Childhood Abuse and Postpartum Psychosis: Is There a Link?

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Abstract

Postpartum psychosis (PPP) is a serious mental health issue associated with maternal suicide and infanticide. Although a growing research base suggests that childhood abuse is predictive of psychosis, bipolar disorder, and postpartum depression, the link between abuse and PPP is less clear. Currently, prevention and treatment strategies are pharmacological and require hospitalization once symptoms arise. Unfortunately, these strategies are not ideal for affected women and their infants. Testing the relationship between experiences of childhood abuse and PPP may reveal abuse variables to be both statistically and clinically meaningful predictors of the disorder. A dose-response model suggests that women who report more severe abuse or multi-victimization will be more likely to develop PPP. The authors suggest trauma screening in psychiatric, obstetrical, and community practice settings to identify women at-risk for PPP, and advocate for the addition of gender-responsive and trauma-focused psychotherapy to pharmacological interventions for this population.

Keywords: Postpartum psychosis, childhood abuse, motherhood, dose-response
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Introduction

Postpartum psychosis (PPP) is a serious mental health issue characterized by the rapid development of paranoid, grandiose, or bizarre delusions, audio/visual hallucinations, mood swings, confused thinking, and grossly disorganized behavior in the days, weeks, or months following childbirth (Bergink, Lambregtse-van den Berg, Koorengevel, Kupka, & Kushner, 2011). Although PPP affects a small minority of women – approximately 1 or 2 per 1,000 deliveries – it is important to understand because it is strongly associated with severe negative outcomes including maternal suicide (Doucet, Jones, Letourneau, Dennis, & Blackmore, 2011; Sit, Rothschild, & Wisner, 2006), infanticide (Spinelli, 2004), and infant abuse and neglect (Chandra et al., 2006). The causes of PPP are unknown, although working hypotheses place the origins of the disorder within an explicitly genetic/physiological context (Bergink et al., 2011; Doucet et al., 2011). In this framework, PPP is conceptualized as a postpartum manifestation of bipolar disorder (Bergink et al., 2011). Current research seeks to better understand the heritability of these disorders and identify potential neurotransmitter candidate genes, although meta-analyses suggest that findings are inconsistent and causal pathways have yet to be identified (Scott et al., 2009; Seifuddin et al., 2012).

This column suggests that even severe mental health issues like PPP do not occur absent from the influence of psychosocial factors. Childhood abuse has been identified as an important predictor for a range of mental health issues across the life span, including psychosis (Janssen et al., 2004; Kennedy, Tripodi, & Pettus-Davis, 2013; Read, van Os, Morrison, & Ross, 2005; Varese et al., 2012), bipolar disorder (Daruy-Filho et al., 2011; Garno et al., 2005), and postpartum depression (PPD; Leeners, Richter-Appelt, Imthurn, & Rath, 2006; Plaza et al., 2012;
Seng et al., 2013). Nevertheless, the relationship between childhood abuse and PPP is unexplored. Extrapolating from research connecting childhood abuse to symptoms of psychosis (e.g., Read et al., 2005), a dose-response model is proposed to interpret the relationship between childhood abuse and PPP, with an increased dose of childhood abuse predicting the increased response of hallucination and delusion after childbirth.

This column first presents a critical review of the PPP research base and suggests a feminist re-conceptualization of the disorder to highlight psychosocial antecedents. Then, research connecting experiences of childhood abuse to the symptoms of psychosis, bipolar disorder, and PPD is presented. Finally, gender-responsive and trauma-focused treatment strategies and areas for future research are suggested.

**Postpartum Psychosis**

Currently, PPP is not conceptualized as a discrete disorder; rather, it is included under the umbrella of PPD with a *psychotic features* notation (American Psychiatric Association, 2013; World Health Organization, 1992). The causes of PPP are unknown, although the literature suggests that PPP may be a postpartum presentation of bipolar disorder, rather than a variant of psychotic disorders or other postpartum mental health issues (Chaudron & Pies, 2003; Doucet et al., 2011; Sit et al., 2006). In fact, Doucet and colleagues (2011) note that one quarter to one half of women with a bipolar disorder diagnosis who give birth experience PPP. For affected women, the first pregnancy and birth experience (primiparity) appears to hold the greatest risk for the development of PPP (Blackmore et al., 2006). In a study of 129 women diagnosed with bipolar affective disorder, Blackmore and colleagues (2006) found that primiparity significantly increased the odds of experiencing PPP almost four-fold (OR = 3.76; 95% CI = 1.94–7.27). In addition to primiparity, obstetric complications such as blood loss and (pre)eclampsia, neonatal
distress, preterm birth, and acute cesarean delivery have also been implicated as important predictors of PPP, although findings are mixed, and odds ratios modest (Blackmore et al., 2006; Nager, Sundquist, Ramírez-León, & Johansson, 2008).

