Barriers to Breastfeeding Practice: Exploratory Analysis with New York City Survey Data

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Background

It is widely believed that breastfeeding has physical and mental health benefits for both babies and parents. WHO and the American Academy of Pediatrics (AAP) both recommend exclusive breastfeeding for the first six months and suggest continued breastfeeding for up to two years or more.[1] However, only 25.8% of the infants in the U.S. are breastfed exclusively through six months, which is relatively low compared to other OECD countries.[2]

This piece of data reminds us that breastfeeding is a personal choice instead of an obligation, and is never an easy task. It involves technical, emotional and social support from family members, health care workers, employers, policy makers and many others. In the U.S., lack of time (especially paid time) off for new parents, inadequate education and support from the healthcare system, and lack of breastfeeding-friendly environment at workplaces are some of the most important barriers to breastfeeding practice.[3] To further explore the potential influential factors of breastfeeding practice and inform potential policy changes that could support breastfeeding practice responsibly, this research validates the information that I collected from stakeholder conversations and literature review with data analysis.

Data and Methodology

This research uses the "New York City Work and Family Leave Survey (WFLS) 2014" dataset.[4] WFLS is a telephone survey conducted in March 2016 to understand the availability of paid family leave and its impacts on families. It randomly selected English and Spanish speaking adults who gave birth in New York City in 2014 and who were living with their child at the time of the survey.[5] The dataset provides information of 1,063 respondents, such as their health conditions, employment status, breastfeeding practice and child care.

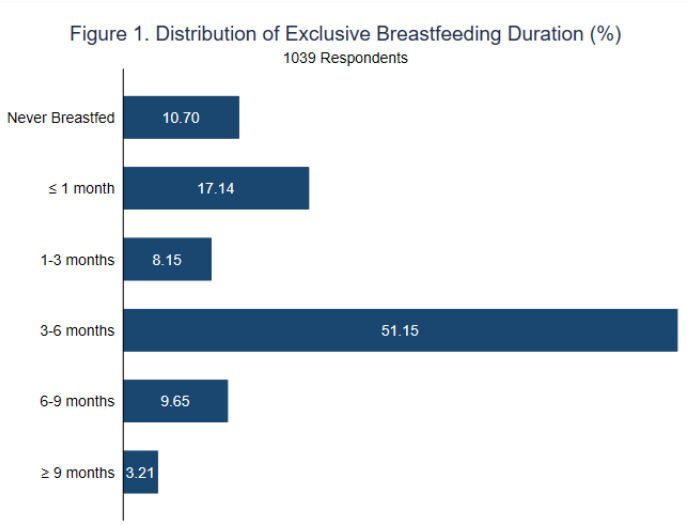
Data for this research is mainly from the *Breastfeeding*, *Employment and Leave*, and *Demographics* sections of the dataset. After data cleaning, I examine the correlation between duration of exclusive breastfeeding and specific influential factors, including previous childbirth experience, leave taken after childbirth and demographic characteristics. Analysis results of this research are weighted to represent the whole population who gave birth in 2014

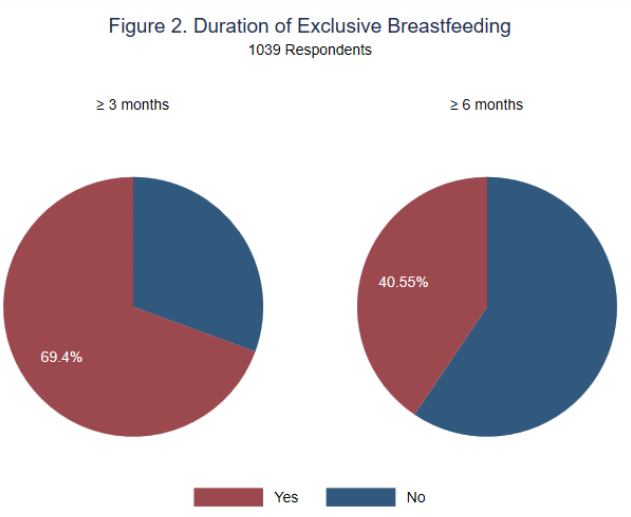
[1] WHO, Breastfeeding Recommendations; American Academy of Pediatrics (2022), Policy Statement: Breastfeeding and the Use of Human Milk (In June 2022, the American Academy of Pediatrics published a new policy statement that suggests increasing the duration of continued breastfeeding to two years or more from the previous recommendation of one year or more.)
[2] CDC, https://www.cdc.gov/breastfeeding/data/nis_data/results.html
[3] LauraGT (2022), Barriers to Breastfeeding: Why U.S. Rates Are So Low; Stakeholder interviews with a professor and a PhD student from NYU Rory Meyers College of Nursing, and a working mother conducted by the author in November and December 2021
[4] NYC OpenData, New York City Work and Family Leave Survey (WFLS) 2014
[5] New York City Department of Health and Mental Hygiene, Paid Family Leave: A Strategy for Promoting Health and Economic Equity for New York City's Families

