# Knowledge, attitudes and practices about breastfeeding among pregnant women seen in primary care

Conhecimentos, atitudes e práticas sobre aleitamento materno entre gestantes atendidas na atenção básica Conocimientos, actitudes y prácticas sobre lactancia materna en mujeres embarazadas atendidas en atención primaria

## **RESUMO**

Objetivos: avaliar os conhecimentos, atitudes e práticas sobre o aleitamento materno entre gestantes atendidas durante o pré-natal e indicar os motivos do desmame precoce. Método: estudo transversal quantitativo do tipo Conhecimentos, Atitudes e Prática, com 110 gestantes atendidas durante o pré-natal em município brasileiro em 2019, através de formulário analisado por meio de estatística descritiva e inferencial, através de frequências e testes Quiquadrado e Exato de Fisher, com significância ≤0,05. Resultados: Houve associação entre faixa etária com conhecimento(p=0,003), atitude(p<0,0001) e prática(p=0,015). Mulheres acima de 26 anos têm 11%(OR=0,119[0,025-0,561]) mais chance de possuir saberes adequados e mulheres não brancas possuem 90%(OR=0,905[0,848-0,966]) de chance para o mesmo desfecho. A idade despontou como fator de proteção em 18%(OR=0,187[0,071-0,490]) para a atitude e 29%(OR=0,291[0,105-0,806]) para a prática. Paridade associou-se à prática(p=0,040). Conclusão: mulheres mais maduras possuem conhecimento, atitude e prática satisfatórios. Traumas mamilares, ausência de rede de apoio, abandono sem motivo definido e dor são os principais motivos para desmame precoce.

DESCRITORES: Conhecimentos, Atitudes e Prática em Saúde; Gestantes; Aleitamento Materno; Fatores de Proteção; Cuidado Pré-Natal; Desmame.

#### **ABSTRACT**

Objectives: to assess knowledge, attitudes and practices about breastfeeding among pregnant women assisted during prenatal care. Method: a quantitative cross-sectional study of the CAP type, with 110 pregnant women attended during prenatal care in a Brazilian municipality, through a form analyzed using descriptive and inferential statistics, through frequencies and Chi-square and Fisher's Exact tests, with significance ≤0, 05. Results: There was an association between age group with knowledge (p=0.003), attitude (p<0.0001) and practice (p=0.015). Women over 26 years of age are 11% (OR=0.119[0.025-0.561]) more likely to have adequate knowledge and non-white women have a 90% (OR=0.905[0.848-0.966]) chance of the same outcome. Age emerged as a protective factor in 18% (OR=0.187[0.071-0.490]) for attitude and 29% (OR=0.291[0.105-0.806]) for practice. Parity was associated with practice (p=0.040). Conclusion: more mature women have satisfactory knowledge, attitude and practice. Nipple trauma, absence of a support network, abandonment without a defined reason and pain are the main reasons for early weaning.

DESCRIPTORS: Health knowledge, Attitudes, Practice; Pregnant women; Breastfeeding; Protective Factors; Prenatal care; Weaning.

# RESUMEN

Objetivos: evaluar conocimientos, actitudes y prácticas sobre la lactancia materna entre gestantes atendidas durante el prenatal. Método: estudio transversal cuantitativo del tipo CAP, con 110 gestantes atendidas durante el prenatal en un municipio brasileño, a través de un formulario analizado mediante estadística descriptiva e inferencial, a través de frecuencias y pruebas de Chi-cuadrado y Exacto de Fisher, con significación ≤ 0, 05. Resultados: Hubo asociación entre el grupo etario con el conocimiento (p=0,003), actitud (p<0,0001) y práctica (p=0,015). Las mujeres mayores de 26 años tienen un 11% (OR=0,119[0,025-0,561]) más probabilidades de tener un conocimiento adecuado y las mujeres no blancas tienen un 90% (OR=0,905[0,848-0,966]) de probabilidad de obtener el mismo resultado. La edad emergió como factor protector en un 18% (OR=0,187[0,071-0,490]) para la actitud y un 29% (OR=0,291[0,105-0,806]) para la práctica. La paridad se asoció con la práctica (p=0,040). Conclusión: las mujeres más maduras tienen conocimientos, actitudes y prácticas satisfactorias. Los traumatismos en los pezones, la ausencia de una red de apoyo, el abandono sin motivo definido y el dolor son los principales motivos del destete precoz.

