

## Introduction

- ❖ Baby-Friendly Hospital Initiative (BFHI) is aimed to support, protect, and promote breastfeeding in maternal newborn facilities (WHO, 2020)
- ❖ Implementing skin-to-skin mother-baby contact in the mother-baby unit, and kangaroo mother care in the Neonatal Intensive Care Unit (NICU) with the intention of increasing breastfeeding rates, glucose control and temperature regulation.
- ❖ Sustainability of BFHI for re-designation in 2021

## Background/Significance

- BFHI recommends skin-to-skin mother-baby contact one hour immediately after birth, routinely in postpartum and beyond (BFHI, 2016).
- WHO recommends skin-to-skin mother-baby contact on all newborns regardless of age
- Skin-to-skin mother-baby contact and kangaroo mother care reduces mortality and morbidity in newborns
- Cost in maternal health due to lack of breastfeeding is \$14.2 billion/year
- Cost of kangaroo mother care is \$19,289 (Conde-Agudelo & Diaz-Rosello, 2016)
- Cost of conventional care is \$39,764 (Conde-Agudelo & Diaz-Rosello, 2016)

## Needs Assessment

- Gap in evidence-based knowledge, policy and practice at the DNP project site
- Exclusive breastfeeding rate at discharge is 38.7% for 2019 compared to 75% BFHI criteria and 46.2% target of healthy people 2020 (CDC, 2019)

## Strengths

- Staff support of BFHI designation
- Availability of Electronic Health Record (EHR)

## Weaknesses

- Staff resistant to change and poor communication

## Opportunities

- BFHI resources and education

## Threats

- Inadequate patient census
- Environmental changes due to the pandemic

## Problem Statement

- The mother-baby unit and the NICU at the DNP project site hospital were not meeting BFHI criteria for success
- Though the organization is seeking re-designation, anecdotal findings indicate that breastfeeding rate and skin-to-skin mother-baby contact in the mother-baby unit and kangaroo mother care in the NICU are presently below the BFHI criteria for re-designation

## Clinical Question

In the mother-baby unit and NICU, to what extent will routine skin-to-skin mother-baby contact and kangaroo mother care increase breastfeeding or pumping rates, regulate blood glucose and temperature in newborns after education is provided to nursing staff?

## Aims

- Implement routine skin-to-skin mother-baby contact in the mother-baby unit after delivery
- Implement Kangaroo mother care in the NICU
- Increase breastfeeding rate, breastmilk pumping in the NICU
- Improve temperature and glucose control
- Sustain BFHI designation and policy change/revision at the DNP project site

## Objectives

- Provision of evidence-based education for staff
- Collection and analysis of data from the EHR such as: Time in minutes of skin-to-skin mother-baby contact and kangaroo mother care in the NICU, breastfeeding status on discharge, hypothermia and hypoglycemia data
- Presentation of recommendation on policy change after results obtained for the leadership team

