

Infants of substance abusing mothers in Australia: a matched cohort study assessing the risk of child protection notification

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Background:

- Substance use is increasing in the community, particularly amphetamines
- Substance use increasingly identified in child protection investigations: estimated 40-80% in Australia by Victorian and NSW child protection statutory agencies
- Current Senate inquiry into impact of drug use in families

Background:

- Difficult population to study, only recently has only data been collected systematically
- No Australian data on risk of child protection agency involvement in this group
- US data only –
 - Risk estimated between 3-8 times
 - different sociodemographics, patterns of drug use, policy and treatment

Study Aims

1. To document the child protection risk to children of substance using mothers in an Australian population
2. Provide foundation of evidence for practice and policy

Methods:

- Exposed individuals were defined as infants born between 2000-2003 to mothers who lived in the Brisbane Royal Children's Hospital Health Service District and who said they used illegal drugs
- Unexposed infants were matched for date of birth, gender, and gestational age
- Infants were followed until March 2006
 - median follow-up time = 49 months (range: 26 to 74 months).

Methods:

- Primary Outcomes
 1. substantiated child protection notification
 - defined as 'at risk of harm' or 'harm'
 - Type of abuse recorded as physical, emotional, neglect, sexual
 2. entry into alternative care
- Accessed Child Protection Information System database (CPIS) for Dept of Child Safety (DChS)
 - DChS not blinded to drug use but not known whether disclosed to DChS either (assessment details not recorded)
- Order in Council obtained for ethics approval

