

Making an Impact Through Participation in an Innovative Breastfeeding Program for Young Women: Evaluating Self-Efficacy

Christina Cantin, RN, MScN, PNC(C) Julie Gagnier, RN, MScN
Bianca Stortini, MD, FRCSC Wendy Peterson, RN, PhD
Beverley Croft, RN, BScN Nathalie Fleming, MD, FRCSC

BORN Conference: Unlocking the Value of Data
April 24, 2017

Acknowledgments



CHAMPLAIN MATERNAL NEWBORN REGIONAL PROGRAM
PROGRAMME RÉGIONAL DES SOINS À LA MÈRE
ET AU NOUVEAU-NÉ DE CHAMPLAIN

Thank you to our funders!

The St. Mary's Home Breastfeeding program was developed and delivered with funds provided by the Government of Ontario and the support of the Best Start Resource Centre at Health Nexus.



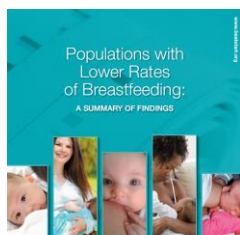
The information herein reflects the views of the authors and is not officially endorsed by the Government of Ontario or the Best Start Resource Centre.

Objectives

- To describe the results of the breastfeeding (BF) self-efficacy (SE) evaluation
- To discuss implications for practice
- To identify future research questions

Background

- Rates of exclusive BF at hospital discharge
 - 51.2% (<20 years of age)
 - 65% (30-34 years)



BORN data 2013-2014

(Best Start Resource Centre, 2015a)

Background

Significant predictors of quitting BF prior to 28 days postpartum

- 15-19 year olds with low post-natal BF SE were 3.63 times more likely to quit ($p = 0.001$)
- Smokers were 2.26 times more likely to quit ($p = .02$)
- Planned to breastfeed < 3 months were 2.97 more likely to quit ($p = 0.011$)

(Mossman et al., 2008)

Background cont'd

- Higher levels of BF SE
 - Observing role models ($p < .01$)
 - Receiving praise ($p = .07$)
 - Lower levels of BF SE
 - Experiencing physical pain ($p = .02$)
 - Receiving professional assistance ($p = .02$)

(Kingston, Dennis & Sword, 2007)
 - Combination of education and counselling provided by a lactation consultant and peer counsellor team significantly improved BF initiation & duration
- (Sipsma, et al., 2015)

Objective

- To evaluate BF self-efficacy following participation in a youth-friendly program designed to increase BF rates in young women
- Definition of Breastfeeding Self-Efficacy
"a mother's confidence in her ability to breast-feed her infant"

(Dennis, 1999)

Setting



St. Mary's Home
Ottawa, ON



YouTube [#HeyMom](#)

(St. Mary's Home, 2016)

Design

Pre-Post Intervention

Recruitment

- Young pregnant or parenting women
- 14-24 years of age
- Attending Prenatal BF Class and/or BF Peer Support Program

Data Collection

- Self-administered questionnaire

Analysis

- Descriptive & inferential statistics

Questionnaire

Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF)

14 items, each were a 5 point Likert-type scale

- 1= "not at all confident"
- 5= "always confident"

Cronbach's alpha coefficients were high

- .84 for the antenatal assessment
- .93 for the post-natal assessment

High BF self-efficacy defined as BSES-SF score ≥ 52

(Dennis et al., 2008; Mossman et al., 2011)

Table 1. Prenatal Breastfeeding Class

	All (n= 26)	Complete Pairs (n= 16)
Age (years) Mean(range)	19.6 (15-24)	20.5 (15-24)
Partnered	18 (72.0%)	11 (68.8%)
Parenting	6 (24%)	4 (25%)
BF Experience (yes)	2 (8%)	1 (6.3%)
BSES-SF Pre Scores Mean (range)	45.7 (14-70)	47.1 (26-70)
BSES-SF Post Scores Mean (range)	54.8 (34-70)	57.9 (34-70)

Change in Breastfeeding Self-Efficacy Scores Following Prenatal Breastfeeding Class

