



Thank you for downloading this document from the RMIT Research Repository.

The RMIT Research Repository is an open access database showcasing the research outputs of RMIT University researchers.

RMIT Research Repository: <http://researchbank.rmit.edu.au/>

Citation:

James, J, Taft, A, Amir, L and Agius, P 2014, 'Does intimate partner violence impact on women's initiation and duration of breastfeeding?', *Breastfeeding Review*, vol. 22, no. 2, pp. 11-19.

See this record in the RMIT Research Repository at:

<https://researchbank.rmit.edu.au/view/rmit:28274>

Version: Published Version

Copyright Statement: © 2014 Australian Breastfeeding Association

Link to Published Version:

<http://search.informit.com.au.ezproxy.lib.rmit.edu.au/documentSummary;dn=598705816103089;res=IELAPA>

PLEASE DO NOT REMOVE THIS PAGE



Jennifer P James

Angela Taft

Lisa H Amir

Paul Agius

Does intimate partner violence impact on women's initiation and duration of breastfeeding?

ABSTRACT

Background

Intimate Partner Violence (IPV) is prevalent among recent mothers and negatively impacts their physical and emotional health. Furthermore, the negative influence of IPV on parenting capacity and children's development is well described. However, it is unclear whether there is any relationship between IPV and method of infant feeding. Little is known about how women who are subjected to IPV make decisions about infant feeding or whether living in this context impacts on their experience of breastfeeding. With what is known about the importance of breastfeeding, particularly for vulnerable populations, research is essential to inform clinical practice and to develop appropriate community support strategies.

Methods

This paper describes an analysis of data from a pragmatic cluster randomised controlled trial: *Improving maternal and child health nurse care for vulnerable mothers (MOVE)*. The MOVE trial was conducted in the north-western suburbs of Melbourne, Australia from April 2010–April 2011 and involved 80 maternal and child health centres, 160 nurses and 2621 women who completed a survey. Intimate partner violence was measured using the Composite Abuse Scale.

Results

Ninety-six per cent (n=2111) of participating women initiated breastfeeding, with 80% (n=1776) and 74% (n=1537) indicating 'any' breastfeeding at 3 and 6 months respectively. Respondents tended to be older, well-educated with a household income >\$70,000 per annum compared to the general population. The characteristics of women from the IPV and non-IPV groups were similar and together were comparable to all women who gave birth in north-west Melbourne. The reported prevalence of IPV in this survey was 6.3% (n=138), which may be an underestimate. Breastfeeding rates did not significantly differ between IPV and non-IPV groups.

Conclusions

Our findings suggest that women who experience IPV are just as likely to breastfeed as the broader population of women. While this analysis provides a snapshot of breastfeeding rates for this group of women, it does not capture women's experience of IPV as it relates to feeding a baby. In order to better identify infant feeding in the context of IPV, qualitative research is also necessary to investigate in a way that fully engages victims/survivors, giving them the opportunity to give voice to their experiences.

Keywords: *breastfeeding, duration, intimate partner violence*

Breastfeeding Review 2014; 22(2): 11–19

BACKGROUND

Being breastfed and the act of breastfeeding are known to offer significant health advantages to mothers and their infants (Stuebe & Schwarz 2010). Not being breastfed has been shown to increase the risks of gastrointestinal and respiratory infections, ear and urinary tract infections and sudden infant death syndrome (Stuebe & Schwarz 2010). For the mother, breastfeeding her baby offers reduced risk of post-partum haemorrhage, breast and ovarian cancer and increased child spacing (Gartner et al 2005).

The public health significance of strong breastfeeding initiation and duration is recognised nationally and internationally (National Health and Medical Research Council 2012). In reality, few countries achieve the World Health Organization's recommendations of exclusive breastfeeding to around 6 months, with the introduction of appropriate complementary foods and continuing breastfeeding for two or more years (WHO 2012). Australia is no exception, with exclusive/full breastfeeding to 6 months at around 14% and any breastfeeding at 6 months at around 60% (Australian Institute of Health & Welfare 2011).

Women's decision-making around infant feeding is influenced by a number of factors, including socioeconomic status, maternal age and education level together with their knowledge about and understanding of the importance of breastfeeding for their infants (Bullock, Libbus & Sable 2001; Forster, McLachlan & Lumley 2006; Scott et al 2001; Tohotoa et al 2009). Problems with breastfeeding, lack of support and poor maternal self-efficacy have also been noted as negatively influencing breastfeeding outcomes (Binns & Scott 2002; Forster, McLachlan & Lumley 2006; James 2004). Intimate partner violence is known to reduce women's sense of self-efficacy and is associated with poor social support and a higher incidence of depression (Avanci, Assis & Oliveira 2013; Coker et al 2002; Dutton et al 2006; Hegarty et al 2004).

