Leshi O.O., Olatunji I.O. 2025. "Effectiveness of a pilot church-based intervention to improve breastfeeding knowledge and intention of young women in Nigeria." *World Nutrition*, *16*(3), September, 58–65. https://doi.org/10.26596/wn.202516358-65

Research

Effectiveness of a pilot church-based intervention to improve breastfeeding knowledge and intention of young women in Nigeria

Oluwatosin O. Leshi [1,2], Imosi O. Olatunji [3,*]

[1] Department of Human Nutrition and Dietetics, College of Medicine, University of Ibadan, Ibadan, Nigeria; [2]Department of Family Medicine, University of Texas Medical Branch, Texas, USA; [3]Department of Nutrition and Dietetics, Ladoke Akintola University of Technology, Ogbomoso, Nigeria

Keywords: breastfeeding, education, intention, young women

https://doi.org/10.26596/wn.202516358-65

World Nutrition 2025;16(3):58-65

Background
Breastfeeding remains suboptimum despite its known benefits for child health, growth, and development. Prospective parents, including young adults, play a vital role in shaping breastfeeding practices, yet a significant proportion have poor breastfeeding knowledge and intentions.

Objective
This pilot quasi-experimental study aimed at assessing the effectiveness of breastfeeding education in improving breastfeeding knowledge and intention of young women through church-based intervention.

Methods
Women 19-24 years of age were assigned to intervention (n=9) and comparison (n=12) groups. Intervention participants received a two-day participatory breastfeeding education with emphasis on biblical perspectives on breastfeeding, while the comparison participants were engaged in a board game unrelated to breastfeeding. Breastfeeding knowledge and breastfeeding intentions were assessed pre and post-intervention. Data were analyzed with descriptive and inferential statistics.

Results
The results show that breastfeeding knowledge increased from 33% to 100% in the intervention group, while there was a marginal increment (from 33 to 42%) in the proportion of participants with adequate breastfeeding knowledge was observed in the comparison group. Improvement was also observed in the proportion with breastfeeding intentions in the intervention group from 44% to 100%, with a small increase from 33% to 42% in the comparison group.

Conclusions
These data suggest that targeted faith-based nutrition education could be effective in improving breastfeeding knowledge and intentions of young women. It serves as a basis for further research using a randomized controlled design with an expanded sample size and longer intervention period.

INTRODUCTION
Optimal growth, health, and behavioral development of every child depends significantly on adequate nutrition received during infancy and early childhood. The period from birth to two is a critical window for promoting optimal growth and development, and breastfeeding is widely recognized as the cornerstone of early-life nutrition and child survival (Likhar & Patil, 2022; Salami, 2006).

Breastfeeding is known to offer both immediate and long-term benefits to both mothers and children such as protection against infections, reduction in infant mortality, improved child development, reduction in the risk of cardiometabolic disorders, and some cancers in mothers (Binns et al., 2016; Dieterich et al., 2013; Kramer et al., 2015;

*Corresponding author: oyesolaimosioluwa@gmail.com; ioolatunji@lautech.edu.ng

Noble et al., 2023; Victora et al., 2016; Victora et al., 2015). Despite extensive awareness of its benefits, as well as programmes and interventions to promote breastfeeding, the rate of exclusive breastfeeding in Nigeria has seen only a slight increase, from 29% to 34% (Agunbiade & Ogunleye, 2012; NPC & ICF 2019, 2025). Studies have shown that young adults, who are prospective parents, play a vital role in shaping future breastfeeding practices, yet a significant proportion feel discomfort and hold negative attitudes toward breastfeeding (Austen et al., 2016; Gale & Davies, 2013; Kavanagh et al., 2012; Leshi et al., 2016). Inadequate breastfeeding knowledge and intentions among young adults are major barriers to optimal breastfeeding practices (Victora et al., 2016; Ukegbu et al., 2011).

Research has shown how breastfeeding intention as well as attitudes may be formed prior to pregnancy, especially during adolescence and early adulthood (Aekplakorn et al., 2019; Leshi et al., 2016; Naja et al., 2022; Oberoi et al., 2019; Sipsma et al., 2013). Religion is known to also play significant role in shaping health behaviors, thereby influencing health-related decisions, including regarding breastfeeding (Woolford & Horner, 2024; Burdette and Pilkauskas, 2012; Stroope et al., 2018). However, the role of faith-based institutions such as churches in promoting breastfeeding behavior, especially among young adults, remains underexplored in Nigeria. Also, efforts to improve breastfeeding have largely overlooked young adults and the potential of faith-based platforms to influence their knowledge and intentions. This small pilot study therefore aimed to explore the potential impact of using a church-based intervention to promote breastfeeding knowledge and foster positive intentions to breastfeed among young women in this setting.

