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BARRIERS TO BREASTFEEDING FOR MOTHERS IN THE MISSISSIPPI WOMEN, INFANTS, AND CHILDREN PROGRAM: INSIGHTS OF PEER COUNSELORS

by

Grace Dragna

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford, MS May 2022

Approved By

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ACKNOWLEDGEMENTS

I truly could not have completed this thesis without the unwavering support of so many people at the University of Mississippi. Thank you first and foremost to Dr. Melissa Bass, who provided such valuable guidance as my advisor from the inception of my research question to the final draft. Thank you to Dr. Grace and Dr. Holland for serving on my thesis committee and dedicating time to reviewing my work. Thank you to the eleven peer counselors who participated in my research and showed exceptional willingness to share their passion for breastfeeding promotion. I would also like to thank the Sally McDonnell Barksdale Honors College, the Trent Lott Leadership Institute, and the Stamps Scholars program. These three institutions brought me to the University of Mississippi with the promise of citizen scholarship and community, and the last four years have certainly fulfilled that promise. Finally, thank you to my family and friends for always challenging me to explore my passions and helping me to find a sense of home. I am eternally grateful for these people, whose support made this thesis possible.

ABSTRACT

GRACE DRAGNA: Barriers to Breastfeeding for Mothers in the Mississippi Women, Infants, and Children Program: Insights of Peer Counselors (Under the direction of Melissa Bass)

Breastfeeding has been recognized by numerous public health organizations as the optimal feeding practice for infant growth and development, yet the state of Mississippi has one of the lowest breastfeeding rates in the nation. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program in Mississippi offers breastfeeding resources to low-income women throughout the state. Mothers enrolled in WIC can receive peer counseling services from women in their community who have personal experience with breastfeeding. This study serves to identify WIC peer counselors' perceptions of factors influencing Mississippi WIC participants' decisions to initiate and sustain breastfeeding. I interviewed eleven WIC peer counselors about their experiences with encouraging their clients to breastfeed. From these interviews, I identified four factors commonly named as barriers to initiating and sustaining breastfeeding: lack of education on breastfeeding, lack of social support, lack of support from medical professionals, and cultural influences. Additionally, many of the peer counselors discussed a cultural stigma surrounding breastfeeding that may be unique to Mississippi. These findings were used to develop policy recommendations, including strengthening breastfeeding promotion throughout the health care system and improving the WIC program's community outreach and education efforts. Increasing breastfeeding rates in Mississippi begins with addressing these barriers within the WIC program and at the state level.

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LIST OF ABBREVIATIONS

CLC	Certified lactation counselor
IBCLC	International board-certified lactation consultant
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children

Chapter 1: Introduction

The World Health Organization and United States Centers for Disease Control and Prevention both recommend breastfeeding as the healthiest feeding practice for infants (WHO, 2019; CDC, 2020b). Despite this, many women who give birth in Mississippi choose to feed their children with infant formula exclusively or turn to infant formula before six months of breastfeeding (CDC, 2020a). Mississippi consistently ranks among the states with the lowest rates of breastfeeding initiation and exclusive breastfeeding, which raises an important question: Are Mississippi's children getting the healthiest possible start in life? Improving breastfeeding rates in Mississippi is essential for the growth and development of Mississippi's children.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program seeks to address this issue and promote breastfeeding throughout the state by offering resources and services to low-income women enrolled in the program. Mothers enrolled in the Mississippi WIC program can receive breast milk pumps, nursing supplements, and counseling in a group or one-on-one setting (Mississippi State Department of Health, 2018). An essential part of the program's breastfeeding promotion efforts is its peer counseling services. Pregnant and postpartum women enrolled in the program can receive individualized counseling from women in their community who have personal experience with breastfeeding and can answer any questions or address any concerns. Because these peer counselors work with low-income pregnant women and

new mothers daily, their perspectives on the current climate surrounding breastfeeding in Mississippi are incredibly valuable.

My research focuses on identifying potential barriers to initiating and sustaining breastfeeding for Mississippi mothers from the perspective of peer counselors employed by the WIC program. A review of existing literature reveals some of the factors known to influence a mother's decision to breastfeed. A mother's level of education on the benefits of breastfeeding, employment, support from family and friends, racial and cultural identity, and experience with breastfeeding in clinical settings have all been identified as factors that affect whether a mother initiates and sustains breastfeeding, particularly among low-income women. I hypothesized that mothers enrolled in the WIC program would also be influenced by many of these factors when deciding how to feed their children.

To explore the barriers to breastfeeding for Mississippi mothers, I collected qualitative data through semi-structured interviews with eleven WIC peer counselors across the state of Mississippi. These interviews were conducted and recorded on Zoom, a teleconferencing platform, and transcribed using Otter.ai software to accommodate travel and public health concerns. I asked the peer counselors questions about common reasons their clients hesitate or decline to breastfeed, potential explanations for Mississippi's low breastfeeding rates, and the role of the WIC program in breastfeeding promotion.

From my interviews with the peer counselors, I identified four main themes. Lack of education about the benefits of breastfeeding, lack of social support, lack of support from medical professionals, and cultural stigma were frequently named as reasons why

women enrolled in the Mississippi WIC program decided not to breastfeed or did not complete six months of exclusive breastfeeding. The peer counselors discussed how women who feel unsupported by family members and friends, doctors and nurses, and community members may doubt their ability to successfully breastfeed. Additionally, mothers who are simply unaware of the benefits or have misconceptions about the challenges of breastfeeding tend to rely more on infant formula. The WIC program plays an essential role in providing accurate information and supporting their clients throughout pregnancy and postpartum. The peer counselors suggested that Mississippi's low breastfeeding rates could be a product of these factors in addition to a unique cultural stigma in this state, which discourages women from initiating and sustaining breastfeeding.

Based on my interviews with WIC breastfeeding peer counselors, I developed several policy recommendations for the state of Mississippi to improve its breastfeeding promotion efforts. First, breastfeeding promotion in the health care system can be strengthened so that pregnant and postpartum women can receive comprehensive and accurate information about breastfeeding. Specifically, all hospitals in Mississippi should work toward Baby-Friendly designation by incorporating breastfeeding promotion into written policies, and health care providers should receive ongoing education about breastfeeding. The second policy recommendation involves improving community outreach and education efforts. The Mississippi WIC program should utilize social media to share information and publicize community programs that support breastfeeding mothers. A combination of these approaches will increase the availability of educational resources and support networks for mothers in Mississippi.

By eliminating these barriers to breastfeeding, more mothers in Mississippi may realize the benefits of breastfeeding and choose to exclusively breastfeed for a longer period of time. The WIC program and state policymakers both play a vital role in improving breastfeeding promotion throughout Mississippi. The children of Mississippi deserve the healthiest possible start in life, and empowering women to initiate and sustain breastfeeding is a major step in accomplishing this goal.

Chapter 2: Background

To understand the need for lowering barriers to breastfeeding in Mississippi, it is important to provide context for the current landscape of breastfeeding in the state. This chapter explains the known benefits of breastfeeding, how Mississippi's breastfeeding rates compare to other states, and how the Mississippi WIC program's breastfeeding promotion efforts currently operate.

Benefits of Exclusive Breastfeeding

The World Health Organization (2019) recommends six months of exclusive breastfeeding for optimal infant growth and development. Breast milk contains all necessary nutrients for infant health and protects against certain childhood illnesses and long-term diseases (WHO, 2019). Even after the six-month period of exclusive breastfeeding has elapsed, the WHO (2019) advises mothers to continue breastfeeding for up to two years while introducing other foods. The Centers for Disease Control and Prevention (2020b) state that infants who are exclusively breastfed for six months face a lower risk of asthma, ear infections, and sudden infant death syndrome, among other illnesses and diseases. Also, mothers who breastfeed have a lower risk of type 2 diabetes, high blood pressure, breast cancer, and ovarian cancer (CDC, 2020b). For mothers who produce insufficient milk or cannot find time to breastfeed, infant formula can be adopted as an alternative feeding method. However, formula may not meet all of infants' nutritional needs, leading in some instances to vitamin deficiencies (Motee & Jeewon, 2014). Formula feeding also risks exposing infants to pathogens during the preparation of

bottles and pacifiers (Motee & Jeewon, 2014). Therefore, breastfeeding proves to be the healthier choice for feeding infants when possible.

