

## **Exposure to and Knowledge of Media Messages on Exclusive Breastfeeding among Mothers in Three States in South-East Nigeria**

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### **Abstract**

**Background:** Exclusive breastfeeding (EBF) involves providing only breast milk to respond to the infant's total nourishment needs within the first six months of life. Breast milk contains all the essential nutrients, antibodies, and other growth and development factors. EBF enhances an infant's immune system and vaccination response.

**Objective:** This study examined exposure to and knowledge of media EBF messages among mothers in three states in South-East Nigeria.

**Methodology:** The survey method was adopted to conduct the study among 370 registered antenatal mothers selected through a multistage sampling technique in three primary and three tertiary hospitals. A structured questionnaire was used as the instrument for data collection. The data were analysed using percentages and the chi-square test of association, and results were presented in tables.

**Results:** Breastfeeding mothers were highly aware of EBF and knowledgeable, with a significant relationship between awareness and knowledge of media messages on EBF. Exposure to media messages improved knowledge and responses to EBF. However, responses to messages were constrained by economic, cultural, and social factors such as myths and family pressure.

**Conclusion:** Nursing mothers are highly exposed to media messages on EBF, which shows that the media plays a significant role in EBF campaigns.

**Unique contribution:** The study has identified the significant role of media messages in creating awareness of the importance of EBF among mothers. The study has also identified the limitations of adopting media messages on EBF.

**Key Recommendation:** Media messages on EBF should aim more at counteracting myths and misinformation in the South-East region. Health professionals should harmonise their messages with media messages to enhance persuasive effects.

**Keywords:** Exclusive, breastfeeding, mothers, media, messages, knowledge.

## **Introduction**

Breast milk is a complete food that provides newborns with all the necessary nutrients. The World Health Organisation (WHO) recommends that babies be breastfed exclusively throughout the first six months of life. After that, infants should continue to nurse for up to two years or more while consuming nutritionally adequate and safe complementary foods to suit their changing nutritional needs. Breastfed infants are less likely to die from infection than those who are not breastfed during the first 60 days of life (WHO, 2014).

There is ample scientific evidence on the convenience, healthfulness, and cost-effectiveness of exclusive breastfeeding (EBF), especially in underdeveloped countries (e.g., Nigeria), where infant morbidity and death rates are high (WHO/UNICEF, 1990). EBF refers to the provision of only breast milk for the first six months of a baby's birth in response to the infant's entire need for nourishment, hydration, sucking, and solace or soothing (WHO/UNICEF, 1990). In 1994, Ghana and Nigeria had similar exclusive lactation rates of 7.4%. Two decades later, Ghana's exclusive breastfeeding rate reached 63.3%, and Nigeria's rate rose to 29.0%. Within this period, exclusive lactation rates in both countries indicated a shortfall of 73% and 61%, respectively (Muanya & Adekunle, 2016).

Every year from August 1 to 7, the World Breastfeeding Week (WBW) takes place to enhance public consciousness about EBF. Despite awareness, there is a wide disparity in attitudes of women towards EBF, mainly as a result of cultural norms, patriarchal structures, occupational circumstances, a lack of knowledge, religious convictions, maternal pessimism, and individual beliefs (Agunbiade & Ogunleye, 2012). The mass media significantly enhances public health awareness and disseminates educational information and entertainment programming. However, there remains a fundamental inquiry regarding the means by which mothers can be empowered and sensitised to engage in EBF, particularly in light of cultural and traditional practices, hence the present study.

## **Objectives of the Study**

The study's general objective is to determine the exposure to and knowledge of exclusive breastfeeding (EBF) among women in Southeast Nigeria. Specifically, the study sought to:

1. Assess the extent to which breastfeeding mothers are exposed to media messages on exclusive breastfeeding.
2. Ascertain the level of knowledge of media messages on exclusive breastfeeding among breastfeeding mothers.
3. To determine breastfeeding mothers' attitudes to media messages on exclusive breastfeeding.

### **Research Hypotheses**

**H<sub>01</sub>:** There is no relationship between Awareness and Knowledge of Media Messages on EBF

**H<sub>02</sub>:** Relationship exists between Exposure and Attitude to Media messages on EBF.

### **Literature Review**

There has been copious literature on the efforts of the media and other relevant bodies to create awareness of the imperatives, cost-effectiveness, convenience, and nutritional benefits of EBF. Ezeh (2020) studied the relationship between media campaigns and exclusive breastfeeding, revealing that the social structure of communities and interpersonal dynamics significantly impact mothers' perceptions and acceptance of campaign messages. Social media platforms like Facebook, Twitter, Instagram, and WhatsApp have been instrumental in spreading information about exclusive breastfeeding, offering a higher degree and velocity of coverage compared to traditional media platforms like television and radio. The increasing prevalence of smartphones has further increased the significance of social media, as individuals can conveniently store campaign messages on their smartphones for personal use.

Flax et al. (2022) found a rise in nursing mothers who successfully practiced exclusive breastfeeding for six months within private healthcare establishments in Lagos, Nigeria. The use of social media, specifically WhatsApp, to provide regular educational messages on EBF had an impact on women's ability to exclusively breastfeed for six months. Uwalaka and Nwala (2020) found that pregnant women who were provided with information about EBF through social media platforms demonstrated a higher likelihood of engaging in exclusive nursing. This highlights the significant role of social media as a main channel for EBF media communications and serves as a reliable platform for conducting mass media campaigns.

Nguyen et al. (2016) found that people who were exposed to both mass media and interpersonal counselling had an even bigger impact on EBF rates and the psychosocial factors that were linked to them than people who had not been exposed to either intervention. The integration of various behaviour change therapies leads to increased psychosocial improvements, enhancing nursing behaviour.

