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## BACKGROUND

- A 2019 study compared interest in food categories in English and Spanish speaking postpartum mothers in Tulsa, OK. This study further investigated whether interest was possibly influenced by the decision to breastfeed.
- Food preferences during pregnancy has been investigated, however there is minimal research in postpartum, particularly breastfeeding, mothers.
- This has not been studied in the Native American population; thus, the purpose of this study is to determine if breastfeeding alters Native American women’s interest in eating foods of different taste categories.

## METHODS

- Women were asked if they were interested in completing a survey in the waiting room when checking in for their 6-week postpartum checkup at WW Hastings Indian Hospital in Tahlequah, OK (a Native American serving health facility owned by the Cherokee Nation of OK).
- The women were instructed to complete the survey at their own pace. Surveys contained no identifying information or protected health information.
- The survey first asked women to indicate whether they were breastfeeding, the number of infants born, and whether this was their first baby.
- Next, women were asked to rate their level of hunger on a Likert scale that ranged from 1 (not hungry at all) to 9 (very hungry), with 5 indicating “don’t care.”
- Women were then asked to rate their interest in eating specific foods from 6 different taste categories (salty, sweet, meaty, bitter, sour, and hot). This included foods such as chips, ice cream, grapefruit, tuna, steak, etc.
- Additionally, women were asked to indicate which taste category was most likely the reason they rated their interest in certain foods as a “9” on the Likert scale.
- Finally, women were asked to indicate if they had eaten the foods they rated as 7-9 in the last 2-3 days. They were asked to identify these foods and why they had or had not eaten them in this time frame.

## RESULTS

- There were no striking differences in eating foods in particular taste categories, except for sweet foods (Figure 1)
- Breastfeeding women indicated increased hunger ratings over non-breastfeeding women (Table 1)
- In the “Sweet” group, there was greater interest in eating chocolate bars and cookies in breastfeeding women (Figure 2)
- More mothers indicated they were breastfeeding over non-breastfeeding regardless of if this was their first child (Figure 3)

