An exploratory study of whether pregnancy outcomes influence maternal self-reported history of child maltreatment

Alison L. Cammack⁎, Carol J. Hoguea, Carolyn D. Drews-Botsch, Michael R. Kramer, Brad D. Pearce, Bettina Knight, Zachary N. Stowe, D. Jeffrey Newport

Department of Epidemiology, Rollins School of Public Health, Emory University, 1518 Clifton Road NE, Atlanta, GA 30322, USA
Department of Psychiatry and Behavioral Sciences, University of Arkansas for Medical Sciences, 4301 W. Markham St., Little Rock, AR 72205, USA
Department of Psychiatry, University of Wisconsin-Madison, 6001 Research Park Blvd, Madison, WI 53719, USA
Departments of Psychiatry & Behavioral Sciences and Obstetrics & Gynecology, Leonard M. Miller School of Medicine, University of Miami, 1120 NW 14 Street, Suite 1446, Miami, FL 33136, USA

ARTICLE INFO

Keywords:
Child abuse
Child neglect
Memory biases
Pregnancy
Recall

ABSTRACT

Childhood maltreatment is common and has been increasingly studied in relation to perinatal outcomes. While retrospective self-report is convenient to use in studies assessing the impact of maltreatment on perinatal outcomes, it may be vulnerable to bias. We assessed bias in reporting of maltreatment with respect to women’s experiences of adverse perinatal outcomes in a cohort of 230 women enrolled in studies of maternal mental illness. Each woman provided a self-reported history of childhood maltreatment via the Childhood Trauma Questionnaire at two time points: 1) the preconception or prenatal period and 2) the postpartum period. While most women’s reports of maltreatment agreed, there was less agreement for physical neglect among women experiencing adverse perinatal outcomes. Further, among women who discrepantly reported maltreatment, those experiencing adverse pregnancy outcomes tended to report physical neglect after delivery but not before, and associations between physical neglect measured after delivery and adverse pregnancy outcomes were larger than associations that assessed physical neglect before delivery. There were larger associations between post-delivery measured maltreatment and perinatal outcomes among women who had not previously been pregnant and in those with higher postpartum depressive symptoms. Although additional larger studies in the general population are necessary to replicate these findings, they suggest retrospective reporting of childhood maltreatment, namely physical neglect, may be prone to systematic differential recall bias with respect to perinatal outcomes. Measures of childhood maltreatment reported before delivery may be needed to validly estimate associations between maternal exposure to childhood physical neglect and perinatal outcomes.

1. Introduction

Childhood maltreatment is a commonly reported experience. In the Adverse Childhood Experiences Study, many women reported histories of abuse (24.7%, 29.1%, and 13.1% for sexual, emotional, and physical abuse, respectively) and neglect (13.1% and 9.2% for physical and emotional neglect, respectively) (Centers for Disease Control & Prevention, 2010; Felitti et al., 1998). Childhood
maternal maltreatment has been linked to many forms of distant pathology into adulthood, including vulnerability to psychopathology (Norman et al., 2012), obesity (Hollingsworth, Callaway, Duhig, Matheson, & Scott, 2012), chronic pain syndromes (Afari et al., 2014), and inflammation and cardiovascular outcomes (Dong et al., 2004; Rooks, Veledar, Goldberg, Brenner, & Vaccarino, 2012).

Increasingly, investigators have examined the relationship between childhood maltreatment and pregnancy/perinatal outcomes, including preterm birth, fetal loss, and maternal medical complications during pregnancy, and found positive associations (Hillis et al., 2004; Leeners, Stillier, Block, Gorres, & Rath, 2016; Margerison-Zilko, Strutz, Li, & Holzman, 2017; Noll et al., 2007; Selk, Rich-Edwards, Koenen, & Kubzansky, 2016). However, null findings also exist (Benedict, Paine, Paine, Brandt, & Stallings, 1999; Grimstad & Schei, 1999). A relationship between childhood maltreatment and perinatal outcomes is also plausible because several studies have also reported that stress, broadly defined, is associated with these outcomes, and these associations may be mediated through multiple biological and behavioral mechanisms (Wadhwa, Entringer, Buss, & Lu, 2011). Preconception health and life course psychosocial stressors such as childhood maltreatment have been identified as exposures of particular importance to perinatal research (Kramer, Hogue, Dunlop, & Menon, 2011).

