Child Abuse & Neglect 32 (2008) 693–701

Contents lists available at ScienceDirect

Child Abuse & Neglect

Association between self-reported health and physical and/or sexual abuse experienced before age 18☆

Amy E. Bonomi[a,b,*], Elizabeth A. Cannon[a], Melissa L. Anderson[c], Frederick P. Rivara[d,e], Robert S. Thompson[c]

[a] Human Development and Family Science, The Ohio State University, 135 Campbell Hall, 1787 Neil Avenue, Columbus, OH 43210, USA
[b] Columbus Children's Research Institute, Columbus, OH, USA
[c] The Center for Health Studies, Group Health Cooperative, Seattle, WA, USA
[d] Harborview Injury Prevention and Research Center, Seattle, WA, USA
[e] Departments of Pediatrics and Epidemiology, University of Washington, USA

ARTICLE INFO

Article history:
Received 15 February 2007
Received in revised form 12 October 2007
Accepted 24 October 2007
Available online 7 July 2008

Keywords:
Child abuse
Physical abuse
Sexual abuse
Health status
Intimate partner violence

ABSTRACT

Objective: The present study evaluated the association between women's health and physical and sexual abuse suffered before age 18.
Methods: A total of 3,568 randomly sampled insured women ages 18–64 completed a telephone interview to assess history of physical only, sexual only, or both physical and sexual abuse before age 18 (Behavioral Risk Factor Surveillance System); and current health (Short Form-36, Center for Epidemiologic Studies-Depression, Presence of Symptoms surveys). Adjusted analyses compared the health of women with physical abuse only, sexual abuse only, or physical and sexual abuse to the health of women without these abuse histories.
Results: Poorest health status was observed in women with a history of both physical and sexual child abuse compared to women without these abuse histories. In models that adjusted for age and income, women with both abuse types had increased prevalence of depression (prevalence ratio, 2.16), severe depression (PR, 2.84), physical symptoms (PR range, 1.33 for joint pain to 2.78 for nausea/vomiting), fair/poor health (PR, 1.84), and lower SF-36 scores (3.15–5.40 points lower). Women with physical abuse only or sexual abuse only also had higher prevalence of symptoms and lower SF-36 scores but the associations were not as strong.
Conclusions: This study adds to the literature showing a graded association between multiple adverse events in childhood and adult health.

Introduction

Women with a history of physical and/or sexual child abuse experience adverse health into adulthood, including cardiovascular symptoms, impaired physical function, pain, gastrointestinal symptoms, gynecological disorders, depressive disorders, and psychosomatic symptoms of anxiety, panic, or post-traumatic stress disorder (Arnow, 2004; Batten, Aslan, Maciejewski, & Mazure, 2004; Bensley, Van Eenwyk, & Wynkoop Simmons, 2003; Carlson, McNutt, & Choi, 2003; McCauley et al., 1997; Moeller, Bachmann, & Moeller, 1993; Newman et al., 2000; Nicolaidis, Curry, McFarland, & Gerrity, 2004; Walker

☆ This manuscript was developed under the Agency for Healthcare Research and Quality grant: Long term impact of domestic violence.
* Corresponding author.

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doi:10.1016/j.chiabu.2007.10.004

et al., 1999). However, in all but one of these studies, it was not possible to determine health effects attributable to physical versus sexual childhood abuse.

Bensley et al. (2003) isolated the health effects of physical versus sexual child abuse. Their study found that women who experienced physical abuse only were twice as likely to report poor physical health and 3.4 times more likely to report frequent mental distress than women without the abuse histories examined in their study (physical, sexual, witnessing violence between parents). Women with childhood sexual abuse only were 2.1 times as likely to report frequent mental distress than women without an abuse history. Other studies that examined health associated with physical only or sexual only child abuse history concentrated on combined samples of women and men (Teicher, Samson, Polcari, & McGreenery, 2006).

