University of North Georgia Nighthawks Open Institutional Repository

Honors Theses

Honors Program

Spring 2018

Attitudes Among Senior BSN Nursing Students Toward Breastfeeding

Jenna Sanborn University of North Georgia, jennarae1230@gmail.com

Follow this and additional works at: https://digitalcommons.northgeorgia.edu/honors_theses Part of the <u>Maternal, Child Health and Neonatal Nursing Commons</u>

Recommended Citation

Sanborn, Jenna, "Attitudes Among Senior BSN Nursing Students Toward Breastfeeding" (2018). *Honors Theses*. 40. https://digitalcommons.northgeorgia.edu/honors_theses/40

This Honors Thesis is brought to you for free and open access by the Honors Program at Nighthawks Open Institutional Repository. It has been accepted for inclusion in Honors Theses by an authorized administrator of Nighthawks Open Institutional Repository.



Attitudes Among Senior BSN Nursing Students Toward Breastfeeding

A Thesis Submitted to the Faculty of the University of North Georgia In Partial Fulfillment Of the Requirements for the Degree Bachelor of Science in Nursing With Honors

Jenna Sanborn

University of North Georgia

Spring 2018

Accepted by the Honors Faculty

of the University of North Georgia

in partial fulfillment of the requirements for the title of

Honors Program Graduate

Thesis Committee:

-1-1 acn Thesis Chair Committee Member Committee Member

Honors Program Director

Attitudes Among Senior Nursing BSN Students Toward Breastfeeding Introduction

The health benefits of breastfeeding infants for at least the first six months of life are widely known, but the majority of women begin supplementing breast milk with formula within three months after birth. In 1991, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) launched the Baby-Friendly Hospital Initiative (BFHI) to increase breastfeeding rates worldwide. This initiative focuses on providing evidence-based, maternity care with an emphasis on improving breastfeeding rates. There are ten steps that hospitals must implement to some degree in order to become a Baby-Friendly hospital; these steps focus on educating the staff and the mothers on breastfeeding techniques, encouraging exclusive breastfeeding to include the first night after labor, and providing continuing support for breastfeeding mothers after they leave the hospital. Nurses play a large role in the success of the BFHI because they work so closely with the mothers. Nurses should be able to provide care without their personal attitudes toward breastfeeding affecting the quality of care, but a positive attitude toward breastfeeding would be beneficial to implementing the BFHI effectively. The BFHI is mentioned in several newer editions of maternal nursing care textbooks, exposing nursing students to the idea and goal of the BFHI earlier than in the past.

Industrialized European countries, such as Sweden, were the first countries to begin implementing these ten steps. There are currently 512 hospitals in all 50 states and the District of Columbia that are designated as Baby-Friendly in the United States, and thirteen of these 512 hospitals are located in Georgia (Baby-Friendly USA, 2012). Research on this initiative focuses on implementation in different hospitals, evaluating the success by analyzing trends in



breastfeeding rates, barriers to implementation, and the importance of having a multidisciplinary approach to implementation.

Something that has not been studied extensively is the attitudes of senior BSN nursing students toward breastfeeding and considering how this may affect the implementation of the BFHI. Experienced nurses' attitudes toward breastfeeding may be harder to change, but nursing students can be easily influenced by what they are taught while in school, before they go into the field. It is important for nursing students to have a positive attitude toward breastfeeding because they will be the future caretakers of mothers who need guidance in making the best choices for their newborn. The BFHI's aim is to promote breastfeeding, and, if attitudes of the new generation of nurses are more positive toward breastfeeding, it will have a long-term, positive effect.

