

Article details	
Title	Rates and determinants of exclusive breastfeeding in first 6 months among women in Nova Scotia: a population-based cohort study
Authors	Catherine R.L. Brown MSc, Linda Dodds PhD, Rebecca Attenborough RN MN, Janet Bryanton RN PhD, Annette Elliott Rose RN MN, Gordon Flowerdew PhD, Donald Langille MD MHSc, LeeAnne Lauzon RN MSc, Sonia Semenic RN PhD
Reviewer 1	Ip, S
Institution	Tufts Medical Center, Boston, Mass.
General comments	<p>This is an informative analysis but more details concerning the participants, especially those lost to follow up, should be provided.</p> <p>Of the 5,353 mother-infant dyads available in the Public Health Database, 4,533 were included in the cohort (Figure 1). [What happened to the 820? The numbers in this paragraph need clarification as it is difficult to tell how you got the numbers in Table 2 (2907 initiated BF) and Table 3 (2639 for analysis) from these numbers. The final number for the analysis should be reported in the text as well.]</p> <p>681 pairs were unable to be linked to data in the Atlee Perinatal Database and 139 pairs were excluded from the analysis. [Reason?]</p> <p>Since a large proportion [Describe the actual proportion] of women stop breastfeeding within the first six weeks after birth, this time period represents a critical intervention window for supporting breastfeeding in mothers.</p> <p>Most Canadian studies corroborate this association between poorer breastfeeding practices with a lower level of maternal education, no partner, low income [Consider modifying this as your analysis showed that not even upper-middle neighborhood income quintile is immune from the negative association with shortened exclusive breastfeeding duration.], and location of residence.</p> <p>Despite these strengths, this cohort may have limited generalizability to larger Canadian urban centres with a high proportion of visible minorities [Since you raise the issue, the proportion of minorities in your cohort should be described in Results.] since the largest city in the study region is Cape Breton Regional Municipality (population ~100,000).</p> <p>Table 2: Characteristics of the 4,533 mothers in the study cohort [What about those that were censored (15.5%)?]</p> <p>Figure 1: Flow diagram of mother-infant pairs available in Public Health Database and Nova Scotia Atlee Perinatal Database between 2006 and 2009 [What about those that were censored?]</p> <p>Figure 2 legend: Censored mothers [Number censored at each follow-up time point should be indicated.]</p>
Reviewer 2	Amir, LH
Institution	La Trobe University, Melbourne Victoria, Australia
General comments	<p>This is a well-written paper about a detailed population-based cohort study. The method and results are well described. I only have some minor comments about the discussion. I like the figures, but some may need to be removed if space is an issue.</p> <ol style="list-style-type: none"> 1. Title – Do you need to use both terms: rates and duration? 2. p. 6. Study measures – "only breast milk" – need to say in the previous 24 hours, since birth, other? 3. - duration was measured in months – weeks would have been better. This could be mentioned in the limitations. 4. p. 7. BMI classification – these categories should be given here. 5. p. 11. Interpretation. 2nd paragraph – skin-to-skin is the factor most likely to be modified. I would like to see more discussion here – why is this so low? What proportion of hospitals in this region are Baby Friendly?

