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**Tiny Tusks Breastfeeding and Infant Support Internship**

Anna Ray

Eleanor Mann School of Nursing, University of Arkansas

NURS 498VH: Honors Internship/Service Learning

Dr. Scott and Dr. Vowell Johnson

April 11, 2021

### **Introduction**

Tiny Tusks: Breastfeeding and Infant Support is a program at the University of Arkansas that provides a clean, private area for mother's to nurse, pump, and change their infant's diaper at Razorback home athletic events. Mothers are supplied comfortable rocking chairs, clean changing tables, heaters or fans depending on the weather, bottled water, and informational handouts about a wide array of breastfeeding topics. After using the space, participants were asked to complete a survey about their experience and what they would have done if these resources weren't available to them. In addition, the program engages the entire family unit by offering interactive activities and crafts for siblings to enjoy. This includes a variety of coloring books, temporary razorback tattoos, and fun stickers. The Tiny Tusks area is utilized at multiple athletic events including football games, men's basketball games, and women's gymnastics meets; moreover, the program plans to expand its services once the restrictions brought on by the COVID-19 pandemic subside. Along with supporting mothers, the mission of Tiny Tusks is to normalize breastfeeding in public areas and educate the community on the benefits breastfeeding provides to both mothers and newborns. The stigma surrounding breastfeeding combined with the lack of public and workplace resources available discourages women from continuing their breastfeeding journey. Tiny Tusks aims to defy this stigma by educating the public on the substantial impact that breastfeeding has on both maternal and newborn health. The project was created by Eleanor Mann School of Nursing professors Dr. Allison Scott and Dr. Kelly Vowell Johnson and is staffed by honors nursing students and graduate students at the University of Arkansas.

Throughout my junior and senior year of nursing school, the Tiny Tusks internship program offered me valuable knowledge and hands-on experience with the breastfeeding

population. Prior to joining the Tiny Tusk team, I was oblivious to the many challenges new mothers face in finding a safe, clean place to publicly breastfeed. This experience granted me the knowledge to answer the following questions: What options outside the Tiny Tusk tent are available for public breastfeeding at the University of Arkansas? What constitutes as a safe, clean environment for mothers and babies? What materials are needed to adequately supply the Tiny Tusk tent? What are the gaps in public knowledge about breastfeeding? What is the stigma behind breastfeeding in public? How can we, as future nurses, advocate for the breastfeeding population?

As interns for the Tiny Tusks program, we performed a variety of tasks with the ultimate goal being to serve the Fayetteville community while fulfilling our Honors Thesis Internship requirements. As interns, one of our jobs was to set up the Tiny Tusks room and ensure it was always stocked with all necessary supplies. In addition, we provided the community with verbal education and informational handouts about the many benefits of breastfeeding. We also provided education on other topics such as infant safety, breastfeeding in public, prevention of illness in infants and children, and the introduction of solid foods to name a few. Though much of Tiny Tusks is directed towards mothers, we provided a multitude of fun activities for the entertainment of young children while their mothers learn more about our program. The provision of temporary tattoos, coloring books, and stickers is a simple yet effective way to draw the entire family unit into the booth. While working the booth, our role as interns was to create a comfortable and supportive environment where mothers felt free to ask questions and utilize our space.

After the onset of the pandemic, we were given the additional task of enforcing attendees to wear their masks and socially distance at athletic events. Prior to every football game, we served

as temperature takers for stadium staff members to prevent the spread of COVID-19 and promote the health of the community. Also, we assisted EMT's in the triage of patients at the various first-aid stations around the stadium. Along with our work at the Razorback athletic events, we obtained our internship hours by volunteering at multiple COVID-19 vaccination clinics in Fayetteville. Through this experience, we were able to administer hundreds of vaccines and provide education to many members of the community. We educated people on the vaccine's purpose, adverse effects, ways to report adverse effects, and time between doses. Additionally, we served as part of the screening process by asking a series of questions related to contraindications of the vaccine. Patients that answered yes to questions like, "Have you received any vaccinations within the past fourteen days?" were asked to return at a later date to receive their COVID-19 vaccine. These clinics gave me the opportunity to interact with many people in our community and promote the vaccine to those that were skeptical. I used my platform as a Tiny Tusks intern to promote the administration of the vaccine to pregnant or breastfeeding mothers. The Tiny Tusks internship program clearly provided me with many opportunities in terms of hands-on nursing experience and health promotion amongst the Fayetteville community.