METHODS

STUDY DESIGN AND PARTICIPANTS

This pilot quasi-experimental study was conducted among young women 19 to 24 years attending Baptist churches affiliated with the Nigeria Baptist Conference. A total of 41 participants signed up for the study and their churches were assigned to the intervention and comparison groups. However, in the end, only 9 and 12 participants respectively from the intervention and comparison churches were actively engaged and completed the study.

RECRUITMENT STRATEGIES

The study was conducted in Ogbomoso, one of the major cities in Oyo state, Nigeria. Administratively, the city is segmented into five Local Governments Areas (LGAs), two of which were selected and assigned to the intervention and comparison arms based on logistical considerations such as accessibility, availability of church venues, and cooperation of church leadership. They were located 8-16 km from each other.

A list of Baptist associations and churches within the two LGAs was compiled. Letters of introduction with emphasis on the nutrition workshop component for young women were dispatched to the senior pastors of the churches in the intervention and comparison groups. The churches were requested to announce the study and share the sign-up link in their weekly bulletins. Upon signing up, the research team reached out to the interested women via phone calls to provide an overview of the study, screen for eligibility (less than 25 years old, not married and nulliparous), and written informed consent forms were provided to the eligible participants. Subsequently, eligible participants, having provided signed informed consent, received invitations to attend a 2-day nutrition workshop held at two designated Baptist Churches; one in each of the two selected LGAs.

INSTRUMENT FOR DATA COLLECTION

A pre-tested, semi-structured questionnaire was used to obtain baseline and endline data on the breastfeeding knowledge and breastfeeding intention of the participants in the intervention and comparison groups. Previously validated scales (Leshi et al., 2016) were adapted and simultaneously used to obtain the breastfeeding knowledge and intention of the study participants in both comparison and intervention groups by four trained research assistants (two at each study location). Knowledge scores $\leqslant 7$ were categorized as poor knowledge while scores >7 were categorized as good knowledge. The intention was scored using a 10-point scale with scores $\leqslant 5$ categorized as poor intentions while those with >5 were categorized to have had good breastfeeding intentions. The same questionnaires were administered to the participants to assess improvement in their breastfeeding knowledge and intention immediately after the two-day intervention.

THE INTERVENTION

The intervention comprised a 2-day nutrition workshop which focused on breastfeeding. The workshop, conducted within the premises of a centrally located church in the intervention LGA, covered a total of six breastfeeding educational sessions. These sessions were derived from a validated and standardized Antenatal Breastfeeding Counseling Manual. An additional session developed by the authors with extensive illustration using selected biblical stories to buttress each educational session was provided at the end of each workshop day.

On day one, modules 1–4 were presented and discussed. The first module covered nutrition during pregnancy and factors influencing breastfeeding decisions by mothers. Module two focused on breast milk composition and the factors that impact breastmilk production, and the third module delved into the benefits of breastfeeding for the child, mother, and society. The fourth module centered on breastfeeding initiation, positions and the role of the father.

During the second day of the intervention, modules five and six were covered. Module five addressed breastfeeding problems and challenges, while module six dealt with common misconceptions about breastfeeding. The biblical perspective on breastfeeding was extensively discussed in the course of the two-day workshop, using biblical illustrations such as the stories of Isaac (Genesis 21:8a), Moses (Exodus chapter 2), Samuel (1 Samuel 1:23), Job (Job 3:12) and (1 Peter 2:2) (on the topic of newly born babies, with breast milk as a requirement for their growth and development). Further discussion was made on the significance of breastfeeding with specific reference to Hebrews 5:13–14, Hosea 9:14, and Lamentations 4:3 in facilitating the discussion.

The participants assigned to the comparison group were concurrently at another centrally located church with a board-based game (Leshi et al., 2022) developed to improve knowledge of fruits and vegetables among its players. This board game featured various elements, including board zones representing different types of fruits and vegetables, transaction and question cards, play money, player representations, and dice for gameplay.

DATA ANALYSIS

Data were entered, coded and analyzed using SPSS Version 20.0. Descriptive statistics was computed and summarized as frequencies and percentages of breastfeeding knowledge and intention The McNemar test was employed to determine the effect of the intervention on knowledge of breastfeeding.