Utalor's (2019) found that women in Ilorin predominantly depend on the broadcast media as their primary source of maternal health information. Radio was found to be more effective than television in disseminating maternal health messages, with discussion shows and health programmes being the most common means of promotion. Women have a consensus that the influence of broadcast media on their views towards maternal health is predominantly beneficial, and they primarily rely on broadcast media as their primary means of accessing information about maternal health.

In the south-east region of Nigeria, Naugle's (2016) study found that the implementation of only two 30-second advertisements as a mass media intervention did not result in any noticeable impact on EBF behaviour. However, the incorporation of supplementary intervention strategies in conjunction with the mass media initiative led to a more significant alteration in EBF behaviour.

Chukwu-Okoronkwo et al. (2019) assessed the impact of a media campaign targeted at promoting exclusive lactation among women. The study found that the major source of information for women in the region regarding exclusive lactation is antenatal channels rather than regular media channels. The results suggest that social media, television, and radio are the predominant mediums for EBF campaigns. Newspapers are the least employed for the campaigns. Chukwu-Okoronkwo et al. (2019) study has been corroborated by the findings of other studies (e.g., Ezeah & Odionye, 2017; Nzete, 2010). In light of the evidence of extensive efforts by the mass media to project campaigns on EBF, the present study investigates exposure to and knowledge of EBF in South-East Nigeria. This implies an attempt to fill the audience gap in the communication cycle as a way to provide an assessment of media campaigns.

## **Theoretical Framework**

The study is anchored on the Health Belief Model (HBM) propounded in the 1950s by Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels as a social psychology paradigm. This model explains how individuals engage in health-promoting behaviour by analysing their beliefs about health risks, perceived benefits of taking action, perceived obstacles to taking action, and self-efficacy in their capacity to take action. The HBM is widely used in health behaviour research. For instance, health communication imparts the necessary information through media messages, media campaigns, talk shows, radio jingles and television commercials, editorials and features etc, to members of the society. This enables them to carry out necessary positive health attributes for their improved health

Health behaviours are influenced by cognitive processes, perceptions of personal threats, anticipated benefits, perceived disadvantages, and external factors such as age, social status, education, and family dynamics. The HBM's applicability to this study depends on the assumption that lactating mothers or women in their reproductive prime may exhibit a positive disposition towards the information and communication tactics used in the EBF campaign. We

assume that communication will impact the viewpoints of the general population, resulting in future changes in behaviour, particularly the adoption of healthier lifestyles.

**Methodology**

The study adopted a survey method. It elicited data from pregnant women (aged 18–45) in three South-East Nigerian states, namely, Ebonyi, Enugu, and Imo (Table 1). The women were registered antenatal mothers in three primary and three tertiary hospitals. We visited the hospitals within a period of eight months (January–August 2021). Using the Wimmer and Dominic sample size calculator, we selected a sample size of 370 from a population of 10,282, with a confidence level of 95% and a margin of error of 5%.

**Table 1: Registered Antenatal Mothers**

	Ebonyi		Enugu		Imo	
	Primary	Tertiary	Primary	Tertiary	Primary	Tertiary
General Hospital Onueke		Alex Ekwueme Federal University Teaching Hospital Abakaliki	Nsukka General Hospital	University of Nigeria Teaching Hospital (UNTH)	Imo Specialist Hospital	Federal Medical Center, Owerri (FMC)
	<b>1,079</b>	<b>1,910</b>	<b>378</b>	<b>2,416</b>	<b>620</b>	<b>3,879</b>
<b>Grand Total =</b>	<b>2,989</b>		<b>2,794</b>		<b>4,499</b>	

We used the purposive technique to select one primary and one tertiary hospital from each of the three selected states. The Bowley proportionate technique was employed to allocate equitable numbers of the questionnaire to the participants.

**Table 2: Projected Population of the Study Area and Number of Questionnaire.**

S/N	STATE	PROJECTED POPULATION OF HOSPITAL REGISTERED WOMEN BETWEEN 18-45 YEARS	COPIES OF QUESTIONNAIRE
1.	Ebonyi	2989	84
2.	Enugu	2794	110
3.	Imo	4499	176
	<b>TOTAL</b>	<b>10282</b>	<b>370</b>

**Table 3: Projected Distribution of Questionnaire.**

<b>1. Ebonyi</b>	<b>84</b>
Primary	12
Tertiary	72
<b>2. Enugu</b>	<b>110</b>
Primary	15
Tertiary	95
<b>3. Imo</b>	<b>176</b>
Primary	24
Tertiary	152
<b>GRAND TOTAL</b>	<b>370</b>

The accidental technique was used to administer the questionnaire to nursing mothers who visited the hospital during the period of the study.

The accidental sampling technique was used to select breastfeeding mothers from primary and tertiary hospitals. Copies of the questionnaire were distributed to pregnant and nursing mothers found within the selected hospitals on the days of their hospital visits.

A 48-item self-developed, structured questionnaire were intended to address each research question and were designed with both open-ended and closed-ended questions. The researcher and trained research assistants administered 370 copies of the questionnaire, out of which 354 were returned. The response rate was high commendable.

The research instrument went through face validation. In order to ensure the validity of the questionnaire, three lecturers in the Department of Mass Communication and two other experts in statistics also validated the instrument.

