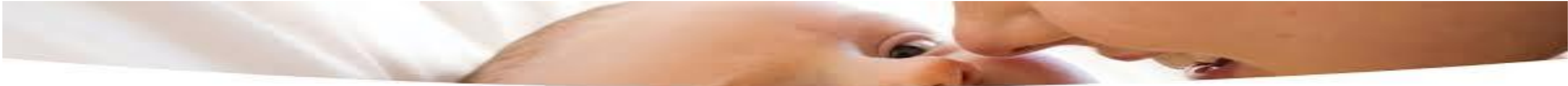


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Introduction



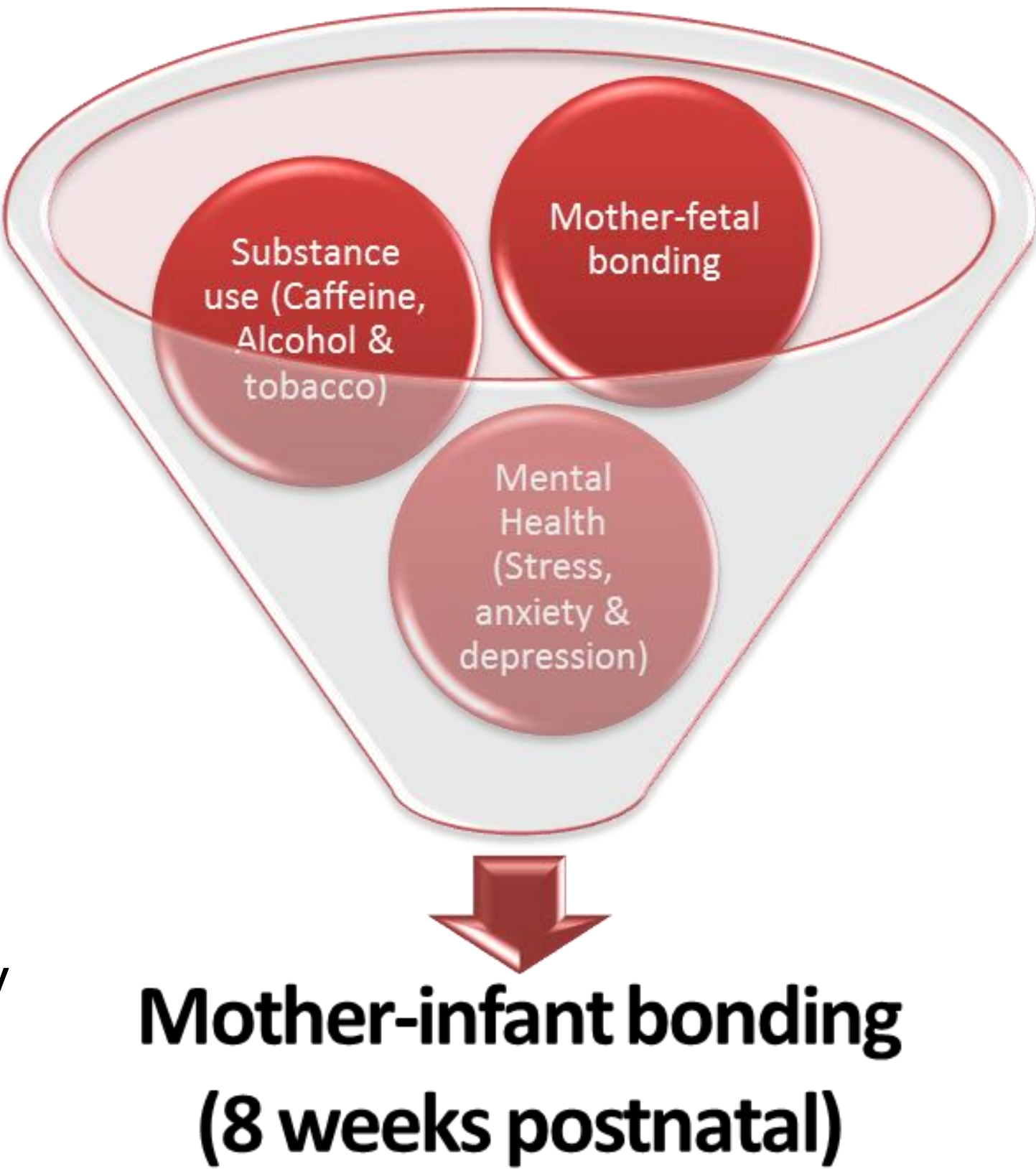
Sensitive responses by the mother to her infant’s needs provide the foundation for a secure infant-mother bond, which in turn plays an important role in the child’s future social, emotional and cognitive development (Ainsworth, Blehar, Waters, & Wall, 1978; Belsky, Rovine, & Taylor, 1984).