in New York City, using the "population weight" data provided in the dataset. Invalid responses such as "I do not know" and "I refuse to answer" are excluded.

Exploratory Analysis and Discussion

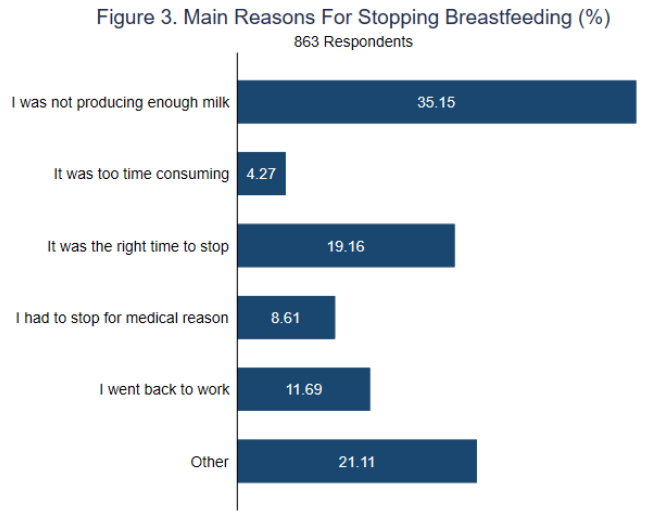
Figure 1 and Figure 2 depicts the distribution of breastfeeding duration. Among the new laboring persons who gave birth in 2014 in New York City, only about 40% had reached the WHO recommended goal of exclusive breastfeeding for six months. More than 30% of them had not even exclusively breastfed their children for three months, and around 11% had never initiated breastfeeding.