To ascertain the reliability of the research instrument, the test-retest method was carried out using 20 copies of the questionnaire. The questionnaire was administered to respondents in two of the study areas (Enugu and Imo). Two weeks later, the same copies of the questionnaire were re-administered again to the same respondents, and errors were observed and noted. To measure reliability or the degree of consistency between the two sets of responses, Cronbach's alpha statistical method was utilised, which returned an internal consistency coefficient of 0.861. This was considered high enough, which indicated the reliability of the instrument in generating the needed data.

The descriptive statistics of frequencies and percentages were used for the research questions, while chi-square and chi-square measures of association were used to address the hypotheses via the Statistical Package for Social Science (SPSS).

## Results

Out of the 370 copies of the questionnaires, 354 copies were returned. I considered this number suitable for analysis because the sample size of 370 was determined using the Wimmer and Dominic online sample size calculator using a confidence level of 95% and a margin of 5%. The 354 respondents had birth experience.

**Objective 1: The extent to which breastfeeding mothers are exposed to media messages on EBF.**

Table 4 reveals that a majority of respondents (94.0%) are aware of media influence on their knowledge about early feeding and exclusive nursing practices. However, awareness of the potential negative consequences associated with infant formula consumption is limited to approximately 60.0% of the individuals surveyed

**Table 4: Level of Exposure to Media Messages on Exclusive Breastfeeding by State**

<i>Exposure to EBF</i>	<i>Level</i>	<i>State</i>			
		<i>Ebonyi State</i>	<i>Imo State</i>	<i>Enugu State</i>	<i>Total</i>
Are you aware of the importance of breastfeeding?	Yes	25(11.6%)	134(62.0%)	44(20.4%)	203(94.0%)
	No	1(0.5%)	12(5.6%)	0(0.0%)	13(6.0%)
The right time to begin early initiation feeding	Strongly disagree	4(1.2%)	5(1.5%)	2(0.6%)	11(3.2%)
	Disagree	4(1.2%)	11(3.2%)	6(1.8%)	21(6.2%)
	Agree	25(7.4%)	74(21.8%)	28(8.3%)	127(37.5%)
	Strongly agree	50(14.7%)	70(20.6%)	60(17.7%)	180(53.1%)
I should feed my baby with breast milk for the six months	Strongly disagree	3(0.9%)	4(1.1%)	1(0.3%)	8(2.3%)
	Disagree	7(2.0%)	4(1.1%)	3(0.9%)	14(4.0%)
	Agree	20(5.7%)	64(18.3%)	28(8.0%)	112(32.0%)
	Strongly agree	54(15.4%)	95(27.1%)	67(19.1%)	216(61.7%)
That formula feeding may be dangerous for the baby	Strongly disagree	9(2.6%)	19(5.5%)	10(2.9%)	38(11.0%)
	Disagree	24(7.0%)	39(11.3%)	10(2.9%)	73(21.2%)
	Agree	34(9.9%)	71(20.6%)	36(10.5%)	141(41.0%)
	Strongly agree	16(4.7%)	36(10.5%)	40(11.6%)	92(26.7%)
The right time to start complementary foods for the baby	Strongly disagree	1(0.3%)	13(3.9%)	2(0.6%)	16(4.7%)
	Disagree	16(4.7%)	24(7.1%)	6(1.8%)	46(13.6%)
	Agree	42(12.5%)	90(26.7%)	45(13.4%)	177(52.5)
	Strongly agree	23(6.8%)	31(9.2%)	43(12.8%)	97(28.8%)

Table 5 displays the distribution of participants' exposure levels to media campaign messages regarding exclusive breastfeeding, categorised by the kind of institution. The findings reveal that the level of awareness is notably higher among respondents from tertiary hospitals.

**Table 5: Level Exposure to Media Messages on EBF by Hospital Type**

Awareness on EBF	Level	Hospital		Total
		Primary	Tertiary	
Are you aware of the importance of breastfeeding?	Yes	35(16.2%)	168(77.8%)	203(94.0%)
	No	2(0.9%)	11(5.1%)	13(6.0%)
The right time to begin early initiation feeding	Strongly disagree	2(0.6%)	9(2.7%)	11(3.2%)
	Disagree	2(0.6%)	19(5.6%)	21(6.2%)
	Agree	17(5.0%)	110(32.4%)	127(37.5%)
	Strongly agree	24(7.1%)	156(46.0%)	180(53.1%)
I should feed my baby with breast milk for the six months	Strongly disagree	1(0.3%)	7(2.0%)	8(2.3%)
	Disagree	3(0.9%)	11(3.1%)	14(4.0%)
	Agree	15(4.3%)	97(27.7%)	112(32.0%)
	Strongly agree	29(8.3%)	187(53.4%)	216(61.7%)
That formula feeding may be dangerous for the baby	Strongly disagree	8(2.3%)	30(8.7%)	38(11.0%)
	Disagree	18(5.2%)	55(16.0%)	73(21.2%)
	Agree	14(4.1%)	127(36.9%)	141(41.0%)
	Strongly agree	6(1.7%)	86(25.0%)	92(26.7%)
	Strongly disagree	3(0.9%)	13(3.9%)	16(4.7%)
	Disagree	6(1.8%)	40(11.9%)	46(13.6%)
The right time to start complementary foods for the baby	Agree	29(8.6%)	148(43.9%)	177(52.5%)
	Strongly agree	7(2.1%)	90(26.7%)	97(28.8%)

**Objective 2: To Ascertain the Level of Knowledge of Mass Media Messages on EBF**

Approximately 70.0% of participants were aware of the absence of significant adverse effects associated with initial breast milk, commonly referred to as colostrum. However, 17.2% of individuals had limited or no awareness of the absence of significant adverse consequences associated with colostrum consumption. The majority of respondents acknowledged the veracity of the claim that EBF effectively mitigates the occurrence of diarrheal and respiratory ailments, enhances the infant's immune system, and safeguards against various illnesses. The results showed that 71.0% knew that women may lower their risk of breast and ovarian cancers through EBF; 85.0% admitted that the media accurately portrays EBF as an economically viable option.