Review of Literature

Implementation of the BFHI

Several studies have been done on hospitals that have been designated as Baby-Friendly in order to possibly assist other hospitals in beginning the process of implementing different steps of the initiative and how to have success in receiving the Baby-Friendly designation. Support from all professionals in the hospital, including the CEOs, and in the local health department is crucial to successful implementation. Schoenfelder, Wych, Willows, Harrington, Christoffel, and Becker (2012) engaged 19 maternity hospitals in Chicago in the BFHI and breastfeeding support practices in accordance with the BFHI's "Ten Steps to Successful Breastfeeding." They began with treating each hospital as a community to foster the support they needed in order to successfully implement the initiative, and an inter-hospital committee was created to provide more support and to strategize how to move forward with all 19 hospitals



taking part in the study. With the continuous support from within the hospital, the inter-hospital committee, and the CDPH, the hospital staff only had to worry about educating and assisting the patients they were caring for without worrying about other hospital duties that would detract from the care given to the mothers.

Although the BFHI lists ten steps to be implemented, higher breastfeeding rates can be achieved while only implementing a few steps. Lillehoj and Dobson (2012) obtained data from 53 hospitals in Iowa and assessed how many BFHI steps they were implementing. These hospitals met as few as zero steps and as many as seven steps. They found that one of the most difficult steps for hospitals to meet was Step 1, which states that hospitals need to have a written breastfeeding policy that is communicated to the health care staff on a routine basis. Though some of the hospitals partially met this step, no hospital met all six of the components of the requirement. It was found that, when implemented, Steps 1 (having a written policy), 2 (training of staff in the skills needed), and 9 (not providing pacifiers) had the greatest positive effect on breastfeeding rates after discharge from the hospital. So, it can be derived from this study that, if a hospital is unable to implement all ten steps or all of one step, their effort is not futile. Being designated as a BFH is the goal, but a hospital does not have to receive designation in order to improve breastfeeding rates after discharge.

After a 2005 study found that, in New York City, only 26% of women were exclusively breastfeeding two months after birth, the New York City Department of Health and Hospitals Corporation (HHC) worked with their hospitals and community health clinics to implement the BFHI. After two years, no significant increase was seen in exclusive breastfeeding rates in these HHC hospitals. This lack of effect prompted VanDevanter, Gennaro, Budin, Calalang-Javiera, and Nguyen (2014) to evaluate how one of these hospitals had implemented the BFHI by



assessing factors at the organizational level, the provider level and the patient level. This assessment was done from the perspective of the provider in the situation and in a hospital that had either fully or partially implemented nine of the ten BFHI steps, with seven of these steps having been fully implemented. As with the Chicago hospitals, a strong support system was not lacking because the HHC was fully behind the initiative being implemented in this hospital. The importance of providing education for mothers about breastfeeding and training of the staff were highlighted in this study because there was concern over the fact that the staff had not received the formal BFHI training before implementation. Mothers cannot be expected to exclusively breastfeed for the desired amount of time postpartum if they have not had access to education before, during, or after birth. With the rise of the use of technology in healthcare, it is now possible for breastfeeding education to be media-based. This would increase the proportion of women receiving breastfeeding education, therefore greatly increasing the rate of exclusive breastfeeding for a longer amount of time.

Evaluating the Success of The BFHI

More than 20,000 maternity facilities in more than 150 countries have been designated as Baby-Friendly, but there is still research being done on the effectiveness of the initiative. With the research that has been done, it is clear that further research needs to be conducted because the results do not show a clear positive correlation between implementing the BFHI and exclusive breastfeeding rates. In a study of Swiss hospitals, Merten, Dratva, and Ackerman-Liebrich (2005), found that exclusive breastfeeding rates did increase in length from 22 weeks to 31 weeks after 9 years of implementation of the BFHI. Compliance with full rooming in, first suckling within an hour, breastfeeding on demand, and not using pacifiers led to this increase in exclusive breastfeeding. Seeing as the breastfeeding rates in Switzerland increased over the 9



years in non-BFHI hospitals as well, it is possible that the BFHI indirectly influenced these hospitals' breastfeeding rates. This is probable because the BFHI has raised awareness about the benefits and importance of breastfeeding around the world, and it has also led to the increase in the number of lactation counselors. Unlike some other experiments' results, these results are not influenced by the mothers' knowledge about the hospitals' compliance with the BFHI standards.