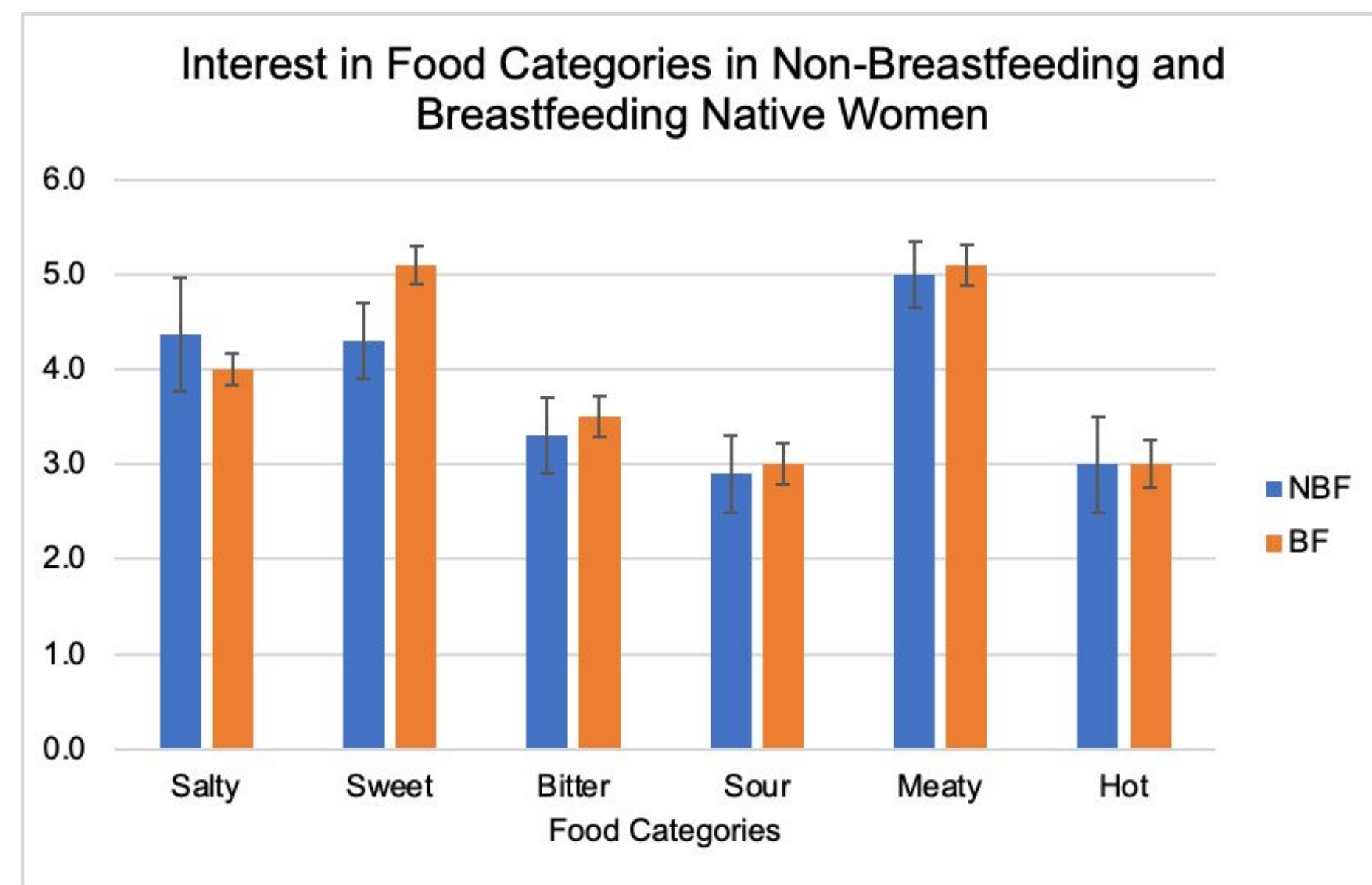


Figure 1. Averages of food category interest in Non-Breastfeeding and Breastfeeding women.

Table 1. Total number of Native American women surveyed in the Non-breastfeeding and Breastfeeding categories along with their responses to the question “How hungry are you right now?” on a scale of 1 (“not hungry at all”) to 9 (“very hungry”), with 5 representing “don’t care”.

	Non-Breastfeeding	Breastfeeding
Total Responding	14	41
Hunger Rating	4.1 ± 0.66	5.1 ± 0.30