Although depression, anxiety, and posttraumatic stress are hypothesized as the sequelae of childhood abuse, the experience of psychosis is generally thought to have strictly genetic, rather than psychosocial or trauma-based origins. Therefore, the current etiology of PPP is assumed to be genetic/physiological and psychosocial factors are largely downplayed (Doucet et al., 2011; Robertson, Celasun, & Stewart, 2003; Sit et al., 2006). Null findings from two early studies on the relationship between stress and PPP are cited to support this hypothesis (e.g., Brockington, Martin, Brown, Goldberg, & Margison, 1990; Dowlatshahi & Paykel, 1990). However, a recent vein of research suggests that psychosis is also significantly related to childhood abuse (e.g., Bendall, Jackson, & Hulbert, 2010; Read et al., 2005; Varese et al., 2012). Therefore, a dose-response hypothesis for PPP would suggest that women with more severe histories of childhood abuse would be more likely to experience psychosis after childbirth.

The current conceptualization of PPP as a genetic/physiological disorder means that the influence of childhood abuse on symptoms is unexplored, and both prevention and treatment strategies are pharmacological, with antipsychotics, mood stabilizers, and the beta-blocker propranolol recommended (Doucet et al., 2011, Bergink et al., 2012). Unfortunately, pharmacological intervention has potentially severe adverse effects for affected women and their infants during pregnancy and lactation (Genung, 2013; Pearlstein, 2013; Sachs, 2013). Specifically, women taking mood stabilizers during pregnancy have an elevated risk of fetal neural tube defects, heart defects, and structural malformations (Pearlstein, 2013; Yonkers, Wisner, & Stowe, 2004). Breastfed infants of mothers taking atypical antipsychotics are at an
elevated risk for a range of adverse effects including jaundice, cardiovascular instability, seizures, and sudden infant death syndrome (Genung, 2013). And, infants who ingest Lithium via lactation are at risk of rapid dehydration, especially during febrile illness. Further, the long-term developmental effects of exposure to psychotropic medications through lactation are largely unknown (Sachs, 2013; Yonkers et al., 2004).

In addition to adverse physical effects, women who experience postpartum mental health issues like PPP are more likely to have impaired attachment to their infant in the postpartum period (Hipwell, Goossens, Melhuish, & Kumar, 2000; Moehler, Brunner, Wiebell, Reck & Resch, 2006; Seng et al., 2013). Attachment impairment is further heightened for mothers who report having experienced abuse or neglect as children (Muzik et al., 2013). Muzik and colleagues (2013) examined the quality of the mother-infant relationship in 150 dyads from birth through 6 months. They found that women with a history of childhood abuse or neglect \( (n = 97) \) reported significantly more bonding issues \( (t = -2.74, p = .01) \) and postpartum psychopathology, defined as depression \( (t = -3.44, p < .01) \) and posttraumatic stress disorder \( (t = -5.97, p < .01) \) at 6 months postpartum. Thus, mothers with a history of childhood abuse who experience postpartum mental health issues comprise an especially vulnerable population for the development of attachment issues. This is important because poorly attached infants are at risk for subsequent negative outcomes including behavioral problems, social and emotional delays, and psychopathology (Belsky & Fearon, 2002; Mikulincer & Shaver, 2012).