### **Reflection**

As a result of this internship, my ability to assess and advocate for the needs of a specific population has drastically improved. In my future profession as an oncology nurse, I'll dedicate all my efforts to learning everything there is to know about the world of oncology. Though maternal/newborn and oncology are very different types of nursing, they are similar in a sense that they're both incredibly specialized fields. Tiny Tusks has taught me the importance of being well-versed in my specialty, so I can better care for my future patients. For instance, my

participation in this internship has greatly increased my personal understanding of breastfeeding and its benefits, so I feel better equipped to fill patients' gaps in knowledge and support them throughout their breastfeeding journey. I'm eager to learn more about oncology nursing so I can provide the same level of patient support and education as I once did for mothers involved in Tiny Tusks. Knowledge is such a powerful tool in nursing, so I'm determined to immerse myself in the field of oncology in order to be the best possible nurse. In turn, having greater knowledge has allowed me to improve upon my patient communication skills.

The program has also taught me to be flexible and adaptable to changing situations. When the COVID-19 outbreak began, we had to completely alter the course of my thesis project to meet the 120-hour honors internship requirement while still adhering to the restrictions of the pandemic. In everyday nursing, patient conditions are constantly changing, and interventions don't always go according to plan. That being said, it's important to work through these challenges and quickly adapt your plan to fit the current situation. The status of an oncology patient can change in the blink of an eye, so I will take these valuable lessons into my future practice and adapt my care quickly and effectively.

Lastly, the Tiny Tusks program has shown me the importance of patient education. Prior to this internship, I knew very little about the importance of breastfeeding; however, I fully intend to breastfeed my future children now that I'm aware of its many benefits. There are many patients out there that don't prioritize breastfeeding because they are unaware of its impact on maternal and newborn health. Tiny Tusks made me realize the importance of education because its effects last much longer than the care we can provide as nurses. Though hands-on patient care is a major part of nursing, patient education is equally as important especially when it comes to

new mothers. In my future practice, I will prioritize patient education and ensure my patient is well informed prior to discharge.

Personally, I believe this internship was an important experience because it encouraged me to get more involved in my local community. Aside from attending the University of Arkansas, I have no other connections to Fayetteville, so I only interacted with students and faculty for the first two years of college. It wasn't until I became a nursing student and a Tiny Tusks intern that I truly interacted with a variety of people in the community. Through the Razorback athletic events and COVID-19 vaccine clinics, I was able to serve my community and improve my communication skills with all types of people. My participation in this internship program has inspired me to make community involvement a priority in my personal life and my future career. This internship has been an incredibly important experience because it pushed me to seek out ways to give back to those around me.

### **Challenges**

Throughout the past three semesters, the Tiny Tusks Breastfeeding and Infant Support program has faced several challenges that have required a great deal of patience and creativity to overcome. The vast majority of our challenges derived from the repercussions of the COVID-19 pandemic. At the onset of the pandemic, a multitude of athletic events were cancelled in the spring of 2020 due to the nationwide lockdown. Though restrictions were lessened in the fall, there were still many in place regarding attendance to sporting events. Despite the maximum capacity of Donald W. Reynolds Stadium being 76,412 people, only 16,500 people were permitted to attend each football game in 2020 (Jones, 2021). The restrictions on attendance directly affected the number of families that utilized the Tiny Tusks room. Though it's currently known that adults are more severely affected by COVID-19 than infants and children, that

information was unclear when football season commenced. Many mothers refrained from bringing their children to athletic events initially because they feared they would readily contract COVID-19. This resulted in decreased opportunities to advocate and educate families on the importance of breastfeeding. To combat this issue, we placed greater emphasis on our online presence in hopes of educating pregnant and nursing mothers. Some students chose to create a series of marketing presentations using various social media platforms. The target audience for these presentations included the community, the healthcare workforce, event support staff and athletics, and the Tiny Tusks team itself. Other students including myself chose to create an informational video using Powtoon that focused on either breastfeeding in public, preventing the spread of illness in children, introduction of solids, or infant safety. Though we were unable to educate the community in-person as desired, we were able to find other ways to promote the Tiny Tusks mission.