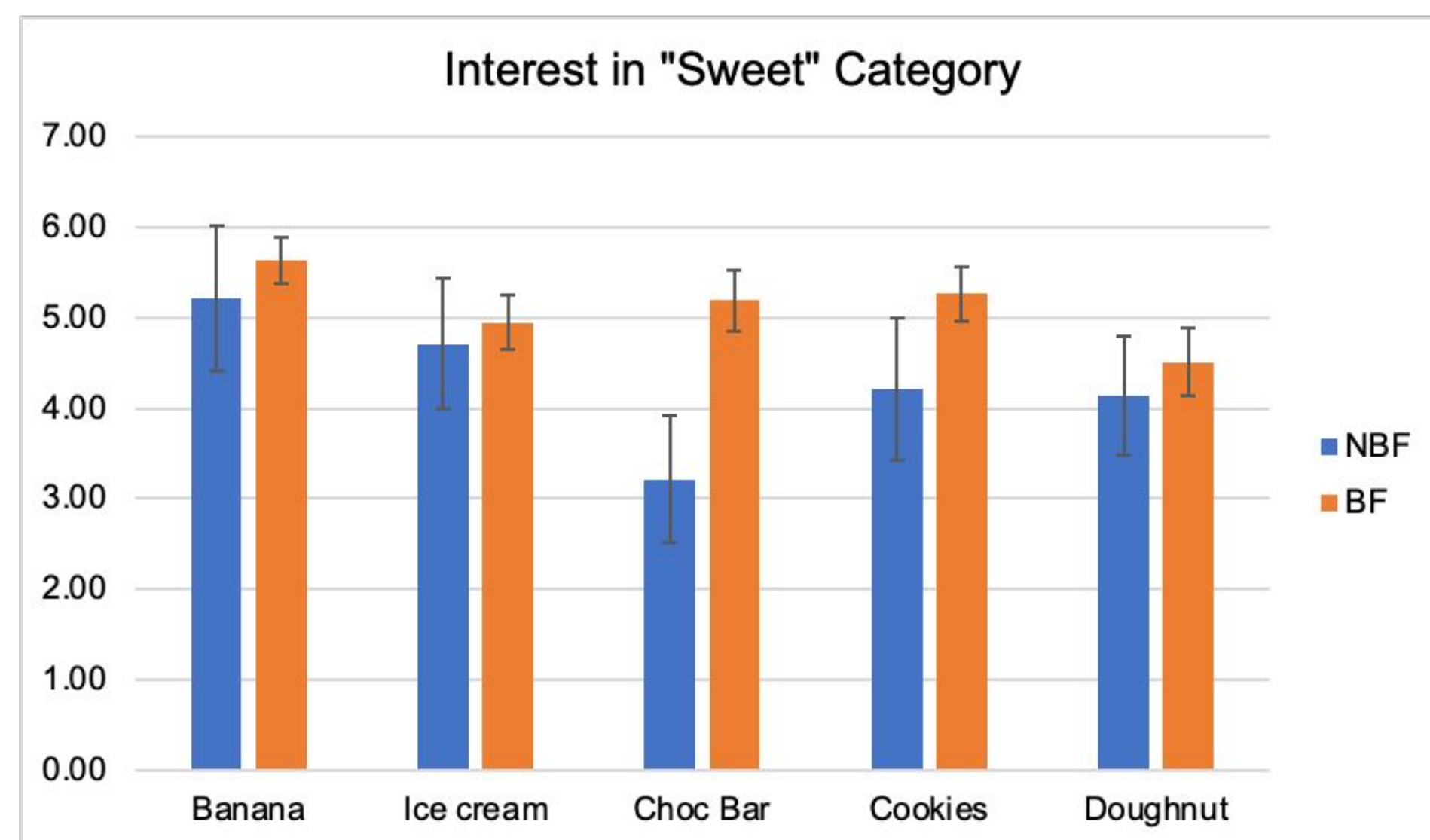


Figure 2. Averages of “Sweet” food category interest in non-breastfeeding and breastfeeding women.