One of the steps that has had a strong positive correlation with sustained exclusive breastfeeding is the tenth step of the initiative that suggests providing community support for mothers who are breastfeeding. It is easier for a woman to breastfeed in the hospital while she has the support and the help of the nursing staff. When women leave the hospital and it gets difficult to continue or they have questions, they will be discouraged from breastfeeding when they do not have the resources in their community to help them. Within the United States, there are cities that are more community-based than others. These community-based cities tend to be more rural than urban, so it is very possible that the majority of women are not getting community support because they live in large, very populated cities. More studies need to be done in the United States because of this population distribution even though the studies that have been done outside of the United States consistently show that there is an overall increase in long-term breastfeeding rates and breastfeeding initiation in response to adherence to the BFHI's Ten Steps (Pérez-Escamilla, 2016). Interestingly, although there is an increase in long-term breastfeeding rates, a negative relationship between short-term breastfeeding rates and the BFHI has been found. So, the BFHI is associated with increasing the duration of breastfeeding as well as possibly decreasing the number of women breast-feeding short-term. Although the initiative has the goal of increasing the duration of breastfeeding, it does not aim to decrease the number of women breastfeeding. When performing a review of the literature about the BFHI and its effect



on breastfeeding initiation, duration and exclusivity, Howe-Heyman and Lutenbacher (2016) found that the BFHI had a positive effect on breastfeeding initiation and long-term breastfeeding, but that there was no strong correlation between exclusive breastfeeding and the BFHI. Just as in Merten et al.'s study, it is again stated that further research in the United States would help to further support the BFHI as an effective intervention by having a larger selection of hospitals to study. The data that has been gathered is not enough to conclusively state that, internationally, the BFHI has had an effect on breastfeeding rates since the United States and European countries have very different cultures and social norms regarding breastfeeding. Culture and social norms surrounding breastfeeding directly affect nurses', both experienced and inexperienced, views and support of breastfeeding. If society could become more supportive of breastfeeding as Europe's is, it would most likely influence the exclusive breastfeeding rate in the United States

Finally, in a study conducted in five states in the United States by Hawkins, Stern, Baum, and Gillman (2015), an increase in breastfeeding initiation rates was found, but this increase was seen only in lower-educated women. Women who had received higher education were found to be more likely to give birth in a hospital that had been designated as a Baby-Friendly hospital, but whether or not the hospital had been accredited did not affect the likelihood of these mothers to initiate or continue breastfeeding. While this study expands the international study of the effectiveness of the BFHI, there are still many questions that need to be answered such as its effects in each state since each state is comprised of different ethnic groups. It was found that, within these 5 states, Hispanic mothers have a higher rate of initiating breastfeeding than white mothers, and that older mothers have a greater rate of breastfeeding initiation than teenage mothers. Hispanic culture is more community-based than the American culture, so this is a probable reason for the higher breastfeeding rates in Hispanic mothers; American culture



continues to change with each generation, and this directly affects attitudes toward breastfeeding practices. As more minorities are being able to gain access to higher education, it is possible that the newest generations of nursing students, which are more culturally diverse than ever before, will have a more positive attitude toward breastfeeding. This support of breastfeeding would be more influenced by their native culture rather than American culture.

Barriers to Complete Implementation

Several barriers exist that negatively affect implementation of the BFHI and breastfeeding rates. In the United States, one of the most common reasons given as to why mothers do not breastfeed for very long is the need to return to work. On average, women are eligible for 9 weeks of maternity leave, which is only half of the length of maternity leave that the International Labour Organization recommends. What is even more disconcerting is that, on average, only 3.7 of the allotted 9 weeks is paid leave (Rubin, 2016). If a woman is working a full-time job, it is very difficult to find the needed time and privacy to pump and store breast milk. Breastfeeding also requires a lot of energy. If a woman is returning to work before her body has fully recovered from giving birth, continuing to breastfeed adds an additional amount of physical stress that most women cannot handle. So, as long as the United States continues to ignore the importance and necessity of maternity leave, employed women will continue to struggle with the physical stress, leading them to supplement formula instead of exclusively breastfeeding.