Breastfeeding Rates in Mississippi

According to the Centers for Disease Control and Prevention Breastfeeding Report Card (2020a), Mississippi ranks 49th out of all states and the District of Columbia for breastfeeding initiation, with 70% of infants in 2017 breastfed at some point during infancy. Only 38.6% of Mississippi infants were still breastfeeding at six months, which falls well below the national average of 58.3% (CDC, 2020a). Though exclusive breastfeeding rates throughout the United States are low, Mississippi has the lowest rate of exclusive breastfeeding at six months at 18.1% of infants born in 2017 (CDC, 2020a). Additionally, the CDC's Maternity Practices in Infant Nutrition and Care (mPINC) survey evaluated Mississippi's infant feeding practices with a score of 68 out of 100, ranking above only Arkansas and Puerto Rico. Among WIC participants across the nation, Mississippi has the lowest percentage of fully breastfed infants; 97% of Mississippi WIC participants received infant formula from the WIC program (U.S. Food and Nutrition Service, 2020). From October 2020 to June 2021, an average of 7,429 postpartum women participated in the WIC program; only 2,909 of those women ever initiated breastfeeding (Food and Nutrition Service, 2021). Overall, Mississippi performs poorly for breastfeeding initiation and duration.

Mississippi WIC Program

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides nutritional food packages and health services to low-income infants and children under age five, in addition to pregnant, breastfeeding, and postpartum women

(U.S. Department of Agriculture, 2020). WIC serves over 77,000 women, infants, and children in Mississippi, according to the USDA (2021).

To qualify for the WIC program, applicants must meet nutritional risk and income guidelines. For a family of four in Mississippi, income may not exceed \$49,025 per year, or 185 percent of the federal poverty guidelines. Participants also must demonstrate a nutrition-related health condition such as anemia, obesity, or malnutrition (Mississippi State Department of Health, 2021). Applicants may also qualify for WIC based on joint eligibility for other social programs such as Medicaid or the Supplemental Nutrition Assistance Program.

The Mississippi WIC program offers a variety of breastfeeding resources for mothers enrolled in the program. Breast pumps, nursing supplements, and other materials are available to support breastfeeding mothers who otherwise could not afford them (Mississippi State Department of Health, 2018). Additionally, Mississippi WIC offers enhanced food packages and a longer period of program eligibility for enrollees who exclusively breastfeed their infants. The program now allows participants to receive their nutritional packages using an eWIC card, which functions similarly to a debit card, rather than visiting WIC clinics in person. According to MSDH (2018), "All WIC staff receive training on the benefits of breastfeeding, how their position is involved with breastfeeding promotion and support, and the breastfeeding management and education appropriate to the level of assistance they will provide for WIC participants." In essence, the program places a high priority on supporting mothers by providing the necessary materials and educational resources about breastfeeding.

The program also provides social support measures for breastfeeding mothers, including group support and one-on-one peer counseling (MSDH, 2018). Three levels of support are available through the peer counseling program. The Peer Counselor I role serves to educate new mothers on the benefits of breastfeeding in order to encourage informed decision making. These peer counselors must have breastfed for at least three months, and they often formerly participated in the WIC program themselves (MSDH, 2018). The second level of peer counseling includes visits from lactation specialists who conduct "home visits, hospital visits, hosting support group meetings, and issuing breastfeeding devices as needed" (MSDH, 2018). A combination of college education and breastfeeding experience is required to serve in this role. The third level of peer counseling support includes healthcare professionals with International Board-Certified Lactation Consultant (IBCLC) or Certified Lactation Counselor (CLC) credentials. These peer counselors primarily work with high-risk WIC participants to ensure that their clinical needs for breastfeeding are met (MSDH, 2018).

Recently, the Mississippi WIC program adopted a platform for virtual peer counseling as well. The United States Department of Agriculture (USDA) awarded grant funding to Mississippi in 2016 for the implementation of telelactation services (Pacify, 2019). These funds allowed for implementation of the Pacify program, which "provides on-demand, video-enabled access to a nationwide network of Lactation Consultants" at any time for all eligible Mississippi WIC participants (Pacify, 2020). Pacify is available for download as a smartphone application, and the program accommodates English and Spanish speakers. The program connects WIC participants to breastfeeding peer

counselors in Mississippi as well as International Board Certified Lactation Consultants located across the nation (Pacify, 2019).

At each level, the program's peer counseling program prioritizes "providing accurate, consistent breastfeeding information to WIC participants" (MSDH, 2021). The Mississippi Department of Health classifies all three levels as "peer counseling" while the national WIC program more narrowly describes a breastfeeding peer counselor as a mother who breastfed her own children and serves new mothers in her own community (U.S. Food and Nutrition Service, 2021). Due to the discrepancy between these definitions of a peer counselor, my research will classify breastfeeding peer counselors in accordance with the national WIC program. Peers are generally people whose shared experiences qualify them to serve a certain group. Many of the peer counselors in interviewed for this study have participated in the WIC program themselves, and all have lived experiences with breastfeeding.

Chapter 3: Literature Review

To review the existing literature on breastfeeding promotion and WIC breastfeeding programs, I used the University of Mississippi Library's OneSearch database to find relevant academic journal articles. Searches included the keywords "benefits of breastfeeding," "WIC breastfeeding programs," "factors influencing breastfeeding duration," and "breastfeeding peer counselor." Google Scholar also provided useful peer-reviewed articles from these keywords. Furthermore, I utilized resources provided on the Mississippi Department of Health's webpage for the WIC breastfeeding program to learn more about the program's current services.

Existing Knowledge

This literature review synthesizes what is known about the factors that influence a mother's decision to initiate breastfeeding and continue breastfeeding for a period of time. Many of the sources included focus on new mothers living in the South, as economic and cultural factors that influence breastfeeding decisions tend to differ from other regions of the United States. After reviewing the existing literature, it is apparent that a few key factors influence a mother's decision to breastfeed: education on breastfeeding, racial and cultural influences, employment status, social support, and presence of breastfeeding support in clinical settings.

Breastfeeding Education

Studies of whether educating new mothers on the benefits of breastfeeding increases the likelihood of initiating and sustaining breastfeeding show conflicting

results. Thomson et al. (2016) found that providing women with educational resources about breastfeeding during pregnancy had no significant effect on a mother's decision to breastfeed her infant. This research focused on three counties in the Mississippi Delta region, and the authors state that findings are likely generalizable for most rural, Southern women. On the other hand, Mitra et al. (2004, p. 67) concluded that "knowledge of breastfeeding benefits, self-efficacy, and perceptions of social support for breastfeeding are important modifiable factors for enhancing breastfeeding rates in low income women." These authors also state that their findings are generalizable for low-income women in the South, as the demographic make-up of their survey sample is representative of this population. However, because this study also considers perceptions of social support as a factor, the isolated effect of education on breastfeeding remains unclear from this research.

Race and Cultural Influences

When comparing demographic trends in breastfeeding, Black women often have the lowest rates of breastfeeding initiation and exclusive breastfeeding at six months of any racial group (Marshall et al., 2012). In 2018, nearly 56,000 of the 87,656 Mississippi WIC participants identified as Black or African American (USDA, 2021). Data from the 2004-2008 Mississippi Pregnancy Risk Assessment Monitoring System show that while over 80% of African American mothers participated in the Mississippi WIC program, only 39.7% of participants initiated breastfeeding. Considering that 60.4% of participating white mothers initiated breastfeeding, substantial disparities in breastfeeding rates exist between white and Black mothers enrolled in the state's WIC program (Marshall et al., 2012). A variety of factors contribute to this disparity, including cultural

breastfeeding norms, body image concerns, and historical context surrounding breastfeeding in the African American community.