Of course, not all women who experience childhood abuse have postpartum adjustment issues or struggle to bond to their baby, women who have had previous psychiatric contact comprise an especially high-risk group (Bergink et al., 2011; Nager et al., 2008). Few protective factors have been identified for PPP, although research suggests that social contacts, social
support, and stress are important constructs for individuals who experience psychosis (Gayer-Anderson & Morgan, 2013; Sündermann, Onwumere, Bebbington, & Kuipers, 2013) and PPD (Robertson, Grace, Wallington, & Stewart, 2004). Psychosocial interventions are suggested to improve self-esteem and reduce stress, loneliness, and anxiety for affected individuals (Pruessner, Iyer, Faridi, Joober, Malla, 2011; O'Hara, Stuart, Gorman, & Wenzel, 2000; Robertson et al., 2004; Sündermann, Onwumere, Kane, Morgan, & Kuipers, 2014).

Reconceptualizing PPP from a genetic/physiological disorder to a condition influenced by psychosocial factors may help identify additional protective factors that can aid in prevention and treatment.

Finally, feminist critiques highlight deep problems with the biomedical model of postpartum mental health, as it flattens motherhood into a homogenous and universally positive experience and invalidates all experiences which do not conform to this stereotyped ideal (Johnston-Robledo, 2000; MacKay & Rutherford, 2012; Taylor, 1995; Ussher, 2011). This stereotyped version of mothering – deemed the motherhood mystique – is a source of identity dissonance and frustration for those women who find themselves unfulfilled by motherhood or who are unable to connect to the experience of mothering or to their baby in the way they expected (Ussher, 2011). In this model, the identity dissonance caused by the motherhood mystique is conceptualized as the root of postpartum mental health issues. That is, mental health issues are an expression of a woman’s awareness of the discrepancy between her own thoughts and feelings and the perception of what is typical or acceptable for mothers (Hochschild, 1983; Taylor, 1995; Ussher, 2011).

The pressure of the motherhood mystique might exacerbate the relationship between childhood abuse and psychosis in the postpartum period. PPP would then represent an extreme
reaction to the iterative and reflective experience of reproduction, especially for women who are victims of childhood abuse. That is, women who have experienced abuse as children may have ambivalent feelings or anxiety during pregnancy, labor and delivery, and the postpartum period (Johnston-Robledo & Barnack, 2004; Leeners et al., 2006). This ambivalence may be heightened by a woman’s internalized sense of who she should be as a mother, and how she fails to live up to that ideal (Robertson & Lyons, 2003). Although many first-time mothers report anxiety about providing adequate care to their infant and relay fears about keeping their baby safe, women who experienced PPP described how that normative anxiety and fear escalated into panic and paranoia (Engqvist, Ferszt, Åhlin, & Nilsson, 2011; Robertson & Lyons, 2003; Taylor, 1995). For some women, panic culminated in visions of harming the baby or watching the baby die (Engqvist et al., 2011; Taylor, 1995). These visions violated women’s internalized sense of the motherhood mystique, and compounded their terror with guilt and shame (Engqvist et al., 2011; Robertson & Lyons, 2003; Taylor, 1995). Women therefore kept silent about their disturbing thoughts, feelings, and visions, which only fed their anxiety (Engqvist et al., 2011). These qualitative descriptions of PPP highlight the potential importance of psychosocial intervention to acknowledge, normalize, and deescalate the urgency of these discrepant thoughts and feelings.

Although the influence of childhood abuse on PPP is unknown, childhood abuse has been identified as a significant predictor in the development of psychosis, bipolar disorder, and PPD – disorders which are theoretically related to PPP in symptoms, putative etiology, and onset, respectively. Therefore, a critical review of the literature connecting experiences of abuse to psychosis, bipolar disorder, and PPD is presented below.

**Childhood abuse and psychosis**
Recent scholarship on the development of psychosis suggests that psychotic disorders have psychosocial, rather than strictly genetic/physiological origins (Read et al., 2005). Childhood abuse, whether sexual or physical, is associated with the development of psychosis in both clinical and non-clinical samples (Janssen et al., 2004; Kennedy et al., 2013; Read et al., 2005; Varese et al., 2012). A dose-response relationship is noted, as individuals who experienced multi-victimization and more severe abuse having the highest risk for developing psychotic symptoms (Read et al., 2005). In a synthesis of 46 studies of female psychiatric patients experiencing psychosis, Read and colleagues (2005) found that almost 70% had a history of childhood sexual abuse (CSA; 48%) or childhood physical abuse (CPA; 48%). Building upon these findings, Varese and colleagues (2012) conducted a meta-analysis of the hypothesized relationship and report significant associations between childhood abuse and psychosis (OR = 2.78; 95% CI = 2.34–3.31). This relationship endured across population and research design for retrospective and prospective studies. Specific types of victimization (i.e., CSA, CPA, emotional abuse, neglect) were all significantly related to psychosis in clinical and non-clinical samples. Although the majority of studies analyzed did not consider dose-response relationships, nine of the 10 which tested for these associations were positive (Varese et al., 2012).