ETHICAL APPROVAL

Ethical approval was sought from the Institutional Review Board of the Department of Human Nutrition and Dietetics, College of Medicine, University of Ibadan. Informed consent was obtained from the study participants and necessary approvals were obtained from the selected churches within the Ogbomoso Baptist Conference.

RESULTS

The mean age of the young women that participated in the study was 22±2 years and 20±1.5 years for the intervention and comparison groups, respectively As shown in Table 1, comparable breastfeeding knowledge levels were found in the pre-intervention evaluation of both the intervention and comparison groups. The majority of the participants from both the intervention and comparison groups had not received breastfeeding education prior to the study and indicated lack of adequate knowledge on what it takes to breastfeed.

Among those with prior exposure, the reported sources of information included hospitals, family and friends, media/TV, and church gatherings.

Table 1. Previous exposure to breastfeeding information among participating young women

	Intervention	Comparison	Total
	Frequency (%)	Frequency (%)	Frequency (%)
Previous participation in nutrition-based education			
Yes	4(44.4)	2(16.7)	6(28.6)
No	5(55.6)	10(83.3)	15(71.4)
Previous participation in breastfeeding education			
Yes	2(22.2)	2(16.7)	4(19.1)
No	7(77.8)	10(83.3)	17(80.9)
Ever been concerned about breastfeeding			
Yes	2(22.2)	3(25.0)	5(23.8)
No	7(77.8)	9(75.5)	16(76.2)
Knowledge of all it takes to breastfeed			
Yes	1(11.1)	1(8.3)	2(9.5)
No	8(88.9)	11(91.7)	19(90.5)
Total	**9(100.0)**	**12(100.0)**	**21(100.0)**

As shown in Table 2, following the intervention, participants in the intervention group demonstrated a substantial improvement from 33% to 100%, while those in the comparison group only had a slight increase in some knowledge, though a rather substantial increase in some.

Table 2. Breastfeeding knowledge of young women in intervention and comparison groups

	Pre-intervention		Post-intervention		p-value
Breastfeeding knowledge	**Intervention n(%)**	**Comparison n(%)**	**Intervention n(%)**	**Comparison n(%)**	
Breastfeeding initiation					
Correctly indicated (within 1 hour of delivery)	1(11.1)	1(8.3)	9(100.0)	4(33.3)	0.001*
Incorrectly indicated	8(88.9)	11(91.7)	0	8(66.7)	
Feeding with pre-lacteal liquid					
Correctly indicated (non-introduction of other liquids)	3(33.3)	0	9(100.0)	0	0.031*
Incorrectly indicated	6(66.7)	12(100.0)	0	12(100.0)	
Knowledge of colostrum					
Correctly described	6(66.7)	7(58.3)	8(88.9)	11(91.7)	0.07
Incorrectly described	3(33.3)	5(41.7)	1(11.1)	1(8.3)	
Breastmilk is adequate for baby's growth and development in the first six months of life					
Correctly indicated	9(100.0)	12(100.0)	9(100.0)	12(100.0)	
Incorrectly indicated	0	0	0	0	
Type of milk that satisfies thirst in babies					
Correctly indicated (fore-milk)	3(33.3)	0	8(88.9)	2(16.7)	0.016*
Incorrectly indicated	6(66.7)	12(100.0)	1(11.1)	10(83.3)	
Breastfeeding benefits					
Correctly indicated	3(33.3)	1(8.3)	9(100)	1(8.3)	0.031*
Incorrectly indicated	6(66.7)	11(91.7)	0	11(91.7)	
Principle that guards breastmilk production					
Correctly indicated (demand and supply)	2(22.2)	2(16.7)	7(77.8)	3(25.0)	0.07
Incorrectly indicated	7(77.8)	10(83.3)	2(22.2)	9(75.0)	
Introduction of water to the baby					
Correctly indicated (6 months and beyond)	3(33.3)	4(33.3)	9(100)	4(33.3)	0.146
Incorrectly indicated	6(66.7)	8(66.7)	0	8(66.7)	
Definition of exclusive breastfeeding					
Correctly defined	7(77.8)	5(41.7)	9(100)	7(58.3)	0.219
Incorrectly defined	2(22.2)	7(58.3)	0	5(41.7)	