## Inclusion and Exclusion Criteria

### Inclusion Criteria

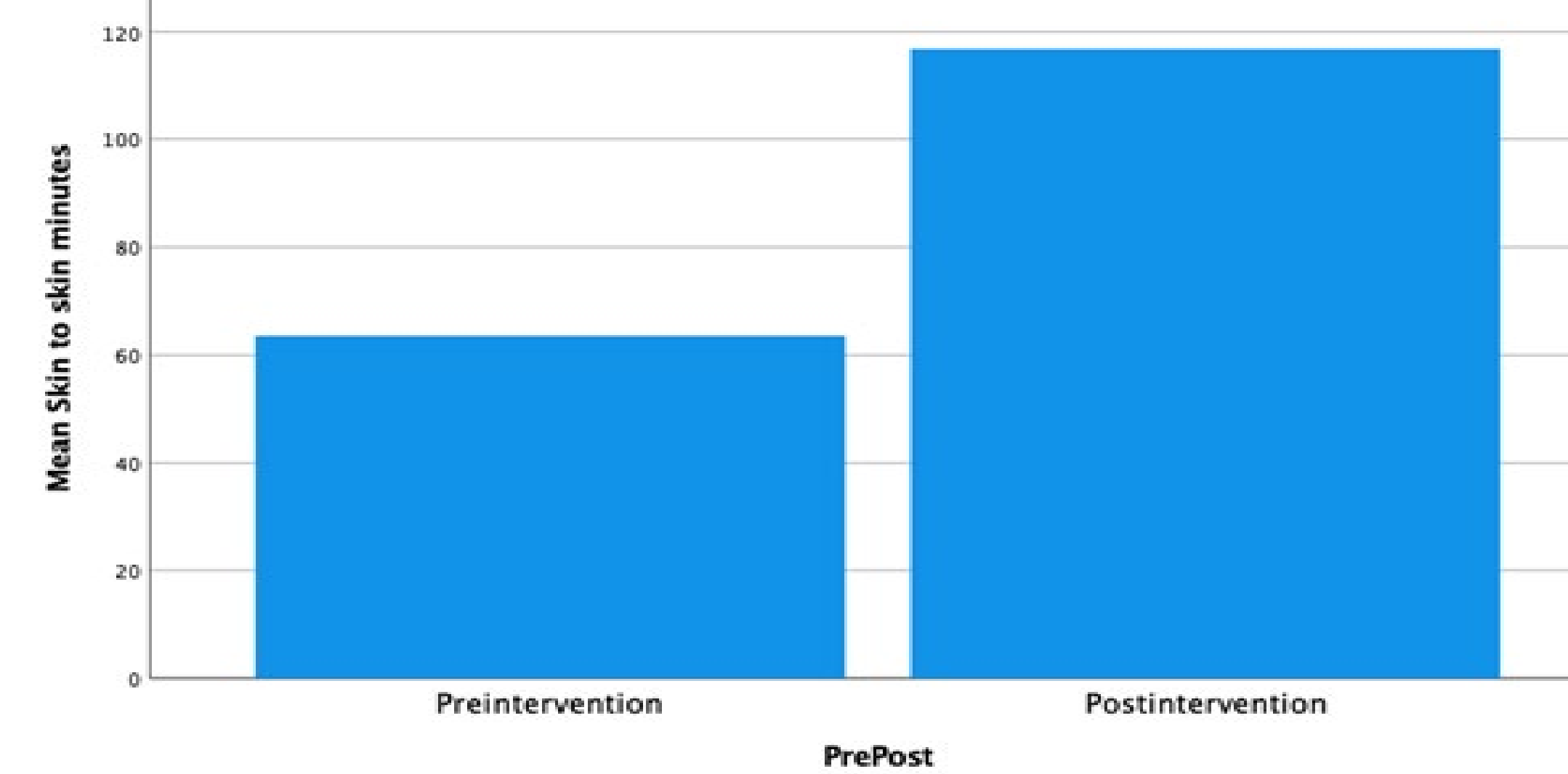
- Mothers who breastfed or used formula at discharge
- Live babies discharged from NICU and mother-baby units and babies that needs glucose monitoring.