Particularly among African American women, cultural pressures to feed infants with formula rather than breast milk may influence breastfeeding rates in Mississippi. Breastfeeding peer counselors for Washington, D.C.'s WIC program explained that lowincome African American mothers often "'don't see other black women in their community' breastfeeding and grow up normalized to formula feeding (bottle feeding)" (Gross et al., 2014, p. 106). These women face cultural pressure to maintain the "strong black women image," and the vulnerability that accompanies breastfeeding is thought to detract from this image (Gross et al., 2014, p. 106). The peer counselors interviewed in the Gross et al. (2014) study also speculated that a lack of positive media representation of Black mothers who breastfeed could adversely affect these mothers' willingness to initiate and sustain breastfeeding. Essentially, Black mothers have little cultural affirmation that breastfeeding is healthy, manageable, or acceptable in their communities.

Furthermore, the sexualization of Black women's bodies has led many to believe that their bodies exist "for sex and not nutrition," according to Gross et al. (2014, p. 102). Through their work with African American mothers, breastfeeding peer counselors in Washington, D.C. discovered that these mothers viewed breastfeeding as a disgusting function of their body rather than a natural way to feed their children (Gross et al., 2014). However, researchers found that the breast pumps offered to new mothers by WIC mitigated some of these body image concerns. "African American women may see pumping breast milk as a more culturally appropriate means to breastfeed," conclude Gross et al. (2014, p. 107). This demonstrates that the breastfeeding resources offered by

Mississippi WIC not only make the process of breastfeeding easier for new mothers but could also ease some of the anxieties resulting from the vulnerability of breastfeeding.

Barriers to breastfeeding in the African American community also take root in historical experiences with breastfeeding. During the time of American slavery, enslaved Black women served as wet nurses or "mammies" for white families and were expected to breastfeed children who were not their own (Gross et al., 2014). This stigma surrounding breastfeeding still exists, as Black women seek to distance themselves from this practice historically associated with subservience. Additionally, people used to consider formula feeding as a sign of wealth, and breastfeeding was viewed as a practice for low-income, typically African American people (Gross et al., 2014). Thus, when the WIC program began to distribute formula, Black mothers tended to move away from breastfeeding in order to adopt the more esteemed practice of formula feeding. Gross et al. (2014, p. 107) note that "These historical events have led to 'generational barriers,' with [peer counselors] reporting that few clients have seen someone breastfeed." As a result of these cultural and historical factors, African American mothers show more hesitance to breastfeed; this likely also holds true for Black mothers enrolled in Mississippi WIC.

Employment and Maternity Leave

Under the federal Break Time for Nursing Mothers law, employers must provide basic accommodations, including a private space to pump breast milk, for breastfeeding mothers (Office on Women's Health, 2018). Despite these structural protections, breastfeeding mothers may struggle with inflexible scheduling and long hours that restrict their ability to consistently breastfeed their children (Guendelman et al., 2009, as cited in

Lubold, 2016). Women classified as "professional workers" generally have higher breastfeeding rates, since their jobs allow for more autonomy and flexibility in scheduling; administrative and service workers are less likely to work in environments that truly accommodate breastfeeding (Ogbuanu et al., 2011). Therefore, while working mothers are entitled to some breastfeeding accommodations in the workplace, the practical realities of the workplace tend to disincentivize breastfeeding.

The length of maternity leave also affects the duration of exclusive breastfeeding. "New mothers who return to paid employment within three months of giving birth breastfeed an average of five fewer weeks than new mothers who do not return to paid work for three months or more," according to Lubold (2016). For mothers who work full time, the duration of breastfeeding decreases by 15 weeks when compared to breastfeeding mothers who work part-time. While the federal Family and Medical Leave Act requires most employers to grant 12 weeks of unpaid family leave for postpartum mothers (Kaiser Family Foundation, 2020), low-income mothers cannot usually afford to spend that period of time away from work. In Mississippi, working mothers with young children are the only wage earners for their family 42% of the time (Hill, n.d.). Thus, economic pressure to return to work quickly likely leads many low-income mothers in Mississippi to adopt formula feeding rather than breastfeeding.

Social Support

The level of support available to a postpartum mother remains one of the primary factors in determining whether or not she will sustain exclusive breastfeeding for six months or more. In a study conducted by Gross et al. (2014), peer counselors identified grandmothers and the infant's father as the most influential figures in encouraging or

discouraging breastfeeding. When these individuals lack familiarity with the benefits of breastfeeding, new mothers often feel unsupported and rely on formula instead. Peer counselors provide a level of social support to mothers who would otherwise receive no education or encouragement to breastfeed at all (Gross et al., 2014). Furthermore, the level of support given by nurses who work with first-time mothers influences the decision to initiate breastfeeding. Through seemingly harmless practices such as offering a sample of formula in the postpartum stage, nurses and other health professionals send subtle messages that discourage attempts at breastfeeding (Cooper, 2018). Complete social support while breastfeeding requires three components: emotional, informational, and tangible support (Goldsmith, 2004, as cited in Cooper, 2018). Without this perceived social support from family, friends, and healthcare providers, mothers often hesitate to initiate breastfeeding for any period of time.

Mitra et al. (2004, p. 69) found that "perceptions of social support significantly predicted intention to breastfeed at the multivariate level." Thus, educational efforts directed at informing family members and friends about the benefits of breastfeeding may be more effective than educating the mother herself. Breastfeeding advocates can build social support through education in community centers, churches, and schools with the intention to influence the people who typically play a role in new mothers' decision-making (Mitra et al., 2004). Additionally, breastfeeding support pages on social media provide an increasingly prevalent source of social support for postpartum mothers. Ferrell et al. (2017) found that resources and support groups on social media had a more significant positive effect on duration of exclusive breastfeeding than social support from medical professionals or even family members. Through the promotion of breastfeeding

on social media, mothers can find supportive communities outside of their family and friends, which will increase the likelihood of initiating and sustaining breastfeeding. *Clinical Settings*

Many recent studies have highlighted the importance of baby-friendly accommodations in hospitals and clinical settings. Through implementation of the Ten Steps to Successful Breastfeeding outlined in the Baby-Friendly Hospital Initiative (BFHI), hospitals can increase rates of breastfeeding initiation and duration among patients (Alakaam et al., 2018). These ten practices include having a written breastfeeding policy for the hospital, educating all new mothers on the benefits of breastfeeding, providing only breast milk to newborn infants, and establishing breastfeeding support groups (Alakaam et al., 2018). The Ten Steps to Successful Breastfeeding program has been repeatedly linked to "better maternity and birthing practices that lead to better infant breastfeeding rates" (Otsuka et al., 2014; Rosenberg et al., 2008; Taylor, Nickel, & Labbok, 2012, as cited in Alakaam et al., 2018, p. 323). Adoption of all ten practices grants a hospital "Baby-Friendly" designation, certifying that the hospital's policies and practices advance breastfeeding promotion.

Nonetheless, the entire state of Mississippi only has 22 hospitals with babyfriendly designation despite having 43 hospitals that provide maternity and birthing care (Center for Health Equity, Education & Research, 2021). A study conducted by Alakaam et al. (2018, p. 327) found that "resistance to new policies and protocols, routine breastfeeding practices, limited financial and human resources, and lack of support from national and local governments" were the primary barriers to achieving baby-friendly designation. Some funding opportunities for hospitals exist to combat resource

constraints, including the Communities and Hospitals Advancing Maternity Practices program, which assists Mississippi hospitals in implementing the ten steps of the BFHI (CHAMPS, 2017, as cited in Alakaam, 2018). Overall, the literature demonstrates that new mothers may not be inclined to initiate or sustain breastfeeding due to a lack of education and support in birthing facilities. Nonetheless, increasing the number of babyfriendly hospitals in Mississippi could improve breastfeeding rates throughout the state.

Telelactation Services

In 2019, a case study assessed the effectiveness of the Pacify telelactation program in achieving its intended goals: increasing WIC participant and peer counselor access to International Board Certified Lactation Consultants and improving breastfeeding rates among the WIC population (Pacify, 2019). The results of the case study showed that over 2,300 WIC participants in Mississippi enrolled in the Pacify program, and over 1,800 meetings between WIC participants and peer counselors were completed between 2016 and 2019 (Pacify, 2019). Feedback from participants and peer counselors was overwhelmingly positive, with an average experience rating of 4.8 out of 5 stars (Pacify, 2019). A 2018 study conducted by the University of Nevada concluded that WIC participants who enrolled in Pacify were 2.5 times more likely to sustain exclusive breastfeeding at three and six months (as cited in Pacify, 2019). Although this approach to breastfeeding promotion is relatively new, early analyses of telelactation programs demonstrate that they could provide better access to breastfeeding support and consequently improve breastfeeding rates among Mississippi WIC participants.