Another major barrier to increasing breastfeeding rates is the discontinuity of breastfeeding care. Healthcare providers in non-Baby-Friendly hospitals have been found to rely on other healthcare professionals to implement breastfeeding care (Garner, Ratcliff, Thornburg, Wethington and Rasmussen, 2016). If a hospital policy that clearly states each healthcare



professional's role in providing breastfeeding care is not in place and enforced, then breastfeeding rates will continue to be below what the WHO desires to see. Also, women are typically not in a hospital maternity ward long enough for the practices she learned in the hospital over her short stay to truly make a difference in how long she chooses to breastfeed. Once leaving the hospital, the mother still needs to receive support from her OB-GYN, the baby's pediatrician, and from support groups. These support groups could be created by the hospitals, or they could be community-led support groups that help educate and encourage new mothers.

Finally, the majority of mothers turn to using formula substitutes in part because they do not believe that their breast milk is enough, or they are not convinced of their ability to breastfeed. The world's population is largely unconvinced of the benefits of breastfeeding. In recent years, society has questioned over and over again breastfeeding and its benefits. So, not only do mothers need to be educated about breastfeeding, the rest of the population needs to be educated as well (Rollins, Bhandari, Hajeebhoy, Horton, Lutter, Martines, and Victora, 2016). As long as mothers are still questioned by family, friends, and society about their choice to breastfeed, worldwide breastfeeding rates will remain low.

Necessity for Interdisciplinary Teams

Maternity hospital wards are filled with professionals from several medical professions including physicians, lactation consultants, registered nurses, nurse midwives, registered dieticians, and anesthesiologists. In order to fully implement the BFHI, it is necessary for every medical professional on the ward to be involved in and supportive of the initiative. Possibly the most important health professionals that are involved in the initiative are the lactation consultants. Lactation consultants help to teach the mother how to breastfeed, help mothers who



are experiencing difficulties with breastfeeding, and they also help babies who are not gaining enough weight due to problems with feeding. In 2011, the Surgeon General made a call to action to support breastfeeding that encouraged all health professional organizations, school and credentialing boards to provide and incorporate into their curriculum and standards minimum lactation education and training requirements. Education for health professionals on lactation would greatly increase the success of the BFHI because it would fulfill Step 2 that states that the hospital should, "Train all healthcare staff in skills necessary to implement this policy" (VanDeVanter et al., 2014). One of the lesser-known paths to becoming a lactation consultant is becoming certified after becoming a registered dietitian. In order to promote this pathway, "...professional nutrition and lactation credentialing boards should cooperate to integrate mandatory minimum standards of lactation education for nutrition professionals" (Theurich and McCool, 2016). This would be very helpful not just for the initiative, but also for decreasing the deficit of lactation consultants that the United States is currently experiencing. The deficit is partly caused by the fact that, in 2015, there were only 5 lactation programs located in the United States (Theurich and McCool, 2016). Because there are numerous nutrition programs in the United States, the merging of nutrition programs and lactation education programs would greatly increase the number of lactation education programs.

Nurses are typically the health professionals that spend the most time with mothers in hospital maternity wards, so it is commonly assumed that the nurses mostly carry out the patientcentered initiatives. This should not be the case with the BFHI, because it is necessary to have an interdisciplinary healthcare team that is led by a nurse-physician dyad. Both the physicians and the nursing staff must cooperate and oversee the implementation of the BFHI with each patient to ensure that it is being implemented to its full extent. St. Fleur and McKeever (2014) studied



