

Antenatal domestic violence, maternal mental health and subsequent child behaviour: A cohort study

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Pregnancy and childbirth

- Domestic violence can increase in severity/frequency and/or start in pregnancy
- History of abuse associated with pregnancy abuse
- Emotional and physical abuse associated with foetal loss
- Antenatal abuse associated with postnatal depression (Population Attributable Fraction=10% in Brazilian study)
- 34 women in 2011 UK Confidential Enquiry into Maternal Deaths had DV features (11 murdered)

Domestic violence experienced by local mental health patients (data from LARA study)

*He was very violent, he even punched me in the stomach when I was pregnant with*Nigel. Um I have been kicked all around the room, strangled, raped, you name it happened (su1)*

I think the worst time that sort of stuck out of my memory was, I had just had a miscarriage..... and I can remember him from the top landing just dropping the linen basket full up of washing down at me, from the landing, as I was going down the stairs (su17)

When I had my first daughter he didn't buy food.....and I was breast feeding, you know. He didn't buy food....I had no water (su16)

She gave birth prematurely, as a result of him beating her up...she was actually found 8 hours after birth...the cord was still attached and he left her like that.... she was mute for like a month in a ward and she attributes that to him (P10, female nurse)

Impact on children

Antenatal DV:

- Foetal loss, low birth weight (mixed evidence),
?effect on infant & child

Postnatal DV:

- Child abuse (in >40%)
- >750,000 children in England witness domestic violence each year
- Childhood psychological disturbance associated with witnessing violence (depression, anxiety, PTSD symptoms, substance misuse, aggressive behaviour)
- Adult mental health problems

Research questions

- To what extent is antenatal domestic violence associated with antenatal and postnatal psychiatric morbidity?
- Is antenatal domestic violence associated with adverse child development?

Methods

Avon Longitudinal Study of Parents and Children (ALSPAC)

- Over 14,000 pregnant women recruited in Avon area, 1991-92 (85-90% of eligible population)
- Longitudinal, prospective study
- Postal questionnaires
- Detailed information on mother, partner and child was collected at 18 and 32 weeks gestation and continues to be collected
- Average age of women: 28 years
- 45% expecting their first child

Measures (1)

Maternal Outcomes

Depression - Edinburgh Postnatal Depression Scale (Cox 1987) – validated 10 item self-report (at 18 & 32 wks gestation & postnatal) (Recommended cut-off: score of 13+)

Maternal Exposures

Antenatal & postnatal domestic violence (18 wks gestation & postnatal)

2 questions:

“Has your partner hurt you physically?”

“Has your partner been emotionally cruel to you?”

Demographic factors age, ethnicity, education, marital status, alcohol/drug use/smoking during pregnancy

Life Events 13-item scale

Father exposures

education, ethnicity, anxiety/depression

Measures (2)

Child (up to 42 months)

Outcomes

Mother's report on child behaviour

Revised Rutter scale - hyperactivity, emotion, conduct problems and pro-social behaviour; high score indicates more problems (low score on the prosocial subscale)

Exposures

Domestic violence: physical/emotional by mother or partner

Sex, ethnicity, parity, birthweight for gestational age

Comparison of baseline characteristics between mother and child pairs with complete information at 42 months and those without		14 variables of interest		
Variable		All present	Any missing	Significance
Antenatal domestic violence	Yes	98 (3%)	677 (8%)	<0.001
Antenatal depression	Yes	319 (9%)	1,290 (16%)	<0.001
Age of mother	mean (sd)	29 (4.3)	27 (5.1)	<0.001
Ethnicity	Non-white	40 (1%)	273 (3%)	<0.001
Highest Education	Low	657 (19%)	2,978 (34%)	<0.001
	Medium	1,183 (35%)	3,002 (35%)	
	High	1,564 (46%)	2,718 (31%)	
Marital status at 8 wks gest	Never married	318 (9%)	2,113 (23%)	<0.001
	Married	2,934 (86%)	6,628 (71%)	
	Other	142 (4%)	624 (7%)	
Housing	Own/mortgage	2,968 (87%)	6,341 (68%)	<0.001
Smoke during pregnancy	Yes	408 (12%)	2,129 (23%)	<0.001
Alcohol use during pregnancy	1+ units/day	51 (2%)	193 (2%)	0.034
Small for gestational age	Yes	323 (9%)	691 (10%)	0.272
Sex of child	Male	1,762 (52%)	5,261 (52%)	0.808
Parity	0	1,695 (50%)	3,965 (43%)	<0.001
	1	1,158 (34%)	3,238 (35%)	
	2+	551 (16%)	1,993 (22%)	
Birth weight at birth (kg)	Yes	22 (2%)	224 (5%)	<0.001