Similar Studies

A study conducted by Schindler-Ruwisch et al. (2019) sought to identify factors that influence breastfeeding initiation and duration among African American women in the WIC program in Washington, D.C. The researchers conducted semi-structured interviews with 24 postpartum African American women at four WIC clinics throughout D.C. A pragmatic approach was employed, placing the individual experiences of these women into the larger context of barriers to breastfeeding for low-income African American women. The interview questions covered subjects such as "breastfeeding intentions, outcome expectations, psychological determinants, self-regulation, observational learning, breastfeeding obstacles, and sources of support" (Schindler-Ruwisch et al., 2019, p. 515). Social cognitive theory (Bandura, 1986, as cited in Schindler-Ruwisch, 2019), which focuses on the role of social support, provides the guiding framework for this research. The researchers recorded and transcribed the interviews, followed by coding the transcripts to extract common themes. The findings of this study were that "social support seems to bolster efficacy and help women to overcome various barriers to breastfeeding in their immediate environment; however, social support from providers was limited" (Schindler-Ruwisch et al., 2019, p. 513).

The research design of this study closely mirrors what I employed in my research on barriers to breastfeeding among the Mississippi WIC population. Rather than focusing on African American mothers and the D.C. WIC program, I interviewed peer counselors for the Mississippi WIC program to understand their perceptions of barriers to breastfeeding among program participants of all races. I conducted semi-structured

interviews and asked questions on similar topics seen in Schindler-Ruwisch et al.'s (2019) research design.

Furthermore, my research design was informed by research conducted by Cueva et al. (2017) on program implementation of breastfeeding promotion in the Alaska WIC program. The authors gathered qualitative data by interviewing breastfeeding peer counselors and WIC staff members in addition to surveying and holding focus groups with clients, the WIC participants. Similar to the Schindler-Ruwisch et al. (2019) study, social cognitive theory guided the research design of the Cueva et al. (2017) study. "Study questions inquired about perceptions of WIC clients' self-efficacy, collective efficacy, self-regulation, and the tools, resources, and environments that make breastfeeding easier or more challenging" (Cueva et al., 2017, p. 859). After analyzing the interview and focus group transcripts, the authors concluded that both WIC clients and breastfeeding peer counselors testified to the benefit of the peer counseling program as a support system and its positive effects on breastfeeding duration (Cueva et al., 2017).

The Cueva et al. (2017) study was informative for my research for two reasons. First, Alaska shares some similarities with Mississippi that influence breastfeeding promotion efforts in the state. Alaska has a large rural population spread throughout the state, and over one-third of WIC clients in Alaska identify themselves as belonging to a racial or ethnic minority group (Cueva et al., 2017). Therefore, providing services to new mothers in rural areas as well as providing culturally competent training to these clients are goals of both state WIC programs. Second, Cueva et al. (2017) asked breastfeeding peer counselors about their roles and responsibilities. These questions allowed the authors to collect data on scope of practice, professionalism, and training (Cueva et al., 2017). I

asked similar questions about breastfeeding peer counseling as a profession in order to effectively assess how the breastfeeding peer counseling program influences breastfeeding rates among Mississippi WIC participants.

Additionally, a study conducted by Gross et al. (2014) shared a similar research question and design with my research. The purpose of this study was to "understand the contextual factors influencing breastfeeding decisions of low-income African American women from the perspective of breastfeeding peer counselors (PCs)" (Gross et al., 2014, p. 99). The researchers conducted three focus groups with 23 WIC peer counselors in an unspecified southeastern state. Participants were recruited through purposive sampling; the researchers emailed breastfeeding coordinators in local WIC offices and invited peer counselors under their supervision to participate in the focus groups. After conducting the three focus groups, Gross et al. (2014) transcribed the audio recordings and extracted five themes using Bronfenbrenner's socioecological model. These five themes of contextual factors influencing breastfeeding decisions were "individual (knowledge and attitudes), microsystem (interpersonal relationships), exosystem (community environment), macrosystem (cultural norms), and chronosystem (historical context)" (Gross et al., 2014, p. 101). The researchers found that historical and cultural factors may affect whether lowincome African American women decide to breastfeed, in addition to factors such as social support and education.

This research focuses on peer counselors' perceptions of barriers to breastfeeding, which I emulated in my research. However, Gross et al. (2014) used focus groups, whereas I conducted one-on-one semi-structured interviews in order to allow more speaking time for each participant in the study. Furthermore, the Gross et al. (2014) study

focuses on breastfeeding barriers among African American WIC participants in an unspecified southeastern state. My research seeks to understand peer counselors' perceptions of factors that influence breastfeeding decisions among Mississippi WIC participants of all races and ethnicities. The topics covered in the focus groups (role of social support, cultural factors, employment, etc.) provided a model for drafting interview questions for my research, since the peer counselors were responsive to those topic areas in the focus groups.

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Chapter 4: Research Design

The purpose of this research is to understand breastfeeding peer counselors' experiences with encouraging exclusive breastfeeding duration among new mothers in the Mississippi Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program. Mississippi has one of the lowest rates of breastfeeding initiation and duration among any state (Centers for Disease Control and Prevention, 2020a). This study serves to identify WIC peer counselors' perceptions of factors influencing Mississippi WIC participants' decisions to initiate and sustain breastfeeding. I then use these findings to develop recommendations for WIC breastfeeding promotion efforts.

This research is significant because Mississippi's children are put at a disadvantage when they are formula-fed rather than breastfed for the first six months of their lives. Exclusive breastfeeding is associated with a lower risk of developing certain illnesses and meets more nutritional needs than infant formula (Motee & Jeewon, 2014). Misinformation and negative cultural perceptions of breastfeeding could dissuade new mothers from making the healthiest choice for their children. Past studies have analyzed barriers to breastfeeding for new mothers in different regions of the state, but no research currently exists on WIC peer counselors' perceptions of barriers to breastfeeding in Mississippi. These breastfeeding peer counselors each have worked closely with low-income mothers in Mississippi. Thus, identifying their experiences working with new mothers could be useful for the WIC program to direct its breastfeeding promotion efforts in a way that resonates with Mississippi mothers.

The question guiding this research is "How do breastfeeding peer counselors for the Mississippi Women, Infants, and Children (WIC) program perceive their role in addressing barriers to exclusive breastfeeding initiation and duration among new mothers participating in the program?" To answer this question, I interviewed breastfeeding peer counselors across the state of Mississippi, extracting themes based on common experiences.

Existing literature suggests a number of factors that lead WIC participants to terminate exclusive breastfeeding before six months, including length of maternity leave, social support, socioeconomic status, race and ethnicity, and cultural perceptions of breastfeeding. I hypothesized that peer counselors would name cultural stigma surrounding breastfeeding, lack of time to breastfeed due to full-time employment, and limited social support as the primary factors that determine whether their clients choose to initiate and sustain exclusive breastfeeding.

Research Protocol

I employed qualitative methods, specifically semi-structured interviews, to identify perceptions of barriers to breastfeeding among peer counselors for the Mississippi WIC program. The semi-structured interview format allowed me to ask follow-up questions, change the order of questions, and skip questions based on the participants' responses. I intended to interview at least 15 breastfeeding peer counselors located in WIC offices across the state of Mississippi. I contacted the State Breastfeeding Coordinator for Mississippi WIC and asked for email addresses for all Mississippi WIC breastfeeding peer counselors. After submitting a data request to the Mississippi State Department of Health, I received a list of the peer counselors' email addresses. This

research project was deemed exempt and approved by the University of Mississippi Institutional Review Board (IRB) before I reached out to potential participants.