### Exclusion Criteria

- Surrogate mothers
- Babies that are up for adoption

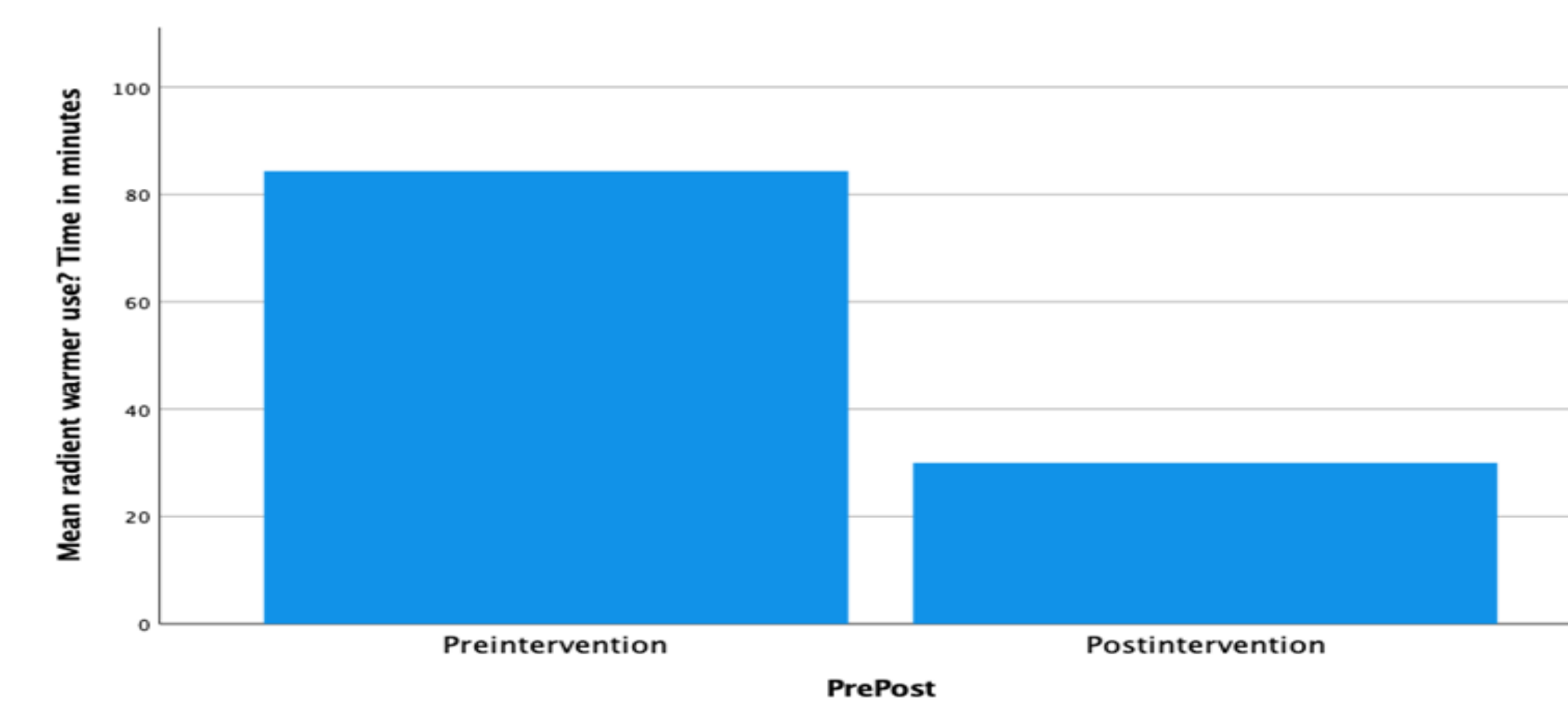
## Results

**Figure 1: Average minutes skin-to-skin pre and post intervention**



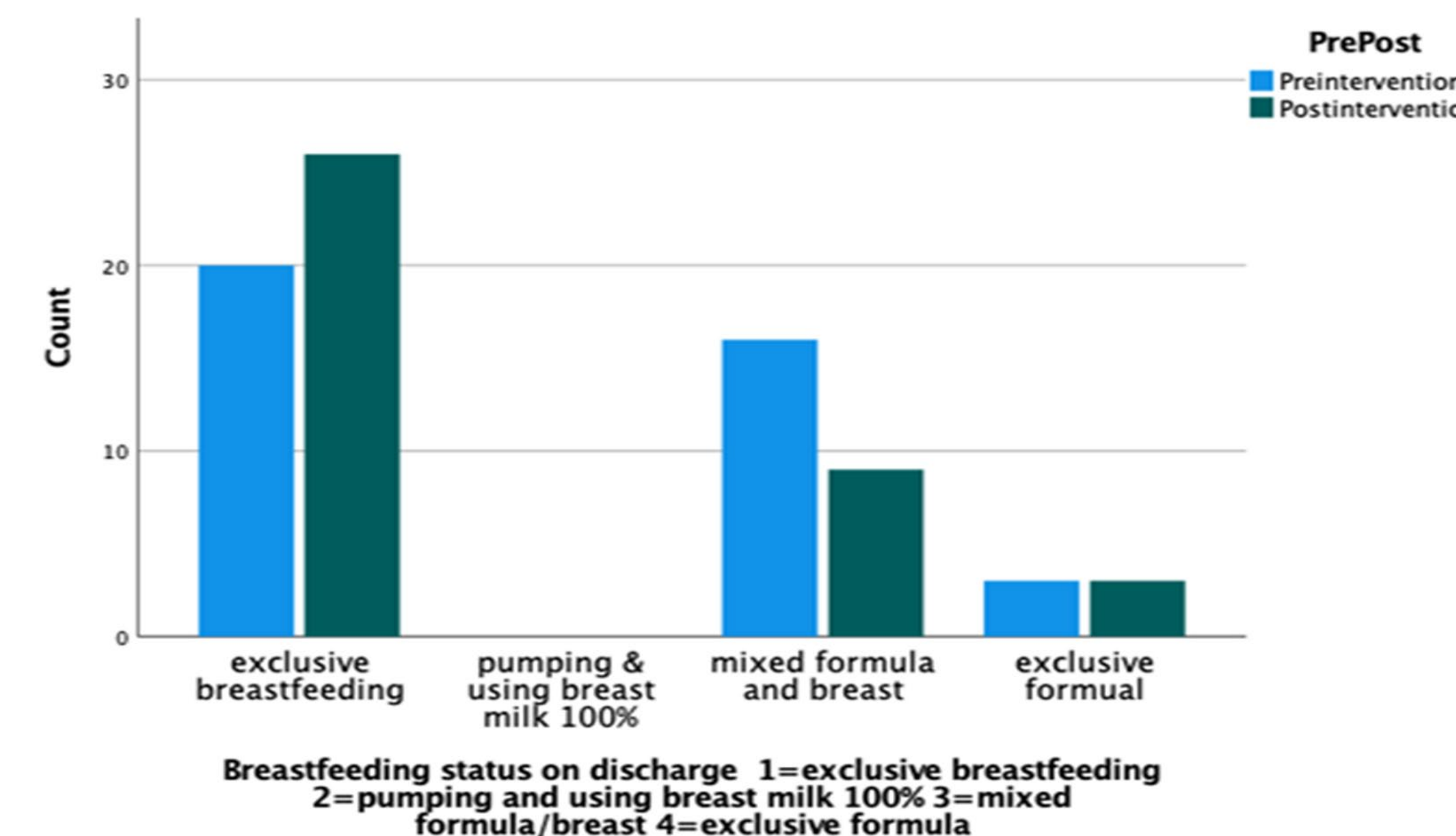
The mean value from the preintervention was 63.59 and the mean value from the post intervention was 116.84. Mann Whitney test showed that the result was statistically significant with  $p=0.002$