Another challenge we faced was acquiring all 120 required internship hours. As previously stated, COVID-19 placed major restrictions on the attendance of all athletic events, but it also restricted the number of volunteers allowed at each game. Considering there are 20 interns in the Tiny Tusks program, these restrictions made it nearly impossible to obtain the 120 hours through sporting events alone. Our advisors Dr. Scott and Dr. Vowell Johnson were tasked with devising various activities that would allow us to meet our honors requirements but still get the full experience of the Tiny Tusks internship. With their guidance, I responded to this challenge by completing online modules pertaining to breastfeeding, attending several breastfeeding seminars (NWA Quarterly Breastfeeding Meeting & CHEERing for CHAMPions: Virtual Breastfeeding Conference), volunteering at several COVID-19 vaccination clinics, and creating a Powtoon

video on the introduction of solids. By completing these tasks alongside my hours received from working athletic events, I was able to obtain 120 hours in total.

The final challenge we faced actually existed before to the COVID-19 pandemic. At Razorback football games, the Tiny Tusks booth and room are centrally located and experience a lot of foot traffic; however, the location of the Tiny Tusks area at the basketball games is less than ideal. It is located on the bottom floor in the corner away from most people. It's evident that the location directly affects the number of mothers and families that utilize the room. Although we placed signs around the stadium to direct families to the booth, it would be in the best interest of the program to try to renegotiate the Tiny Tusks booth location in Bud Walton Arena.

### **Lessons Learned**

Through my participation in the Tiny Tusks Internship Program, I learned invaluable lessons that I will carry with me far beyond graduation. The first objective that interns were asked to complete was to strengthen our systems thinking, ethical reasoning, communication, and problem-solving skills to then translate into our professional practice. Throughout my final semester, I met this objective by participating in three COVID-19 vaccination clinics. There, I learned so much about systems thinking and problem solving through the collaboration of the volunteers, pharmacy representatives, and University of Arkansas staff. Each discipline had to communicate and clarify their role so there was no confusion. Though we were all performing different tasks, we were able to work together as a cohesive team because of our communication. In my future practice, I will prioritize effective communication and collaboration with my coworkers and patients. The on-campus vaccine clinic in January required an abundant amount of interdisciplinary communication to coordinate an intelligently designed clinic. This experience taught me how much of an impact the physical layout of a clinic can have on how

well it functions. The clinic was designed in a linear pattern so none of the vaccinated patients had to walk by the unvaccinated patients. This type of systems thinking improved the clinic's workflow and decreased the chances of spreading COVID-19 amongst patients. When I participated in a vaccine clinic for J.B Hunt, I strengthened my problem-solving skills by adjusting to a stressful situation. At first, there was very little direction about how the drive-thru clinic was supposed to operate. However, my fellow volunteers and I were able to establish clear roles so everyone was aware of their responsibilities. This allowed us to administer hundreds of vaccines in a short amount of time to the residents of Northwest Arkansas. From this experience, I learned that taking the time to establish a collaborative framework can ultimately save you time, effort, and confusion in the long run. Though the COVID-19 clinics were not an original component of my honors internship, I learned many lessons from them that I will incorporate into my future practice.