**Table 6: Breastfeeding Mothers' Knowledge Level of Media Messages on EBF by State**

Knowledge of EBF	Level	State			Total
		Ebonyi State	Imo State	Enugu State	
There are serious side effects of first milk or colostrum	True	16(4.7%)	26(7.6%)	16(4.7%)	58(16.9%)
	False	48(14.0%)	109(31.8%)	69(20.1%)	226(65.9%)
	Don't know	15(4.4%)	25(7.3%)	8(2.3%)	48(14.0%)
	Partially true	2(0.6%)	7(2.0%)	2(0.6%)	11(3.2%)
A woman can substitute EBF with many good types of milk	True	26(7.6%)	57(16.6%)	9(2.6%)	92(26.7%)
	False	32(9.3%)	79(23.0%)	59(17.2%)	170(49.4%)
	Don't know	6(1.7%)	7(2.0%)	13(3.8%)	26(7.6%)
	Partially true	17(4.9%)	25(7.3%)	14(4.1%)	56(16.3%)
EBF prevents diarrheal, respiratory problems, improve babies immune system and protects baby from illness	True	62(18.0%)	136(39.5%)	89(25.9%)	287(83.4%)
	False	10(2.9%)	12(3.5%)	1(0.3%)	23(6.7%)
	Don't know	7(2.0%)	13(3.8%)	6(1.7%)	26(7.6%)
	Partially true	3(0.9%)	3(0.9%)	2(0.6%)	8(2.3%)
Being involved in EBF may prevent the mother from conception, ovarian and breast cancer.	True	54(15.7%)	107(31.0%)	84(24.3%)	245(71.0%)
	False	14(4.1%)	22(6.4%)	2(0.6%)	38(11.0%)
	Don't know	7(2.0%)	22(6.4%)	8(2.3%)	37(10.7%)
	Partially true	7(2.0%)	16(4.6%)	2(0.6%)	25(7.2%)
Expressed breast milk is also good for infant feeding	True	54(15.5%)	122(35.1%)	49(14.1%)	225(64.7%)
	False	18(5.2%)	12(3.4%)	26(7.5%)	56(16.1%)
	Don't know	9(2.6%)	23(6.6%)	13(3.7%)	45(12.9%)
	Partially true	1(0.3%)	11(3.2%)	10(2.9%)	22(6.3%)
EBF is economically viable	True	61(17.7%)	139(40.3%)	96(27.8%)	296(85.8%)
	False	11(3.2%)	10(2.9%)	2(0.6%)	23(6.7%)
	Don't know	6(1.7%)	10(2.9%)	0(0.0%)	16(4.6%)
	Partially true	4(1.2%)	6(1.7%)	0(0.0%)	10(2.9%)
Breastfed babies are healthier than formula-fed babies	True	66(19.3%)	136(39.8%)	85(24.9%)	287(83.9%)
	False	4(1.2%)	9(2.6%)	0(0.0%)	13(3.8%)
	Don't know	3(0.9%)	9(2.6%)	7(2.0%)	19(5.6%)
	Partially true	8(2.3%)	11(3.2%)	4(1.2%)	23(6.7%)
I should give breastmilk to my baby immediately as early initiation	True	66(19.2%)	152(44.2%)	94(27.3%)	312(90.7%)
	False	14(4.1%)	6(1.7%)	0(0.0%)	20(5.8%)
	Don't know	2(0.6%)	8(2.3%)	0(0.0%)	10(2.9%)
	Partially true	0(0.0%)	1(0.3%)	1(0.3%)	2(0.6%)
Mothers require adequate nutrition to effectively do EBF	True	59(17.0%)	151(43.5%)	92(26.5%)	302(87.0%)
	False	13(3.7%)	5(1.4%)	0(0.0%)	18(5.2%)
	Don't know	7(2.0%)	8(2.3%)	0(0.0%)	15(4.3%)
	Partially true	3(0.9%)	3(0.9%)	6(1.7%)	12(3.5%)
Exclusively fed infants are more likely to have health problems	True	4(1.2%)	25(7.3%)	4(1.2%)	33(9.7%)
	False	64(18.8%)	122(35.8%)	81(23.8%)	267(78.3%)
	Don't know	8(2.3%)	12(3.5%)	11(3.2%)	31(9.1%)
	Partially true	5(1.5%)	5(1.5%)	0(0.0%)	10(2.9%)
I have done prelacteal feeding when my child was born	True	22(6.4%)	36(10.5%)	12(3.5%)	70(20.5%)
	False	34(9.9%)	56(16.4%)	59(17.3%)	149(43.6%)
	Don't know	20(5.8%)	61(17.8%)	24(7.0%)	105(30.7%)

Partially true 6(1.8%) 11(3.2%) 1(0.3%) 18(5.3%)

The study reveals that respondents' perception of prelacteal feeding, a suboptimal form of breastfeeding, is ambiguous; 43.6% expressed scepticism, while 30.7% indicated uncertainty or a lack of knowledge. The study also shows that Imo State has the highest awareness, followed by Enugu State. Ebonyi State has the lowest awareness.

