Child Abuse & Neglect 63 (2017) 249–260

Contents lists available at ScienceDirect

Child Abuse & Neglect

Practical Strategies

Gender differences in the association between childhood sexual abuse and risky sexual behaviours: A systematic review and meta-analysis

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ARTICLE INFO

Article history:
Received 5 April 2016
Received in revised form 9 October 2016
Accepted 22 November 2016
Available online 28 November 2016

Keywords:
Childhood sexual abuse
Risky sexual behaviour
Syndemic
Meta-analysis

ABSTRACT

This meta-analytic review examines the association between childhood sexual abuse and risky sexual behaviours with sub-group analyses by gender. Systematic searches of electronic databases including MEDLINE, PubMed, EMBASE, and PsycINFO were performed using key terms. We used *a priori* criteria to include high quality studies and control for heterogeneities across eligible studies. The review was registered with PROSPERO and used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. The final meta-analysis applied fixed-effects model to generate pooled odds ratio (OR). Subgroup analyses were conducted to identify potential methodological moderators. The meta-analysis included 8 eligible studies (N = 38,989, females = 53.1%). The overall syndemic of risky sexual behaviors at adulthood was 1.59 times more common in childhood sexual abuse victims. There was a similar association between childhood sexual abuse in general and subsequent risky sexual behaviors in both females and males. However, in cases of substantiated childhood sexual abuse, there was a greater odds of risky sexual behaviors in females (OR = 2.72) than males (OR = 1.69). The magnitude of association of childhood sexual abuse and risky sexual behaviors was similar for males and females regardless of study time, study quality score and method of childhood sexual abuse measurement. There were nonsignificant overall and subgroup differences between males and females. Childhood sexual abuse is a significant risk factor for a syndemic of risky sexual behaviors and the magnitude is similar both in females and males. More research is needed to explore possible mechanisms of association.

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http://dx.doi.org/10.1016/j.chiabu.2016.11.023
0145-2134/

1. Introduction

Population-based estimates show that the rates of both non-penetrative and penetrative childhood sexual abuse (CSA) (Dunne, Purdie, Cook, Boyle, & Najman, 2003) appear to be greater in females than males (Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011), disproportionately affecting those children with poor developmental and health outcomes. These include poor mental health, early initiation of substance use disorders (Davies & Jones, 2013), stressful familial, and environmental situations (e.g., low bonding, poverty, familial illiteracy, substance use, domestic violence, conflict, and post conflict environments) (Butler, 2013; Carpenter, 2006; Davies & Jones, 2013; Pérez-Fuentes et al., 2013; Rew and Fitzgerald Lynn, 2001; Stewart et al., 2004; Tyler, Hoyt, Whitbeck, & Cauce, 2001; Ward & Marsh, 2006). The nature of CSA including duration, frequency (Beitchman et al., 1992), use of force (Najman, Dunne, Purdie, Boyle, & Coxeter, 2005), type of abuse (i.e., penetrative vs. non-penetrative), relationship, and context of a perpetrator (Lestrade, Talbot, Ward, & Cort, 2013) (e.g., father figures with substance use disorders (Appleyard, Berlin, Rosanbalm, & Dodge, 2011)), and family environment (Rind, Tromovitch, & Bauserman, 1998) may also determine the severity of potential consequences. Long-term effects may vary by gender but the results are contradictory with some work suggesting it is more severe in females (Rind et al., 1998) while others suggest it is greater in males (Beitchman et al., 1992).