Characteristics of Mothers

Variable		n (%)
Antenatal domestic violence (18 wks)	Yes	786 (7%)
Antenatal depression (18 w ks)	Yes	1,630 (14%)
Mothers age at birth	mean (sd)	27.9 (4.98)
Parity	0	5,725 (45%)
	1	4,432 (35%)
	2+	2,578 (20%)
Ethnicity	Non-w hite	314 (3%)
Highest Education	Low	3,656 (30%)
	Medium	4,211 (35%)
	High	4,298 (35%)
Marital status at 8 w ks gest	Never married	2,506 (19%)
	Married/ Co-habiting	9,859 (75%)
	Other	795 (6%)
Housing	Ow n/mortgage	9,606 (73%)
Smoke during pregnancy	Yes	2,576 (20%)
Alcohol during pregnancy	1+ units/day	245 (2%)
Cannabis during pregnancy	Yes	252 (2%)
Life events at 18 w eeks gestation	mean (sd)	2.71 (2.93)

76% of the 242 women who experienced antenatal violence also experienced domestic violence at least once postnatally; 22% of the 4,942 women that did not report domestic violence during pregnancy went on to experience it at least once

ALSPAC cohort study of effect of antenatal DV (n=13,617; imputed dataset)

- At 18 wks gestation:
 - 6% experienced emotional cruelty
 - 2% reported physical cruelty
 - 7% reported either
- Antenatal DV ass with antenatal depression
 - OR **5.47**, 95% CI 4.7 – 6.4; adj OR **4.02**, 95%CI 3.4-4.8
- Antenatal DV ass with postnatal depression
 - OR **2.94**, 95% CI 2.4 – 3.6; adj OR **1.29** 95%CI 1.02-1.63
- High correlation between antenatal violence and postnatal violence
- Antenatal domestic violence ass with behaviour problems in child at 42 months (adj OR **1.87**, 95%CI 1.45-2.40)

Impact of total maternal exposure to antenatal and postnatal domestic violence on behavioural problems at 42 months

	N (Average imputed per dataset)	Odds Ratio – Imputed dataset	95% Confidence interval		p-value
No violence	7,580	Reference category			
Antenatal violence only	183	1.31	0.75	2.32	0.340
Postnatal violence only	1,608	2.03	0.71	2.42	<0.001
Antenatal and postnatal violence	425	2.59	1.96	3.41	<0.001

Main findings

- Very strong association between antenatal and postnatal violence (29% of women reporting violence only experienced it antenatally)
- Antenatal domestic violence associated with antenatal depression (at 18 wks) and postnatal depression (8 wks postpartum).
- Antenatal domestic violence associated with behavioural problems in the child at 42 months
- This association not found after adjustment for domestic violence that occurred after the birth of the child in its first years of life.
- Despite large numbers, study underpowered to test whether antenatal violence and childhood behaviour outcomes were independently associated.
- The strong correlation between antenatal and postnatal violence clearly indicates that antenatal violence is a marker for postnatal violence, and subsequent poor child outcomes.

Methodological issues

Strengths

- **longitudinal study design with long follow-up**
- **integration of domestic violence variables with a range of linked demographic and outcome variables for women, their partners and their children**

Limitations

- **the use of postal self-report questionnaires (partner could have been present at the time of questionnaire completion which may have led to under-reporting of violence)**
- **domestic violence identified using only two questions, not using action based examples of violent behaviour which increase rates of reporting of violence**
- **child behaviour outcomes and maternal depression also self-report measures rather than clinical diagnoses**
- **Missing data**

Implications

- Antenatal violence and antenatal depression need to be addressed in order to ameliorate their long term detrimental effects on the child
- Health care system may be the victim's first or only point of contact with professionals (though average 7-8 contacts before disclosure)
- Survivors identify health care professionals as the people they would trust most with their disclosure of domestic violence
- Supports mandating maternity and perinatal mental health services to identify domestic violence & psychiatric morbidity
- Policy makers internationally should aim to improve detection and management of antenatal violence and psychiatric morbidity

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References

Collins C, Zimmerman C, Howard LM. Refugee, asylum seeker, immigrant women and postnatal depression: rates and risk factors. *Archives of Women's Mental Health* 2011 14:3–11

Howard LM, Trevillion K, Khalifeh H, Woodall A, Agnew-Davies R, Feder G. Domestic violence and severe psychiatric disorders: prevalence and interventions. *Psychological Medicine* 2010 40, 881–893.

Howard LM, Trevillion K, Agnew-Davies R. Domestic violence and mental health. *International Review of Psychiatry* October 2010; 22(5): 525–534

Rose D, Trevillion K, Woodall A, Morgan C, Feder G, Howard LM. Barriers and Facilitators of Disclosures of Domestic Violence by mental health service users: a qualitative study. *British Journal of Psychiatry*. March 2011 198:189-94.

Flach C, Leese M, Heron J, Evans J, Feder G, Sharp D, Howard LM and the ALSPAC team. Antenatal Domestic Violence and Subsequent Child Behaviour. *BJOG* 2011; 118 (11), 1383–1391