**Prelacteal feeding is defined as administration of any substances other than breast milk to newborn babies during the first 3 days after birth.**

**Table 6: Breastfeeding Mothers' Knowledge Level of Media Messages on EBF by Hospital Type**

Knowledge of EBF	Level	Hospital		
		Primary	Tertiary	Total
There are serious side effects of first milk or colostrum	True	8(2.3%)	50(14.6%)	58(16.9%)
	False	27(7.9%)	199(58.0%)	226(65.9%)
	Don't know	6(1.7%)	42(12.2%)	48(14.0%)
	Partially true	2(0.6%)	9(2.6%)	11(3.2%)
A woman can substitute EBF with many good types of milk	True	23(6.7%)	69(20.1%)	92(26.7%)
	False	15(4.4%)	155(45.1%)	170(49.4%)
	Don't know	2(0.6%)	24(7.0%)	26(7.6%)
	Partially true	3(0.9%)	53(15.4%)	56(16.3%)
EBF prevents diarrheal, respiratory problems, improve babies immune system and protects baby from illness	True	29(8.4%)	258(75.0%)	287(83.4%)
	False	6(1.7%)	17(4.9%)	23(6.7%)
	Don't know	6(1.7%)	20(5.8%)	26(7.6%)
	Partially true	2(0.6%)	6(1.7%)	8(2.3%)
Being involved in EBF may prevent the mother from conception, ovarian and breast cancer.	True	29(8.4%)	216(62.6%)	245(71.0%)
	False	7(2.0%)	31(9.0%)	38(11.0%)
	Don't know	6(1.7%)	31(9.0%)	37(10.7%)
	Partially true	3(0.9%)	22(6.4%)	25(7.2%)
Expressed breast milk is also good for infant feeding	True	25(7.2%)	200(57.5%)	225(64.7%)
	False	11(3.2%)	45(12.9%)	56(16.1%)
	Don't know	8(2.3%)	37(10.6%)	45(12.9%)
	Partially true	1(0.3%)	21(6.0%)	22(6.3%)
EBF is economically viable	True	35(10.1%)	261(75.7%)	296(85.8%)
	False	5(1.4%)	18(5.2%)	23(6.7%)
	Don't know	2(0.6%)	14(4.1%)	16(4.6%)
	Partially true	2(0.6%)	8(2.3%)	10(2.9%)
Breastfed babies are healthier than formula-fed babies	True	40(11.7%)	247(72.2%)	287(83.9%)
	False	2(0.6%)	11(3.2%)	13(3.8%)
	Don't know	0(0.0%)	19(5.6%)	19(5.6%)
	Partially true	2(0.6%)	21(6.1%)	23(6.7%)
I should give breastmilk to my	True	39(11.3%)	273(79.4%)	312(90.7%)

baby immediately as early initiation	False	5(1.5%)	15(4.4%)	2095.8%)
	Don't know	1(0.3%)	9(2.6%)	10(2.9%)
	Partially true	0(0.0%)	2(0.6%)	2(0.6%)
Mothers require adequate nutrition to effectively do EBF	True	39(11.2%)	263(75.8%)	302(87.0%)
	False	2(0.6%)	16(4.6%)	18(5.2%)
	Don't know	2(0.6%)	13(3.7%)	15(4.3%)
Exclusively fed infants are more likely to have health problems	Partially true	1(0.3%)	11(3.2%)	12(3.5%)
	True	12(3.5%)	21(6.2%)	33(9.7%)
	False	28(8.2%)	239(70.1%)	267(78.3%)
I have done prelacteal feeding when my child was born	Don't know	4(1.2%)	27(7.9%)	31(9.1%)
	Partially true	2(0.6%)	8(2.3%)	10(2.9%)
	True	15(4.4%)	55(16.1%)	70(20.5%)
	False	17(5.0%)	132(38.6%)	149(43.6%)
	Don't know	13(3.8%)	92(26.9%)	105(30.7%)
	Partially true	1(0.3%)	17(5.0%)	18(5.3%)

The findings above indicated a significant level of familiarity among the participants with the primary mass media campaign messaging pertaining to exclusive breastfeeding. The participants from both types of hospitals showed a significant degree of awareness regarding the mass media messages on EBF. However, the participants from tertiary hospitals exhibited a higher level of knowledge regarding the core campaign messages

### Objective Three

#### To Determine the Attitudes and Responses of South-East Women to Media Messages on Exclusive Breastfeeding (EBF)

The study reveals that over 90.0% expressed strong agreement or agreement with their willingness to engage in EBF. They also expressed willingness to promote EBF among their female acquaintances and family members. The respondents acknowledged the positive impact of nursing on mother-infant bonding. However, over 70.0% disagreed with the notion of favouring formula feeding over breastmilk, citing financial, health, nutritional and economic constraints as hindrances. Concerns were raised regarding potential health issues from EBF for six months.

**Table 7: Attitudes and Responses to Media Messages on EBF by State of Residence**

Attitude on EBF messages	Level	State			Total
		Ebonyi State	Imo State	Enugu State	
I am willing to carryout exclusive breastfeeding	Strongly disagree	3(0.9%)	8(2.3%)	3(0.9%)	14(4.0%)
	Disagree	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
	Agree	19(5.4%)	71(20.2%)	30(8.5%)	120(34.2%)
I encourage my female friends and family to do EBF	Strongly agree	62(17.7%)	90(25.6%)	65(18.5%)	217(61.8%)
	Strongly disagree	1(0.3%)	0(0.0%)	0(0.0%)	1(0.3%)
	Disagree	4(1.1%)	8(2.3%)	1(0.3%)	13(3.7%)
	Agree	28(8.0%)	86(24.6%)	22(6.3%)	136(39.0%)
	Strongly agree	50(14.3%)	74(21.2%)	75(21.5%)	199(57.0%)