According to the most recent data from the 2010 Australian National Infant Feeding Survey, infants of older, tertiary educated, non-smoking mothers whose annual family income is in the highest income quintile, are the most likely to 'ever' be breastfed, with rates of over 96% (Australian Institute of Health & Welfare 2011). Over the first 6 months of life, infants of older, tertiary educated, non-smoking mothers continue to be more likely to be predominantly breastfed.

The reasons women give for not continuing to breastfeed in the first 6 months are multifactorial but indicate concerns about milk supply, infant behaviour and breastfeeding itself: pain, poor attachment and breastmilk expressing being too hard over time (Australian Institute of Health & Welfare 2011).

Women who are living in the context of IPV may face the additional challenge of a partner who does not support breastfeeding or who actively undermines her decision-making around infant feeding (Campbell, Oliver & Bullock 1993; Cerulli, Chin Talbot & Chaudron 2010). Support for breastfeeding by a woman's partner has been shown in a number of studies, to have a significant influence on her decision-making around infant feeding (Bloom, Goldbloom & Stevens 1982; Mitchell-Box & Braun 2013; Scott et al 2001). The 2010 Australian National Infant Feeding survey reported that 55% of women believe that their partner prefers that their child be breastfed (Australian Institute of Health & Welfare 2011). A significant proportion reported that their partner was either ambivalent (40%) or didn't know (3%) or preferred bottle-feeding (2%).

A review of the literature by Ellsberg and colleagues in 2008 found that the incidence of IPV varied from 15–70% in a number of countries and was associated with poor physical and mental health, decreased autonomy and a higher incidence of unintended pregnancy (Ellsberg et al 2008; Pallitto et al 2013; Sarkar 2008; Taft et al 2004). High levels of anxiety and depression leading to drug and alcohol abuse are reported by women living in the context of IPV (Sarkar 2008). Intimate partner violence in the childbearing year increases the risk of premature and low birth weight infants, neonatal death and, according to a large population-based study conducted in the United States, is likely to negatively influence breastfeeding initiation and duration (Silverman et al 2006).

The presence of IPV adds to the complexity of decision-making for women as they negotiate difficult intimate partner relationships during pregnancy and the post-partum period. A number of commentaries suggest that women who report IPV are over-represented in the population of mothers who either do not initiate breastfeeding, or who wean their infants prematurely (Cerulli, Chin Talbot & Chaudron 2010; Kendall-Tackett 2007; Sarkar 2008; Silverman et al 2006). Silverman and colleagues' study of American women (118,579 women) concluded that while other factors might better predict women's decision-making around breastfeeding, women who lived in the context of IPV were more likely to either not start breastfeeding or to stop breastfeeding early (Silverman et al 2006). This finding was consistent with findings from Lau and Chan (2007) who found that women who did not experience IPV were far more likely to initiate breastfeeding even after adjusting for demographic, socioeconomic and obstetric influences.

As Australian women's experience of IPV and infant feeding has not been reported previously, we conducted this analysis in order to develop a better understanding of Australian women's experiences.

METHODS

This paper reports on a secondary analysis of data from a pragmatic cluster randomised controlled trial: *Improving maternal and child health nurse care for vulnerable mothers (MOVE)* (Taft et al 2012) and was conducted to identify whether there is any relationship between IPV and women's experience of breastfeeding.

Study design, setting and recruitment

The MOVE trial was located in Maternal and Child Health Nursing (MCHN) teams across the north-western suburbs of Melbourne, Australia and involved 80 centres and over 160 MCH nurses (Taft et al 2012). In Victoria Australia, the MCHN service is a universal, accessible and free service to support an infant's health from the first week after birth to when the child is 6 years old. Maternal and Child Health Nurses are qualified nurse/midwives who provide mother and baby support from local neighbourhood centres and see over 95% of all Victorian mothers with a new baby.

Underpinning the development of the MOVE trial was the design, implementation and evaluation of the trial of a good practice model for screening for IPV by MCHNs. This development was informed using Normalisation Process Theory to strengthen its sustainability (May 2006). Model development utilised participatory action research with the intervention nurse teams and was combined with a systematic review of the relevant literature. The resultant good practice model incorporated consensus clinical guidelines, a clinical pathway and strategies to strengthen links between nursing and family violence services. The model was designed to be used by the nurses, their teams and family violence services and is described in the published trial protocol (Taft et al 2012) and in the clinical resources at latrobe.edu.au/mchr/research/health-services-research/move.

The MOVE trial was conducted over a period of 12 months (April 2010–April 2011) and the primary outcomes of interest were: increased screening rates, IPV disclosure by women, safety discussions with women and referral to supportive services. These data were sourced from (a) MCHN routine data and (b) from a survey sent to all women who had given birth in the area in the previous 8 months.