Following exemption by the IRB, I began by contacting five peer counselors who were listed as regional coordinators for the WIC breastfeeding program. I contacted the regional coordinators first in an effort to interview a geographically diverse group of peer counselors. After receiving responses from the regional coordinators, I used snowball sampling by asking participants to connect me with any other potentially interested peer counselors. Once I began to hear names repeated after multiple rounds of snowball sampling, I contacted the remaining peer counselors from the list provided to me by the State Breastfeeding Coordinator.

The interviews were conducted over Zoom, a teleconferencing platform with audio and video options, to accommodate public health and travel concerns. Each interview was recorded on Zoom, and Otter.ai software concurrently transcribed the interviews. In the recruitment email, I informed each participant that although the interview questions pertain to the nature of their work, none of the information disclosed would be accessible to their employer. Furthermore, I gained consent from each participant before recording audio and video for the duration of the interview. All participants were informed that any direct quotation published from the interview would be pseudonymous.

I asked the interview subjects the following questions:

- 1. Can you confirm that you are at least 18 years of age?
- 2. How did you begin your work as a peer counselor?
- 3. How long have you been a breastfeeding peer counselor?

- 4. Can you tell me about your role as a breastfeeding peer counselor in the WIC program?
- 5. Can you tell me about the new mothers you work with?
- 6. Tell me about how you become connected with new mothers to provide peer counseling services.
- 7. What do you think are the most significant barriers to breastfeeding for the new mothers you work with?
- 8. How would you describe the attitudes toward breastfeeding of the new mothers you work with?
- 9. What are some of the most common misconceptions you hear about breastfeeding among the mothers you work with?
- 10. Tell me about how you approach counseling mothers who may be hesitant to breastfeed.
- 11. What are some of the challenges you face in promoting breastfeeding among WIC participants?
- 12. What do you think enables a mother to successfully initiate and sustain breastfeeding?
- 13. Mississippi has one of the lowest breastfeeding rates in the nation. Based on your experience, why do you think this is the case?
- 14. Overall, what do you think would help raise breastfeeding rates in Mississippi?
- 15. What role do you think the WIC program plays in breastfeeding promotion in Mississippi?

Chapter 5: Results

Through my recruitment process, I contacted 36 peer counselors with information about the study and an invitation to participate in an interview. Twelve peer counselors responded to the recruitment email expressing interest in participating, and eleven peer counselors completed the Zoom interview. Demographic information about the participants is shown in Table 1 below.

Table 1

Geographic Region	Number of Participants
North Mississippi	1
Aississippi Delta	4
Central Mississippi	3
Southeast Mississippi	1
Southwest Mississippi	1
Mississippi Gulf Coast	1
Race/Ethnicity	Number of Participants
Black/African American	4
White (Non-Hispanic)	6
White (Hispanic)	1

Former WIC Recipient	Number of Participants
Yes	4
No	7
	4 7

Themes

Each peer counselor was asked about her clients' attitudes toward breastfeeding, common misconceptions surrounding breastfeeding, and factors that enable a mother to successfully initiate and sustain breastfeeding. Four themes emerged from their responses: lack of education, lack of social support, lack of support from medical professionals, and cultural influences all discourage mothers from initiating breastfeeding or continuing to breastfeed. I have also included unique insights that were raised by one or two peer counselors but were not recurring themes amongst all respondents. All responses included in this chapter are attributed to peer counselors using pseudonyms.

Education

The peer counselors most commonly cited lack of education about the benefits of breastfeeding as a reason why mothers show hesitance to breastfeed or decline to breastfeed altogether. When asked about their role as a breastfeeding peer counselor with the WIC program, nearly all participants identified educating mothers as their primary responsibility. Many expressed that they share educational resources with each of their clients so they can make the most informed decision about whether to breastfeed their infant. The lack of awareness about the benefits of breastfeeding is compounded with misconceptions about this feeding practice that further discourage mothers from initiating

and sustaining breastfeeding. Monique, a peer counselor in the Mississippi Delta, described these misconceptions:

They don't really know what to expect. And there's the perception of pain, the perception of, "Oh, it's going to make the baby upset," "I'm not gonna be able to go anywhere without the baby always wanting me. Nobody else is gonna be able to feed the baby." It's also, "I'm not gonna make enough. I won't have enough milk to provide for my baby." Or, "I have to return to work, and I don't have the means to continue to do it once I return to work."

Similar misconceptions were echoed by peer counselors throughout the state. When asked how they approach counseling mothers who may be hesitant to breastfeed as a result of misinformation, the peer counselors generally responded that they provide factual information in an attempt to assuage their clients' concerns. "We always want to validate their concerns and fears," noted Donna, a peer counselor in southeastern Mississippi. Many spoke about the importance of maintaining open lines of communication, including providing their personal cell phone numbers, so that peer counselors are accessible to mothers whenever questions arise about breastfeeding.

Additionally, peer counselors stressed the need for breastfeeding education as early in the pregnancy as possible. WIC recipients are eligible for breastfeeding services from the beginning of their pregnancy until their infant turns one year old. Stacey, a peer counselor working in southwestern Mississippi, shared the following when discussing education as a barrier to sustained breastfeeding:

We see a lot of moms that don't come in for WIC or prenatal care until the middle or end of their pregnancy, so they have a lack of education. So when they're at the

hospital and asked if they want to breastfeed or formula feed, they just say, "Formula, I guess, I don't know."

Mary, a peer counselor in northern Mississippi, also reflected this concern:

Those moms that maybe get on WIC after they have had the baby, or if they didn't get an education prenatally, then those are a little hard because you've got to do a lot of education in one talk, basically. Sometimes that's a little harder, because they've already probably experienced issues before I even get to talk to them. And then I have to go back and teach. There's a lot to do in one or two phone calls. That's why it's so important to get moms on WIC early in the pregnancy, so that we can feed them a lot of information throughout the pregnancy and they don't feel so overwhelmed once they deliver.

Responses from many peer counselors indicated that when introduced to accurate information about the benefits of breastfeeding, clients were more likely to initiate breastfeeding. Some peer counselors mentioned that even when their clients opt for formula feeding, calling every few weeks to check in and provide additional information about breastfeeding ensures that each mother makes a truly informed decision for her infant.

A lack of knowledge or misinformation was the most common response given by peer counselors when asked, "What do you think are the most significant barriers to breastfeeding for the new mothers you work with?" Concerns about pain associated with breastfeeding or not producing enough milk often lead mothers to choose formula feeding, even when these concerns are not based in fact. Many peer counselors noted that although they cannot force a client to initiate breastfeeding, providing educational

resources increases the likelihood that a mother will at least initiate breastfeeding. These responses made it apparent that the peer counselors view their role as educators first.

Social Support

In response to the question, "What do you think enables a mother to successfully initiate and sustain breastfeeding?" the peer counselors named social support as a key factor. Encouragement from parents, siblings, and partners can boost a mother's confidence in her ability to breastfeed up to six months. Conversely, when these family members or friends share negative experiences with breastfeeding, mothers are more likely to choose formula as a feeding practice. As Nancy, a peer counselor in central Mississippi, stated, "What Grandma says is the truth." Mothers tend to trust the people in their social circles, and discouraging comments from those individuals can instill doubt about whether breastfeeding is the right decision. One peer counselor said the following about the influence of a mother's support system:

The moms will take it on themselves and say, "Well, because this happened to my mom or my aunt or grandmother, then it's going to happen to me," or, "My friends said it was terrible pain, and I don't want to have to go through that, so the formula is just easier. I don't have to have any problems."

Peer counselors are then tasked with building a foundation of trust with their clients in order to correct any misconceptions or inaccurate generalizations about breastfeeding.

Some of the peer counselors spoke about the barriers for working mothers who may not have a robust support system that allows them to sustain breastfeeding. When asked why she thinks breastfeeding rates in Mississippi are so low, peer counselor Donna responded that having new mothers return to work after two weeks postpartum makes

sustained breastfeeding difficult. She recommended at least eight weeks of leave from work to properly acclimate to breastfeeding and the "mind shift" of being a mother. Other peer counselors also commented on why breastfeeding remains a challenge for working mothers. The prospect of finding time to pump breast milk around a work schedule discourages many mothers from choosing to breastfeed, especially when WIC provides formula at no cost.