The second objective we were asked to meet was to complete 120 internship hours. Though some of my hours were obtained through online modules and virtual conferences, I dedicated 120 hours of my time to meet this requirement. Even amidst the pandemic, our advisors worked incredibly hard to grant us hands-on internship experience at the Razorback athletic events and COVID-19 clinics. Though our internship looked very different than originally anticipated, it's because of our advisors' determination and dedication to the program that we were able to still have a meaningful internship experience. This experience taught me to seek out opportunities whenever possible to gain further professional experience. The completion of 120 hours also taught me the importance of time management and prioritization in nursing practice. At times, I let my academic coursework, clinical rotations, and active job search get in the way of the completion of this project. Moving forward, I understand the importance of

prioritizing all responsibilities regardless of their due date. The Tiny Tusks internship has taught me to be resilient, patient, creative, driven, and collaborative, and I plan to utilize these lessons learned for many years to come.

Prior to my participation in the Tiny Tusks program, I knew very little about maternal/newborn nursing let alone specific details about breastfeeding. It wasn't until the fall of my senior year when I took an Obstetrics course and clinical that I felt well-versed in this particular field. Though incredibly challenging, this class laid the foundation for my knowledge, and Tiny Tusks then allowed me to explore my specific interests such as the effect of breastfeeding on incidence of postpartum depression. The OB coursework prepared me for my Tiny Tusks internship by educating me on the needs of mothers and newborns and the importance of breastfeeding. After learning about its overwhelming benefits in class, I was inspired to advocate and educate mothers on breastfeeding. The course gave me the necessary background knowledge on these issues while Tiny Tusks gave me the platform to share this information.

This internship has impacted my future goals by inspiring me to get involved in my academic, professional, and personal community. For instance, Tiny Tusks has solidified my desire to pursue a Master's in Nursing at some point in my career. This program has shown me that I'm capable of achieving anything if I truly dedicate my time and efforts to it. This internship has also inspired my professional aspirations. As a future oncology nurse, I want to get involved in organizations like the Oncology Nursing Society so I can stay up-to-date on best practice and meet other nurses in my specialty field. Tiny Tusks has introduced me to the many opportunities that exist for continuing education, so I want to further strengthen my practice by attending annual conferences and seminars pertaining to oncology. Personally, I want to be as

passionate about my chosen nursing career as Dr. Scott and Dr. Vowell Johnson are about the maternal/newborn population. Their passion is evident in everything they do, so I want to enter my career with that same drive, passion, and love for my patients.

### **Literature Review**

Breastfeeding provides a variety of health benefits to both mothers and newborns. According to the World Health Organization (WHO), mothers are recommended to breastfeed exclusively for the first six months postpartum and continue breastfeeding alongside the introduction of solid foods for up to two years postpartum (Breastfeeding Report Card, 2020). However, the Center for Disease Control reports only 25.6% of infants born in 2017 were exclusively breastfed for the first six months of life (CDC: Breastfeeding Facts, 2020). Over 60% of mothers concluded breastfeeding earlier than intended for a variety of reasons: issues with lactation, concerns about infant nutrition and weight, concerns about medication use while breastfeeding, unsupportive work policies, insufficient maternity leave, adherence to cultural norms, and lack of hospital or familial support. (CDC: Breastfeeding Facts, 2020). Despite these barriers, it is crucial for healthcare providers to promote exclusive breastfeeding because of its many benefits.

Benefits to breastfeeding include expedited postpartum weight loss and decreased incidences of postpartum bleeding, urinary tract infections, anemia, and postpartum depression (Cleveland Clinic, 2018). Specifically, it combats postpartum depression through the release of oxytocin and prolactin; moreover, these naturally soothing hormones promote stress reduction and strengthen the physical and emotional connection between mother and newborn (Cleveland Clinic, 2018). Breastfeeding has clinically shown to decrease maternal incidence of breast cancer, ovarian cancer, rheumatoid arthritis, endometriosis, osteoporosis, type II diabetes

mellitus, hypertension, and cardiovascular disease (Cleveland Clinic, 2018). After extensive research and review, the importance of breastfeeding to maternal mental and physical health became increasingly evident. With all this in mind, there is a clear need for increased maternal health promotion regarding breastfeeding continuation (Abuchaim et al., 2016). Consequentially, the primary objective of this review of literature is to further explore the effects of breastfeeding on the development of postpartum depression.