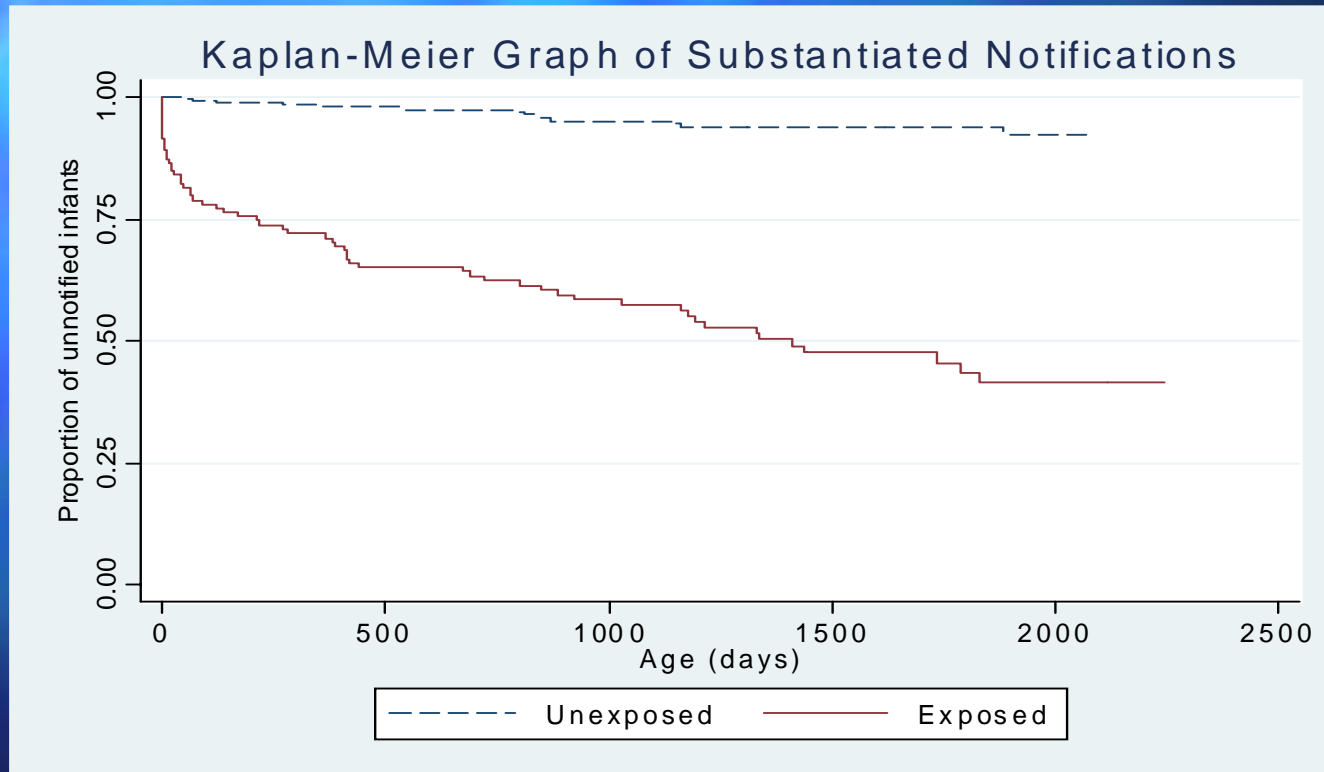
Demographics

Group (n)	Mothers Age in years mean (SD)	Male gender	Prematurity <37 weeks	Ave birth weight (g)
Methadone (53)	28.5 (5.5)	43%	8 (15%)	3017.2
Opiates (19)	28.0 (4.6)	42%	2 (10.5%)	3070.8
Opiates and amphetamines (9)	24.3 (4.1)	56%	2 (22.2%)	3321.1
Amphetamines only (38)	25.7 (5.5)	45%	11 (28.9%)	2715.3
Total Exposed (119)	27.8 (5.4)	46 % male	23 (19.3%)	2952.3
Total Unexposed (238)	29.6 (5.3)	Matching variable	Matching variable	3242.9

Results:

- Substantiated notifications of all types:
 - Exposed 62/119 (52%)
 - Unexposed 15/238 (6%)
 - Hazard ratio = 12.2 (95% CI 6.8 to 21.6)
- Substantiated harm:
 - Overall: HR = 17.8 (6.1 to 51.5)
 - Physical: HR = 29.7 (3.9 to 226.0)
 - Neglect: HR = 14.2 (3.2 to 63.0)

Substantiated notification (all types)



$P < 0.0001$ using log-rank test

Risk according to child's age

- < 28 days period of highest risk of notification for study group
 - 21/62 (35%) exposed
 - 1/15 (7%) unexposed
- Rate of entry into foster care greatest for both at this time
 - 4/29 (14%) exposed
 - 3/5 (60%) unexposed

Risk due to child's age

- Likely due to disclosure of drug use by mother and perception of risk by Child Safety
- Vulnerability generally seen as greatest in early infancy