In discussions about the importance of social support, some of the peer counselors mentioned their role as a "cheerleader" for mothers who initiate breastfeeding with an unsupportive social circle or complex work schedule. Kendra, a peer counselor in the Mississippi Delta, shared the following:

I always say something like, "Do you think you can do it for three days?" then, "Do you think you can do it for two months? You've been waiting 40 weeks to get this baby. Please just do it for two weeks." And so sometimes moms will say, "Well, I'll try to do it for maybe a couple of weeks." So even if they do it for a couple of weeks, that's better than nothing.

Another peer counselor, Kelly, said that she gathers her clients' family members, partner, and friends in a room to address their concerns about breastfeeding. She noted that the "naysayers" in a mother's social circle often did not have a positive experience with breastfeeding nor a strong social support system. As a result, they may project those experiences onto the new mother. Kelly warned that this "domino effect" plays an essential role in whether a mother decides to breastfeed. She and other peer counselors spoke about stepping up to serve as a support system for mothers who do not receive encouragement from their family or friends. Providing educational resources, being

available to answer questions, and advising mothers on how to sustain breastfeeding for months are all ways that peer counselors build a social support system for their clients.

Support from Health Care Providers

When asked about challenges to promoting breastfeeding as a WIC peer counselor, nearly every participant discussed lack of support from medical professionals. Their clients reasonably place trust in their doctors and nurses, but many medical professionals fail to encourage breastfeeding as the best feeding practice or to provide educational resources about breastfeeding. As peer counselor Kendra said:

When they come in for their visits, whether it's seeing the nurse practitioner, or for the doctor, whoever they see, breastfeeding should always be mentioned. They should have pictures on their walls in the offices of moms breastfeeding their babies. There should be pamphlets about breastfeeding. It should be everywhere. And a lot of times, you don't see that in offices. The doctors don't encourage moms to breastfeed.

Another peer counselor noted that many hospitals in Mississippi no longer have lactation specialists on staff, so new mothers often do not receive information about breastfeeding until they engage with a WIC peer counselor. Doctors and other medical professionals typically recognize that breastfeeding has benefits for the mother and infant but have minimal background education on the benefits themselves, according to peer counselor Mary. Thus, these medical professionals may not actively promote breastfeeding, answer questions about feeding practices, or provide resources to mothers who demonstrate an interest in breastfeeding.

Another concern raised by peer counselors involved the time that WIC breastfeeding peer counselors are allowed in the hospitals and birthing centers. Janet, a peer counselor in the Mississippi Delta, shared the following about counseling mothers in the hospital:

The first impression to me is always the last impression. When they see us, they see us only when they are ready to go. They may have a screaming baby. They may have to pick up another child. And I think all those are barriers as to why they don't hear us. They don't really recall what was being said to them, and they don't really absorb the information.

She recommended that peer counselors have the ability to provide breastfeeding education and counseling earlier after the mother delivers her baby. By the time a WIC peer counselor connects with their client, a doctor may have already discouraged breastfeeding. Mothers tend to trust the advice of medical professionals, so they are not as receptive to breastfeeding education and counseling after their doctor or nurse practitioner advises against breastfeeding, noted peer counselor Carla. The number of baby-friendly hospitals in the state is increasing, but many hospitals still have not achieved this designation or committed to promoting breastfeeding. A few of the peer counselors expressed that expanding baby-friendly practices could lead more medical professionals to advocate for breastfeeding with each of their patients.

For mothers who receive WIC breastfeeding services during pregnancy, peer counselors can assist in preparation for conversations with health care providers about breastfeeding. As peer counselor Monique stated:

We also inform the mothers of the best practices and how to advocate for themselves and empower them to ask for what they desire. They have done the development of a birth plan, so now they can have their wishes already written out and share it with their providers while they're pregnant.

This response closely reflects the responses of other peer counselors who noted the importance of connecting with clients as early in the pregnancy as possible. While some medical professionals in Mississippi fail to advocate for or actively discourage breastfeeding, support from peer counselors can prepare mothers for conversations with providers about the best feeding practices for themselves and their children.

Cultural Influences

Many of the peer counselors spoke about how breastfeeding is not culturally mainstream, which serves as another barrier to initiating and sustaining breastfeeding. Peer counselor Janet used an analogy to popular hairstyles in the African American community. A few decades ago, she said, she and her friends all used to wear their hair in its natural style. By the time her daughters became teenagers, permed hairstyles were considered mainstream and few African American women wore their hair naturally. When natural hairstyles became popular again recently, her daughters found difficulty in transitioning back to their natural styles without examples in popular culture. Janet compared this to the shift in cultural acceptance between breastfeeding and formula feeding. She elaborated:

For years and years and years, our young people have not seen, or women have not seen, anyone breastfeed. How many times have you seen breastfeeding on TV? How many times do you see breastfeeding on a billboard? How often do you

see breastfeeding on a park bench? And so again, you see breasts on TV for advertising and other reasons, but you never see breasts on TV for a person nursing a baby. You'd get all kinds of negative kickback. But you see all those naked bodies on TV on purpose... so they have no one to pass down this recipe from generation to generation to help them.

Some peer counselors described attitudes toward breastfeeding as "taboo." Due to the sexualization of breasts in the media and popular culture, some women feel ashamed or awkward when breastfeeding, especially in public.

Additionally, peer counselor Mary discussed how Mississippi's comparatively high population of African American women could be a factor in why the state's breastfeeding rates are among the lowest in the nation. She noted that from her experience, African American women are less inclined to initiate breastfeeding due to a lack of encouragement or support from family or community members. Because breastfeeding is "not something that's talked about," in the words of peer counselor Kendra, new mothers in Mississippi may feel unsupported by their community or unknowledgeable about breastfeeding. This lack of cultural acceptance often leads mothers to decide to feed their infants using formula rather than initiate breastfeeding.

Unique Insights

Two peer counselors shared unique insights on barriers to breastfeeding for mothers in the Mississippi WIC program. Kendra, a peer counselor working in the Mississippi Delta, mentioned that her clients sometimes show concern about major lifestyle changes that would accompany breastfeeding for a few months. She suggested that some clients may use recreational drugs and have concern that breast milk could

harm their infant. Since these clients may be hesitant to disclose their drug use, peer counselors cannot always verify the facts surrounding the safety of breastfeeding, or lack thereof, for these clients.

Furthermore, peer counselor Donna spoke about the Pacify telelactation program and its ability to provide more robust social support to WIC clients at all times of the day. Pacify connects clients with a WIC peer counselor or International Board-Certified Lactation Consultant instantly through a smartphone application. Because clients know that someone is available 24 hours a day to answer questions, Donna said, they feel more comfortable reaching out with questions or concerns. In the past, new mothers in the WIC program were worried about calling peer counselors' personal cell phones outside of business hours. With the Pacify program in the past few years, Donna has witnessed more of her clients utilize peer counselors and lactation consultants as a resource. Pacify, therefore, is eliminating some of the barriers to breastfeeding posed by a lack of social support or education.

Role of the WIC Program

The final question I asked in each interview was, "What role do you think the WIC program plays in breastfeeding promotion in Mississippi?" Many of the peer counselors discussed the importance of community outreach in their work. Peer counselor Kelly noted that expecting mothers and their families usually only come to WIC clinics or health departments for vaccinations or other specific services, and they only discover the breastfeeding program through those unrelated visits. Multiple peer counselors expressed the need to "meet people where they are" to publicize the breastfeeding

program and the services it provides. Peer counselor Janet explained the necessity of reaching low-income mothers through the WIC breastfeeding program:

If it was not for the WIC program, the numbers would be even lower. That's the reason why we have the few moms that we do breastfeeding. They provide pumps. They provide counseling services. We get to do home visits. We get to do hospital visits. And God forbid, if it was not for WIC, many of the women that do get to attend breastfeeding classes wouldn't even have a class to attend.

Still, some peer counselors believe that these services are underutilized. Monique spoke about how many new mothers find information about breastfeeding on social media and rely on those platforms rather than the WIC breastfeeding program. Peer counselor Carla emphasized, "We have to educate our patients and just make sure that they know that information, that we are here for them when they need us."