Ethics

The trial had approval from the Research, Evaluation and Analytics Branch of the Department of Education and Early Childhood Development (DEECD) and the Human Ethics Committee at La Trobe University (UHEC 08-42). Consent to participate was given at MCHN team level.

Data collection

As a part of overall data collection, along with routine data analysis, in the period following the implementation of the intervention, a survey was sent out to all women in

eight local government areas (LGAs) who had given birth in the previous 8 month period (5000 in the comparison and 5000 in the intervention arms of the trial) with two rounds of reminder cards being sent out to those not responding. This component of the trial was managed by an independent data management company blinded to arm and also undertook double data entry coding.

Questions in the survey related to women's demographic and obstetric information, their general health and well-being and also questions from the Composite Abuse Scale (CAS) (Hegarty, Bush & Sheehan 2005). Women were also asked about their infant feeding experiences, which is the focus of this paper. Evaluation of the process, impact and sustainability of the intervention were determined through online surveys and key stakeholder interviews (Taft et al 2012). The MOVE trial's primary outcomes and results will be published elsewhere.

Measures

Demographic data were gathered to describe maternal characteristics: her age, place of birth, highest education level, marital status, Health Care Card (HCC) status, income, parity, gestation of reported baby and mode of birth.

Breastfeeding outcomes were determined by asking: 'Has your baby ever been breastfed (ever went to the breast or had expressed breastmilk)?' and duration was identified by asking 'Including times of weaning, what is the total time your baby was breastfeed?' Reasons for stopping breastfeeding were sought, firstly by asking women to 'identify the reasons' (they could identify more than one reason from the pre-coded list and provide further information on the 'other' category) and then asking them to identify the 'most important reason' for stopping.

Intimate Partner Violence was measured using the Composite Abuse Scale (CAS), a well validated and rigorous measure of intimate partner violence (Hegarty, Bush & Sheehan 2005) with a score of 3–6 as probable IPV and ≥ 7 being considered to be positive for IPV (Hegarty, Sheehan & Schonfeld 1999).

Analysis

Contingency table analyses were undertaken for bivariate analyses, with each of the breastfeeding duration outcomes and covariates cross-tabulated by IPV (CAS ≥ 7). Binary logistic regression models were developed in exploring the multivariable association between IPV and both the likelihood and duration of breastfeeding at 3 and 6 months. Women's socio-demographic (age, education, income and HCC status) and obstetric related (type of delivery, parity and preterm birth) factors were treated as covariates and were adjusted for in each of the multivariable models. To appropriately adjust variance estimates in all analyses for the cluster design

of the study, standard errors were estimated taking into account intraclass correlations of LGAs and thus relaxing the assumption that observations were independent. Missing data were treated on a list-wise basis in modelling. Stata version 10 (StataCorp 2007) was used in all statistical analyses.

RESULTS

Of the 2621 women (26%) who completed the survey, 2199 responded to the question regarding breastfeeding (and had valid data across covariates). Forty-three per cent of women were aged over 30 years, were Australian born (69%), had a diploma or higher (87%) and were married (79%) with a household income of >\$70,000 per annum (64%) (see Table 1). Slightly over half were primiparous (54%) and most had a baby born at term

(93%). A little over half of the women achieved a normal vaginal birth (51%), with the remainder reporting an instrumental or a planned or unplanned caesarean section birth. Respondents' characteristics are equivalent on all birth and demographic characteristics to all women who gave birth in this region when compared with data from the Victorian Perinatal Data Collection Unit, except that respondents were slightly older and fewer were born overseas. However, in our sample, women who had experienced IPV (compared to women who had not experienced IPV) were more likely to be younger (7% were aged 15–24), poorer (29% with a reported income of less than \$30,000 per annum), have lower education levels (17%), have been born overseas and be either single (9%), separated/divorced (6%) or living in a de facto relationship (21%). Their baby was also more likely to be born preterm (<37 weeks, 12%).

Table 1. Maternal characteristics.

