Abstract

Individual Risk Factors Associated with Delayed Secretory Activation in a Cohort of First-Time Mothers in Western Australia †

Cassandra Cuffe 1,*, Deborah Ireson 2, Joshua R. Lewis 1,3,4, Roslyn Giglia 5 and Therese A. O’Sullivan 1

1 Nutrition & Health Innovation Research Institute, School of Medical and Health Sciences, Edith Cowan University, Joondalup, WA 6027, Australia
2 School of Nursing and Midwifery, South West Campus, Edith Cowan University, Bunbury, WA 6230, Australia
3 Medical School, The University of Western Australia, Crawley, WA 6009, Australia
4 Centre for Kidney Research, Children’s Hospital at Westmead, School of Public Health, Sydney Medical School, The University of Sydney, Sydney, NSW 2006, Australia
5 Foodbank of Western Australia, Perth, WA 6105, Australia
* Correspondence: c.cuffe@ecu.edu.au

Abstract: Infants of mothers who experience a delay in onset of copious breastmilk, or secretory activation (SA), are at risk of suboptimal feeding during infancy and early termination of breastfeeding, even if their mothers intend to exclusively breastfeed. The aim of this secondary data analysis was to identify individual risk factors associated with delayed SA in a cohort of 159 first-time mothers from a subset participating in an ongoing trial being conducted across multiple hospital sites in Western Australia. Low-risk nulliparous pregnant women were enrolled and followed until 1 week after birth. Maternal self-reported delayed SA status (onset ≥ 72 h postpartum) was examined in association with potential risk factors across five dimensions: maternal demographics; maternal anthropometry; obstetric and birth outcomes; newborn characteristics; and infant feeding. Any variable that was P < 0.1 in univariate analysis was retained for the multivariable analysis and analyzed with potential confounders maternal age and caesarean birth. The rate of delayed SA was 44% (n = 70). In the multivariable adjusted model mothers with gestational diabetes mellitus (GDM) were significantly more likely to experience delayed SA than mothers without GDM after adjusting for all other factors in the model, (OR = 4.35; 95% CI [1.05, 18.06]). Among mothers with GDM, 11 (79%) had delayed SA. Delayed SA was reported by almost half of first-time mothers, and those with GDM more likely to be affected. Additional support for these mothers may help improve breastfeeding rates.

Keywords: human milk; breastfeeding; lactation; delayed secretory activation; gestational diabetes mellitus (GDM); formula feeding; nulliparous pregnant women; lactogenesis II

Author Contributions: Conceptualization, R.G., C.C. and T.A.O.; methodology, R.G., C.C., D.I., J.R.L. and T.A.O.; formal analysis, C.C.; writing—original draft preparation, C.C.; writing—review and editing, C.C., R.G., D.I., T.A.O. and J.R.L.; supervision, D.I., J.R.L. and T.A.O. All authors have read and agreed to the published version of the manuscript.

Funding: Funding for the ongoing larger project was received from the Department of Health Western Australia and the Stan Perron Charitable Foundation.

Institutional Review Board Statement: The larger study was conducted in accordance with the Declaration of Helsinki, and approved by the Human Research Ethics Committee at Edith Cowan University (2019-00572-OSULLIVAN, 8 July 2019).

Informed Consent Statement: Informed consent was obtained from all subjects.
Data Availability Statement: Data used in this analysis are not publicly available, although other investigators may request access to the dataset if a formal request describing their plans is approved by the principal investigators and the relevant ethics approval is in place.

Acknowledgments: The authors would like to thank Julie Hill who prepared the data for analysis.

Conflicts of Interest: The authors declare no conflict of interest.

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