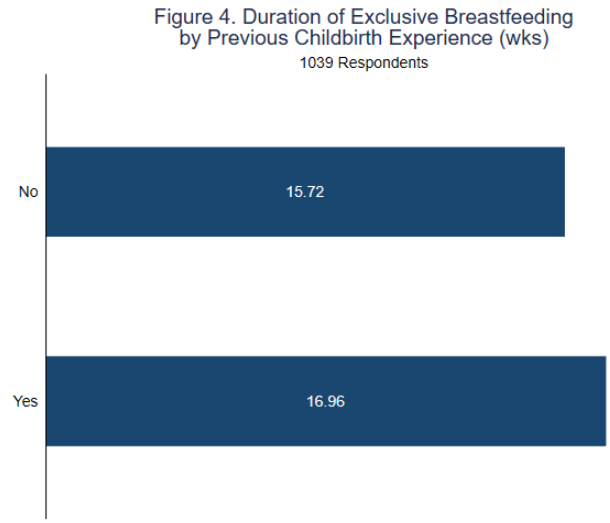




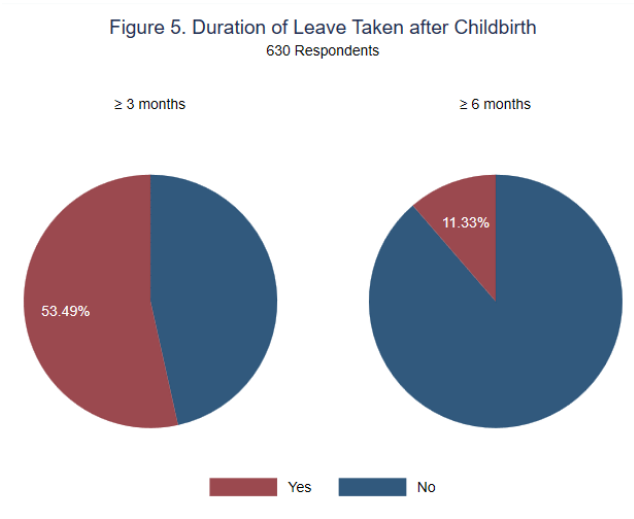
The biggest reason was not producing enough milk (35.15%) as shown in Figure 3. Among 278 respondents who listed insufficient milk supply as the main reason, 66 (24.35%) had only exclusively breastfed for less than a week. It is interesting that the underlying reasons for insufficient milk supply can be mixed, some of which could actually be solved, such as infrequent feeding, poor breastfeeding techniques and misperception of "inadequate supply" due to lack of confidence.[6] Without adequate support, these can be especially challenging for new parents who have babies for the first time. One of my interviewees shared with me that due to lack of support and knowledge, her breastfeeding experience with her first baby was very challenging and she felt bad for not producing enough milk to feed her child. But she was much more confident and experienced when breastfeeding her second baby. Her individual story is aligned with data in Figure 4, that previous childbirth experience could increase the duration of exclusive breastfeeding by 1.24 weeks. This gap can be narrowed if new parents could receive proper training and support from the hospitals and communities during pregnancy and after childbirth.

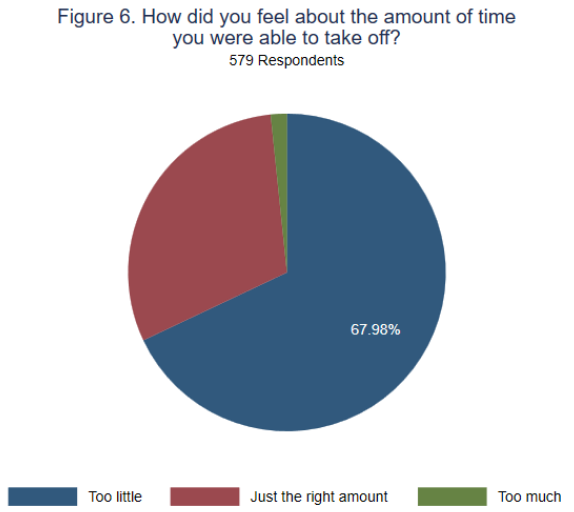
[6] U.S. Department of Health and Human Services (2011), The Surgeon General's Call to Action to Support Breastfeeding





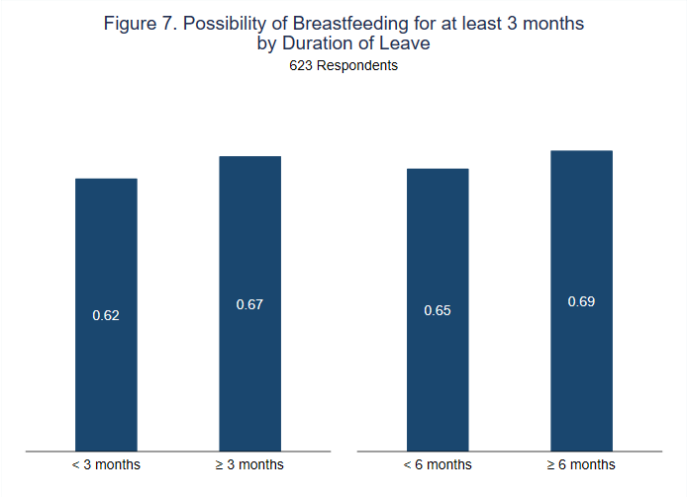
Lack of time, including going back to work, was the main reason for stopping breastfeeding for a total of around 16% of new laboring persons in New York City. Not surprisingly, in the U.S., the only industrialized country and one of the very few countries in the world without a national paid family leave mandate, short and unpaid family leave gives working women hardly enough time to breastfeed their babies and leaves them at a high risk of losing their jobs. Among working women who returned to work after childbirth in 2014 in New York City, only 53.49% took time off for more at least three months (Figure 5) and most of them felt unsatisfied with it (Figure 6).[7] Taking at least three months off after childbirth would increase the likelihood of exclusive breastfeeding for three months or more by 4 percentage points (Figure 7). Evidence from California, the first state to implement a paid family leave program back in 2004, also shows that their paid family leave policy has increased the overall duration of breastfeeding by about 18 days.[8]



