

Ensuring Safe Formula Feeding Within a “Breast is Best” Culture

Caitlin Morgan, MSN Candidate
Nadine Rosenblum (Mentor), MS RN IBCLC APHN-BC

1 Background

The Baby Friendly Hospital Initiative (BFHI), a project of the World Health Organization and United Nation’s Children’s Fund, has made great strides to promote breastfeeding, the broad benefits of which are well established (Pérez-Escamilla, Martinez, Segura-Pérez, 2016). The Johns Hopkins Hospital has been designated “Baby-Friendly” by the initiative since 2015, a distinction requiring implementation of “Ten Steps to Successful Breastfeeding”. Each year, a patient audit is required to evaluate ongoing compliance with these steps. In 2018, The Johns Hopkins Hospital was charged with evaluating the following steps: #5 Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants, #8 Encourage breastfeeding on demand, #9 Give no pacifiers or artificial nipples to breastfeeding infants, and #10 Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birth center. While none of these objectives address formula-feeding, questions within the audit address both forms of nutrition.

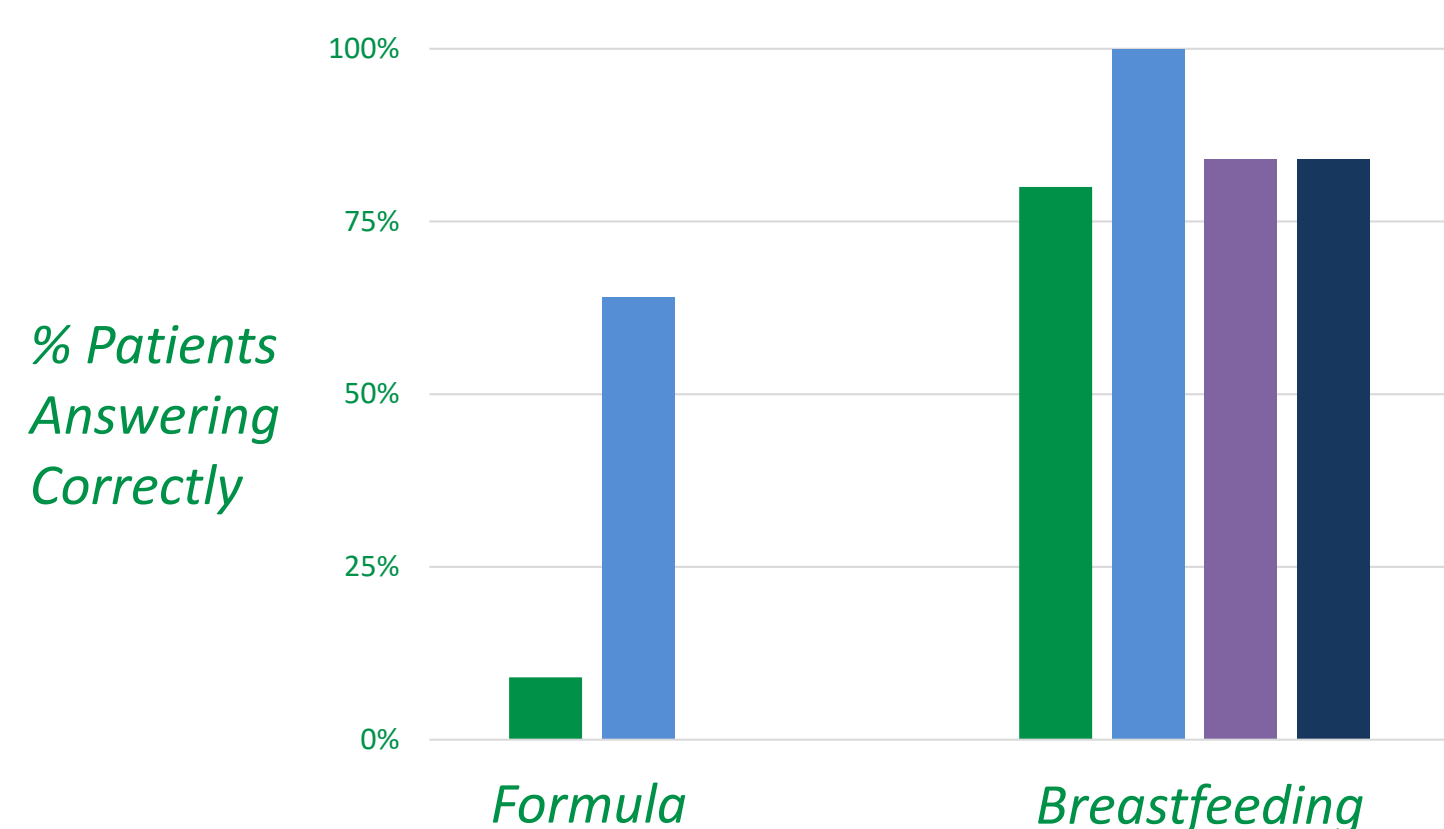
2 Objectives

- To evaluate compliance with BFHI steps 5, 8, 9, and 10
- To evaluate birthing parent knowledge of appropriate feeding practices prior to discharge
- To develop and implement quality improvement measures in response to needs identified through patient audit
- To increase the proportion of birthing parents knowledgeable about safe formula preparation and feeding

3 Methods

To complete the audit, patients were interviewed prior to discharge and asked questions pertinent to baby’s status (NICU or not), and nutrition source (breastmilk, formula or both). Of those who were feeding their infants at least some formula, 9% confirmed having been given both verbal and written instruction on preparing and feeding formula and 64% reported appropriate information about positioning of the infant during feedings. These results are in stark contrast to the 80-100% of parents who answered breastfeeding questions correctly. Figure 1 highlights the gap in patient knowledge between formula and breastfeeding practices.

Fig 1: Patient audit results: comparing patient knowledge of formula and breastfeeding practices



To overcome this knowledge deficit, a nurse education initiative was undertaken. The goals of this initiative were to ensure that nurses were knowledgeable about: 1) the importance of safe formula feeding, 2) practices of safe formula feeding, and 3) when and how to conduct patient education. To accomplish these goals, one-to-one education sessions were held with nurses during their shifts. The sessions focused on the current state of patient knowledge and the requirements of formula education moving forward.