## **Methods**

### ***Study Design***

This is a literature review of ten journal articles that support the continuation of breastfeeding as an effective preventative of postpartum depression. The journal articles were obtained through a systematic search of the CINAHL database. To search the database, the phrases “breastfeeding” and “postpartum depression” or “depression” were entered into the search bar to acquire at least ten articles relevant to the effects of breastfeeding on postpartum depression. The search was narrowed by selecting the following filters: full text, peer reviewed, and published within the last five years to discover the most relevant journal articles to my specified topic.

### ***Inclusion/ Exclusion Criteria***

To qualify for this literature review, the articles met the following criteria: A) the topic was about breastfeeding; B) postpartum depression was discussed within the journal article; C) the article was available in an online, full text version; D) the article was peer reviewed, and E) the article was published within the last five years (2016-present). Journal articles were excluded if A) the interventions explained within the article did not align with the nursing scope of

practice, B) the article included interventions unrelated to postpartum depression prevention, and C) the article did not examine the influence of breastfeeding on postpartum depression.

### ***Search Results***

Ten articles were retrieved through the utilization of CINAHL complete. The initial search results for the Boolean phrases “breastfeeding” and “postpartum depression” on CINAHL produced 228 results. Once the inclusion criteria was applied, CINAHL produced 44 results. Of the 44 results, nine articles remained once the exclusion criteria was applied. The secondary search results for the Boolean phrases “breastfeeding” and “depression” on CINAHL produced 743 results. Once the inclusion criteria was applied, CINAHL produced 141 results. After reviewing many of the results, only one journal article was included from this search. Of the ten journal articles, there were four cross-sectional studies, one descriptive study, one cluster randomized trial study, one quasi-experimental study, one secondary analysis, one prospective study, and one longitudinal population study.

### **Results**

Each study included in the review of literature indicated a significant correlation between breastfeeding habits and incidence of postpartum depression. Some studies explored how the prolonging of exclusive breastfeeding leads to decreased rates of postpartum depression (Liu et al., 2017). Other studies concluded that early incidence of postpartum depression increases the likelihood of early breastfeeding cessation (Verpe et al., 2019).

According to *Investigation of Breastfeeding Training Based on BASNEF Model on the Intensity of Postpartum Blues*, there are several physiological processes that attribute decreased rates of postpartum depression to exclusive breastfeeding (Akbarzadeh et al., 2017). The journal article claims, “There is evidence that the hypothalamic–pituitary–adrenal (HPA) axis shows a

weak response to stress in breastfeeding women. The function of this axis and cortisol response are associated with progress of depression after delivery. Thus, breastfeeding reduces the response to stress and tension, eventually decreasing the incidence of postpartum depression (Akbarzadeh et al., 2017). It continues on by stating that hormones like oxytocin and prolactin have a major influence on the relationship between breastfeeding and mental function; furthermore, these hormones cause anti-depressive and anxiolytic effects in both humans and animals (Akbarzadeh et al., 2017).

Another study attributes the positive effects of breastfeeding on postpartum depression to the prolonging of allopregnanolone (ALLO) withdrawal during lactation (Burke et al., 2019).

*GABA<sub>A</sub> Dysregulation as an Explanatory Model for Late-Onset Postpartum Depression*

*Associated with Weaning and Resumption of Menstruation* argues that weaning from breastfeeding creates a complex hormonal shift that may dysregulate GABA<sub>A</sub> receptors (Burke et al., 2019). In turn, ALLO may initiate rather than prevent depressive symptoms in postpartum mothers (Burke et al., 2019). Therefore, the disruption of breastfeeding may contribute to the late-onset of postpartum depression (Burke et al., 2019). Though the exact pathophysiology behind breastfeeding's effect on depressive symptoms may be up for debate, the overwhelming benefits of breastfeeding are clear in every study surveyed.

