



The Relationship of Childhood Adversity to Postpartum Depression

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Intent = 'connect the dots'



BACKGROUND

**Childhood Adversity
Perinatal mental health**

**The Relationship of Childhood Adversity to Selected
Maternal Health Outcomes**

Key findings

Implications for Psychiatric/Mental Health Nurses





**Exposure to
childhood adversity
is common and has
harmful and long-
term effects on
physical and mental
health** (WHO, 2002)



Canadian Incidence Study of Reported Child Abuse & Neglect (2003)

217,319 reports of child maltreatment investigated

47% of these (103,297) were substantiated

neglect (30%)

exposure to domestic violence (28%)

physical abuse (24%)

emotional maltreatment (15%)

sexual abuse (3%)

Girls and boys were equally affected (49% vs. 51%)

girls were more often sexually (63%) & emotionally (54%) abused

boys were more often victims of physical abuse (54%), neglect (52%), and exposure to domestic violence (52%).



The Adverse Childhood Experiences (ACE) Study (Felitti et al, 1998)

This study is an ongoing collaboration between the US Centers for Disease Control and Prevention and Kaiser Permanente (HMO)

Co-PIs - Robert Anda and Vincent Felitti

Purpose – to examine the associations between adult health problems and exposure to a range of ACEs

- verbal, physical, sexual abuse
- domestic violence
- parental loss /separation /divorce
- household substance abuse
- mental illness
- incarceration



ACE STUDY (Felitti et al, 1998)

n=17,337

Data collected between
1995 and 1997

Prevalence rates (%) are
estimated from the entire
ACE Study sample

ACE Score	Women %	Men %	Total %
0	34.5	38.0	36.1
1	24.5	27.9	26.0
2	15.5	16.4	15.9
3	10.3	8.6	9.5
≥4	15.2	9.2	12.5



ACE Conceptual Frame



What does the ACE study tell us? (Anda, 2007)

- ACEs are common
- ACEs tend to occur in clusters, rather than single experiences
- The cumulative impact of multiple exposures to ACEs can be captured in an “ACE Score”
- The ACE score quantifies the cumulative neurodevelopmental consequences of early-life traumatic stress
- The ACE Score has a direct and graded relationship to a range of health, social, and behavioural problems throughout the person's lifespan
- These ACE-related problems tend to be co-morbid or co-occurring



POSTPARTUM DEPRESSION

Approximately 1 in 5 women will develop a clinically significant mental health problem within the first year of delivery ... many of these problems will go undiagnosed and untreated



PERINATAL MOOD PROBLEMS

Women in the antenatal or postpartum periods are vulnerable to developing the same mental health problems as any other adult

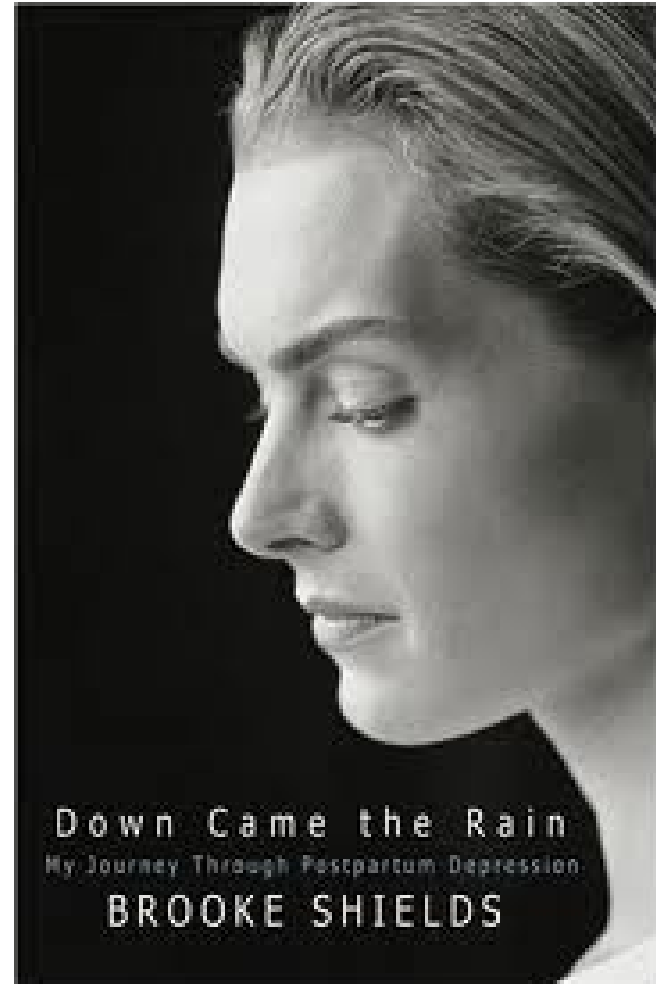


Common perinatal mood problems include:

- perinatal anxiety and/or depression
- panic disorder
- obsessive-compulsive disorder
- posttraumatic stress disorder
- bipolar disorder
- postpartum psychosis (>1%)