Factor	No history of IPV (n=2061) % (number)	History of IPV (n=138) % (number)	Total (n=2199) % (number)
Age			
15–24 years	2.0 (42)	6.6 (9)	2.3 (51)
25–29 years	14.3 (294)	20.4 (29)	14.7 (323)
30–34 years	40.0 (825)	37.2 (51)	39.8 (876)
35+ years	43.6 (900)	35.8 (49)	43.1 (949)
Country of birth			
Australia	60.67 (1207)	53.23 (66)	69.49 (1273)
Overseas	29.33 (501)	46.77 (58)	559 (30.51)
Education level attained			
Up to secondary	12.8 (264)	16.6 (23)	13.1 (287)
Diploma/apprenticeship	22.2 (462)	31.1 (43)	23.0 (505)
Degree/higher degree	64.7 (1335)	52.1 (72)	63.9 (1407)
Marital status			
Married	79.93 (1645)	63.50 (87)	78.91 (1732)
De facto	17.83 (367)	21.17 (29)	18.04 (396)
Divorced/separated	0.58 (12)	5.84 (8)	0.91 (20)
Single/not living with partner	1.65 (34)	9.49 (13)	2.14 (47)
Health Care Card	13.1 (271)	42.0 (58)	14.9 (329)
Income			
Less than \$30,000	7.0 (145)	29.0 (40)	8.4 (185)
\$30,001–\$50,000	9.3 (192)	19.5 (27)	9.9 (219)
\$50,001–\$70,000	18.0 (371)	13.1 (18)	17.7 (389)
More than \$70,000	65.6 (1353)	38.4 (53)	64.0 (1406)
Parity (primiparous)	54.4 (1114)	47.1 (65)	53.6 (1179)
Gestation Preterm (<37 wks)	6.6 (136)	11.6 (16)	6.9 (152)
Mode of birth			
Vaginal	50.5 (1041)	54.3 (75)	50.8 (1116)
Instrumental	15.0 (309)	11.6 (16)	14.8 (325)
Planned caesarean	15.9 (327)	14.5 (20)	15.8 (347)
Unplanned caesarean	18.6 (384)	19.6 (27)	18.7 (411)

Eighty-five per cent of women (n=1776) at 3 months and 74% of women (n=1537) at 6 months reported continuing to breastfeed. For these women, 'any' breastfeeding (the baby was receiving any breastmilk) was identified at either 3 months or at 6 months depending on the baby's age at the time of checklist completion and the mother's self-reported breastfeeding status. Duration was identified for those who had ceased breastfeeding before completing the questionnaire.

Breastfeeding and IPV

Ninety-six per cent (2111) of respondents reported 'ever' having breastfed or provided expressed breastmilk to their baby. Ninety-three per cent of women (n=128) who reported IPV described having 'ever' breastfed, which is slightly lower than those who did not report IPV (96%, n=1983). Abused women were less likely to initiate breastfeeding but this crossed the line of no effect (OR 0.70, 95% CI 0.36–1.35). The proportion of women reporting giving 'any' breastmilk was the same for women with IPV and without IPV at 3 months (85%) and was similar at 6 months (71% IPV and 74% no IPV).

We conducted multivariate analysis to determine whether there were any significant associations between the report of IPV and breastfeeding, with outcomes adjusted for women's demographic and obstetric characteristics. Our results show no statistically significant differences between women who reported IPV and those who did not report IPV with regard to breastfeeding (Table 2). However, other factors (eg maternal age, education levels, instrumental or unplanned caesarean section, preterm birth and maternal concerns about adequacy of milk supply) were found to be associated with lower levels of breastfeeding.

Compared to women with only secondary education, women who held a degree or higher degree were significantly more likely to report 'ever' breastfeeding (Adj OR 5.71, 95% CI 3.47–9.38), and 'any' breastfeeding at 3 (Adj OR 3.12, 95% CI 2.08–4.67) and 6 months (Adj OR 2.90, 95% CI 1.78–4.71). Women who were 25 years or older were more likely to be giving 'any' breastmilk at 3 and 6 months, compared to those aged 15–24 years.

Table 2. Multivariate associations between experience of abuse and breastfeeding outcomes adjusted for women's demographic and obstetric characteristics.

Factor	Ever breastfed (n=2199)			Breastfeeding at 3 months (n=2086)			Breastfeeding at 6 months (n=2084)		
	Adj OR	95% CI	p-value	Adj OR	95% CI	p-value	Adj OR	95% CI	p-value
Experience of abuse (CAS 7)	0.70	0.36–1.35	0.29	1.25	0.85–1.84	0.25	1.01	0.80–1.29	0.90
Age									
5–24 years	ref*	-	-	ref	-	-	ref	-	-
25–29 years	0.99	0.39–2.51	0.97	1.66	1.04–2.65	0.03**	2.12	1.45–3.10	0.00
30–34 years	0.63	0.18–2.20	0.47	2.28	1.41–3.69	0.00	2.65	1.70–4.24	0.00
35+ years	0.70	0.21–2.35	0.56	2.84	1.77–4.56	0.00	3.25	2.13–4.94	0.00
Income									
Less than \$30,001	ref			ref			ref		
\$30,001–\$50,000	2.36	0.96–5.80	0.06	1.55	1.04–2.30	0.03	1.03	0.68–1.56	0.89
\$50,001–\$70,000	1.25	0.73–2.14	0.42	1.28	0.81–2.05	0.29	1.11	0.75–1.63	0.60
More than \$70,000	1.76	0.77–4.01	0.17	1.41	0.80–2.46	0.23	0.93	0.58–1.48	0.75
Health care card	0.72	0.38–1.36	0.13	1.35	0.92–1.97	0.12	1.09	0.73–1.62	0.68
Education									
Up to secondary	ref			ref			ref		
Diploma/apprenticeship	1.48	1.05–2.06	0.02	1.04	0.74–1.46	0.84	0.98	0.68–1.41	0.91
Degree/higher degree	5.71	3.47–9.38	0.00	3.12	2.08–4.67	0.00	2.90	1.78–4.71	0.00
Type of birth									
Vaginal	ref			ref			ref		
Instrumental	0.47	0.26–0.83	0.01	0.87	0.70–1.09	0.23	0.81	0.62–1.06	0.12
Unplanned caesarean	0.27	0.14–0.53	0.00	0.75	0.56–1.01	0.06	0.65	0.51–0.82	0.00
Planned caesarean	0.82	0.42–1.62	0.57	0.84	0.94–1.42	0.50	0.86	0.56–1.32	0.49
Parity									
Primiparous	1.84	1.26–2.69	0.00	0.98	0.72–1.35	0.92	0.78	0.67–0.92	0.00
Preterm birth	0.44	0.23–0.86	0.02	0.84	0.63–1.10	0.20	0.62	0.52–0.74	0.00

* Reference or baseline data

** Values in bold, italics are statistically significant

Compared to women having vaginal births, having an instrumental birth significantly reduced the likelihood of 'ever' breastfeeding (Adj OR 0.45, 95% CI 0.26–0.81) and an unplanned caesarean section significantly decreased the likelihood of 'ever' breastfeeding and any breastfeeding at 6 months (Adj OR 0.28, 95% CI 0.13–0.58 and Adj OR 0.65, 95% CI 0.51–0.82 respectively). Women who gave birth preterm were less likely to 'ever' breastfeed (Adj OR 0.44, 95% CI 0.23–0.86) and less likely to be breastfeeding at 6 months (Adj OR 0.61, 95% CI 0.52–0.74) compared to those giving birth to term infants.

The women who had stopped breastfeeding (n=1149) were asked to identify the most important reason they stopped. The reported reasons are similar in both groups and fairly evenly spread across the items (Table 3). However, the most common reason given was concerns about milk supply — either not having enough milk or not knowing whether the baby had enough milk (no IPV 21%; IPV 28%). Women who reported IPV were also more likely to cite tiredness and feeling exhausted as reasons to discontinue breastfeeding (10.4% vs 5.3%).

DISCUSSION

Our findings suggest no significant impact of IPV on breastfeeding rates, similar to an American study (Silverman et al 2006). However, as our respondents

were an older, well-educated and predominantly married group with higher incomes, this is not necessarily surprising and may underestimate the prevalence of IPV.

Exposure to IPV for both women and their children has been implicated in poor long-term health and well-being outcomes. The childbearing year is a particularly vulnerable time for IPV as it leads to increased maternal and neonatal risk of adverse outcomes (Lau & Chan 2007; Sarkar 2008; Silverman et al 2006). Pregnant women reporting IPV in an American study were more likely to seek hospital care for 'high blood pressure or oedema, vaginal bleeding, severe nausea/vomiting or dehydration, kidney or urinary tract infection' (Silverman et al 2006, p 269). The foetus and neonate in these circumstances were found to be at higher risk of foetal death, low gestational weight and prematurity (Sarkar 2008). There is growing evidence to support these findings. With this knowledge there is now a better understanding of the importance of antenatal screening to detect IPV and to ensure that health professionals who work with pregnant women have the skills, confidence and ability to refer appropriately and effectively.

Whether, and to what extent, the experience of IPV influences women's decision-making and experiences of breastfeeding is less clear from the literature. Research findings to date are contradictory: some showing an effect, others no effect or an effect that disappears when

Table 3. Most important reason for deciding to stop breastfeeding (of women who had stopped breastfeeding and gave reason, N=1149).

Reason	No history of IPV % (n)	History of IPV % (n)	Total % (n)
Not enough milk/baby not getting enough	21.2 (227)	28.6 (22)	21.7 (249)
Baby lost interest	13.2 (142)	9.1 (7)	12.9 (149)
Other	12.4 (133)	13.0 (10)	12.4 (143)
Baby had poor weight gain	8.9 (96)	7.7 (6)	8.8 (102)
Did not want to breastfeed/or continue to breastfeeding	8.4 (90)	3.9 (3)	8.0 (93)
Employment reasons	7.4 (80)	5.2 (4)	7.3 (84)
Attachment/suck/difficulties	7.6 (80)	3.9 (3)	7.2 (83)
Maternal tiredness/exhaustion/feeling run down	5.3 (57)	10.4 (8)	5.7 (65)
Advice from health professional	3.6 (39)	3.9 (3)	3.7 (42)
Nipple trauma or damage	3.6 (39)	2.6 (2)	3.6 (41)
Other people could help with feeding/caring for the baby	12.4 (30)	51.9 (4)	3.0 (34)
Nipple pain	1.9 (20)	0 (0)	1.7 (20)
Recurrent mastitis	1.7 (18)	0 (0)	1.6 (18)
Mastitis	0.9 (10)	3.9 (3)	1.3 (13)
Lack of help/support/supervision with breastfeeding	0.5 (5)	1.3 (1)	0.5 (6)
Baby very premature	0.4 (4)	0 (0)	0.4 (4)
Advice from partner/family/friends	0.9 (2)	1.3 (1)	0.2 (3)
Total	1072	77	1149

adjusting for other variables (Kendall-Tackett 2007; Sarkar 2008; Silverman et al 2006).

Analysis of data from the Pregnancy Risk Assessment Monitoring System (PRAMS) 2000–2003 suggests that women who experience IPV are over-represented in the ‘not initiating’ breastfeeding or ‘not breastfeeding beyond 4 weeks’ groups (Silverman et al 2006). However, multivariate analysis indicated that other variables appeared to account for any observed differences in feeding outcomes in initial analyses. The identified variables of influence for this cohort of women were: being less than 25 years of age; being African American or Native American; being single; less than high school education; currently smoking; and receiving government assistance (Silverman et al 2006). These are similar to our findings.

From this secondary analysis, older, Australian-born mothers who were tertiary educated and whose household income was higher were more likely to report ‘ever’ breastfeeding and ‘any’ breastfeeding at 3 and 6 months. There is likely to be an under-estimation of abuse from this higher socioeconomic background group of respondents. Having an instrumental birth or unplanned caesarean section significantly decreased the likelihood of ‘ever’ breastfeeding and ‘any’ breastfeeding at 6 months. There was a slight non-significant decrease in abused women’s ‘ever’ breastfeeding rate. Having a preterm infant also decreased the likelihood of ‘ever’ or ‘any’ breastfeeding. These potential influences are common to most new mothers and not restricted to our sample.

Ninety-six percent of women in this study initiated breastfeeding, which closely aligns with the most recent national data (Australian Institute of Health & Welfare 2011). However, by 3 months the proportion of children receiving ‘any’ breastmilk had dropped to 70% (80% in the study group) and 60% (74% in the study group). The similarity in the ‘ever’ and ‘any’ breastfeeding rates between those who did not experience IPV and those who did cannot be explained by the current dataset. The secondary analysis does not provide evidence to support the notion that women who are experiencing IPV have different patterns of breastfeeding. There are a number of possible explanations for possible associations between women who experience IPV and their experience of breastfeeding. For example, in Western cultures women who smoke are less likely to breastfeed (Amir & Donath 2002). Kendall-Tackett (2007) found that women who are abused are more likely to smoke to reduce stress and anxiety. Similarly, women who have short post-partum hospital stays are less likely to breastfeed (Heck, Schoendorf & Braveman 2003) and women living in the context of IPV are more likely to have a partner who would not want them to stay in hospital because of the increased likelihood of disclosure about or detection of IPV (Kendall-Tackett 2007; Phelan et al 2007). Babies

who are born prematurely or with low birthweight are less likely to be breastfed and this group of babies are more likely to be born in the context of IPV (Binns et al 2006; Heck, Schoendorf & Braveman 2003). Partner support has been shown to be important to breastfeeding outcomes for women (Kong & Lee 2004; Tohotoa et al 2009) and yet an abusive partner may consider his partner’s breasts to be his and therefore not be prepared to share them with the baby (Campbell, Oliver & Bullock 1993).

The paper by Bullock and colleagues suggests that breastfeeding by women experiencing IPV may stem from a greater concern for the welfare of the child than concerns about the abusive partner (Bullock, Libbus & Sable 2001). However, there were a number of limitations with their study; for example a small sample size (n=212) and possible sample bias. Women self-selected to participate and it may be that those women who intended to breastfeed were more likely to participate than those who had chosen to formula-feed, leading to sample bias. The authors suggest that if women who experience IPV are more likely to formula-feed and were less likely to participate, then this may have had a significant impact on their results (Bullock, Libbus & Sable 2001).

The rates of breastfeeding for both groups of women in our study are similar to the Bullock study, with high initiation rates and ‘any’ breastfeeding reducing over time. Our findings challenge the belief that women living in the context of IPV are less likely to breastfeed. However, the authors recognise that the respondent group from this survey may well not be fully representative of at risk mothers in Victoria.

CONCLUSIONS

The results of this secondary analysis suggest that, for these women, the experience of IPV in itself does not appear to influence breastfeeding outcomes and are consistent with other research findings, which show maternal age, education levels, instrumental or unplanned caesarean section, preterm birth and maternal concerns about adequacy of milk supply are all stronger influences (Bullock, Libbus & Sable 2001; Cerulli, Chin Talbot & Chaudron 2010; Kendall-Tackett 2007; Sarkar 2008; Silverman et al 2006).

These findings are consistent with other research and recognise the challenges many women face as they navigate and make decisions about infant feeding. For women who are experiencing IPV, how they manage infant feeding and their motivations for breastfeeding are unknown and not tested by the research to date. Women in this study achieved very similar breastfeeding initiation and durations to the wider population of Australian women. What is clear from our study is that even in the context of IPV, women can and do breastfeed

for variable amounts of time. However, further research is needed to fully explore women's lived experiences. To achieve this, a study design that encourages women who have experienced IPV in the childbearing context to share their challenges and decision-making will lead to a clearer picture and more tailored approach to support.

ACKNOWLEDGEMENTS

This project was funded by an ARC Linkage Project 2008–2011.

REFERENCES

- Amir LH, Donath SM** 2002, Does maternal smoking have a negative physiological effect on breastfeeding? The epidemiological evidence. *Birth* 29: 112–123.
- Australian Institute of Health & Welfare** 2011, Australian National Infant Feeding Survey 2010: Indicator results. AIHW, Canberra.
- Avanci J, Assis S, Oliveira R** 2013, A cross-sectional analysis of women's mental health problems: examining the association with different types of violence among a sample of Brazilian mothers. *BMC Womens Health* 13(1): 20.
- Binns C, Scott J** 2002, Breastfeeding: reasons for starting, reasons for stopping and problems along the way. *Breastfeed Rev* 10(2): 13–19.
- Bloom K, Goldbloom RB, Stevens FE** 1982, Breast vs formula feeding: I. Factors affecting the mother's choice of infant feeding method. *Acta Paediatr Scand Suppl* 71: 3–8.
- Bullock LF, Libbus MK, Sable MR** 2001, Battering and breastfeeding in a WIC population. *Can J Nurs Res [Revue Canadienne de Recherche en Sciences Infirmieres]* 32(4): 43–56.
- Campbell JC, Oliver C, Bullock L** 1993, Why battering during pregnancy? *AWHONNS Clin Issues Perinat Womens Health Nurs* 4(3): 343–349.
- Cerulli, CN, Chin Talbot N, Chaudron L** 2010, Exploring the impact of intimate partner violence on breastfeeding initiation: does it matter? *Breastfeed Med* 5(5): 225–226.
- Coker AL, Smith PH, Thompson MP, McKeown RE, Bethea L, Davis KE** 2002, Social support protects against the negative effects of partner violence on mental health. *J Womens Health Gen Based Med* 11(5): 465–476.
- Dutton MA, Green BL, Kaltman SI, Roesch DM, Zeffiro TA, Krause ED** 2006, Intimate partner violence, PTSD, and adverse health outcomes. *J Interpers Violence* 21(7): 955–968.
- Ellsberg M, Jansen HAFM, Heise L, Watts CH, Garcia-Moreno C** 2008, Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. *Lancet* 371(9619): 1165–1172.
- Forster D, McLachlan H, Lumley J** 2006, Factors associated with breastfeeding at six months postpartum in a group of Australian women. *Int Breastfeed J* 1: 18.
- Gartner LM, Morton J, Lawrence RA, Naylor AJ, O'Hare D, Schanler RJ, Eidelman AI** 2005, Breastfeeding and the use of human milk. *Pediatrics* 115(2): 496–506.
- Heck K, Schoendorf K, Braveman P** 2003, Does postpartum length of stay affect breastfeeding duration? A population-based study. *Birth* 30: 153–159.
- Hegarty K, Bush R, Sheehan M** 2005, The composite abuse scale: further development and assessment of reliability and validity of a multidimensional partner abuse measure in clinical settings. *Violence Victoria* 20(5): 529–547.
- Hegarty K, Gunn J, Chondros P, Small R** 2004, Association between depression and abuse by partners of women attending general practice: descriptive, cross sectional survey. *British Med J* 328(7440): 621–624.
- Hegarty K, Sheehan M, Schonfeld C** 1999, A multidimensional definition of partner abuse: development and preliminary validation of the composite abuse scale. *J Fam Violence* 14(4): 399–415.
- James JP** 2004, An analysis of the breastfeeding practices of a group of mothers living in Victoria, Australia. *Breastfeed Rev* 12(2): 19–27.
- Kendall-Tackett KA** 2007, Violence against women and the perinatal period: the impact of lifetime violence and abuse on pregnancy, postpartum, and breastfeeding. *Trauma Violence Abuse* 8(3): 344–353.
- Kong SKF, Lee DTF** 2004, Factors influencing decision to breastfeed. *J Adv Nurs* 46(4): 369–379.
- Lau Y, Chan KS** 2007, Influence of intimate partner violence during pregnancy and early postpartum depressive symptoms on breastfeeding among chinese women in Hong Kong. *J Midwifery Womens Health* 52(2): e15–20.
- May C** 2006, A rational model for assessing and evaluating complex interventions in health care. *BMC Health Serv Res* 6: 86.
- Mitchell-Box KM, Braun K** 2013, Impact of male-partner-focussed interventions on breastfeeding initiation, exclusivity, and continuation. *J Hum Lact* 29(4): 473–479.
- National Health and Medical Research Council** 2012, Infant feeding guidelines. NHMRC, Canberra.
- Pallitto CC, Garcia-Moreno C, Jansen HAFM, Heise L, Ellsberg M, Watts C** 2013, Intimate partner violence, abortion, and unintended pregnancy: results from the WHO multi-country study on women's health and domestic violence. *Int J Gynecol Obstet* 120(1): 3–9.
- Phelan MB, Hamberger L, Ambuel B, Wolff M** 2007, Screening for intimate partner violence in the health care setting. In Kendall-Tackett K, Giecomoni S (eds). *Intimate partner violence*. Civic Research Institute Inc, Kingston, New Jersey.
- Sarkar NN** 2008, The impact of intimate partner violence on women's reproductive health and pregnancy outcome. *J Obstet Gynaecol* 28(3): 266–271.
- Scott JA, Binns CW, Graham KI, Oddy WH** 2006, Temporal changes in the determinants of breastfeeding initiation. *Birth* 33(1): 37–45.
- Scott JA, Landers MCG, Hughes RM, Binns CW** 2001, Factors associated with breastfeeding at discharge and duration of breastfeeding. *J Paediatr Child Health* 37(3): 254–261.
- Silverman JG, Decker MR, Reed E, Raj A** 2006, Intimate partner violence around the time of pregnancy: association with breastfeeding behavior. *J Womens Health* 15(8): 934–940.
- Silverman JG, Decker MR, Reed E, Raj A** 2006, Intimate partner violence victimization prior to and during pregnancy

among women residing in 26 US states: associations with maternal and neonatal health. *Am J Obstet Gynecol* 195(1): 140–148.

StataCorp 2007, Stata Statistical Software: release 10.1. StataCorp LP, College Station, TX.

Stuebe AM, Schwarz EB 2010, The risks and benefits of infant feeding practices for women and their children. *J Perinat* 30(3): 155–162.

Taft A, Small R, Humphreys C, Hegarty K, Walter R, Adams C, Agius P 2012, Enhanced maternal and child health nurse care for women experiencing intimate partner/family violence: protocol for MOVE, a cluster randomised trial of screening and referral in primary health care. *BMC Public Health* 12: 811.

Taft A, Watson L, Lee C 2004, Violence against young Australian women and association with reproductive events: a cross-sectional analysis of a national population sample. *Aust N Z J Public Health* 28(4): 324–329.

Tohotoa J, Maycock B, Hauck Y, Howat P, Burns S, Binns C 2009, Dads make a difference: an exploratory study of paternal support for breastfeeding in Perth, Western Australia. *Int Breastfeed J* 4: 15.

WHO 2012, Health topics: breastfeeding. URL: <http://www.who.int/topics/breastfeeding/en/> Accessed 30/10/2012.

AUTHORS

Jennifer P James DipNsg BNsg GradDipMid PhD IBCLC

Corresponding author

Discipline of Nursing & Midwifery

RMIT University

Melbourne VIC 3001

Email: jennifer.james@rmit.edu.au

Tel: +61 3 9925 6650

Angela Taft MPH PhD

Judith Lumley Centre (formerly Mother and Child Health Research)

La Trobe University

Level 3, 215 Franklin St

Melbourne VIC 3000

Email: a.taft@latrobe.edu.au

Lisa H Amir MBBS MMed PhD IBCLC FABM FILCA

Judith Lumley Centre (formerly Mother and Child Health Research)

La Trobe University

Level 3, 215 Franklin St

Melbourne VIC 3000

Email: l.amir@latrobe.edu.au

Paul Agius BA GradDipSoc MSci

Judith Lumley Centre (formerly Mother and Child Health Research)

La Trobe University

Level 3, 215 Franklin St

Melbourne VIC 3000

and

Centre for Population Health

Burnet Institute

Melbourne VIC 3004

Email: pagius@burnet.edu.au