I prefer formula feeding to breastmilk	Strongly disagree	21(6.1%)	48(14.0%)	40(11.7%)	109(31.8%)
	Disagree	44(12.8%)	88(25.7%)	46(13.4%)	178(51.9%)
	Agree	8(2.3%)	21(6.1%)	4(1.2%)	33(9.6%)
	Strongly agree	10(2.9%)	8(2.3%)	5(1.5%)	23(6.7%)
I am not able to effectively carryout EBF as a result of work and time	Strongly disagree	13(3.8%)	23(6.7%)	27(7.8%)	63(18.3%)
	Disagree	26(7.6%)	52(15.1%)	43(12.5%)	121(35.2%)
	Agree	26(7.6%)	72(20.9%)	19(5.5%)	117(34.0%)
	Strongly agree	18(5.2%)	19(5.5%)	6(1.7%)	43(12.5%)
I am not able to effectively carryout EBF as a result of financial and economic reasons	Strongly disagree	21(6.0%)	46(13.2%)	38(10.9%)	105(30.2%)
	Disagree	30(8.6%)	73(21.0%)	43(12.4%)	146(42.0%)
	Agree	23(6.6%)	39(11.2%)	8(2.3%)	70(20.1%)
	Strongly agree	10(2.9%)	10(2.9%)	7(2.0%)	27(7.8%)
I may have health problems if I exclusively breastfeed for 6 months	Strongly disagree	35(10.1%)	69(19.9%)	46(13.3%)	150(43.2%)
	Disagree	32(9.2%)	58(16.7%)	42(12.1%)	132(38.0%)
	Agree	13(3.7%)	32(9.2%)	3(0.9%)	48(13.8%)
	Strongly agree	4(1.2%)	9(2.6%)	4(1.2%)	17(4.9%)
I accept that non-utilization of first milk is alright	Strongly disagree	26(7.6%)	47(13.8%)	49(14.4%)	122(35.8%)
	Disagree	28(8.2%)	63(18.5%)	29(8.5%)	120(35.2%)
	Agree	15(4.4%)	29(8.5%)	9(2.6%)	53(15.5%)
	Strongly agree	14(4.1%)	22(6.5%)	10(2.9%)	46(13.5%)
I feel that only breastmilk will not be sufficient for the baby's nutrition after 3 months	Strongly disagree	28(8.1%)	39(11.3%)	41(11.9%)	108(31.4%)
	Disagree	22(6.4%)	52(15.1%)	37(10.8%)	111(32.3%)
	Agree	26(7.6%)	60(17.4%)	9(2.6%)	95(27.6%)
	Strongly agree	8(2.3%)	15(4.4%)	7(2.0%)	30(8.7%)
I accept that breastfeeding increases the bond between mother and infant	Strongly disagree	8(2.3%)	3(0.9%)	2(0.6%)	13(3.7%)
	Disagree	4(1.1%)	5(1.4%)	0(0.0%)	9(2.6%)
	Agree	18(5.2%)	50(14.3%)	20(5.7%)	88(25.2%)
	Strongly agree	53(15.2%)	110(31.5%)	76(21.8%)	239(68.5%)
I am indifferent about mass media messages on EBF	Strongly disagree	8(2.3%)	20(5.8%)	38(11.1%)	66(19.3%)
	Disagree	24(7.0%)	67(19.6%)	38(11.1%)	129(37.7%)
	Agree	29(8.5%)	57(16.7%)	14(4.1%)	100(29.2%)
	Strongly agree	22(6.4%)	18(5.3%)	7(2.0%)	47(13.7%)
I usually pay attention to adverts on EBF from the mass and social media though I won't adhere	Strongly disagree	17(4.9%)	38(11.0%)	45(13.0%)	100(29.0%)
	Disagree	28(8.1%)	61(17.7%)	32(9.3%)	121(35.1%)
	Agree	19(5.5%)	42(12.2%)	9(2.6%)	70(20.3%)
	Strongly agree	19(5.5%)	26(7.5%)	9(2.6%)	54(15.7%)
Media messages have not made me to start EBF	Strongly disagree	13(3.8%)	34(9.9%)	32(9.3%)	79(23.0%)
	Disagree	36(10.5%)	86(25.0%)	49(14.2%)	171(49.7%)
	Agree	15(4.4%)	28(8.1%)	8(2.3%)	51(14.8%)
	Strongly agree	19(5.5%)	17(4.9%)	7(2.0%)	43(12.5%)

The study found that media messages on EBF in the three states improved the attitudes and responses of breastfeeding mothers. The most significant improvements were observed in Imo State, while respondents from Enugu and Ebonyi states showed similar shifts.