**Childhood abuse and bipolar disorder**

The relationship between childhood abuse and psychosis persists, however, even when we pursue the hypothesis that PPP is an extension of bipolar disorder, rather than psychosis, as is suggested by the current PPP literature (Bergink et al., 2011, 2012; Sit et al., 2006). Childhood abuse is reported by more than half of adult bipolar samples, with a third reporting multi-victimization (Garno et al., 2005). Affected persons who self-report childhood abuse are at
greater risk for suicide attempts and psychotic symptoms (Daruy-Filho et al., 2011; Garno et al., 2005). For example, in a study of 100 adults diagnosed with bipolar disorder, both CSA (OR = 3.42; 95% CI = 1.26-9.29) and CPA (OR = 2.00; 95% CI = 0.75-5.13) were statistically significant predictors of lifetime suicide attempts (Garno et al., 2005). Additionally, in a review of 19 studies of adult and adolescent bipolar samples, Daruy-Filho and colleagues (2011) report that CSA was predictive of suicide attempts (OR = 3.42; 95% CI = 1.26-9.29) and CPA appears to be the strongest predictor of psychosis in bipolar disorder (OR = 2.30; 95% CI = 1.10-5.00). As maternal suicide is a primary concern for women experiencing PPP, the increased risk for suicide attempts for abused bipolar patients is noteworthy. Primary limitations of these analyses include the cross-sectional design and heterogeneous operational definition and measurement of abuse variables. However, a dose-response relationship can still be used to interpret the association between abuse and outcome. For example, when multi-victimization was assessed as an independent variable, stronger associations were found between abuse and both suicide attempts and psychosis (Daruy-Filho et al., 2011; Garno et al., 2005). The experience of childhood abuse, especially multi-victimization, therefore, is associated with psychotic features of bipolar disorder and more severe behavioral consequences.

**Childhood abuse and postpartum depression**

When considering postpartum mental health issues more broadly, the link between childhood abuse and symptomatology endures. Both CSA (Leeners et al., 2006) and CPA (Plaza et al., 2012) are strongly associated with the development of PPD. In a narrative review, Leeners and colleagues (2006) synthesized data from 43 studies investigating the influence of CSA on postpartum mental health issues. Due to the mixed methodological quality of the available studies and heterogeneity of both the CSA construct and outcome variables, the authors were
only able to present descriptive data. The authors assert that for affected women, the experience of CSA was significantly related to more severe PPD, anxiety, and self-reported life stressors during the prenatal and postpartum period. The authors also note that postpartum women who reported CSA were at higher risk for PPD than their non-abused counterparts. Although drawing firm conclusions from the evidence is limited based on the methodological issues identified above, Leeners and colleagues (2006) suggest that the experience of pregnancy, labor, delivery, and caring for an infant may reactivate memories of abuse, leading to negative mental health consequences. Likewise, in a study of 236 mothers immediately postpartum (24-48 hours after delivery), Plaza and colleagues (2005) found that self-reported CPA was significantly associated with a five-fold increase in depressive symptomatology \( (\text{OR} = 5.45; 95\% \ CI = 2.17-13.66) \). This finding is especially salient, as the association between abuse and PPD is based on a non-clinical sample and uses a validated instrument to assess abuse among postpartum women. It is unknown, however, whether the reported poorer outcomes are associated with abuse variables, previous psychiatric symptoms, current PPD, or if outcomes are a product of an iterative psychological process of reflecting on negative childhood experiences while caring for and protecting one’s own child (Leeners et al., 2006).

