1983). We might also expect differences between rural and urban locations in resilience, though this has been less studied. For example, extended kin networks and strong family ties found in some rural communities may be a protective factor against victimization (Rosenberg & Reppucci, 1983). Further, several studies have documented unique ways that individuals in rural areas in the United States and abroad define terms like "health" or "resilience" (Gessert et al., 2015; Hegney et al., 2007). Rural residents were more likely than urban residents to value self-reliance, spiritual health, and health as the ability to work and fulfill social roles (Gessert et al., 2015; Woodard, 2011). Focus groups on women's health by Leipert and George (2008) highlighted the importance of rural risk and protective factors. For example, a key source of rural stress was related to changes in rural communities related to farms and income, while local pride in being able to solve problems within their community, and values of caring for neighbors were noted as potentially protective. The current study sought to examine resilience in a rural context. Thus, we examined a sample of participants that faced particular challenges to resilience including poverty and lower access to health services, and also unique potential protective factors including spirituality, community ties, and perseverance. Child maltreatment