Though these benefits of breastfeeding are widely known, there are many maternal barriers to breastfeeding that may cause early cessation and thus increase maternal risk for postpartum depression. These barriers include advanced maternal age, poor educational and socioeconomic status, and lack of support resources (Sahin, 2019). Physical barriers to breastfeeding include sore nipples, engorged breasts, mastitis, leaking milk, pain, and failure to latch on by the infant (Office of the Surgeon General, 2011). Studies have shown that having

familial and peer support, viewing breastfeeding as an acceptable social norm, and taking part in educational classes before and after childbirth play a vital role in the choice to initiate and continue breastfeeding (Akbarzadeh et al., 2017). When providing care to patients that lack proper breastfeeding support, its crucial for healthcare providers to assess for risk factors and early signs of postpartum depression to effectively prevent its progression.

Risk factors for postpartum depression include a depression story, a family depression story, negative life events, negative marital relationship, low social support levels, being a single or young mother, previous pregnancy loss, pregnancy and birth problems, unwanted pregnancy, and undesirable baby characteristics (Sahin, 2019). In *The Relationship Between Breastfeeding Self-Efficacy and Depression in the Early Postpartum Period in Turkey*, there was no significant relationship discovered between educational and occupational status, number of children, type of birth and gender of the baby, and depression levels of mothers (Sahin, 2019). However, mothers who had inadequate social support, “bad” income status, unplanned pregnancies, or smoked during pregnancy were found to have a high risk of postpartum depression (Sahin, 2019). The study further explored how patients at a high risk for postpartum depression were also found to have low breastfeeding self-efficacy (Sahin, 2019). The results of the study indicate, “early detection of maternal depressive symptoms is not only necessary to reduce postpartum depression-related morbidity, but also to increase breastfeeding duration and support breastfeeding” (Sahin , 2019, p.734).

Two studies specifically examined the incidence rate of postpartum depression after the implementation of a breastfeeding training model (Akbarzadeh et al., 2017). One journal article based their training on a 10-step program that encourages exclusive breastfeeding (Agler et al., 2021). These steps serve as the foundation for the Baby-Friendly Hospital Initiative (BFHI) and

are clinically proven to lessen depressive symptoms directly or by reducing difficulties associated with infant feeding (Agler et al., 2021). The 10 steps are as follows: 1) Having a written breastfeeding policy that is routinely communicated to all healthcare staff; 2) Training all healthcare staff in skills necessary to implement this policy; 3) Informing all pregnant women about the benefits and management of breastfeeding; 4) Helping mothers to initiate breastfeeding within 30 minutes of birth; 5) Showing mothers how to breastfeed and maintain lactation, even if they are separated from their infants; 6) Giving newborn infants no food or drink other than breastmilk, unless medically indicated, and not accepting low-cost breastmilk substitutes, feeding bottles, or teats; 7) Allowing mothers and infants to remain together 24 hours per day; 8) Encouraging breastfeeding on demand; 9) Giving no artificial teats or pacifiers to breastfeeding infants, and 10) Fostering the establishment of breastfeeding support groups and referring mothers to them on discharge from a hospital or clinic (Agler et al., 2021). At 14 weeks postpartum, there was a sizable reduction in depressive symptoms in patients that completed all 10 steps of the program (Agler et al., 2021). Considering 60% to 90% of women report difficulties with breastfeeding, there is a clear need for programs like this to address breastfeeding difficulties and give a combination of knowledge, skills training, encouragement, and social support to facilitate optimal feeding practices (Agler et al., 2021).

Akbarzadeh et al. (2017) utilized the BASNEF training model to assess the beliefs, attitudes, subjective norms, and enabling factors of the breastfeeding practices. The model focused on “the effect of knowledge, attitude, and personal skills on behavior change” (Akbarzadeh et al., 2017, p.831). To conduct the study, four separate educational sessions utilizing the BASNEF model were crafted for pregnant women and their spouses, mothers, and mothers-in-law (Akbarzadeh et al., 2017). The study found a significant decrease in postpartum

depression up to 3 months following birth among women who exclusively breastfed for 3 months or longer. Contrarily, women who didn't initiate or continue breastfeeding were increasingly prone to depression following delivery (Akbarzadeh et al., 2017). Additionally, the study found mothers with postpartum depression are less inclined to begin or continue breastfeeding, and postpartum depression may occur if breastfeeding is interrupted (Akbarzadeh et al., 2017).