**Table 7.1: Attitudes and Responses to Media Messages on EBF by Hospital Type**

Knowledge of EBF	Level	Hospital		
		Primary	Tertiary	Total
I am willing to carryout exclusive breastfeeding	Strongly disagree	5(1.4%)	9(2.6%)	14(4.0%)
	Disagree	0(0.0%)	0(0.0%)	0(0.0%)
	Agree	15(4.3%)	105(29.9%)	120(34.2%)
	Strongly agree	28(8.0%)	189(53.8%)	217(61.8%)
I encourage my female friends and family to do EBF	Strongly disagree	0(0.0%)	1(0.3%)	1(0.3%)
	Disagree	3(0.9%)	10(2.9%)	13(3.7%)
	Agree	20(5.7%)	116(33.2%)	136(39.0%)
	Strongly agree	25(7.2%)	174(49.9%)	199(57.0%)
I prefer formula feeding to breastmilk	Strongly disagree	14(4.1%)	95(27.7%)	109(31.8%)
	Disagree	20(5.8%)	158(46.1%)	178(51.9%)
	Agree	7(2.0%)	26(7.6%)	33(9.6%)
	Strongly agree	6(1.7%)	17(5.0%)	23(6.7%)
I am not able to effectively carryout EBF as a result of work and time	Strongly disagree	11(3.2%)	52(15.1%)	63(18.3%)
	Disagree	19(5.5%)	102(29.7%)	121(35.2%)
	Agree	12(3.5%)	105(30.5%)	117(34.0%)
	Strongly agree	4(1.2%)	39(11.3%)	43(12.5%)
I am not able to effectively carryout EBF as a result of financial and economic reasons	Strongly disagree	16(4.6%)	89(25.6%)	105(30.2%)
	Disagree	21(6.0%)	125(35.9%)	146(42.0%)
	Agree	5(1.4%)	65(18.7%)	70(20.1%)
	Strongly agree	6(1.7%)	21(6.0%)	27(7.8%)
I may have health problems if I exclusively breastfeed for 6 months	Strongly disagree	20(5.8%)	130(37.5%)	150(43.2%)
	Disagree	20(5.8%)	112(32.3%)	132(38.0%)
	Agree	3(0.9%)	45(13.0%)	48(13.8%)
	Strongly agree	4(1.2%)	13(3.7%)	17(4.9%)
I accept that non-utilization of first milk is alright	Strongly disagree	8(2.3%)	114(33.4%)	122(35.8%)
	Disagree	16(4.7%)	104(30.5%)	120(35.2%)
	Agree	12(3.5%)	41(12.0%)	53(15.5%)
	Strongly agree	10(2.9%)	36(10.6%)	46(13.5%)
I feel that only breastmilk will not be sufficient for the baby’s nutrition after 3 months	Strongly disagree	16(4.7%)	92(26.7%)	108(31.4%)
	Disagree	17(4.9%)	94(27.3%)	111(32.3%)
	Agree	6(1.7%)	89(25.9%)	95(27.6%)
	Strongly agree	6(1.7%)	24(7.0%)	30(8.7%)
I accept that breastfeeding increases the bond between mother and infant	Strongly disagree	0(0.0%)	13(3.7%)	13(3.7%)
	Disagree	1(0.3%)	8(2.3%)	9(2.6%)
	Agree	8(2.3%)	80(22.9%)	88(25.2%)
	Strongly agree	39(11.2%)	200(57.3%)	239(68.5%)
I am indifferent about mass media messages on EBF	Strongly disagree	3(0.9%)	63(18.4%)	66(19.3%)
	Disagree	15(4.4%)	114(33.3%)	129(37.7%)
	Agree	16(4.7%)	84(24.6%)	100(29.2%)
	Strongly agree	11(3.2%)	36(10.5%)	47(13.7%)
I usually pay attention to adverts on EBF from the mass and social media though I won’t adhere	Strongly disagree	9(2.6%)	91(26.4%)	100(29.0%)
	Disagree	8(2.3%)	113(32.8%)	121(35.1%)
	Agree	13(3.8%)	57(16.5%)	70(20.3%)

Media messages have not made me to start EBF	Strongly agree	17(4.9%)	37(10.7%)	54(15.7%)
	Strongly disagree	10(2.9%)	69(20.1%)	79(23.0%)
	Disagree	17(4.9%)	154(44.8%)	171(49.7%)
	Agree	7(2.0%)	44(12.8%)	51(14.8%)
	Strongly agree	14(4.1%)	29(8.4%)	43(12.5%)

### Hypothesis One

#### There is no Relationship between Awareness and Knowledge of Media Messages on EBF

The Chi-square measure of association revealed a significant association between awareness of EBF and the level of knowledge among breastfeeding mothers in South-East Nigeria (Table 8). However, knowledge levels about EBF were not influenced by media campaigns on EBF with regard to knowing about the serious side effects of colostrum, switching from EBF to other good milk types, and health issues associated with EBF.

**Table 8: Chi-Square Test of Relationship between Knowledge Level and Awareness**

Knowledge level of EBF	Chi-square Value	df	P-value	Decision
There are serious side effects of first milk or colostrum	2.248	3	0.523	Not significant
A woman can substitute EBF with many good types of milk	6.556	3	0.087	Not significant
EBF prevents diarrheal, respiratory problems, improve babies immune system and protects baby from illness	37.539	3	0.000	Significant
Being involved in EBF may prevent the mother from conception, ovarian and breast cancer.	11.643	3	0.009	Significant
Expressed breast milk is also good for infant feeding	5.773	3	0.123	Not significant
EBF is economically viable	12.653	3	0.005	Significant
Breastfed babies are healthier than formula-fed babies	16.693	3	0.001	Significant
I should give breastmilk to my baby immediately as early initiation	14.153	3	0.003	Significant
Mothers require adequate nutrition to effectively do EBF	83.590	3	0.000	Significant
Exclusively fed infants are more likely to have health problems	3.783	3	0.286	Not significant
I have done prelacteal feeding when my child was born	6.861	3	0.076	Not significant

## Hypothesis Two

### No Relationship exists between Exposure and Attitude to Media messages on EBF.

The Chi-square measure of association indicates a significant association between exposure to media messages and willingness to do EBF, encouraging friends and family, and increasing the bond between mother and child. These results show that these attitudes towards EBF were influenced by the respondents' exposure to the media messages on EBF. However, at  $p > 0.05$ , there is no significant relationship between exposure to media messages and attitudes such as preference for formula milk, economic and time constraints to EBF, fear of health problems after EBF, breast milk not being sufficient, and indifference to media messages to EBF.