Other peer counselors responded to the question by naming challenges that accompany breastfeeding promotion in the WIC program. Peer counselor Donna discussed how funding for the Mississippi WIC program can be an obstacle. "State budgeting does not match dollar for [federal] dollar or anything like a lot of the other states do. So when you've got a lack of funding, that limits what we can do and how we can do outreach," she stated. Some of the other peer counselors spoke about how certain policies within the breastfeeding program could serve as barriers for some clients. The offer of infant formula at no cost leads many new mothers in the WIC program to choose this "easier option," which seems to contradict the program's efforts to promote breastfeeding as the preferred practice. Also, clients must meet certain criteria to receive an electric pump rather than a hand pump through the WIC breastfeeding program. Peer

counselor Mary voiced that removing these criteria and offering an electric pump to every breastfeeding mother would increase rates of initiation as well as periods of breastfeeding duration. According to these peer counselors, addressing these challenges would improve the WIC program's ability to successfully increase breastfeeding rates in Mississippi.

Limitations

A possible limitation for this study is that I interviewed only about one-third of the state's WIC breastfeeding peer counselors, so the given responses may not compose a comprehensive list of barriers to sustained breastfeeding for the entire state of Mississippi. Each of the eleven peer counselors work only with mothers in a few counties, so their recommendations may be applicable for women in those counties alone. However, considering that consistent themes emerged among the eleven participating peer counselors' responses despite being from different regions of Mississippi, the results of this study are likely generalizable for the entire state. These findings are also unique to Mississippi's WIC breastfeeding program and may not be generalizable for other states, even similar southeastern states.

Another potential limitation involves the level of experience for some of the participants. Some of the peer counselors had only worked with the WIC breastfeeding program for a year or two. The COVID-19 pandemic could have influenced these participants' responses when asked about barriers and challenges for breastfeeding initiation.

Chapter 6: Discussion and Policy Recommendations

This study's results provide a clearer picture of the current state of breastfeeding promotion in Mississippi through the lens of peer counselors, who routinely work with new mothers as they make decisions about how to feed their infants. While the Mississippi WIC program provides valuable breastfeeding education and resources to low-income mothers across the state, internal and external factors explain the program's limitations in raising the state's breastfeeding rate. Of the eleven peer counselors interviewed, more than half noted that breastfeeding rates have been increasing in their designated counties over the past few years, and their recent clients seem more willing than past clients to initiate breastfeeding. Still, they could clearly identify a number of factors that serve as barriers to exclusive breastfeeding for mothers in the Mississippi WIC program.

Overall, the peer counselors' responses reflected existing literature regarding barriers to initiating and sustaining breastfeeding. I had hypothesized after reviewing the literature that cultural acceptance, employment demands, and social support would be three of the primary factors that influence a mother's decision to breastfeed. Each of these was raised by the peer counselors in my interviews, with social support and cultural factors being common themes. Therefore, what these results reveal about the state of Mississippi aligns with the literature. Without awareness of the benefits of breastfeeding or social support from friends, family, or medical professionals, low-income mothers are less likely to breastfeed.

The respondents most frequently named a lack of education as the reason for their clients' hesitation or refusal to initiate breastfeeding. Although existing literature provides conflicting evidence on whether education increases breastfeeding rates, my research suggests that peer counselors play an essential role in dispelling misinformation about breastfeeding and helping mothers reach an informed decision about how to feed their children. Educating mothers through instructional DVDs or pamphlets, as employed in Thomson et al.'s (2016) research, may not have a significant effect on breastfeeding rates, but peer education and counseling offers a different approach to relaying the information by emphasizing conversation. Every peer counselor mentioned that engaging in discussions and answering questions played a key role in their clients' decision-making. Ultimately, my research suggests that new mothers may be more receptive to educational conversations with women who have experienced the challenges of breastfeeding firsthand than to other methods of breastfeeding education.

The necessity of social support, especially from family members, was echoed by nearly all of the peer counselors as well. The findings of Gross et al. (2014) and Mitra et al. (2004) point to the importance of a robust social support network for breastfeeding mothers, and many of the peer counselors in my research expressed how influential family members and friends can be throughout pregnancy and the postpartum period. If family members and other sources of support dedicate themselves to embracing the benefits and challenges of breastfeeding alongside the mother, she will feel empowered to initiate and sustain breastfeeding. Conversely, if the mother's support network discourages breastfeeding or shares misinformation, she will feel more inclined to rely on formula as a less risky alternative. Even if mothers do not feel supported by their

immediate social circle, they can find supportive communities through social media pages for breastfeeding mothers or events organized by the WIC program. Both existing literature and my research suggest a notable influence of social support networks on infant feeding decisions.

Furthermore, many of the peer counselors emphasized the need for more support from medical providers, which I had underestimated when hypothesizing about factors that influence breastfeeding initiation and duration. Previous studies highlight how common practices among nurses and other medical professionals may inadvertently discourage breastfeeding (Cooper, 2018). The surprising consensus among the Mississippi WIC peer counselors was that medical professionals sometimes share incorrect or misleading information about breastfeeding because their education on the matter is not adequately thorough. Multiple peer counselors shared stories of how doctors or nurses warned their clients against breastfeeding while taking certain postpartum medications, when in actuality they could safely breastfeed. These findings reveal the need for improved breastfeeding education for health care providers so mothers receive accurate information from trusted sources.

Respondents also noted that Mississippi differs culturally from other states, and stigma surrounding breastfeeding could also explain Mississippi's low breastfeeding rates. A few of the peer counselors discussed their experiences with breastfeeding promotion in other states or as breastfeeding mothers in other countries, and each of these women concluded that "Mississippi's just different." Breastfeeding has not yet become culturally mainstream to the point where most mothers feel comfortable taking time to pump or breastfeed while in public spaces, during the workday, or outside of the home at

all. Especially for Black women in Mississippi, breastfeeding is not highly visible within their community or in the media (Gross et al., 2014). This makes it seem as if breastfeeding defies the cultural and social norm, consequently discouraging mothers from initiating breastfeeding. As mothers in Mississippi see more positive depictions of breastfeeding, they will likely approach breastfeeding with a more open mind. The cultural norms surrounding breastfeeding must change alongside more practical approaches to have a substantial impact on breastfeeding rates in Mississippi.

Overall, the similarities between the results of my research and the findings of previous studies demonstrate that low-income mothers in Mississippi are influenced by many of the same factors when making breastfeeding decisions as do mothers in other states and regions of the United States. Education and support from family, friends, and healthcare providers retain significant influence over a mother's decision whether to initiate and sustain breastfeeding. That being said, the unique cultural stigma surrounding breastfeeding in Mississippi adds a barrier in the decision-making process. Efforts to increase breastfeeding rates in Mississippi must address each of these barriers.

Policy Recommendations

Improving breastfeeding rates in Mississippi will involve both a cultural shift and changes within the systems and institutions with which pregnant women interact. Based on the barriers and areas for improvement identified by the WIC peer counselors, I developed the following recommendations for the state of Mississippi.

Strengthening Breastfeeding Promotion in the Healthcare System

Healthcare providers serve as a trusted source of medical information, and patients tend to consider their recommendations when making decisions about their health. From the interviews with WIC peer counselors, it became apparent that in Mississippi, healthcare providers' recommendations on infant feeding practices often discourage mothers from initiating breastfeeding. Although numerous studies have concluded that breast milk is superior to formula for infant growth and development (WHO, 2019; CDC, 2020b), some providers encourage the use of formula or misinform their patients when answering questions about breastfeeding. With a stronger infrastructure for breastfeeding promotion in Mississippi's healthcare system, patients can receive accurate information about the benefits and challenges of breastfeeding before deciding on whether to breastfeed.

First, all Mississippi hospitals should implement the Ten Steps to Successful Breastfeeding program of the Baby-Friendly Hospital Initiative (BFHI). Only about half of the hospitals that provide maternity and birthing care in Mississippi have achieved Baby-Friendly designation, but early analyses of the effectiveness of the Ten Steps program show promising results. Merewood et al. (2019) reviewed aggregate data from hospitals in Mississippi, Louisiana, Tennessee, and Texas that implemented the Ten Steps program, and they concluded that increased compliance with the program resulted in increased rates of breastfeeding initiation and exclusive breastfeeding in addition to a reduction in the racial disparity between breastfeeding rates among white and African American infants.