Table 2. Continued

Infant formula and breast milk contain the same nutrients					
Correctly indicated	7(77.8)	10(83.3)	9(100)	9(75.0)	1.000
Incorrectly indicated	2(22.2)	2(16.7)	0	3(25.0)	
Timing of breastfeeding					
Correctly indicated (on demand by the baby)	3(33.3)	4(33.3)	7(77.8)	4(33.3)	0.035*
Incorrectly indicated	6(66.7)	8(66.7)	2(22.2)	8(66.7)	
Cessation of breastfeeding					
Correctly indicated (24 months and beyond)	4 (44.4)	1(8.3)	9(100)	1(8.3)	0.009*
Incorrectly indicated	5(55.6)	11(91.7)	0	11(91.7)	
Spouse plays a key role in breastfeeding					
Yes	8(88.9)	10(83.3)	9(100)	11(91.7)	0.014*
No	1(11.1)	2(16.7)	0	1(8.3)	
Introduction of complementary food					
Correctly indicated (after 6 months)	8(88.9)	10(83.3)	9(100)	11(91.7)	0.014*
Incorrectly indicated	1(11.1)	2(16.7)	0	1(8.3)	
Overall breastfeeding knowledge					
Adequate knowledge	3(33.3)	4(33.3)	9(100)	5(41.7)	0.039*
Inadequate knowledge	6(66.7)	8(66.7)	0	7(58.3)	
Total	**9(100.0)**	**12(100.0)**	**9(100.0)**	**12(100.0)**	

Regarding breastfeeding intention, data on which are presented in Table 3, the majority of participants in both groups reported feeling prepared for breastfeeding prior to the intervention. After the intervention, the level of preparedness remained unchanged in the comparison group, while a significant improvement was observed in the intervention group.

Table 3. Breastfeeding intentions of young women in intervention and comparison groups

	Pre-intervention		Post-intervention		p-value
Breastfeeding intentions	**Intervention n(%)**	**Comparison n(%)**	**Intervention n(%)**	**Comparison n(%)**	
Perceived preparedness for breastfeeding					
Yes	7(77.8)	8(66.7)	9(100)	8(66.7)	0.180
No	2(22.2)	4(33.3)	0	4(33.3)	
Intention to breastfeed					
Yes	9(100)	12(100)	9(100)	12(100)	
No	0	0	0	0	
Intention to introduce colostrum					
Yes	9(100)	12(100)	9(100)	12(100)	
No	0	0	0	0	
Intention to initiate breastfeeding early					
Yes	7(77.8)	8(66.7)	9(100)	8(66.7)	0.500
No	2(22.2)	4(33.3)	0	4(33.3)	
Intention to introduce prelacteal feed					
Yes	6(66.7)	6(50.0)	9(100)	10(83.3)	0.039*
No	3(33.3)	6(50.0)	0	2(16.7)	
Intended age to introduce infant formula to baby					
Before 6 months	6(66.7)	8(66.7)	1(11.1)	9(75.5)	0.344
6 months and beyond	3(33.3)	4(33.3)	8(88.9)	3(25.5)	
Intention to breastfeed exclusively for 6 months					
Yes	4(44.4)	6(50.0)	8(88.9)	9(75.5)	0.039*
No	5(55.6)	6(50.0)	1(11.1)	3(25.5)	
Intended age to stop breastfeeding baby					
Before 24 months	7(77.8)	12(100)	0	11(81.7)	0.008*
24 months and beyond	2(22.2)	0	9(100)	1(8.3)	
Intended age to introduce complementary food					
Before 6 months	4(44.4)	9(75.0)	0	8(66.7)	0.453
6 months and beyond	5(55.6)	3(25.0)	9(100)	4(33.3)	
Intended mode of breastfeeding					
On demand	3(33.3)	3(25.0)	8(88.9)	9(75.0)	0.125
At interval or scheduled	6(66.7)	9(75.0)	1(11.1)	3(25.0)	
Overall intention					
Poor Intention	5(55.6)	8(66.7)	0	7(58.3)	0.109
Good Intention	4(44.4)	4(33.3)	9(100)	5(41.7)	

DISCUSSION

Optimal infant nutrition and health outcomes in early childhood hinge on adequate breastfeeding practices by mothers, which reflect their breastfeeding knowledge and intentions often formed before they enter motherhood. Several studies have assessed and recommended tailored interventions to improve the breastfeeding knowledge, intentions, and practices of young adult female populations (Kavanagh et al., 2012; Leshi et al., 2016; Leshi & Makanjuola, 2022; Ogunba & Agwo, 2014).