**Discussion and directions for future research**

The current hypothesis that PPP is a postpartum presentation of the bipolar disorder and has explicitly genetic/physiological origins decontextualizes and oversimplifies the complex transition of becoming a mother. The assumption of a biomedical model of PPP means that prevention and treatment strategies are pharmacological in nature (Doucet et al., 2011). Unfortunately, severe birth defects, miscarriage, and negative infant outcomes have all been associated with psychotropic medications during pregnancy and the postpartum period (Genung,
2013; Pearlstein, 2013; Sachs, 2013; Yonkers et al., 2004). Likewise, as women experiencing PPP are hospitalized for a median of 40 days (Bergink et al., 2011), alternative strategies are needed to ensure safety while allowing for mother-infant attachment and breastfeeding.

Although childhood abuse has been associated with a range of mental health issues throughout the life course, the incidence, prevalence, and clinical impact of childhood abuse for women experiencing PPP is less clear. Women with histories of childhood abuse may be especially sensitive to the pressures of the motherhood mystique, feeling alienated and silenced if they are unhappy, unfulfilled, or are unable to emotionally connect to the mothering experience in the way they had expected (Johnston-Robledo, 2000; MacKay & Rutherford, 2012). These hypotheses are tentatively supported by analyses which suggest that women who survived sexual abuse in childhood may have an especially difficult time coping with the physical, mental, and emotional transitions inherent to pregnancy and birth (Johnston-Robledo & Barnack, 2004). That is, for some women, the very process of birth (e.g., exposure, vulnerability, loss of control) can reactivate previous trauma in a new, emotionally and hormonally charged context (Seng et al., 2013). As the literature suggests PPP is significantly correlated to primiparity, we would expect to see the relationship between childhood abuse and PPP strengthened for women during their first birth experience (Blackmore et al., 2006). Increased incidence of PPP in primiparity may be a facet of hypothesized hormonal changes (Doucet et al., 2010), or may represent the amplified anxiety and fear many first-time mothers experience about pregnancy, birth, and the transition to motherhood.

Acute psychosocial interventions have been effective at reducing symptoms of psychosis (Bola, Lehtinen, Cullberg, & Ciompi, 2009) and PPD (Johnston-Robledo & Barnack, 2004; O’Hara & McCabe, 2013), which suggests that similar outcomes may be possible for women
experiencing PPP. Additionally, a meta-analysis of psychosocial interventions paired with medication postponement protocols showed modest long-term improvement when compared to medication-only groups for persons experiencing psychosis (Bola et al., 2009). Furthermore, several gender-responsive and trauma-focused treatment modalities are highlighted in the literature, although applications among a postpartum population are rare. However, trauma-focused cognitive behavioral therapy appears to be effective for child and adolescent survivors of CSA (e.g., Saxe, Ellis, & Kaplow, 2007) and a variety of gender-responsive, trauma-focused interventions target women with posttraumatic stress symptoms and substance misuse disorders in group settings (e.g., Covington, 2003; Najavits, 2007). As qualitative research on PPP suggests that isolation and feelings of deviance are key barriers for affected women (Engquvist et al., 2011; Roberston & Lyons, 2003; Taylor, 1995), group-based treatment modalities may be helpful in reducing alienation, guilt, and shame, while improving attachment between mother and baby (Elliott et al., 2005).

Although PPP can have severe negative outcomes, including death, a treatment regimen that includes trauma screening, gender-responsive and trauma-focused counseling, and a consideration of the affected woman in her full environmental context is imperative. However, individuals who present with psychotic symptoms are rarely given trauma assessments or offered supportive counseling in tandem with medication when they make contact with emergency mental health services (Leeners et al., 2006; Read et al., 2005). This trend is especially regrettable as the dose-response model posits that PPP is more likely to affect the most vulnerable women in our communities.

Routine trauma screenings in both inpatient and outpatient psychiatric settings, as well as in obstetrical care settings, may help to identify women at-risk for PPP (Leeners et al., 2006).
Offering women supportive psychotherapy to address the emotional links between the experience of childhood abuse and reproduction comprise a first-step to reducing the incidence and serious consequences associated with PPP. Social workers in both inpatient psychiatric and community settings are perfectly positioned to provide screening and adjunctive therapy for at-risk and affected women. Hopefully, integrating therapeutic interventions into psychiatric, obstetrical, and community practice settings will reduce the incidence and prevalence of PPP, maternal suicide, and infanticide, while improving outcomes for affected women and their children more broadly.
References