this nurse-physician dyad approach to implementation, and their evidence is very supportive of this model. Training the physicians and the nurses together showed to have a large impact on the effectiveness of the training, and the dyad truly emphasized the commitment of both the physicians and the nurses to the implementation of the initiative. Hospital policy is much easier to enforce when all members of the team undergo the same training and attend the same meetings; this way, no information is miscommunicated between the physicians and nursing staff. Also, nurses may feel that they are lesser contributors to the cause if a physician's orders contradict the care that they are giving. When the dyad is created, the physicians and the nurses will feel like equal contributors. Because physicians tend to not spend as much time with the mothers and babies as nurses do, it is important for the nurses to openly communicate and revise orders with the physicians. This allows for great improvement in mother-baby care. So, with the formation of an interdisciplinary team that is led by a nurse-physician dyad, the BFHI can be successfully implemented and lead to an increase in exclusive breastfeeding rates and duration.

The Study, Purpose, and Aims

A descriptive study was conducted to determine attitudes toward breastfeeding in senior BSN students. The purpose of this study was to explore attitudes among senior nursing students toward infant feeding/breastfeeding practices. The aim of the study is to identify factors, such as attitudes among future healthcare team members, that may support or hinder implementation of the Baby-Friendly Hospital Initiative, an evidenced-based program designed to improve breastfeeding rates across the United States that has recently been implemented in several Georgia hospitals.

Methods



In order to assess the attitudes of nursing students toward breastfeeding, the Iowa Infant Feeding Attitude Scale was utilized. The Iowa Infant Feeding Attitude Scale (de la Mora, Russell, Dungy, Losch, and Dusdieker, 1998) assesses one's attitudes and knowledge about the costs of infant feeding, nutrition, convenience, and infant-mother bonding associated with breastfeeding and formula-feeding to determine overall attitudes toward infant feeding methods. The IIFAS is comprised of 17 questions that requires the participant to rate their attitude from 1 (strongly disagree) to 5 (strongly agree). Though designed for perinatal populations initially, the IIFAS has been administered to the general population in some studies (Chambers, et al., 2007). The IIFAS demonstrated adequate internal consistency of a Cronbach's alpha of 0.68-0.86 in sample of Caucasian and African American college students without children (Jefferson, 2017) and high IIFAS scores correlated with positive attitudes toward breastfeeding in a sample of female medical college students in Saudi Arabia (Amin, et al., 2014). The IIFAS was chosen because of its success in evaluating attitudes toward breastfeeding in these college student populations.

IRB approval was obtained prior to recruitment of participants, and each participant signed an informed consent prior to participation. Participants were informed that their participation was voluntary and that they may withdraw from the study without penalty at any time during the study. All study data was handled as confidentially as possible. Each participant was assigned a number as an identifier, and each set of surveys was numbered appropriately. Individual names and other personally identifiable information will not be published.

The scale, along with a demographic survey, was sent to and completed by thirty members of the BSN nursing class of May 2018 on the Dahlonega campus. It was determined



that a minimum of thirty participants was needed. Thirty participants were recruited. Once informed consent was signed, participants completed the survey.

Analysis

Data were evaluated and analyzed for patterns and significance using International Business Machine's Statistical Package for the Social Sciences (IBM's SPSS). Demographic data were analyzed to determine the trends in age, sex, race, marital status, whether they were breastfed, if they had children and if they breastfed their children, and their intention to breastfeed on a scale of 0-10.

IIFAS scores range from 17 to 85 points with 85 indicating a very positive attitude toward breastfeeding. After entering and analyzing the data for each participant's completed IIFAS, the average score was determined and compared to the scales' range. Each item on the scale was then analyzed to find the average score for each, and the items' average scores were compared to determine the highest and lowest scoring items.

Finally, reliability statistics were analyzed for the IIFAS. . The Cronbach's alpha coefficient (CAC) was .63 for the total scale.