The findings of our study are consistent with previous research showing the positive influence of breastfeeding education on breastfeeding knowledge and intentions (Austen et al., 2016; Hernández Pérez MC, 2018; Ho & McGrath, 2016; Ogunba et al., 2020). Targeted interventions delivered through peer breastfeeding counseling and antenatal education have effectively improved the breastfeeding knowledge of young mothers (Buckland et al., 2020; Pinho-Pompeu et al., 2023).

An earlier systematic review reported that community-delivered breastfeeding interventions had a lower impact compared to those delivered through the health system (Sinha et al., 2015). However, this study suggests that targeted interventions for young women could improve their breastfeeding knowledge and intentions through group-based breastfeeding education delivered outside the hospital setting. Our findings align with interventions delivered to young adults in classroom settings in Taiwan and Canada (Ho & McGrath, 2016; Reyes et al., 2019). The interactive nature of our intervention allowed participants to ask questions freely at the end of each session, with no restrictions on the number or scope of questions. This encouraged open dialogue and enabled facilitators to address misconceptions that were not covered in the education modules. This supports the findings of Hernández Pérez and colleagues that interactive talks and discussions around breastfeeding effectively improved the breastfeeding knowledge of students in school settings (Hernández Pérez MC, 2018).

Unlike the findings from a classroom-based breastfeeding intervention among adolescents in Canada (Walsh et al., 2008) where significant improvements in breastfeeding knowledge and intentions were reported post-intervention, breastfeeding intention through the church-based education did not improve statistically in our study despite a proportional increase in those with the intention to breastfeed. This finding may be partly explained by the fact that many participants reported feeling prepared for breastfeeding even before the intervention. This perception may have been shaped by informal caregiving experiences, cultural exposure, or observations of breastfeeding practices within their communities. However, such perceived readiness does not necessarily equate to adequate breastfeeding practices in the absence of structured education.

This could imply that knowledge alone may not adequately bring about behavioral change or influence future intention among young women. However, the actual breastfeeding practices of mothers have been associated with their breastfeeding intentions which are often formed before conception, potentially as early as the adolescent years (Donath & Amir, 2003; Forster et al., 2015; Radzyminski & Callister, 2015).

The myths and misconception about breastfeeding among young adults (Acheampong et al., 2022; Cheianu-Marshall, 2020) which was also evident based on the questions asked by the participants in the current study, could also have contributed non-significant improvement on breastfeeding intentions of the young women. Our study, however, indicated an improved knowledge on the benefits of breastfeeding among participants who received the intervention. This is consistent with an intervention conducted among female university students in Nigeria (Ogunba et al., 2020) and male university students in the United States (Douglas et al., 2023). Perhaps, the proportion that indicated a future intention to breastfeed could have been statistically significant if the intervention was design to address behavioral change instead of knowledge improvement.

Studies have shown that church-based interventions have proven to improve health outcomes (Knott et al., 2023; Maroney et al., 2023; Resnicow et al., 2004; Wasserman et al., 2010). To the best of our knowledge, this is the first study to explore church-based breastfeeding education as an approach to improve the breastfeeding knowledge and future breastfeeding intentions of young adult females in Ogbomoso.

Based on the findings from this study, it is recommended that further research, including quasi-experimental or cluster-randomized studies on larger samples be done to determine whether breastfeeding-related discussions and education sessions should be delivered in churches, particularly through women's organizations and networks. Future studies should analyze whether this positive effect remains long-term and, if so, incorporate breastfeeding education into the calendar activities of church programs, especially those targeting adolescents and young adults. The intervention should be extended to other Christian denominations and religious faiths for wider coverage, with a more robust design such as randomized controlled trials and a larger sample size to facilitate generalization and inference. By leveraging existing church structure and trust within the church settings in Nigeria, a large proportion of younger women of Christian faith could effectively be reached with through church-based breastfeeding education. Future studies should explore the adaptability and effectiveness of this kind of intervention model across different Christian denominations and other religious settings. Nevertheless, partnership should be established with health departments, community health workers, and community-based organizations for the delivery of regular breastfeeding and health education.

LIMITATIONS

As a pilot study, the small sample size is an acknowledged limitation. The high participant attrition could mean that selection bias influenced the outcome. At no point were issues and topics related to breastfeeding discussed with the participants in the comparison group. However, participants in that group showed substantial improvement in knowledge on some issues. We doubt this was due to "contamination" of the intervention due to the short time interval and the long distances between the groups.

Additionally, the study was conducted within a single church denomination, which might limit its immediate generalizability to other Christian denominations. The study successfully demonstrated the preliminary effectiveness of the intervention model; however, the follow-up period was short and there was a risk that women provided the responses they knew were "acceptable" in this faith context. These findings provide a foundation for further research and support the potential for broader implementation in diverse faith settings.