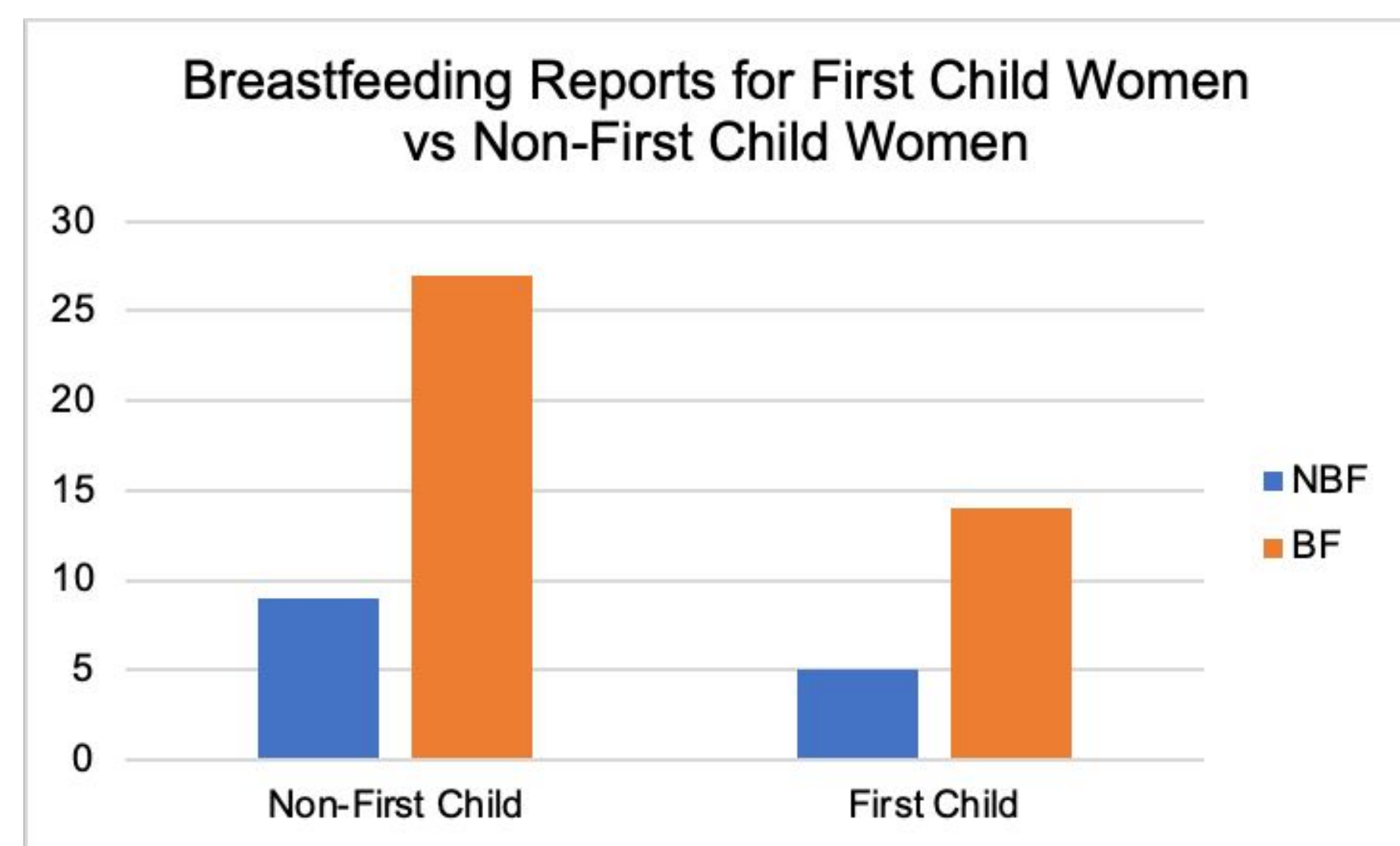


Figure 3. Indication of breastfeeding and whether this was the mother’s first child.

## CONCLUSION

- Our study showed that while breastfeeding women indicated increased hunger ratings over non-breastfeeding women, **there were no remarkable differences in the preferences for foods within the various taste categories between the breastfeeding and non-breastfeeding women, with the exception of the sweet group. Breastfeeding women reported a greater interest in eating chocolate bars and cookies within this category.**
- Our study also showed that there were more breastfeeding mothers compared to non-breastfeeding mothers, regardless of whether this was the mother’s first child or not.
- Therefore, the majority of our study participants are breastfeeding mothers. This may be due to home influences, emphasis to breastfeed recommended by providers, or other factors not explored via our survey.
- These findings provide the initial steps in better understanding the influence of breastfeeding on the interest in eating certain foods. They also represent how breastfeeding may affect food preferences in Native American women and furthermore, their food choices.
- This is important because maternal food choices may have implications on the health of a mother as well as her offspring. This includes health issues such as postpartum weight loss and childhood obesity since maternal food preferences may influence family meal choices.
- Future studies including additional surveys will provide enough data to perform statistical analysis, and further insight to examine interest in specific foods from the various taste categories. This is the first study of its kind following a Native American population, and more specifically, within the Cherokee Nation tribe. Replicating this study among other Native tribes will provide substantial insight to this population group.

## REFERENCES

1. Pang, W. W., et al. (2020). "Is breastfeeding associated with later child eating behaviours?" *Appetite*150: 104653.
2. Solis, L. V., et al. (2019). "Breastfeeding and women's interest in specific food tastes." *Physiol Behav*208: 112566.