Results

The study participants' ages ranged from 20 to 34 with the average age being 22.96. The majority of the participants were single (86.7%), and the remaining were married (10%), or widowed (3%). Because the population being studied is senior BSN nursing students, this range and average age are representative of the population, as is their marital status. The class is comprised of a majority of traditional students with a small minority of nontraditional students pursuing their second degree or pursuing their first degree after raising a family. The group of participants was comprised of five males (16.7%) and twenty-five females (83.3%). This was



actually an overrepresentation of males as there are only eight males in our class of 124 students (6.5%). Three participants had children, and all three chose to breastfeed. Out of the 30 participants, 19 participants (63.3%) were breastfed and 11 (36.7%) were not breastfed. The final question on the demographic survey asked the participants to rate their likelihood of breastfeeding on a scale of zero to ten. The scores ranged from 4 to 10, with male scores ranging from 8-10, and the average score being 9.2. This score is very high and suggests that the participants, overall, have a very positive attitude toward breastfeeding.

The average IIFAS score for the study participants was 65.8. Though the participants' average score score was low, 50% of the participants had scores that fell into the top 25% of the scale's range, and 100% of the participants' scores are in the top 50% of the scale's range. This means that the scores still suggest that, within the class, there is an overall positive attitude toward breastfeeding. There was no statistically significant difference between the scores of the males and the scores of the females. The average score for those who were not breastfeed was 64.4. This is not significantly lower than the overall average score of 65.8.

There were certain statements that had significantly lower or higher scores than others. The statement that had the lowest score, indicative of a negative attitude toward breastfeeding, was the last question. The statement was, "A mother who occasionally drinks alcohol should not breast-feed her baby." This question was reverse scored. After reverse scoring the responses, the average score for this statement was 2.2 out of 5 with a standard deviation of 1.17. Because the standard deviation is large, this suggests that the attitude for this statement ranges from negative to neutral. This statement will be discussed further in the discussion section. The statement that had the highest average score (4.73) was the next-to-last statement which was, "Breast milk is less expensive than formula." This statement also had the lowest standard deviation (0.45),



meaning that the attitude was consistently positive. This statement will also be further discussed in the discussion section.

Discussion

This study is not without limitations. The most obvious limitation is that this was done on a single college campus with a single cohort. It was also very difficult to recruit study participants because of the course load and assignments at the time of recruitment. Spring Break occurring during data collection also negatively affected the number of study participants as many students did not want to check their email or participate in school-related activities during the week off. Another limitation is the amount of study participants who have not had children. Intention to breastfeed may not have as profound of an effect with this population since, as nursing students, the participants have been taught about the benefits of breastfeeding and that we should advocate for breastfeeding because of these benefits, but the vast majority has not had to seriously think about whether or not they will breastfeed.

One of the questions on the demographic questionnaire would need to be changed if used in another study. The question, "How likely are you to breastfeed," was not an appropriate question for the males who participated in the study. The wording should be changed to allow for the males to be able to answer more appropriately. It should read something like, "How likely are you to breastfeed, or how likely are you to encourage a significant other to breastfeed?"

The most interesting result of this study was that, according to the IIFAS scores, the participants had a much lower likelihood of breastfeeding than they indicated when asked to rate the likelihood of breastfeeding. So, other than the scale not being appropriate for this population, there are a couple of other factors that could have elicited this difference. One of the factors is whether or not the participants understood the statements as they were presented. There was one



participant who wrote a note on her survey about statement 17 saying that she wanted to clarify that it is okay for a woman who occasionally drinks alcohol to breastfeed as long as she pumps and throws out the milk before breastfeeding her infant. So, it seems that the participants may have seen the statement as a safety question rather than a feeding attitude question. Education is another factor that negatively affected the results. In regard to the alcohol statement, students are taught that women should not drink when pregnant or when breastfeeding. I don't believe that there is enough information included in our education about drinking while breastfeeding. More information needs to be taught on how to pump and waste milk after occasional drinking. The statement with the highest score was one about breastfeeding being cheaper than formulafeeding. This is one point that is taught, and the fact that you have to buy formula but not breast milk made it a quick answer for most participants. Overall, if nursing students are to be the advocates for mothers and their children, there needs to be better, more extensive information given during classes. It is not very likely that more education will be included because maternal nursing is a specialty that few nurses work in, and there is minimal material from maternal nursing that nursing students need to know for the NCLEX. Though nursing school should prepare students to perform well in a clinical setting and be a competent nurse after graduation, a lot of the information covered in courses is forgotten if it is not covered in an NCLEX review.