CONCLUSION

This study assessed the effectiveness of a church-based breastfeeding education program in improving knowledge and intention to breastfeed among young women. The findings demonstrate a significant improvement in breastfeeding knowledge and a positive shift in intention, suggesting the potential of faith-based platforms as effective and culturally appropriate avenues for health information delivery.

Though the research was limited by sample size, follow-up duration, and restricted to one religious' community, the results highlight the feasibility of engaging religious institutions in the promotion of maternal and child health. Future studies are recommended to include long-term follow-up with diverse and larger populations to create robust evidence, long-term impact, and scalability of these interventions

AUTHOR CONTRIBUTIONS

OOL: Conceptualization, methodology, supervision, validation, formal analysis, writing review & editing, Project Administration. IOO: Conceptualization, methodology, investigation, data curation, formal analysis, visualization, writing original draft, writing review & editing. both authors approved the final version of the manuscript, and consent for publication.

CONFLICT OF INTEREST

The authors declare that they have no other potential conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN SCIENTIFIC WRITING

Nothing to disclose.

ACKNOWLEDGEMENTS

The authors wish to appreciate the participating young women, the zonal coordinator of Baptist Student Fellowship (BSF), and the pastors of the churches where participants were recruited.

FUNDING

None

Received: June 04, 2025; **Revised:** July 16, 2025; **Accepted:** August 16, 2025; **Published:** September 30, 2025.

REFERENCES

Acheampong, A. K., Ganga-Limando, M., & Aziato, L. 2022. "Qualitative exploration of perceived barriers of exclusive breastfeeding among pregnant teenagers in the Greater Accra Region of Ghana". *Bmc Public Health*, *22*(1), 1885.

Aekplakorn, W., Tantayotai, V., Numsangkul, S., Tatsato, N., Luckanajantachote, P., & Himathongkam, T. 2019. "Evaluation of a community-based diabetes prevention program in thailand: a cluster randomized controlled trial". *Journal of Primary Care & Community Health*. https://doi.org/10.1177/2150132719847374

Agunbiade, O. M., & Ogunleye, O. V. 2012. "Constraints to exclusive breastfeeding practice among breastfeeding mothers in Southwest Nigeria: implications for scaling up". *International Breastfeeding Journal*, *7*, 1-10.

Austen, E. L., Dignam, J., & Hauf, P. 2016. "Using breastfeeding images to promote breastfeeding among young adults". *Health Psychology Open*, *3*(2), 2055102916671015.

Binns, C., Lee, M., & Low, W. Y. 2016. "The long-term public health benefits of breastfeeding". *Asia Pacific Journal of Public Health*, *28*(1), 7-14.

Buckland, C., Hector, D., Kolt, G. S., Fahey, P., & Arora, A. 2020. "Interventions to promote exclusive breastfeeding among young mothers: a systematic review and meta-analysis". *International Breastfeeding Journal*, *15*(1), 102. https://doi.org/10.1186/s13006-020-00340-6

Burdette, A. M., & Pilkauskas, N. V. 2012. "Maternal religious involvement and breastfeeding initiation and duration". *American Journal of Public Health*, *102*(10), 1865-1868. https://doi.org/10.2105/ajph.2012.300737

Cheianu-Marshall, O. 2020. "The impact of breastfeeding education on barriers and misconceptions among university community members" (Publication No. 28086888) [Doctoral dissertation, Eastern Michigan University]. ProQuest Dissertations & Theses Global.

Dieterich, C. M., Felice, J. P., O'Sullivan, E., & Rasmussen, K. M. 2013. "Breastfeeding and health outcomes for the mother-infant dyad". *Pediatric Clinics of North America, 60*(1), 31-48. https://doi.org/10.1016/j.pcl.2012.09.010

Donath, S. M., & Amir, L. H. 2003. "Relationship between prenatal infant feeding intention and initiation and duration of breastfeeding: a cohort study". *Acta Paediatrica,* 92(3), 352-356. https://doi.org/10.1111/j.1651-2227.2003.tb00558.x

Douglas, C. C., Camel, S. P., & Martínez, C. 2023. "A brief media intervention influences collegiate males' attitude and knowledge towards breastfeeding". *Health Communication*, *38*(9), 1862-1870.