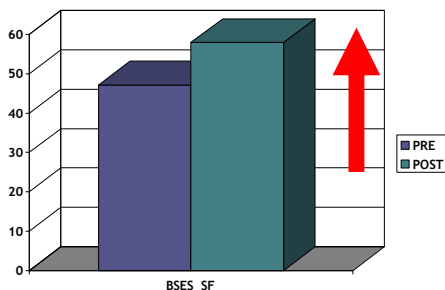
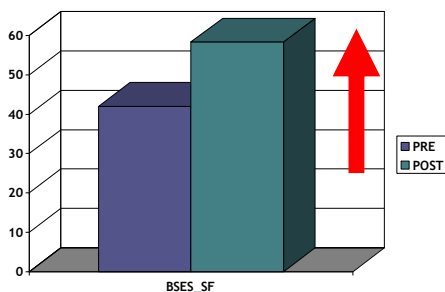


Table 2. Peer Support Program

	All (n=20)	Complete Pairs (n=3)
Age (years) Mean(range)	19.3 (16-24)	20.6 (17-24)
Partnered	12 (70.6%)	2 (66.7%)
Parenting	10 (58.8%)	2 (66.7%)
BF Experience(yes)	7 (41.2%)	1 (33.3%)
BSES- SF Pre scores Mean (range)	50.0 (29-68)	42.0 (29-54)
BSES- SF Post scores Mean (range)	60.0 (29-70)	58.3 (55-64)

* Missing demographic data in 3 participants

Change in Breastfeeding Self-Efficacy Scores Following Peer Support Program



Discussion

- Groups demonstrated an overall increase in BF self-efficacy after each intervention
- Postpartum women had higher self-efficacy scores



A Pilot Randomized Controlled Trial of a Breastfeeding Self-Efficacy Intervention With Primiparous Mothers

Karen A. McQueen, Cindy-Lee Dennis, Robyn Stender, and Catherine D. Norman (2011)

BSES-SF Data Collection Time point	Control Mean (SD)	Intervention Mean (SD)
Baseline (in hosp)	45.6 (9.8)	47.3 (8.6)
4 weeks PP	55.0 (13.7)	58.4 (11.4)
8 weeks PP	54.9 (15.8)	59.0 (13.7)

Implications for Practice

- Determining BF self-efficacy is important
 - Antenatal scores can predict BF initiation
 - Antenatal & postnatal scores can predict duration & exclusivity to 4 weeks postpartum (Dennis et al., 2011; Mossman et al., 2008)
- Conclusive cut-off for low BSES-SF has not been established

Future Research

- What degree of change is clinically significant?
- Continued testing of the St. Mary's BF Program
 - Increase sample size
 - Strengthen outcome measures
 - Funding received from The Ottawa Hospital Academic Medical Organization Innovation Fund

Conclusions

- Prenatal education & peer support adapted to the specific needs of this population appear to increase BF self-efficacy
- Availability of one-stop services increases resource utilization
- Further research is needed



Questions? Comments?