Numerous factors have been shown to be predictive of the strength of this bond, including variables during pregnancy such as maternal substance use and mental health (Quinlivan, 2005; Goecke et al., 2012; Ohoka et al., 2014).

The present study extends previous findings by examining these associations during different stages of pregnancy.

Aims

- 1. Examine whether antenatal bonding through pregnancy (trimesters 1, 2 & 3) predicts postnatal bonding at 8 weeks
- 2. Investigate whether substance use (caffeine, alcohol and tobacco) through pregnancy (trimesters 1, 2 & 3) predicts postnatal bonding at 8 weeks
- 3. Investigate whether mental health (stress, anxiety and depression) through pregnancy (trimesters 1, 2 & 3) predicts postnatal bonding at 8 weeks



Method

Data were derived from a large longitudinal birth cohort study (Triple B study), which examines bio-psychosocial factors relating to the health and development of Australian children and families.

N=372 pregnant women were recruited from: Royal Prince Alfred Hospital, Royal Hospital for Women and Liverpool Hospital.

The following measures were administered across Trimester 1, 2, 3 and 8 weeks postnatal:

Bonding

- Antenatal bonding: Maternal Antenatal Attachment Scale (MAAS)
- Postnatal bonding: Maternal Postnatal Attachment Scale (MPAS)

Mental Health

- Stress: Depression, Anxiety and Stress Scale (DASS)
- Anxiety: Depression, Anxiety and Stress Scale (DASS)
- Depression: Edinburgh Antenatal and Postnatal Depression Scale (EPDS)

Substance use

- Caffeine: Quantity and frequency per week
- Alcohol: Quantity and frequency of per week
- Tobacco: Quantity and frequency per week

Results

Sample Characteristics	Birth outcomes Postnatal factors
<ul style="list-style-type: none">• Mean age 32.6 years• 59% born in Australia• 67% completed university/college• 49% working full time• 69% married• 47% owned own home• 51% have other children• 81% wanted to become pregnant	<ul style="list-style-type: none">• 3.6kg average birth weight• 39.3 weeks gestation• 58% no labour problems• 75% breastfeeding problems• 86 mins time crying per day

Predictors of postnatal mother-infant bonding						
Predictors	Trimester 1		Trimester 2		Trimester 3	
	β	p	β	p	β	p
Bonding	0.186	0.002***	0.267	0.000***	0.322	0.000***
Caffeine	0.005	0.932	-0.019	0.749	0.027	0.642
Alcohol	-0.173	0.006**	-0.100	0.087	-0.148	0.011*
Tobacco	0.143	0.032*	0.039	0.517	0.097	0.106
Stress	-0.126	0.142	-0.109	0.160	-0.008	0.920
Anxiety	0.076	0.310	-0.020	0.758	0.011	0.866
Depression	-0.140	0.106	-0.125	0.107	-0.229	0.003**
	R ² =0.330		R ² =0.345		R ² =0.408	
	F=5.167		F=5.527		F=7.148	
	p=0.000		p=0.000		p=0.000	

* Significant at p<0.05. ** Significant at p<0.01. *** Significant at p<0.001.
Note. Covariates for multiple regression model: Age, country of birth, employment status, household income (before tax), parity, baby’s birth weight (kg’s), weeks gestation, problems during labour, breastfeeding problems, baby’s crying time (mins per day).

Discussion

Aim 1: Antenatal bonding was the strongest predictor of postnatal bonding. Bonding in trimester 1, 2 and 3 were all positively associated with postnatal bonding (p<0.001).

Aim 2: Increased alcohol use in trimesters 1 and 3 predicted poorer postnatal bonding (T1: p<0.01, T3: p<0.05).

Aim 3: Higher levels of depression in trimester 3 predicted poorer postnatal bonding (p<0.01).



Conclusion

As antenatal bonding was the strongest predictor of postnatal bonding, promoting bonding early in pregnancy is important.

The present research supports the importance of observing guidelines for alcohol use during pregnancy.

Australian research indicates that antenatal depression is experienced by 9% of women. It is important to monitor symptoms of mental health issues, particularly depression, during pregnancy.

This research extends on previous research by highlighting crucial time-points during pregnancy for intervention.

Acknowledgements

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