**DESCRIPTORES:** Conocimientos, Actitudes y Prácticas en Salud; mujeres embarazadas; Amamantamiento; factores de protección; Cuidado prenatal; destete.

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# INTRODUÇÃO

Preastfeeding is a widespread practice worldwide with notably recognized benefits, bringing protection and nutrition to children with reduced infant morbidity and mortality. Breastfeeding promotion, protection and support programs encourage the practice, although the prevalence fluctuates in different areas, being almost always below the internationally recommended values. (1)

A survey to evaluate the trend of indicators of exclusive breastfeeding, at the national level, for three decades identified that the historical series showed an ascendancy from the 1980s to 2006, stabilizing the growth from this year to 2013. The survey

signaled concern with strategies to influence exclusive breastfeeding, proposing the evaluation of the ways in which it is verified in Brazil, as well as the developments directed to policies and programs in the area. (2)

From this perspective, professional training is a relevant tool to encourage breastfeeding in an exclusive way,

especially when primary health care uses the National Strategy for Healthy Complementary Feeding as a guideline to facilitate positive outcomes related to the consumption of healthy foods, especially in infants, through the sharing of knowledge to the health team for effective guidance to the community. <sup>(3)</sup>

Thus, for breastfeeding to have a positive effect on mother and baby, it is necessary

for mothers to be monitored by the Unified Health System, starting with prenatal care in basic care, where health professionals have the role of monitoring, guiding, providing basic care and referring to specialized services. (4)

A cross-sectional study aimed at assessing breastfeeding knowledge, attitudes and practices among women residing in Abu Dhabi showed that although knowledge about breastfeeding was generally good, the practice of breastfeeding was still well below ideal. The main factor in early weaning was the fact that the mother worked outside the home. (5)

In the United Arab Emirates, a recent study involving 593 mothers showed that breastfeeding practices for infants and you-



ng children were unsatisfactory. Although almost all mothers in the study started breastfeeding (98%), only 25% of babies were exclusively breastfed from birth to 6 months of age. <sup>(6)</sup> In another prospective study, a sample of 221 women were surveyed about breastfeeding patterns at 1 day, 1 month and 6 months postpartum; the corresponding rates of exclusive breastfeeding from birth were 76.5, 48.4, and 13.3%, respectively. <sup>(7)</sup> Unfortunately, local data on knowledge, attitudes and practices among women regarding breastfeeding are limited.

In Saudi Arabia, a cross-sectional study showed that out of 384 women, 31% started breastfeeding their children within 1 hour of giving birth, while only 8.3% reported exclusive breastfeeding for 6 months. Regarding knowledge, although 89.3% of the participants reported that colostrum is good for the baby, there was a low level of knowledge about the adequate duration of exclusive breastfeeding: only 28% of participants chose 6 months as an answer, and this may explain the low rate of exclusive breastfeeding at 6 months. Regarding attitudes, the most important reason given by the participants for starting breastfeeding was the Islamic religious training (56.6%), practiced by all. (8)

Therefore, a study of the knowledge, attitudes and practice (KAP) type can contribute to the professional practice in health care, since in it there is the possibility of identifying with the users what they know, think and do about a certain topic (9-10), more specifically, to point out situations that make it difficult or facilitate the practice of exclusive breastfeeding.

Finally, considering that the absence of breastfeeding generates negative consequences for the mother-child binomial, as well as understanding that prenatal care is a strategy that can facilitate knowledge and encourage opinions and actions of pregnant women regarding exclusive breastfeeding, the objective was to evaluate knowledge, attitudes and practices on breastfeeding among pregnant women attended during prenatal care and indicate the reasons for early weaning.