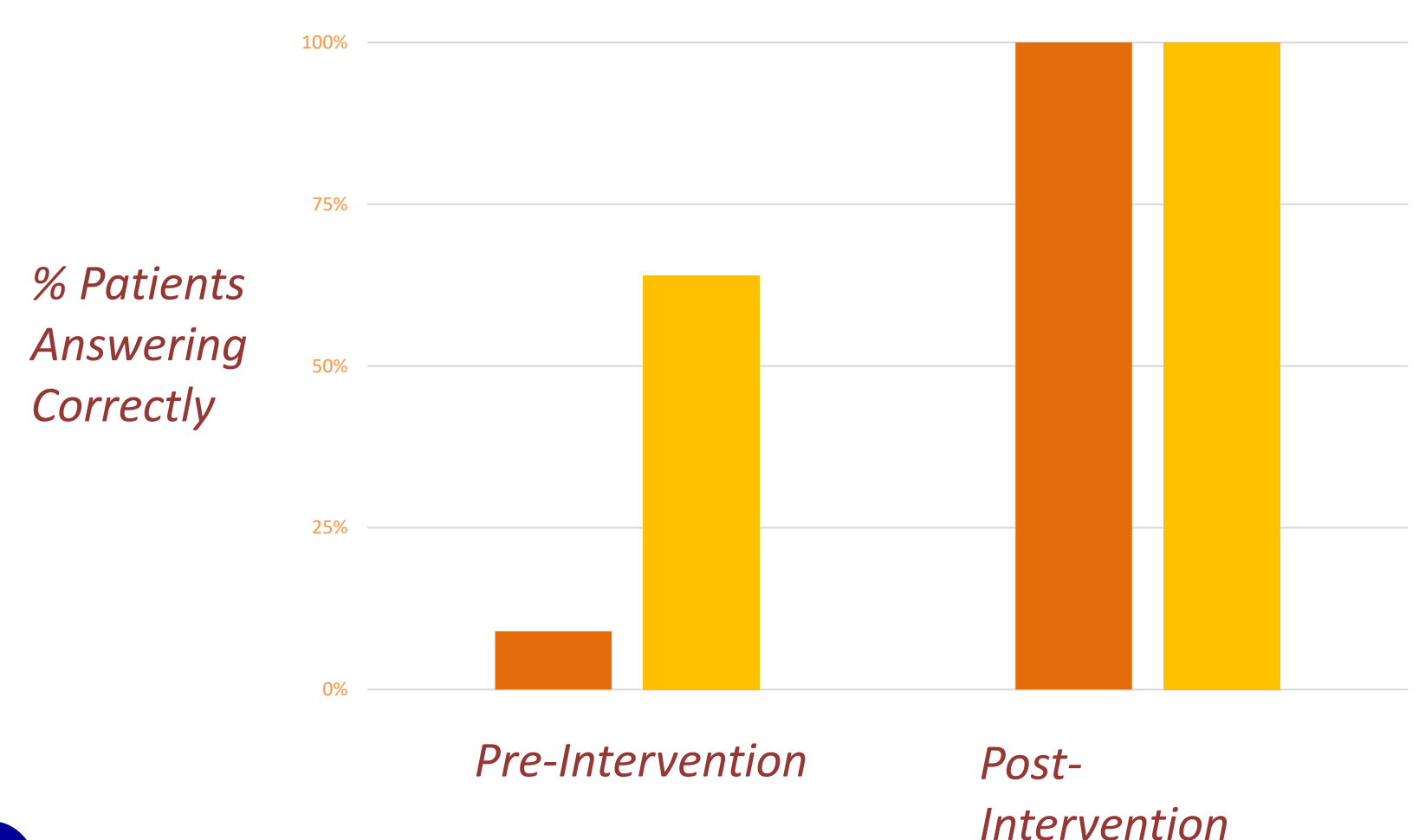
Following these interventions, additional patient interviews were completed to evaluate the effectiveness of the nurse education.

4 Results

Results of the initial patient audit revealed low rates of safe formula preparation knowledge among parents feeding formula to their infants. In contrast, breastfeeding knowledge was high among parents who were breastfeeding.

Following the nurse education initiative, an additional patient audit was completed revealing an improvement in patient knowledge. The change in patient knowledge before and after the nurse education initiative can be seen in Figure 2.

Fig 2: Patient audit results: comparing patient knowledge of formula practices before and after nurse education



5 Conclusions

The results of the audit suggest that patients aren’t being adequately educated on safe formula feeding. While individualized nurse education was shown to improve patient knowledge, this intervention is resource intensive and therefore unsustainable. This reality highlights the necessity of having continuing education strategies implemented on each nursing unit. Additionally, while breastfeeding is undoubtedly worthy of promotion, it is vital within a “breast is best” culture to actively work to disseminate knowledge of the ways in which to safely feed formula.

6 Future Directions

- Identify effective continuing education strategies to replace resource heavy one-to-one nurse education
- Formulate a patient advisory council for the perinatal inpatient units to identify feeding support needs not captured by the Baby Friendly Initiative audit tool
- Collaborate with prenatal clinics to ensure that prenatal infant feeding education is aligned with patient needs

7 References

Pérez-Escamilla, R., Martinez, J.L., Segura-Pérez, S. (2016). Impact of the Baby-friendly Hospital Initiative on breastfeeding and child health outcomes: a systematic review. *Maternal and Child Nutrition*, 12(3):402-17

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