Despite the important contribution of the Bensley study, it did not evaluate the specific health effects for women who experienced both physical and sexual child abuse. Studies suggest a graded relationship between adverse childhood exposures (including child abuse) and poor health in adulthood—the more traumatic exposures in childhood, the more adverse adult health behaviors and consequences, such as smoking, heart disease, cancer, emphysema, skeletal fractures and poor self-rated health (Anda et al., 1999; Bensley et al., 2003; Edwards, Holden, Felitti, & Anda, 2003; Felitti et al., 1998; Teicher et al., 2006). These findings suggest that the health effects of multiple types of abuse experiences accumulate and worsen over time, leading to poorer adult health than if only one type of abuse was experienced (Irving & Ferraro, 2006).

Additionally, while prior studies reported useful information regarding the relationship between women's health and history of physical and sexual child abuse, many used clinic-based samples (Hulme, 2000; McCauley et al., 1997; Moeller et al., 1993; Nicolaidis et al., 2004), reported a narrow range of health outcomes (Batten et al., 2004; Carlson et al., 2003), and did not account for intimate partner violence (IPV) exposure in adulthood (Batten et al., 2004; Hulme, 2000; Moeller et al., 1993; Newman et al., 2000; Nicolaidis et al., 2004; Walker et al., 1999). Studies have shown a strong association between physical and sexual childhood abuse and IPV exposure in adulthood (Bensley et al., 2003; Coid et al., 2001; Thompson et al., 2006; Whitfield, Anda, Dube, & Felitti, 2003), and also adverse health associated with IPV (Bonomi et al., 2006; Campbell et al., 2002; Carlson et al., 2003; Centers for Disease Control and Prevention, 1998; Coker, Smith, Bethea, King, & McKeown, 2000; Kramer, Lorenzon, & Mueller, 2004; McCauley et al., 1995; Nicolaidis et al., 2004). Thus, in studies that did not account for IPV, it is unknown whether the relationship between health status and child abuse history persists after accounting for the effects of IPV.

The present investigation adds to the literature by describing the relationship between women's health and history of physical only, sexual only, or both physical and sexual childhood abuse (in models that account for and do not account for IPV in adulthood). We use a population-based random sample drawn from the membership files of a large health plan, and examine a wide range of physical, mental and social health indicators including data from the widely used SF-36 survey (Ware, Kosinski, & Dewey, 2000).

Methods

Sample and data collection

The study was approved by Group Health Cooperative's Institutional Review Board. Group Health is a large prepaid health plan providing health services to more than 500,000 people in Washington State and northern Idaho. English-speaking women ages 18–64 who were enrolled at Group Health for at least 3 years were randomly sampled from enrollment files to participate in a telephone survey to assess intimate partner violence exposure and health status (Bonomi et al., 2006; Thompson et al., 2006). Women were also asked about history of child abuse before age 18 as part of an assessment of risk factors for IPV (described below). According to approved IRB procedures, an advance letter was mailed to women describing our interest in issues affecting women's health (Bonomi et al., 2006; Thompson et al., 2006). After the advance letter was sent, we contacted women by telephone to ascertain their interest and consent to participate in our study (Bonomi et al., 2006; Thompson et al., 2006).

Of 6,666 women randomly sampled, 345 were excluded because they: did not meet the sampling criteria identified in the Group Health automated health plan records (209); were deceased (3); were too ill (15); or did not speak English or had a hearing impairment (118). Of the 6,321 remaining women, 1,829 (28.9%) refused participation when initially contacted by the study staff, 539 (8.5%) started but did not complete the interview, 385 (6.1%) could not be located, and 3,568 (56.4%) completed the telephone survey.

To assess potential non-response bias due to the 56.4% response rate, we requested additional human subjects' approval to obtain limited data on non-respondents. Propensity scores were computed using logistic regression to estimate the probability of response adjusted for age, length of enrollment at Group Health, and health care utilization in the year prior to the survey. The estimated probability of response was slightly higher for women with a history of abuse as a child compared to women who reported no abuse history (0.59 versus 0.58, $p < 0.01$). However, this small difference should not introduce bias in the study findings.

In the telephone survey, women were first asked the full range of health measures, and then were asked about their history of abuse. The questions on child abuse history were some of the last questions (along with demographic questions) to be asked of women.