Finally, this study suggests that, even after the World Health Organization launched the BFHI, attitudes toward breastfeeding still need to be improved. The media has brought more attention to breastfeeding by covering situations in which women are asked to leave public places while breastfeeding. However, this coverage divides people rather than creating a more supportive, positive attitude toward breastfeeding. One way that attitudes toward breastfeeding can be improved in nursing students and nurses is to have a specific clinical activity or



continuing education units (CEUs) about breastfeeding. When on the floor in maternal health clinical, minimal information is given about breastfeeding, so it is hard to encourage mothers to breastfeed. Being able to stand in on a lactation consultation would improve students' understanding and attitudes toward breastfeeding. Including CEUs about breastfeeding would potentially encourage nurses on the floor to think more about breastfeeding and why it is important for them to encourage mothers to breastfeed. Outside of the hospital, the choice to breastfeed is a strongly family-bound and cultural-bound decision. To an extent, culture cannot be changed, but the more accepting American culture can be toward breastfeeding, the more likely it is that breastfeeding rates will increase. Also, once one member of the family decides to breastfeed and has a positive experience with it, it is much more likely that others in the family will have more positive attitudes toward breastfeeding. As a society, more education needs to be provided to expectant mothers about the benefits of breastfeeding and attempts to normalize breastfeeding would potentially make attitudes toward breastfeeding more positive.



References

Amin, T. T., Abdulrahman, A. G., Al Muhaidib, N. S., & Al Hamdan, O. A. (2014).
Breastfeeding attitudes and knowledge among future female physicians and teachers in Saudi Arabia. *Health Science Journal*, 8(1), 102-115.

Baby-Friendly USA. (2012). Retrieved December 02, 2016, from https://www.babyfriendlyusa.org/

- Chambers, J. A., McInnes, R. J., Hoddinott, P., & Alder, E. M. (2007). A systematic review of measures assessing mothers' knowledge, attitudes, confidence and satisfaction towards breastfeeding. *Breastfeeding Review*, 15(3), 17–25.
- de la Mora, A., Russell, D. W., Dungy, C. I., Losch, M., & Dusdieker, L. (1999). The Iowa Infant Feeding Attitude Scale: Analysis of reliability and validity. *Journal of Applied Social Psychology*, 29(11), 2362-2380
- Garner, C. D., Ratcliff, S. L., Thornburg, L. L., Wethington, E., Howard, C. R., & Rasmussen,
 K. M. (2016). Discontinuity of breastfeeding care: "There's no captain of the ship". *Breastfeeding Medicine*, 11(1), 32-39. doi:10.1089/bfm.2015.0142
- Hawkins, S. S., Stern, A. D., Baum, C. F., & Gillman, M. W. (2015). Evaluating the impact of the Baby-Friendly Hospital Initiative on breast-feeding rates: A multi-state analysis. *Public Health Nutrition, 18*(02), 189-197. doi:10.1017/s1368980014000238
- Howe-Heyman, A., & Lutenbacher, M. (2016). The Baby-Friendly Hospital Initiative as an intervention to improve breastfeeding rates: A review of the literature. *Journal of Midwifery & Women's Health*, 61(1), 77-102. doi:10.1111/jmwh.12376