**Table 9: Chi-Square Test of Relationship between Exposure and Attitudes to Media Messages**

Attitude to Media Messages on EBF	Chi-square Value	Df	P-value	Decision
I am willing to carryout exclusive breastfeeding	19.601	9	0.012	Significant
I encourage my female friends and family to do EBF	5.111	9	0.025	Significant
I prefer formula feeding to breastmilk	6.915	9	0.646	Not significant
I am not able to effectively carryout EBF as a result of work and time	9.905	9	0.219	Not significant
I am not able to effectively carryout EBF as a result of financial and economic reasons	10.079	9	0.325	Not significant
I may have health problems if I exclusively breastfeed for 6 months	8.784	9	0.201	Not significant
I accept that non-utilization of first milk is alright	6.903	9	0.545	Not significant
I feel that only breastmilk will not be sufficient for the baby's nutrition after 3 months	10.067	9	0.180	Not significant
I accept that breastfeeding increases the bond between mother and infant	21.098	9	0.019	Significant
I am indifferent about mass media messages on EBF	3.151	9	0.801	Not significant
I usually pay attention to adverts on EBF from the mass and social media though I won't adhere	13.142	9	0.106	Not significant
Media messages have not made me to start EBF	6.749	9	0.610	Not significant

## Discussion of Findings

The study examined exposure to and knowledge of EBF among mothers in South-East Nigeria. Findings indicate that the respondents are significantly exposed to these messages. However, awareness is higher among respondents from tertiary hospitals. The study highlights the importance of addressing media exposure in promoting breastfeeding awareness and practices. Studies show that mass media campaigns can address knowledge deficiencies in public health initiatives such as EBF and family planning (Mashreky et al., 2015; Walters et al., 2017).

The present study also shows that media campaigns significantly influence the knowledge of breastfeeding mothers about EBF. There is a significant relationship between awareness and knowledge of issues in EBF. However, the study also finds that apathy (43%) towards media messages primarily consists of respondents who are predominantly unmarried or fall under the younger age bracket (below 30 years). A study by Mashreky et al. (2015) demonstrated the need to teach the unmarried and healthcare workers about the importance of EBF.

The study indicates a significant relationship between the frequency of attendance at antenatal care and the attitudes of the respondents towards media messages promoting EBF. Respondents who did not attend antenatal care demonstrated the least favourable attitudes and responses towards EBF, which can be attributed to the efforts of healthcare professionals educating pregnant mothers on EBF.

The study by Mashreky et al. (2015) indicated evidence that exposure to mass media campaign messages can fill critical knowledge gaps in public health programmes such as exclusive breastfeeding and other community health issues such as HIV, family planning, and immunization. Their study revealed that mass media campaigns have been used to promote exclusive breastfeeding rather than complementary feeding since the importance of breastfeeding has been scientifically established. Hence, mass media is vital in disseminating the public health importance of exclusive breastfeeding.

Furthermore, findings of the study show that there is a high level of knowledge of exclusive breastfeeding among the respondents through mass media messages. This is observed in their knowledge that it is wrong to substitute EBF with other forms of milk, like formula, and that EBF can prevent diarrhoea and respiratory problems, improve a baby's immune system, and protect a baby from illness. The knowledge level is also indicated in their understanding that EBF can lower the rate of breast and ovarian cancer in women. Studies (e.g Walters, Eberwein, Sullivan, D'Alimonte, & Shekar, 2017) corroborates the findings of this study on the level of knowledge on EBF through media campaign programmes. These studies revealed that exclusively breastfeeding a child adequately (optimally) has the single largest potential impact on child and maternal mortality. They asserted that well-carried-out exclusive breastfeeding has implications for the overall health, nutritional, cognitive, and long-term economic benefits of the child and is associated with a higher intelligent quotient.

Victora et al. (2016) reaffirmed the findings of this study in their study on breastfeeding in the 21<sup>st</sup> century. Their study aligned with the findings of this study in the area of the benefits of EBF on the health of the baby and the mother. They revealed that "breastfeeding has protective effects for newborns and young children that prevent common diseases such as diarrhoea and pneumonia, which are major causes of child mortality". Furthermore, their findings point to exclusive breastfeeding as reducing the risk of obesity in children and the risks of diabetes, breast cancer, and ovarian cancer in mothers later in life. These studies are strategic in diffusing the locally held belief among some folks that infants exclusively breastfed are likely to have health problems. The use of mass media campaigns to disseminate this important health



knowledge and information on EBF has yielded some useful results among breastfeeding mothers in the Southeast region of Nigeria.

The Health Belief Model (HBM) ensures that the media is being called to action to develop and create more potent awareness messages that will improve knowledge. Messages are expected to influence the attitude of members of the public and ultimately cause behavioural change to carry out preventive actions (lifestyle changes) to go for regular antenatal visits and adopt early initiation of the baby to breastfeeding.

### **Conclusion and recommendations**

The respondents are exposed to media on EBF, and this has an influence on their knowledge of the subject. The significant relationship between awareness and knowledge of EBF demonstrates the role of the media. However, age, cultural, and religious barriers hinder the effectiveness of EBF media messages. The following recommendations are made:

1. Media messages on EBF should aim more at counteracting myths and misinformation.
2. Health professionals should harmonise their messages with media messages to enhance persuasive effects.
3. Media messages can reinforce the need to get more women into the labour force to remove the economic concerns that affect adherence to EBF.
4. Media messages should announce government benefits to EBF-practicing mothers, such as paid maternity leave.
5. Media messages should promote the role of husbands and family members in supporting mothers to imbibe EBF.

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