Likewise, risky sexual behaviors (RSBs) are significant health problems that may lead to long-term poor reproductive health outcomes such as infertility (Grodstein, Goldman, & Cramer, 1993), pelvic inflammatory diseases and sexually transmitted infections (STIs) including HIV (Van Der Pol et al., 2008). Biological, behavioural, and environmental determinants including genetic factors (Harden, 2014), timing (Kann et al., 2014) and frequency of risky sexual activity, incorrect and inconsistent use of contraceptive (Martinez, Copen, & Abma, 2011), and multiple number of sexual partners (MSPs) (Senn, Carey, Vanable, Coury-Doniger, & Urban, 2007) constitute RSBs. Moreover, a range of mental health problems involving depression (Orth, Robins, & Roberts, 2008), alcohol use (Choudhry, Agardh, Stafström, & Östergren, 2014), personality disorders (Baams, Overbeek, Dubas, & Van Aken, 2014) including aggression and antisocial behaviours (Epstein, Bailey, Manhart, Hill, & Hawkins, 2014), lack of family support (Auerbach, Bigda-Peyton, Eberhart, Webb, & Ho, 2011), and poor parental monitoring (Parkes, Henderson, Wight, & Nixon, 2011) appear to be the correlates of RSBs.

2. Childhood sexual abuse and risky sexual behaviours

Childhood maltreatment in general and CSA in particular, is associated with a range of RSBs and appear to lead to subsequent poor health outcomes, regardless of gender (Kendall-Tackett, Williams, & Finkelhor, 1993). For instance, early engagement in unprotected sex, sexual dysfunction (Tyler et al., 2001), MSPs (Agardh, Odberg-Pettersson, & Östergren, 2011), casual sex, and prostitution (Banducci, Hoffman, Lejuez, & Koenen, 2014) are common in sexually abused males and females even after controlling for socio-demographic characteristics and a psychiatric disorder (Agardh et al., 2011). These associations are doubled for sexually abused children (Agardh et al., 2011). In prospective studies, males and females of prior CSA exhibit early sexual debut (James, Montgomery, Leslie, & Zhang, 2009), unprotected sex (Wilson & Widom, 2011), HIV risk behaviours (James et al., 2009), and other STIs after adjusting for socio-demographic characteristics (Haydon, Hussey, & Halpern, 2011), although these findings are not consistent (Widom & Kuhns, 1996).

Retrospective findings suggest an association between CSA and RSBs including MSPs in heterosexual men (Schraufnagel, Davis, George, & Norris, 2010), but not in men who have sex with men (Holmes, Foa, & Sammel, 2005). In females, after controlling for other forms of maltreatment (physical abuse, emotional abuse, and neglect) (Senn & Carey, 2010), CSA is associated with unprotected sex, MSPs (Bensley, Van Eenwyk, & Simmons, 2000), sex trading (Senn, Carey, & Coury-Doniger, 2011), and unintended teenage pregnancy (Ramiro, Madrid, & Brown, 2010) both in clinical and community settings. In prospective studies, sexually abused females tend to report higher rates of teenage pregnancy (Trickett, Noll, & Putnam, 2011), teenage motherhood (Noll, Newland, & Hulsmann, 2006), preterm delivery (Noll et al., 2007), HIV risk (Trickett et al., 2011), and other gynaecological problems (Sickel, Noll, Moore, Putnam, & Trickett, 2002). However, CSA does not appear to significantly predict STIs in female clinical samples (Lestrade et al., 2013). Moreover, sexually abused children may reflect different patterns of sexual orientations including heterosexual, bisexual, or lesbian as adults (Alvy, Hughes, Kristjanson, & Wilsnack, 2013), and may have an increased vulnerability to subsequent RSBs.

A number of caveats are relevant to interpreting the findings of an association between CSA and RSBs. Most of the findings are from clinical samples (Banducci et al., 2014; Lestrade et al., 2013; Senn et al., 2011) may not represent the general public (Rind & Tromovitch, 2007; Rind et al., 1998) thereby affecting the reliability and external validity of findings. Other issues include recall, rumination and help-seeking bias. Furthermore, social stigma, ideological, and political sensitivities may be additional limitations.

To our knowledge, there has been no systematic review and meta-analysis of CSA and its relationship with a syndemic of RSBs in both males and females. The current meta-analysis aims to examine the overall association of CSA and adulthood RSBs and provides sub-group estimates by gender, study time, study quality score, and method of CSA measurement (self-report vs. substantiated). We hypothesised that there would be an association between CSA and a syndemic of RSBs irrespective of gender.