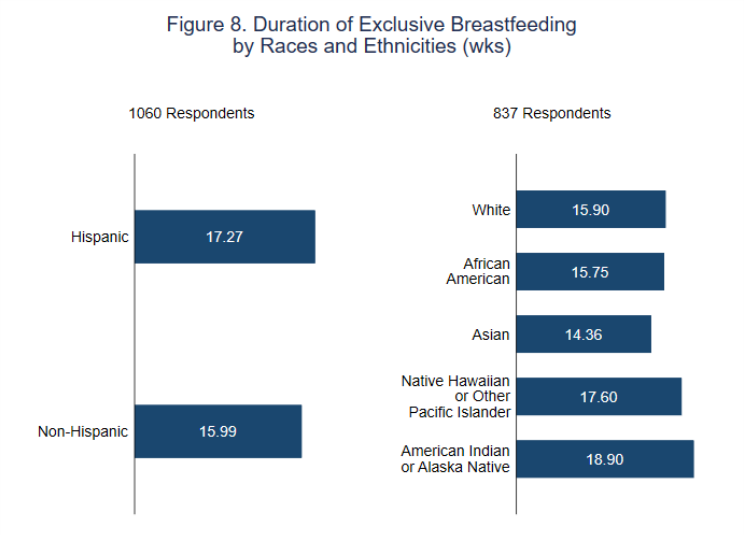


[7] Interviewees of the survey are women who gave birth in 2014 in New York City. This is before the New York City Paid Parental Leave Personnel Order (passed in January 2016) and the New York State Paid Family Leave Law (passed in April 2016).

[8] Pac, J. E., Bartel, A. P., Ruhm, C. J., & Waldfogel, J. (2019). Paid family leave and breastfeeding: evidence from California (No. w25784). National Bureau of Economic Research.



Breastfeeding practices and norms also vary across populations with different cultural backgrounds and traditions. Figure 8 depicts the duration of exclusive breastfeeding by races and ethnicities using the WFLS dataset. On average, Hispanic women exclusively breastfed their children more than one week longer than non-Hispanic peers. American Indian, Alaska Native and Pacific Islanders had longer exclusive breastfeeding durations than White and African American women. Asian women had the shortest exclusive breastfeeding duration. Even within each group, there can be disparities that can be lost with these broad categorizations. For example, people who identify as "Asian", "African American" or "Hispanic" could come from so many different countries of origin. One of my interviewees did interesting research and found there are significant within-group differences in breastfeeding duration among New York City Latinx women.[9] These differences indicate that different subgroups might have different barriers to breastfeeding and therefore different demands. Breastfeeding support and services should be inclusive and specific. For instance, for every group we need healthcare workers who can understand their language and respect their culture and traditions.



[9] Gerchow, L., Squires, A., & Jones, S. (2021). Disparities in breastfeeding duration of New York City Latinx mothers by birth region. Breastfeeding Medicine, 16(8), 607-613.

Conclusion and Limitations

Without realizing that breastfeeding is not only women's task and improving all the social support, simply "encouraging" women to initiate and continue breastfeeding would only lead to even more pressure on women and stigma on those who choose to rely on formula. This research shows that previous childbirth experience and amount of time off taken after child have an impact on the duration of exclusive breastfeeding. Women of different races and ethnicities also have very different breastfeeding practices. To encourage breastfeeding responsibly and support parents who are willing to breastfeed their children, we need more generous paid family leave policies, as well as systematic and inclusive education and support throughout the pregnancy and breastfeeding period.

There are absolutely many limitations to this research. The differences in breastfeeding duration between subgroups are displayed with descriptive statistics, without testing for statistical significance. In addition, when analyzing each specific influential factor of breastfeeding duration, I did not control for other relevant factors. For instance, the disparities of breastfeeding duration between races and ethnicities might possibly be attributed to systematic gaps in the economic or employment status among different populations in New York City.