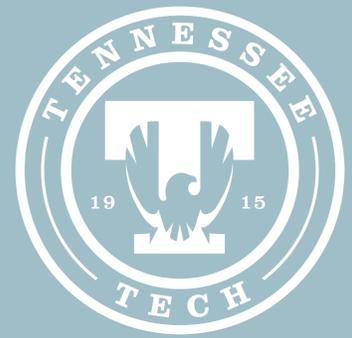


# Impact of educating mothers and breastfeeding on low birth weight infants



Bethany Petty

Advisor: Dr. Samantha Hutson

## Introduction

- low birth weight: weight at birth less than 2500g and very LBW as weight at birth less than 1500g.<sup>1</sup>
- There are about 15 million preterm births that are recorded every year around the world.<sup>2</sup>
- LBW has a prevalence of 30-40% in the past 20 years in the USA.<sup>3</sup>
- maternal factors that affect preterm: duration between pregnancies, smoking, diet, alcohol, stress, and even surrounding environment.
- Between the years 2015 and 2017, 33.8% of pregnancies were conceived within 18 months of a previous birth.<sup>4</sup>
- Benefits to breastfeeding: growth and developmental outcomes, provides protection against infections, and a variety of non-infectious diseases.<sup>5,6</sup>
- Even though LBW infants have a greater need to be breastfed than normal birth weight, but LBW infants are more frequently bottle-fed with artificial formulas.<sup>7</sup>

## Purpose

- By understanding the factors that play a part in successfully breastfeeding LBW infants and its outcomes, better interventions can be developed to help mothers better breastfeed their low birth weight infants until discharge and beyond.
- The purpose of writing this review of literature was to examine the impact that breastfeeding may have on low birth weight infants and the impact of education has on breastfeeding initiation and duration.

## Abstract

- **Objective:** To investigate the effect of breastfeeding may have on LBW infants and the impact of education has on breastfeeding initiation and duration.
- **Methods:** collected from previous literature and original sources to compare initiation and duration in the population of interest.
- **Results:** revealed a strong, positive correlation between breastfeeding education to new mothers and duration of breastfeeding.
- **Conclusion:** While there is a correlation between health benefits received to an infant and duration of breastfeeding, more research is needed to show the impact of how NICU staff can affect the outcomes of health benefits to low birth weight infants and the length of educating new mothers about breastfeeding.

## Conclusion

- Breast milk contains: proper amount of protein, vitamins, and other nutritional content allowing LBW infants to receive positive health benefits that helps support optimal growth patterns.<sup>3,5</sup>
- VLBW infant's odds of receiving some kind of breast milk at discharge depended on the first oral sucking and being put directly to the breast multiple times a day.<sup>6</sup>
- Giving natural-feeding education to mothers increased their breastfeeding self-efficacy level and success in breastfeeding.<sup>7</sup>
- Helping mothers succeed at breastfeeding before being discharged was linked to being able to breastfeed and willing to breastfeed after discharge.<sup>6,7,9</sup>
- Initiation of breastfeeding after day 1 increased almost threefold increased risk of mortality in infants aged 2 to 28 days old.<sup>14</sup>
- This review of literature is compiled of several resources that show the impact that breastfeeding has on low birth weight infants and how educating mothers can play a role into breastfeeding low birth weight infants.



## Results

- weight gain of 28.5gm/day on VLBW infants who received pooled, expressed milk, partly supplemented with their own mother's expressed milk.<sup>10</sup>
- recorded a rate of weight gain as 23.7gm/day in VLBW infants fed with preterm milk.<sup>11</sup>
- Statistics showed that the mothers who continued to provide breast milk until discharge, 100% of the infants had direct breast contact at least once during hospitalization.<sup>9</sup>
- Duration of breastfeeding ranged from 12 to 108 days. The mothers who initiated breastfeeding, 32.8% continued to provide some breast milk at discharge.<sup>9</sup>
- From 0-4 months, 70% of the LBW infants gained double the weight, 73% of LBW babies had an average 7cm increase in head circumference, 81% of LBW neonates had an average of 7cm increase on chest circumference and 53% showed an increase of 10cm in length.<sup>12</sup>
- From 0-6 months, 85.7% of infants who were in the test group, were continued to be exclusively breastfed and only 38.9% of the control infant group were exclusively breastfed at the end of the 6 months.<sup>7</sup>
- Initiation of breastfeeding after day one and prelacteal feeding were associated with an increased threefold risk of mortality in infants aged 2 to 28 days old. Compared to non-LBW infants, there was a 1.7-fold higher risk of delayed breastfeeding initiation in low birth weight infants.<sup>14</sup>

## Methods

- research focused on infants who were LBW or VLBW, mothers of the LBW infants, educating mothers on breastfeeding, mother's challenges with breastfeeding and benefits of breastfeeding low birth weight infants.
- The databases included: World Health Organization, Healthy People 2030, Angelo & Jennette Volpe Library, the National Library of Medicine, and the US National Library of Medicine National Institutes of Health .
- Consisted of quasi-experimental, prospective, longitudinal, retrospective cohort, and randomized controlled trial studies

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