**Figure 2: Simple bar mean of time in minutes use of radiant warmer**



The mean value from the preintervention was 84.36 and the mean value from the postintervention was 30.00. Mann Whitney test showed that the result was statistically significant with  $p < 0.001$

**Figure 3: Breastfeeding status on newborn discharges**



**Exclusive breastfeeding mothers at discharge in the preintervention was 20 out of 39 (51.2%) and in the postintervention was 26 out 38 (68%).**

## Methodology

### Study Design:

- Retrospective chart review QI project
- Data collection from the EHR
- Project period: 6 months. 3 months pre-data collection before educational sessions and 3 months post data collection
- Recruitment of participants: EHR or chart review. In-service as part of work hours
- Setting: Hospital mother-baby and NICU units. 1500 deliveries/year

### Survey Instrument:

- Evaluative case studies were used after the educational program
- One hour contact hours was provided after the post test

### Outcomes Measured:

- Time in minutes skin-to-skin mother-baby contact in mother-baby and kangaroo mother care in the NICU
- Breastfeeding status on discharge
- Hypoglycemia data
- Hypothermia data

## Discussion

- Skin-to-skin mother-baby contact almost doubled from the mean of 63.59 to 116.84
- Radiant warmer usage decreased from the mean of 84.36 to the mean of 30.00
- Kangaroo mother care did not show improvement in this project
- The number of times in the postpartum period that babies needs extra feeding due to a drop in blood glucose was few episodes
- Exclusive breastfeeding increased to 68% above the healthy people 2030 objective of 42.4%
- Exclusive breastfeeding of 68% almost aligned with the BFHI criteria of 75% exclusive breastfeeding yearly

## References

- Baby-Friendly USA. (2016). *The baby-friendly hospital initiative*. <https://www.babyfriendlyusa.org/>
- Center for Disease Control and Prevention. (2019). *Facts about nation wide breastfeeding goals*. <http://www.cdc.gov/breastfeeding/data/facts.html>
- Conde-Agudelo, A., & Diaz-Rosello, J.L. (2016). Kangaroo mother care to reduce morbidity and mortality in low birth weight infants. *Cochrane Database of Systematic Reviews*. <http://doi.org/10.1002/14651858.cd002771.pub4>
- World Health Organization. (2020). *Baby-friendly hospital initiative*. <https://www.who.int/nutrition...>