Though each journal article approached the topics of breastfeeding and postpartum depression from very different perspectives, each concluded the breastfeeding is a potential preventative factor for postpartum depression.

### **Discussion**

These ten journal articles discussed the impact of breastfeeding continuation on postpartum depression rates and highlighted the importance of providing support to new mothers through their breastfeeding journey. A mother's decision to breastfeed is based on a variety of factors including her mental, physical, and socioeconomic status (Amipara et al., 2020). It is important as nurses to recognize these factors and implement protective measures against any that could affect a mother's breastfeeding self-efficacy (Wouk et al., 2017). Also, nurses must assess for postpartum depression risk factors and implement measures to preserve a mother's breastfeeding habits. Breastfeeding continuation rates were found to drastically increase if the mother had the proper support, and this caused a decline in the incidence of postpartum depression (Cooklin et al., 2018). Some of the studies explored the pathophysiology behind breastfeeding's influence on postpartum depression. Others explored education interventions like the BASNEF training model and the 10-step Baby-Friendly Hospital Initiative (BFHI) as means to improve breastfeeding technique, awareness, and knowledge. These, too, noted an inverse relationship between breastfeeding and postpartum depression.

In the journal articles, there were multiple limitations present that may have directly altered the findings of the studies. When utilizing the 10 BFHI steps, the authors acknowledged they were unable to how the implementation of the steps specifically influenced postpartum depression symptoms (Agler et al., 2021). They were unable to identify what aspect of the steps could be improved to further reduce postpartum depression and increase breastfeeding (Agler et al., 2021). Also, the best approach to improving social support and breastfeeding knowledge were unclear to the authors and could've had a major impact on the resulting data (Agler et al., 2021). For instance, it was unclear whether providing compassion and encouragement or listening to issues was a better approach to social support provision (Agler et al., 2021). This limitation derives from the lack of literature available on this particular topic. Without up-to-date literature regarding best-practice interventions, it's difficult to know how to approach these types of situations. Another limitation of the study was the lack of distinction between the different types of breastfeeding difficulties based on severity. The associations discussed in the study may not apply equally to more stressful difficulties, so it is difficult to accurately determine the impact of breastfeeding on postpartum depression without considering this factor (Agler et al., 2021). The lack of knowledge on factors like degree of breastfeeding difficulty is one of the many gaps that exists in current literature regarding postpartum depression. Lastly, the study was limited by its small number of assessments; moreover, breastfeeding difficulties were only assessed once on week 10 and depressive symptoms were assessed once on week 14 (Agler et al., 2021).

The study involving the BASNEF model also had several limitations. The authors argue one of the study's limitations was the utilization of a questionnaire as a means of patient attitude evaluation (Akbarzadeh et al., 2017). The questionnaire was the Zhung Self-Rating Depression

Scale, and it was given to mothers at the final training session and the first postpartum visit (Akbarzadeh et al., 2017). The study was also limited by the lack of “access to results of related studies on breastfeeding and the BASNEF model” (Akbarzadeh et al., 2017, p. 834). This forced the authors to compare their study results to studies in other areas using the same model (Akbarzadeh et al., 2017).

### **Conclusion**

The University of Arkansas Honors College and Tiny Tusks Breastfeeding and Infant Support Internship have made a long-lasting impression on my life. Through my participation in the internship, I learned the importance of assessing and advocating for the needs of my local community. Moreover, I strengthened my ability to adapt to unexpected situations, critically and creatively think, and educate others on important health issues. Through the completion of my thesis project, I expanded my knowledge by learning about the introduction of solid foods to babies and by learning about the inverse relationship between breastfeeding and postpartum depression. As I begin my future career, I feel more equipped to look for signs and symptoms of postpartum depression and know how to communicate with these patients. After having completed the literature review, I feel better prepared to interpret difficult articles and make connections between expansive bodies of work. The entire honors program had a positive impact on my experience as a college student, and I will utilize the lessons learned in the next chapter of my life in Memphis, Tennessee.

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