	<p>6. p. 11 3rd paragraph. Discussion of smoking and obesity – it would be better to use a primary reference for the effect of nicotine on dopamine, rather than the meta-analysis by Horta et al. Other papers by Amir and Donath critically discuss the evidence for smoking to be causally related to lower rates of breastfeeding: Amir LH. Maternal smoking and reduced duration of breastfeeding: a review of possible mechanisms. <i>Early Hum Dev</i> 2001;64(1):45-67. Amir LH, Donath SM. Does maternal smoking have a negative physiological effect on breastfeeding? The epidemiological evidence. <i>Birth</i> 2002;29(2):112-23. Amir LH, Donath SM. Maternal diet and breastfeeding: a case for rethinking physiological explanations for breastfeeding determinants. <i>Early Hum Dev</i> 2012;88(7):467-71.</p> <p>7. p. 12. 1st paragraph – I am not sure why reduced EBF is evidence of a physiological explanation. It could be due to lower intention to exclusively breastfeed (which could be related to lower SES, higher rates of depression, etc). I agree that women with large breasts have greater physical difficulty with latching on, and feeding in public, but when I think of "physiological" explanation I am thinking of a metabolic effect of obesity (e.g. progesterone excess) not mechanical difficulties.</p> <p>8. p.13. Last paragraph – "encouraging skin-to-skin" – this could be worded more strongly.</p> <p>9. Table 1. Potential predictors Heath condition: why hyperemesis? SCN – for any time? (sometimes admission less than, say, 2 hours is not included).</p> <p>10. Table 2 – Characteristics of mothers – would "women" be better?</p> <p>11. Table 3 – Hazard ratio – it would be good to make it clear that this is the risk of stopping exclusive breastfeeding.</p> <p>12. Figures – the Kaplan-Meier curves show the relationships you would expect to see. The editor may decide that not all the six figures are necessary.</p>
Reviewer 3	Chalmers, Beverley
Institution	Sunnybrook and Women's College Health Science Centre, University of Toronto, Toronto
General comments	<p>Are the two districts studied distinctive in any way or likely to be representative of Nova Scotia as a whole?</p> <p>Page 6: "Breastfeeding duration was derived by interval censoring the follow-up data using mid-point imputation. " and "exclusive breastfeeding duration was the time between the previous assessment where the mother did report exclusive breastfeeding and the following visit where she had introduced supplementary feeding or had stopped breastfeeding altogether." Please explain simply.</p> <p>Also: "breastfeeding duration was right censored using left-point imputation."</p> <p>Why was the exact length of breastfeeding duration not measured?</p> <p>Page 7; Although early mother-infant breast contact was included, no other measures of breastfeeding or its effectiveness are included as predictors, eg appropriateness of latch, assistance with breastfeeding at birth or afterwards, breast feeding difficulties, contact with breastfeeding consultants or wish to do so, family support/lack of support for breastfeeding, use of pacifier, free samples given, etc. Why not?</p> <p>Page 7: " Location of residence was dichotomized using Canada Post's forward sortation areas into urban (for forward sortation areas 1-9) and rural (for forward sortation area 0)." Simplify.</p> <p>Page 7: How discriminating do the authors consider the smoking classifications to be?</p> <p>Page 12: The authors need to distinguish between early skin-to-skin contact and breastfeeding within one hour of birth. These are not synonymous or interchangeable concepts. The BFHI advocates skin-to—skin contact from the moment of birth onwards and breastfeeding later, preferably within the first hour after birth.</p> <p>Page 11: The authors speculate on possible physiological associations between</p>

smoking and obesity and shortened duration of breastfeeding. I am concerned about these. For one, smoking rates postpartum were not measured in this study and it is speculation that those who smoked during pregnancy also smoked after giving birth. Some evidence of this is needed before this explanation of the findings is proposed. Similarly speculating that the obese women may have reduced duration of breastfeeding due to other medical problems also needs verification before concluding that a physiological explanation is likely. All the figures shown suggest that mothers displaying the negative extreme of the variables examined (social factors as well as smoking and obesity) had poorer breastfeeding rates: why attribute physiological explanations amongst smoking and obese/overweight mothers as the most likely explanation then?

Page 12: "To the authors' best knowledge, this is the largest cohort study on the rates and determinants of exclusive breastfeeding to six months conducted in Canada to date.

More importantly, this is the first Canadian cohort study on exclusive breastfeeding duration that uses population-based data, thereby capturing all births in a defined geographic region and time. " This is a little misleading as the Maternity Experiences Survey (of which the authors are clearly aware) also follows exclusive breastfeeding until six months and includes a larger cohort using population based data stratified by region and time and also examines similar determinants. Perhaps the authors should reword this statement?

Page 12: In fact, comparison of Nova Scotia breastfeeding rates observed in this study differ somewhat from those reported by mothers in the Maternity Experiences Survey (83.2% initiation rates; 9.6% six month exclusive breastfeeding rates; 34.8% introducing breastmilk substitutes by 14 days after birth) . Some consideration of these differences/similarities would be worthwhile, given the particularly different samples examined.

The paper shows a competent examination of the predictive ability of a limited - but usual - number of variables on breastfeeding duration. It would benefit from a more critical examination of potential predictors - especially those not examined here - as suggested by the BFHI for instance.