Of course, implementation of the Ten Steps program can be challenging for hospitals. Burnham et al. (2021) held focus group discussions with maternity nurses in Mississippi whose workplaces had achieved Baby-Friendly designation, and the participating nurses noted that many providers were resistant to the changes that

accompanied implementation of the BFHI. Specifically, they expressed concerns about "certain unintended consequences of BFHI implementation, including concerns about safety, patient dissatisfaction, and patient shaming" (Burnham et al., 2021, p. 397). Their attitudes shifted from negative to positive, however, as they saw that "BFHI in general improved breastfeeding rates, especially breastfeeding initiation" and felt knowledgeable enough about breastfeeding to educate their patients alongside lactation consultants or peer counselors (Burnham et al., 2021, p. 392). Thus, working toward Baby-Friendly designation could be a challenging yet beneficial effort for the remaining 21 hospitals in Mississippi.

Additionally, ongoing breastfeeding education for medical professionals could ensure their capability in providing accurate information to their patients throughout pregnancy. The Mississippi Communities and Hospitals Advancing Maternity Practices (CHAMPS) program developed an Interprofessional Education module that "brings nursing, medical, and other professionals in the health field together and stresses the importance of working as a medical team" to promote the benefits of breastfeeding (CHEER, 2022). The module was launched at all health professions schools at the University of Mississippi Medical Center and educates future medical professionals through videos about in-hospital breastfeeding assessments, postpartum breastfeeding support groups, and other related topics. Expanded use of this module or similar materials to healthcare providers and health professions students across the state could build a strong foundation for breastfeeding promotion in the prenatal and postpartum stages.

Another essential aspect of breastfeeding promotion in the healthcare system involves connecting pregnant women with available breastfeeding services and resources.

Some of the peer counselors interviewed for my research discussed how their clients often were not referred to the WIC program until late in their pregnancy, which limited the peer counselors' ability to provide thorough education. Women who are eligible for the WIC program typically qualify for benefits for Mississippi's Medicaid program or Supplemental Nutrition Assistance Program (SNAP) based on their income and may be enrolled in these programs before they become pregnant. A few of the peer counselors suggested that improving the referral system from Medicaid and SNAP to WIC could introduce low-income pregnant women to the available breastfeeding services as early in their pregnancy as possible. Healthcare providers also play a valuable role informing their pregnant patients of WIC breastfeeding services. By increasing awareness of the breastfeeding services and resources offered by WIC, pregnant women in Mississippi can connect with the program and receive support throughout their pregnancy.

Community Outreach and Education

Outside of the healthcare system, improving community outreach and education could introduce Mississippi mothers to the benefits of breastfeeding in a more informal manner. Despite the widespread use of social media platforms such as Facebook, Instagram, and Twitter, the Mississippi WIC program does not have a profile or page on any of these platforms. One of the peer counselors interviewed spoke at length about how her clients often read misleading or incorrect information about breastfeeding on social media platforms. If the Mississippi WIC program used social media as a tool to combat misinformation about breastfeeding, more women would be exposed to factual information from a trusted source. The national WIC program has already developed social media content for state and local WIC organizations to share, including easily

readable graphics on gaining support from family and friends, building confidence while breastfeeding, and knowing how much breast milk is enough for an infant (Food and Nutrition Service, 2021). The COVID-19 pandemic and shift toward electronic distribution of WIC benefits may reduce the frequency of in-person visits to WIC clinics or health departments, so developing a social media presence to share this information in an accessible way could benefit the Mississippi WIC program's breastfeeding promotion efforts.

Furthermore, outreach and education through Baby Café programs could connect breastfeeding mothers with sources of social support outside of their family and friends. These programs offer a space, now frequently over Zoom because of the pandemic, for any mother and supportive family members to ask questions and discuss breastfeeding with one another in the presence of licensed breastfeeding professionals. Existing Baby Café programs in Mississippi are operated through a network of nonprofit organizations rather than the WIC program itself, but many of the peer counselors mentioned that they regularly provide counseling services at these events. Spreading awareness of Baby Café programs could positively influence both mothers enrolled in WIC and mothers who are not. As mothers see other women in their community openly discussing their experiences with breastfeeding, they will gain a stronger support network and breastfeeding will become a more culturally mainstream feeding practice.

Another potential outreach tactic for the Mississippi WIC program is to connect with working mothers to provide information on how to balance breastfeeding with a demanding work schedule. Some of the peer counselors expressed that their clients often show concern that they will not have time to breastfeed because of their jobs. Informing

mothers enrolled in the WIC program about workplace protections for breastfeeding mothers and offering advice based on personal experience could build confidence in their ability to breastfeed. The Bureau of Maternal and Child Health (2008) published the Employees' Guide to Breastfeeding and Working, which answers a number of important questions for working mothers interested in breastfeeding. Sharing these resources and the information contained within them could serve to eliminate a barrier to breastfeeding for working mothers enrolled in the WIC program.

After analyzing the interviews with the peer counselors and considering various policy alternatives to improve breastfeeding rates in Mississippi, I recommend focusing on both breastfeeding promotion in the healthcare system and community outreach and education. While education and outreach strategies are developed within the WIC program, implementing large-scale changes to the healthcare system requires action from state policymakers. A combination of these efforts will be most effective in giving healthcare providers and mothers all resources necessary to make an informed decision about breastfeeding. As breastfeeding becomes more widely recognized as the healthiest infant feeding practice, mothers may experience more robust social support from friends and family. With more social support, mothers who decide to initiate breastfeeding will likely sustain breastfeeding for at least a few weeks if not months.

Chapter 7: Conclusion

Mississippi falls behind the rest of the United States for many health indicators, breastfeeding among them. Mississippi's children deserve the healthiest possible start in life, which begins with a mother's decision to breastfeed. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program provides valuable services to low-income women in Mississippi, including individualized peer counseling from women with breastfeeding experience. Through interviews with eleven WIC peer counselors who work with WIC clients throughout the state, I identified potential barriers that lead to hesitance or unwillingness to breastfeed among mothers enrolled in the WIC program.

This study reinforces the findings of existing research that identify education and social support as some of the primary factors that influence a mother's decision to breastfeed. Still, many of the peer counselors I interviewed noted that the cultural stigma surrounding breastfeeding could be a key factor in explaining why Mississippi consistently has one of the lowest breastfeeding rates in the nation. To address these barriers, I offer two policy recommendations. Strengthening breastfeeding promotion throughout the healthcare system, from better educating providers on the benefits of breastfeeding to incorporating breastfeeding promotion into written hospital policies, ensures that pregnant and postpartum women receive accurate breastfeeding information from their health care providers. The WIC program should also improve its community outreach and education efforts, namely using social media to publicize its services.

Eliminating barriers to breastfeeding can empower mothers in Mississippi to choose the most nutritious option for feeding their children.

Implementation of these recommendations could raise awareness of the services provided by the Mississippi WIC breastfeeding program and improve breastfeeding promotion throughout the state's healthcare system. I plan to share this research with my contacts in the Mississippi WIC program in hopes of providing a helpful resource for strengthening its breastfeeding programs. This research focuses only on mothers enrolled in the WIC program; future research could involve interviews with a representative sample of all mothers in a given state or region to determine barriers to breastfeeding. Also, future quantitative research on the association between breastfeeding duration and individual factors such as employment status, perception of breastfeeding among family and friends, and level of knowledge about breastfeeding could be helpful to better understand how these factors influence breastfeeding decisions for Mississippi mothers.

Taking measures to address barriers to breastfeeding, such as insufficient breastfeeding education and support from family, friends, community members, and medical professionals, should be a priority for the state of Mississippi. The WIC program offers valuable breastfeeding resources for its clients in hopes of eliminating these barriers and empowering mothers to breastfeed. Still, different approaches to breastfeeding promotion through the WIC program and state policy could reach pregnant and postpartum women throughout the state. Improving breastfeeding rates in Mississippi will have a positive effect on the overall health and wellness of the state's residents. Addressing and eliminating barriers to breastfeeding for Mississippi mothers is essential in achieving this.

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