Forster, D. A., Johns, H. M., McLachlan, H. L., Moorhead, A. M., McEgan, K. M., & Amir, L. H. 2015. "Feeding infants directly at the breast during the postpartum hospital stay is associated with increased breastfeeding at 6 months postpartum: a prospective cohort study." *BMJ open*, *5*(5), e007512. https://doi.org/10.1136/bmjopen-2014-007512

Gale, L., & Davies, N. 2013. "Young people's attitudes towards breastfeeding: A survey of 13–15-year-old pupils in a south London school". *British Journal of Midwifery*, *21*(3), 195-201.

Hernández Pérez MC, D.-G. N., Romero Man zano AM, Díaz Gómez JM, Rodríguez Pérez V, Jiménez Sosa 2018. "Effectiveness of an intervention to improve breastfeeding knowledge and attitudes among adolescents". *Evista Espanola de Salud Publica*, *92*, e1-e12.

Ho, Y. J., & McGrath, J. M. 2016. "Effectiveness of a Breastfeeding Intervention on Knowledge and Attitudes Among High School Students in Taiwan". *Journal of Obstetric, Gynecologic & Neonatal Nursing, 45*(1), 71-77. https://doi.org/10.1016/j.jogn.2015.10.009

Kavanagh, K. F., Lou, Z., Nicklas, J. C., Habibi, M. F., & Murphy, L. T. 2012. "Breastfeeding knowledge, attitudes, prior exposure, and intent among undergraduate students". *Journal of Human Lactation*, *28*(4), 556-564.

Knott, C. L., Miech, E. J., Woodard, N., & Huq, M. 2023. "The role of organizational capacity in intervention efficacy in a church-based cancer education program: A configurational analysis". *Global Implementation Research and Applications*, *3*(3), 284-294.

Kramer, M. K., Molenaar, D. M., Arena, V. C., Venditti, E. M., Meehan, R. J., Miller, R. G., Vanderwood, K. K., Eaglehouse, Y., & Kriska, A. M. 2015. "Improving employee health: evaluation of a worksite lifestyle change program to decrease risk factors for diabetes and cardiovascular disease". *Journal of Occupational and Environmental Medicine 57*(3), 284-291. https://doi.org/10.1097/jom.0000000000000350

Leshi, O., Ande, B., Desmennu, A., Leshi, M., & Sosanya, M. 2022. "Game-based intervention to improve knowledge on the benefits of fruits and vegetables of in-school adolescents attending the international school, Ibadan, Nigeria." *Current Developments in Nutrition*, *6*, 849.

Leshi, O., Samuel, F. O., & Ajakaye, M. O. 2016. "Breastfeeding knowledge, attitude and intention among female young adults in Ibadan, Nigeria". *Open Journal of Nursing*, *6*(1), 11-23.

Leshi, O. O., & Makanjuola, M. O. 2022. "Breastfeeding knowledge, attitude and intention of nursing students in Nigeria". *Open Journal of Nursing*, *12*(3), 256-269.

Likhar, A., & Patil, M. S. 2022. "Importance of maternal nutrition in the first 1,000 days of life and its effects on child development: A narrative review". *Cureus*, *14*(10), e30083. https://doi.org/10.7759/cureus.30083

Maroney, K., Laurent, J., Alvarado, F., Gabor, A., Bell, C., Ferdinand, K., He, J., & Mills, K. T. 2023. "Systematic review and meta-analysis of church-based interventions to improve cardiovascular disease risk factors. *The American Journal of the Medical Sciences*. 366(3), 199-208.

Naja, F., Chatila, A., Ayoub, J. J., Abbas, N., Mahmoud, A., collaborators, M., Abdulmalik, M. A., & Nasreddine, L. 2022. "Prenatal breastfeeding knowledge, attitude and intention, and their associations with feeding practices during the first six months of life: A cohort study in Lebanon and Qatar". *International breastfeeding journal*, *17*(1), 15.

National Population Commission (NPC) [Nigeria] and ICF. (2019). Nigeria Demographic and Health Survey 2018

Noble, L., Hand, I. L., & Noble, A. 2023. "The effect of breastfeeding in the first hour and rooming-in of low-income, multi-ethnic mothers on in-hospital, one and

three month high breastfeeding intensity. *Children (Basel)*, *10*(2). https://doi.org/10.3390/children10020313

Oberoi, S., Kishore, K., Rai, S. K., & Patnaik, S. 2019. "Are adolescents ready for future responsibilities? Experience from a cross-sectional study regarding Breastfeeding knowledge and attitude". *Journal of Family Medicine and Primary Care,* *8*(5), 1621-1625. https://doi.org/10.4103/jfmpc.jfmpc_192_19

Ogunba, B., Nwadigo, C., & Idemudia, S. 2020. "Assessment of the use of sms in promoting breastfeeding among female undergraduates of Obafemi Awolowo University, Ile-Ife, Osun State". *Assessment*, *10*, 1.