ccantin@cmnrp.ca

References

- Best Start Resource Centre (2014). Breastfeeding in Ontario. Fact sheet #4: Breastfeeding peer support programs: An effective strategy to reach and support populations with lower rates of breastfeeding. Toronto, ON; author.
- Best Start Resource Centre (2015a). *Populations with lower rates of breastfeeding: A summary of findings*. Toronto, ON; author.
- Best Start Resource Centre (2015b). Developing and sustaining peer support programs. Toronto, ON; author. Retrieved from http://www.beststart.org/resources/breastfeeding/B10_BF_Peer_Support_Programs_ENG_final.pdf
- Dodgson, J. E., Codier, E., Kaiwi, P., Oneha, M. F., & Pagano, I. (2003). Breastfeeding patterns in a community of Native Hawaiian mothers participating in WIC. *Family & Community Health, 2* Suppl, S46-S6.
- Dyson, L., McCormick, F.M., & Renfrew, M.J. (2005). Interventions for promoting the initiation of breastfeeding. *Cochrane Database of Systematic Reviews, Issue 2. Art. No.: CD001688. DOI: 10.1002/14651858.CD001688.pub2.*
- Fleming, N., Ng, N., Osborne, C., Biederman, S., Abdool, S. Y., Dy, J., Rennicks White, R., & Walker, M. (2013). Adolescent pregnancy outcomes in the province of Ontario: A cohort study. *Journal of Obstetrics & Gynaecology Canada, 35*(3): 234-245.
- Fleming, N., Tu, X., & Black, A. (2012). Improved obstetrical outcomes for adolescents in a community-based outreach program: A matched cohort study. *Journal of Obstetrics & Gynaecology Canada, 34*(12):1134-40.
- Leclair, E., Robert, N., Sprague, A. E., & Fleming, N (2015). Factors associated with breastfeeding initiation in adolescent pregnancies: A cohort study. *Journal of Pediatric and Adolescent Gynecology, 28*(6). 516-521. [doi:10.1016/j.jpog.2015.03.007](https://doi.org/10.1016/j.jpog.2015.03.007)
- Renfrew, M.J., McCormick, F.M., Wade, A., Quinn, B., & Dowswell, T. (2012). Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database of Systematic Reviews, Issue 5. Art. No.: CD001141. DOI: 10.1002/14651858.CD001141.pub4.*
- Sipsma, H. L., Magriples, U., Divney, A., Gordon, D., Gabzdyl, E., & Kershaw, T. (2013). Breastfeeding behavior among adolescents: initiation, duration, and exclusivity. *The Journal of Adolescent Health, 3*, 394-400.
- Spear, H. J. (2006). Breastfeeding behaviors and experiences of adolescent mothers. *MCN. The American Journal of Maternal Child Nursing, 2*, 106-113.
- St. Mary's Home (2016, Sept). St. Mary's Home Maison Sainte-Marie Annual report 2015-2016. Retrieved from http://www.stmaryshome.com/en/stmaryshome/Home_p1186.html
- Tucker, C. M., Wilson, E. K., & Samandari, G. (2011). Infant feeding experiences among teen mothers in North Carolina: Findings from a mixed-methods study. *International Breastfeeding Journal, 6*(14). Retrieved from <http://www.internationalbreastfeedingjournal.com/content/6/1/14>
- Volpe, E. M., & Bear, M. (2000). Enhancing breastfeeding initiation in adolescent mothers through the Breastfeeding Educated and Supported Teen (BEST) Club. *Journal of Human Lactation, 3*, 196-200.
- Wambach, K. A., & Cole, C. (2000). Breastfeeding and adolescents. *Journal of Obstetrics Gynecology and Neonatal Nursing, 29*: 282-94.

- Lizarraga, J. L., Maehr, J. C., Wingard, D. L., & Felice, M. E. (1992). Psychosocial and economic factors associated with infant feeding intentions of adolescent mothers. *The Journal of Adolescent Health, 8*, 676-681.
- Lumbiganon, P., Martis, R., Laopaiboon, M., Festin, M.R., Ho, J.J., & Hakimi, M. (2012). Antenatal breastfeeding education for increasing breastfeeding duration. *Cochrane Database of Systematic Reviews, Issue 9. Art. No.: CD006425. DOI: 10.1002/14651858.CD006425.pub3.*
- Misra, R., & James, D. C. (2000). Breast-feeding practices among adolescent and adult mothers in the Missouri WIC population. *Journal of the American Dietetic Association, 9*, 1071-1073.
- Mossman, M., Heaman, M., Dennis, C., L., & Morris, M. (2008). The influence of adolescent mothers' breastfeeding confidence and attitudes on breastfeeding initiation and duration. *Journal of Human Lactation, 24*(3): 268-277.
- Nelson, A. & Sethi, S. (2005). The breastfeeding experiences of Canadian teenage mothers. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 34*: 615 - 624.
- Nesbitt, S. A., Campbell, K. A., Jack, S. M., Robinson, H., Piehl, K., & Bogdan, J. C. (2012). Canadian adolescent mothers' perceptions of influences of breastfeeding decisions: A qualitative descriptive study. *BMC Pregnancy and Childbirth, 12*(149). doi: 10.1186/1471-2393-12-149
- Ottawa Public Health. (2014). State of Ottawa's health, 2014. Ottawa, ON: Ottawa Public Health.
- Park, K., Meier, E., & Song, W. (2003). Characteristics of teenage mothers and predictors of breastfeeding initiation in the Michigan WIC program in 1995. *Journal of Human Lactation, 19*: 50-56.
- Pierre, N., Emans, S. J., Obeidallah, D. A., Gastelum, Y., DuRant, R. H., Moy, L. K., Hauser, S. T., Paradise, J., & Goodman, E. (1999). Choice of feeding method of adolescent mothers: Does ego development play a role? *Journal of Pediatric and Adolescent Gynecology, 2*, 83-89.