10% - 20% of women develop a clinically significant mood problem during the perinatal period, making these disorders among the most common complications of pregnancy and the postpartum period





Perinatal mood problems can affect women of all ages, ethnicity, and levels of education and income

At greatest risk are women who are poor, single, have little social support, belong to an ethnic minority, and/or have a history of mental health problems



ACEs & Maternal Perinatal Health (Hillis et al, 2004)

- **As ACEs scores ↑ so did the likelihood of adolescent pregnancy & fetal death**
- **ACE score accounted for 33% of the risk for adolescent pregnancy**
- **No associations between adolescent pregnancy and long-term psychosocial difficulties in women who reported no ACEs**



**There is a gap in our
understanding of the relationship
between childhood adversity and
maternal mental health**



Objectives

- 1. Examine the relationship between childhood adversity and selected maternal and infant outcomes in women who participated in the Trauma in Pregnancy Study (TIPS)**
- 2. Compare maternal and infant outcomes in women who report a history of childhood adversity with a comparison group who report no ACEs**
- 3. Identify directions for future research**



Method

This study is a sub-analysis of the Trauma in Pregnancy Study (TIPS)

-Longitudinal prospective comparison cohort study

-Purpose is to measure health outcomes of women and their infants following a traumatic event in pregnancy (e.g., MVC, fall, work-related injury, assault, etc.)

-Data is collected at enrolment and at several points in time over 18 months and includes measures of

childhood adversity

past and current physical and mental health

information about the pregnancy, labour, delivery and postnatal adjustment

maternal and infant salivary cortisol



RESULTS

Type of Childhood Adversity	Frequency
physical assault	45/100
sexual assault	47/100
other unwanted sexual experience	64/100
sudden, unexpected death of someone close	52/100
serious illness of someone close	68/100



Is there a relationship between childhood adversity & abuse/violence in adulthood?

Childhood Adversity	Abuse /Violence in Adulthood	RR	95% CI	P Value
PHYSICAL ASSAULT	emotional &/or physical	3.38	1.89%-6.01%	<0.001
	abuse during pregnancy	-	32%-0%	<0.001
	slapped/pushed during pregnancy	-	17.8%-0%	<0.001
SEXUAL ASSAULT	emotional &/or physical	2.3	1.38%-3.22%	<0.002
	abuse during pregnancy	5.92	1.33%-30.5%	<0.007
SERIOUS ILLNESS OF SOMEONE CLOSE	emotional &/or physical	2.11	1.38-3.22%	<0.023
	abuse during pregnancy	11.3	3.90-32.4%	<0.001
	slapped/pushed during pregnancy	6.10	1.22-30.5%	<0.019



Is there a relationship between childhood adversity & reproductive health?

Childhood Adversity	Reproductive health	RR	95% CI	P Value
PHYSICAL ASSAULT	Hypertension in pregnancy	2.93	1.11-7.72%	<0.02
	Depression in pregnancy	1.68	0.97-2.89%	<0.06
	Pregnancy end in abortion	2.40	1.07-5.37%	<0.03
SEXUAL ASSAULT	Hypertension in pregnancy	3.88	0.99-15.15%	<0.05
	Hypertension in pregnancy	3.88	0.99-15.15%	<0.05
OTHER UNWANTED SEXUAL EXPERIENCE	Hypertension in pregnancy	10.0	0.98-101.7%	<0.02
	Vaginal bleeding after 12 weeks	-	20-0%	<0.001
	Pregnancy end in abortion	3.88	0.99-15.15%	<0.04



Is there a relationship between childhood adversity & mean EPDS scores at 4 weeks postpartum?

Childhood Adversity	Edinburgh Postnatal Depression Scale (Mean Score)	P Value
Physical assault: No Physical Assault	7.36 : 4.33	0.007
Sexual assault: No sexual assault	6.64 : 4.96	0.17
Other unwanted sexual experience: No other unwanted sexual experience	7.00 : 5.26	0.34
Serious illness: No serious illness	10.00 : 5.19	0.05
Sudden, unexpected death of loved one: No sudden, unexpected death of loved one:	7.55 : 4.59	0.01



CONCLUSIONS

Compared with women who did not report adversity in childhood, those who did were significantly more likely to report:

- **violence/abuse in adulthood, including during pregnancy**
- **reproductive health problems (hypertension, gestational diabetes, vaginal bleeding after 12 weeks and to have a pregnancy end in abortion)**
- **higher means scores on the Edinburgh Postnatal Depression Scale at 4 weeks postpartum**



LIMITATIONS

- **Sub-analysis (selection bias)**
- **Voluntary (selection bias)**
- **Retrospective (recall bias)**
- **Self-report (recall bias)**
- **Small sample/group size**



So what?

Exposure to childhood adversity is common and has harmful and long-term implications for women's perinatal mental health

Many nurses and other health professionals report having a limited understanding of these disorders and their treatments-

Psychiatric/mental health nurses have the specialized knowledge and skills to play a leading role in the prevention, early recognition, and compassionate care of women with perinatal mood problems



Questions? Comments? Discussion



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