One factor which may explain discrepant findings related to associations between childhood maltreatment and perinatal outcomes is exposure misclassification. Unlike many other exposures, it is difficult to make direct inquiries of affected children, in part due to the ethics of asking minors about abuse and neglect (Amaya-Jackson, Socolar, Hunter, Runyan, & Colindres, 2000). Further, measures that utilize reporting of maltreatment to authorities are relatively uncommon and most cases of abuse are not reported (Macmillan et al., 2009). Thus, there is no agreed upon gold standard measure for child maltreatment, and investigators often rely upon retrospective self-reported measures in part due to their convenience. However, although retrospective self-report may not suffer threats to validity related to repercussions of disclosure, sensitive topics such as maltreatment are still prone to misclassification, particularly underreporting (Tourangeau & Yan, 2007).

One way of gaining information about possible misclassification of these self-reported measures is through assessment of test-retest reliability. Reliability does not guarantee validity, but poor reliability for sensitive topics such as maltreatment suggests selective underreporting since misreporting a non-event is unlikely (Macmillan et al., 2009). Not remembering or misinterpreting questions may also lead to non-differential underreporting and poor reliability. Reliability of retrospective reporting of child abuse and neglect, particularly with validated scales, has generally shown at least moderate agreement (Cammack et al., 2016; Dube, Williamson, Thompson, Felitti, & Anda, 2004). However, some studies, such as those conducted by Ferguson (Ferguson, Horwood, & Woodward, 2000) reported that physical and sexual abuse had kappas of 0.47 and 0.45, respectively, and (da Silva and da Costa Maia, 2013) reported kappas ranging from 0.33 to 0.43 for various domains of maltreatment on the Childhood History Questionnaire, suggesting less than ideal agreement.

To our knowledge, no studies have examined if reliability is affected by the experience of specific perinatal outcomes. Factors that influence memory, such as mood state, are directly influenced by pregnancy and the postpartum periods (Buckwalter, Buckwalter, Bluestein, & Stanczyk, 2001) and women who experience adverse pregnancy outcomes may be more susceptible to such factors, thereby affecting the agreement of their reporting of experiences of childhood maltreatment. Also, mothers who give birth to infants with health problems such as prematurity are at increased risk of postpartum depression (Vigod, Villegas, Dennis, & Ross, 2010). While this association may not necessarily be causal, it suggests that pregnancy specific events may be directly related to factors such as mood, which may in turn affect reporting. Further, an anecdotal literature has suggested that pregnancy specific events such as invasive exams, traumatic labor and breastfeeding may affect recall of childhood trauma (Leeners, Richter-Appelt, Imthurn, & Rath, 2006; Montgomery, Pope, & Rogers, 2015).

It is also plausible that a woman’s experience of an adverse pregnancy outcome could lead to increased reporting of maltreatment, relative to individuals who have not experienced such an outcome (i.e., recall bias). Recall bias has been observed for various exposures in relation to perinatal outcomes (Boeke et al., 2012; Dews & Greenland, 1990; Hogue, 1975) although not all studies suggest that it has a strong impact on association effect sizes (Dews, Kraus, & Greenland, 1990). A few studies have examined the relationship between a history of maltreatment and health outcomes, comparing the effects of prospective versus retrospective assessments (with respect to the outcome). Some of these studies report positive effects only for the retrospective assessments (Raphael, Widom, & Lange, 2001; Reuben et al., 2016; Widom, Weiler, & Cottler, 1999), which elicits concerns that such findings may be driven by recall bias and not reflect causality. Within the perinatal literature, many studies examining the relationship between maternal exposure to child maltreatment and a given perinatal outcome rely on retrospective measures (Cammack et al., 2011; Diesel, Bodnar, Day, & Larkby, 2016; Leeners et al., 2016). These assessments are variable in timing with respect to the outcome of interest, but it is unclear if maltreatment history assessed before delivery yields systematically different findings than postnatally measured maltreatment.

This study aims to examine bias in maternal retrospective self-reporting of childhood maltreatment in relation to perinatal outcomes. In the present study, we assessed whether: 1) agreement of self-reports of childhood maltreatment history captured before and after delivery differed according to whether women experienced adverse perinatal outcomes; 2) women, particularly those experiencing adverse perinatal outcomes, who discrepantly reported maltreatment had a tendency to systematically report maltreatment before or after delivery and 3) associations between perinatal outcomes and childhood maltreatment measured before delivery were meaningfully different than those measured after delivery.

2. Materials and methods

Participants were drawn from a convenience sample of 230 pregnant women aged 18–45 enrolled in prospective observational cohort studies of the perinatal course of psychiatric illness. Women were referred to the research program by community obstetric or
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات