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Prevalence and Factors Affecting Breastfeeding Among Aboriginal Women in Northwestern Ontario

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ABSTRACT

Objective: To evaluate breastfeeding outcomes among Aboriginal women and to determine variables affecting breastfeeding in the early postpartum period.

Design: Prospective cohort study.

Setting: Two sites in Northwestern Ontario, Canada: a tertiary care center and a rural hospital.

Participants: One hundred thirty breastfeeding Aboriginal women agreed to participate in the study.

Methods: All women completed a baseline survey in hospital that included questions regarding demographic, prenatal, breastfeeding, obstetric, postpartum, and neonatal characteristics. Women were then telephoned at 4 and 8 weeks postpartum to complete additional questionnaires regarding infant feeding.

Results: Low rates of breastfeeding initiation (69%) and exclusive breastfeeding were identified at 4 (37.5%) and 8 (35.3%) weeks postpartum. Among those who initiated breastfeeding, duration rates at 4 (86%) and 8 weeks (78%) postpartum are comparable to other studies. Variables associated with any and exclusive breastfeeding at 8 weeks included the following: (a) household income, (b) intended breastfeeding duration, (c) plan to exclusively breastfeed, (d) perception of meeting their planned duration goal, and (e) higher breastfeeding self-efficacy. Partner support was associated with any breastfeeding at 8 weeks but not exclusivity. Women who were breastfeeding exclusively in hospital (prevalence ratio [PR] = .48, 95% confidence interval [CI] [0.27, 0.86]), did not smoke (PR = 2.5, 95% CI [1.4, 4.3]) and/or use substances during pregnancy (PR = 4.5, 95% CI [1.5, 14]) were more likely to be breastfeeding exclusively at 8 weeks.

Conclusion: Many of the variables may be considered modifiable and amenable to intervention. Targeted interventions should be directed toward improving breastfeeding outcomes among Aboriginal women.

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The health of Aboriginal people has been well documented to be disproportionately worse than that of the general North American population (Estey, Kmetic, & Reading, 2007; UNICEF Canada, 2009). Aboriginal children also experience poorer health and social inequities than other children in North America (Canadian Institute of Child Health, 2000; UNICEF Canada, 2009). In particular, Aboriginal children have higher rates of infant mortality, sudden infant death syndrome, gastroenteritis, otitis media, diabetes, obesity, dental decay, and less immunization coverage (Assembly of First Nations, 2008; Health Council of Canada, 2011). The origins of these health disparities are multifactorial and complex and are largely influenced by the social determinants of health (Lalonde, Butt, & Bucio, 2009; UNICEF Canada, 2009). Many organizations have called for national efforts to improve maternal and infant health indicators for Aboriginal people. Addressing these health inequities is a huge challenge requiring a collective effort (UNICEF Canada, 2009). One health promotion strategy that may be beneficial in reducing illness among Aboriginal infants and children is breastfeeding (Martens, 2002).

The advantages of breastfeeding have been widely documented for women, infants, families, and society (Ip et al., 2007). A dose–response relationship has also been suggested that indicates that positive health outcomes are increased when breastfeeding is exclusive and prolonged (Ip et al., 2007; Wambach et al., 2005). However, it is a long-standing clinical issue that most

Rates of breastfeeding initiation have not increased among Canadian Aboriginal women the same way they have in the general population.

North American women are not meeting the current international recommendation of exclusive breastfeeding for the first 6 months of life, followed by continued breastfeeding up to 2 years postpartum with the addition of complementary foods (American Academy of Pediatrics, 2005; Boland, 2005; Statistics Canada, 2011; World Health Organization [WHO], 2001). Recent data collected by Statistics Canada indicate 89% of Canadian mothers age 15 and older initiated breastfeeding in 2011 to 2012, with 26% breastfeeding exclusively at 6 months (Gionet, 2013).

Aboriginal women have been identified as having lower rates of breastfeeding than the North American average. Breastfeeding initiation rates among North American Aboriginal/Native Indian women vary widely from 77% in the U.S.-based National Immunization Survey (Centers for Disease Control and Prevention [CDC], 2012) to 58% in Northern Minnesota (Rhodes, Hellerstedt, Davey, Pirie, & Daly, 2008) and 38% to 77% in Canada (Assembly of First Nations, 2008; Martens, 2002). Similarly, breastfeeding duration rates vary among studies and regions with approximately 40% of American Indian women and approximately 17% of Canadian Aboriginal women living off reserve continuing any breastfeeding to 6 months (CDC, 2012; MacMillan et al., 2010). The results of the National Immunization Survey indicated rates of exclusive breastfeeding among American Indian women with 27.6% and 13.2% exclusively breastfeeding at 3 and 6 months, respectively (CDC, 2012). Women living on reserve have similar poor breastfeeding outcomes (Health Council of Canada, 2011) and are frequently not included in national surveys (Gionet, 2013).

In several reviews of the literature, researchers have examined factors influencing breastfeeding outcomes (Dennis, 2002; Thulier & Mercer, 2009; Wambach et al., 2005) and identified consistent demographic, obstetric, and attitudinal variables. However, little research has been conducted with Aboriginal women, and it is unknown whether the variables influencing breastfeeding among Aboriginal women are similar or different. Breastfeeding self-efficacy is one variable that has been widely studied and found to reliably predict breastfeeding duration and exclusivity among women in different countries and speaking different languages, including Aboriginal women (McQueen, Montelpare, & Dennis, 2013), adolescents (Dennis, Heaman, & Mossman, 2011), ethnically diverse women in the United Kingdom (Gregory, Penrose, Morrison, Dennis, & MacArthur, 2008), and Black women in the United States (McCarter-Spaulding & Dennis, 2010). Thus, the purpose of this study was threefold: to evaluate breastfeeding outcomes among Aboriginal women, including initiation, duration, and exclusivity; to determine variables affecting breastfeeding outcomes among Aboriginal women; and to examine the relationship between breastfeeding self-efficacy and breastfeeding outcomes among Aboriginal women in the early postpartum period. The results of this study will assist health professionals working with Aboriginal women by identifying priority areas where targeted interventions may be required to improve breastfeeding outcomes.

Methods

A prospective cohort study was conducted between July 2010 and March 2011 at two sites in northwestern Ontario: a tertiary care center and a rural hospital. Following university and hospital ethics approval, eligible participants were recruited from the maternity wards by research assistants within 48 hours of giving birth. All in hospital breastfeeding postpartum women were asked to self-identify if they were of Aboriginal ancestry. Aboriginal people may be defined as the original inhabitants of North America and include Indians (First Nations), Metis, and Inuit people (Aboriginal Affairs and Northern Development Canada, 2012). All self-identified Aboriginal women were eligible to participate in the study if they met the following inclusion criteria: initiated breastfeeding, singleton birth, infant was expected to be discharged home with mother, could read and understand English, and had access to a telephone to complete the follow-up questionnaires. Women were excluded if they had any factor that could interfere with breastfeeding such as infant prematurity/illness or maternal complications. All eligible and consenting women completed a baseline questionnaire (e.g., maternal characteristics questionnaire and breastfeeding self-efficacy scale) before hospital discharge. Typically this was between 24 to 48 hours postpartum and took approximately 10 to 15 minutes to complete. Participants were telephoned at 4 and 8 weeks postpartum to collect infant feeding follow-up data (e.g., breastfeeding outcomes); the interview took approximately 5 minutes to complete.

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