- Lillehoj, C. J., & Dobson, B. L. (2012). Implementation of the Baby-Friendly Hospital Initiative steps in Iowa hospitals. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 41*(6), 717-727. doi:10.1111/j.1552-6909.2012.01411.x
- Merten, S., Dratva, J., & Ackermann-Liebrich, U. (2005). Do baby-friendly hospitals influence breastfeeding duration on a national level? *Pediatrics*, 116(5). doi:10.1542/peds.2005-0537
- Pérez-Escamilla, R., Martinez, J. L., & Segura-Pérez, S. (2016). Impact of the Baby-Friendly Hospital Initiative on breastfeeding and child health outcomes: A systematic review.
 Maternal & Child Nutrition, 12(3), 402-417. doi:10.1111/mcn.12294
- Rollins, N. C., Bhandari, N., Hajeebhoy, N., Horton, S., Lutter, C. K., Martines, J. C., . . . Victora, C. G. (2016, January 30). Why invest, and what it will take to improve breastfeeding practices? *The Lancet, 387*(10017), 491-504. doi:10.1016/s0140-6736(15)01044-2
- Rubin, R. (2016). Despite potential health benefits of maternity leave, US lags behind other industrialized countries. *Journal of the American Medical Association, 315*(7), 643.

doi:10.1001/jama.2015.18609

- Schoenfelder, S. L., Wych, S., Willows, C. A., Harrington, J., Christoffel, K. K., & Becker, A. B. (2012, September 30). Engaging Chicago hospitals in the baby-friendly hospital initiative. *Maternal and Child Health Journal*, *17*(9), 1712-1717. doi:10.1007/s10995-012-1144-2
- St. Fleur, R., & Mckeever, J. (2014). The role of the nurse-physician leadership dyad in implementing the baby-friendly hospital initiative. *Nursing for Women's Health*, 18(3), 231-235. doi:10.1111/1751-486x.12124



Theurich, M. A., & Mccool, M. E. (2016). Moving national breastfeeding policies into practice:
A plea to integrate lactation education and training into nutrition and dietetics
programs in the United States. *Journal of Human Lactation*, *32*(3), 563-567.
doi:10.1177/0890334416652596

Vandevanter, N., Gennaro, S., Budin, W., Calalang-Javiera, H., & Nguyen, M. (2014).
Evaluating implementation of a baby friendly hospital initiative. *MCN, The American Journal of Maternal/Child Nursing*, *39*(4), 231-237.
doi:10.1097/nmc.00000000000046



Appendix

For each of the following statements, please indicate how much you agree or disagree by circling the number that most closely corresponds to your opinion (1 = strong disagreement [SD], 2 = disagreement [D]. 3 = neutral [N], 4 = agreement [A], 5 = strong agreement [SA]). You may choose any number from 1 to 5.

	SD	D	Ν	А	SA
*1. The nutritional benefits of breast milk last only until the baby is weaned from breast milk.	1	2	3	4	5
 Formula-feeding is more convenient than breast- feeding. 	1	2 2 2	3	4	5
Breast-feeding increases mother-infant bonding.	1	2	3	- 4	5
*4. Breast milk is lacking in iron.	1	2	3	4	5
Formula-fed babies are more likely to be overfed than are breast-fed babies.	1	2	3	4	5
*6. Formula-feeding is the better choice if a mother plans to work outside the home	1	2	3	4	5
Mothers who formula-feed miss one of the great joys of motherhood.	1	2	3	4	5
*8. Women should not breast-feed in public places such as restaurants.	1	2	3	4	5
 Babies fed breast milk are healthier than babies who are fed formula. 	1	2	3	4	5
*10. Breast-fed babies are more likely to be overfed than formula-fed babies.	1	2	3 3 7	4	5
*11. Fathers feel left out if a mother breast-feeds.	1	2	3	1	5
12. Breast milk is the ideal food for babies.	1	2	3	4	5
 Breast milk is more easily digested than formula. 	1	2	3	4	5
*14. Formula is as healthy for an infant as breast milk.	1	2	3	4	5
 Breast-feeding is more convenient than formula feeding. 	1	2	3	4	5
16. Breast milk is less expensive than formula.	1	2	3	4	5
*17. A mother who occasionally drinks alcohol should not breast-feed her baby	1	2	3	4	5

Note. Items marked with asterisks are reverse-scored and the scores for each item are then summed. Higher scores indicate more positive attitudes toward breast feeding.