Risk according to drug use

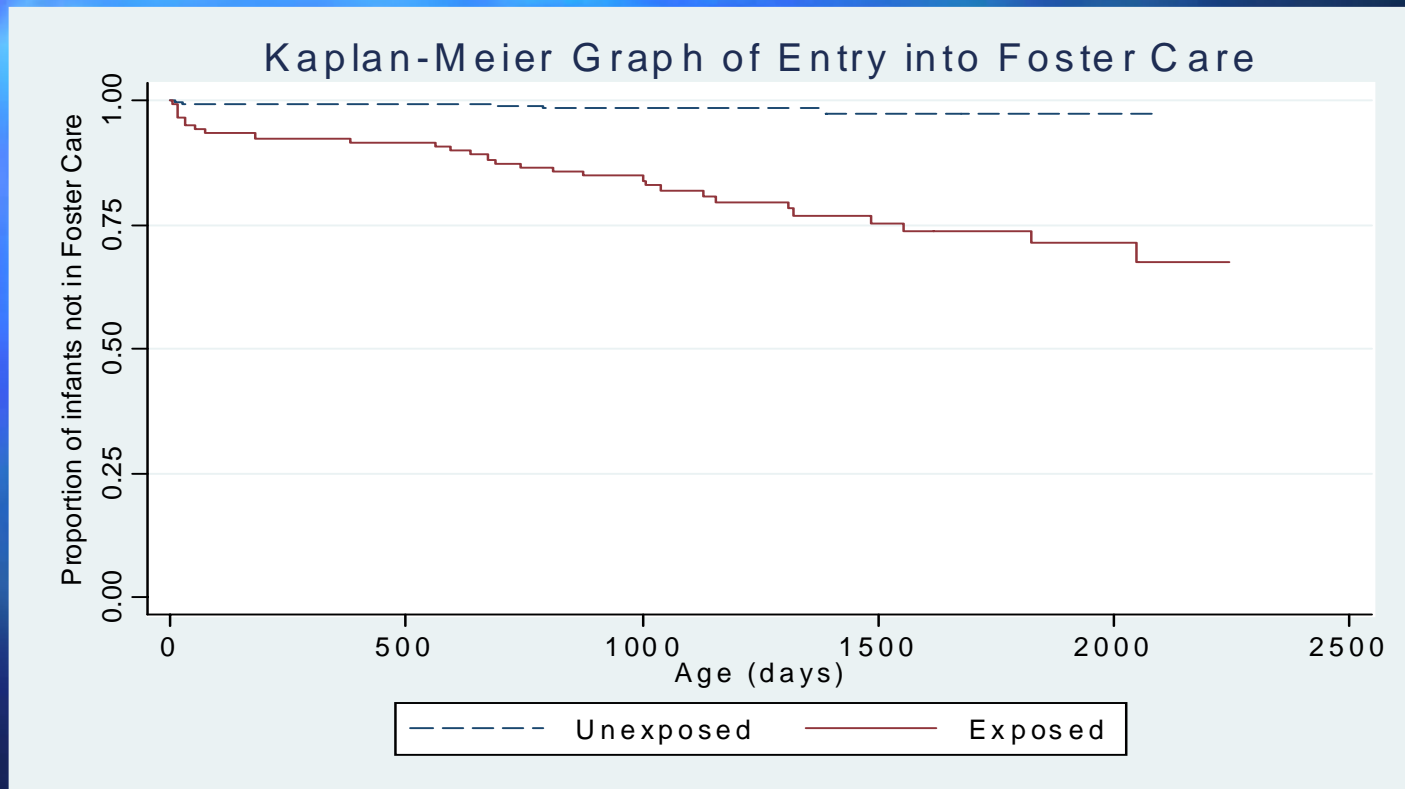
Drug type	HR	(95% CI)
None (controls)	1.0	
Methadone only	8.4	(4.1 to 17.1)
Amphetamines only	17.4	(6.1 to 49.6)
Other	16.9	(5.7 to 50.6)
Methadone vs illicit	2.8	(1.5 to 5.0)

Entry into alternative care

- 29/119 (24.4%) entered alternative care
 - 5/238 (2.1%) unexposed

HR = 12.8 (1.9 to 33.6)
- Exposed infants
 - More likely to enter alternative care
 - 29/119 (24%) exposed cf 5/238 (2%) unexposed
 - HR = 12.8 (1.9 to 33.6)
 - more likely to be on longer orders
 - HR = 24.8 (5.8 to 107.2)
 - Less likely to be re-united with family
 - HR = 16.3 (2.0 to 133.3)

Entry into alternative care



$P < 0.0001$ using log-rank test

Discussion:

- Children in these families at very high child protection risk
- Association likely to be real
 - Very high hazard ratios
 - More documented harm, especially physical
 - More entry to foster care
 - Less likely to be re-unified with family
 - Long duration of risk
 - Some observer bias likely
 - Association lower with methadone compliance

Next phase:

- Data analysis of community child health service utilisation, rates of immunization and linking to CP outcomes
- Child Safety in-depth analysis of study children entering alternative care