Ogunba, B. O., & Agwo, E. 2014. "Knowledge, attitude and intending practice of female undergraduates about breastfeeding". *African Journal of Food, Agriculture, Nutrition and Development*, *14*(4), 9039-9054.

Pinho-Pompeu, M., Nakamura, R. M., Zambrano, E., & Surita, F. G. 2023. "Improving breastfeeding among adolescent mothers: a prospective cohort." *Sao Paulo Medical Journal, 142*(3), e2022647. https://doi.org/10.1590/1516-3180.2022.0647.R1.260723

Radzyminski, S., & Callister, L. C. 2015. "Health Professionals' Attitudes and Beliefs About Breastfeeding". *The Journal of Perinatal Education, 24*(2), 102-109. https://doi.org/10.1891/1058-1243.24.2.102

Resnicow, K., Campbell, M. K., Carr, C., McCarty, F., Wang, T., Periasamy, S., Rahotep, S., Doyle, C., Williams, A., & Stables, G. 2004. "Body and soul: a dietary intervention conducted through African-American churches". *American Journal of Preventive Medicine*, *27*(2), 97-105.

Reyes, C., Barakat-Haddad, C., Barber, W., & Abbass-Dick, J. 2019. "Investigating the effectiveness of school-based breastfeeding education on breastfeeding knowledge, attitudes and intentions of adolescent females." *Midwifery*, *70*, 64-70. https://doi.org/10.1016/j.midw.2018.12.010

Salami, L. I. 2006. "Factors influencing breastfeeding practices in Edo state, Nigeria". *African Journal of Food, Agriculture, Nutrition and Development*, *6*(2).

Sinha, B., Chowdhury, R., Sankar, M. J., Martines, J., Taneja, S., Mazumder, S., Rollins, N., Bahl, R., & Bhandari, N. 2015. "Interventions to improve breastfeeding outcomes: A systematic review and meta-analysis." *Acta Paediatrica*, *104*, 114-134.

Sipsma, H. L., Divney, A. A., Magriples, U., Hansen, N., Gordon, D., & Kershaw, T. 2013. "Breastfeeding intentions among pregnant adolescents and young adults and their partners". *Breastfeeding Medicine, 8*(4), 374-380. https://doi.org/10.1089/bfm.2012.0111

Stroope, S., Rackin, H. M., Stroope, J. L., & Uecker, J. E. 2018. "Breastfeeding and the role of maternal religion: Results from a national prospective cohort study". *Annals of Behavioral Medicine*, *52*(4), 319-330.

Ukegbu, A., Ukegbu, P., Onyeonoro, U., & Ubajaka, C. 2011. "Determinants of breastfeeding patterns among mothers in Anambra State, Nigeria". *South African Journal of Child Health*, *5*(4), 112-116.

Victora, C. G., Bahl, R., Barros, A. J., França, G. V., Horton, S., Krasevec, J., Murch, S., Sankar, M. J., Walker, N., & Rollins, N. C. 2016. "Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect". *The Lancet*, *387*(10017), 475-490.

Victora, C. G., Horta, B. L., De Mola, C. L., Quevedo, L., Pinheiro, R. T., Gigante, D. P., Gonçalves, H., & Barros, F. C. 2015. "Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: a prospective birth cohort study from Brazil". *The Lancet Global Health*, *3*(4), e199-e205.

Walsh, A., Moseley, J., & Jackson, W. 2008. "The Effects of an Infant-Feeding Classroom Activity on the Breast-feeding Knowledge and Intentions of Adolescents." *The Journal of School Nursing*, *24*(3), 164-169. https://doi.org/10.1177/1059840555667788

Wasserman, T., Reider, L. R., & Brown, B. 2010. "Designing and pilot-testing a church-based community program to reduce obesity among African Americans". *ABNF Journal*, *21*(1), 4.

Woolford, C., & Horner, M. S. 2024. "The Influence of Religious Beliefs on Health Decision-making: perspectives from diverse faith communities". *Journal of Interdisciplinary Studies in Society, Law and Politics.* 3(3), 20–27. https://doi.org/10.61838/kman.isslp.3.3.4