Thus, for breastfeeding to have a positive effect on mother and baby, it is necessary for mothers to be monitored by the Unified Health System, starting with prenatal care in basic care, where health professionals have the role of monitoring, guiding, providing basic care and referring to specialized services.

## **METHOD**

It is a cross-sectional and evaluative population survey of the knowledge, attitude and practice type, with a quantitative approach. Conducted with pregnant women attended during prenatal consultations in primary care, in all nineteen Family Health Units in Sapé, Paraíba, Brazil.

Pregnant women of full age, any gestational age, primiparous and multiparous women were included. Those who were cognitively or emotionally unfit (self-reported) and pregnant women affected by diseases that make breastfeeding impossible were excluded.

With the population of 334 pregnant women in the nineteen family health units, the confidence level was 95%, with a margin of error of 5%, that is,  $\alpha$ =0.05 (z=1.96), p=0.12, the probability sample was calculated in 110 pregnant women. In an equitable manner, 5 or 6 pregnant women per health unit participated, in order to ensure that all units in the municipality were covered. The proportion (p) for the sample calculation considered the interpretation of breastfeeding indicators according to the parameters of the World Health Organization (WHO), whose reasonable indicator for exclusive breastfeeding in children under six months of age was 12%.

The instrument built for the research was a structured form with 37 questions about sociodemographic, reproductive, life habits and on knowledge, attitudes and practices about breastfeeding, applied by the main researcher with pregnant women, after prenatal care consultations. The CAP constructs had their content adapted. (9) The collection took place following the steps: prior contact with the participants, explanation of the purpose of the research ensuring anonymity, privacy and desire to withdraw at any time of the research, as well as presentation of the Free and Informed Consent Term (ICF). The research took place in the morning and afternoon

The data collection procedure followed the systematic sampling plan, with a "leap" of 1 among the research participants, gua-



ranteeing the probability sample. The period of inclusion of the research participants was from January to March 2019.

In this study, the CAP was defined, respectively, as knowledge, opinions and conduct, in relation to the object of study. Construct satisfaction (CAP) was defined with a cutoff point above 70% of the criteria defined for each one, as adapted from studies on knowledge. (10-11)

Data analysis was performed using the IBM Statistics Package for the Social Sciences (SPSS) program, version 21. Results were presented using absolute and percentage frequencies. For the association between the variables, the chi-square and Fisher's exact tests were used, with significance ≤ 0.05.

The odds ratio and the confidence interval were used to verify the associations, indicating the chance or protection determined by the variables with significance for results that did not cross nullity, that is, 1.

To read the protective factors for odds ratios, the value generated was subtracted from the number 1, with the result defined as a percentage, indicating a lower chance of an unsatisfactory outcome.

The research complied with the ethical precepts of research involving human beings, in accordance with the provisions of Resolution 510/2016, approved by the Ethics Committee of the Nova Esperança Nursing School, according to protocol no. 245/2018 and CAAE no. 04179718.1.0000.5179.

# **RESULTS**

Regarding the sociodemographic characterization of pregnant women, the mean age was 27.15 (SD±6.64), with 52 (47%) between 18-25 years old, 43 (39%) between 26-35 years and 15 (14%) over 36 years of age. Regarding education, 50 (45%) had between 0-8 years of schooling and 60 (55%) had more than eight years. Regarding occupation, 64 (58%) had no remuneration and 46 (42%) had a paid occupation. As for place of birth, 61 (55%) were from the municipality of the research and 49 (45%) from other municipalities

in the state, 79 (72%) from the urban area and 31 (28%) from the rural area. Regarding religion, 82 (75%) were Catholic, 22 (20%) were Evangelical and 6 (5%) had other religious beliefs. Regarding ethnicity, 91 (83%) were brown, 9 (8%) were white, 6 (5%) were yellow and 4 (4%) were black. The monthly income showed 69 (63%) women living on less than one minimum wage, 37 (34%) between 1-2, 3 (2.5%) between 2-3 and 1 (0.5%) with more than four minimum wages. Finally, 102 (93%)

women with a partner and 8 (7%) without a partner.

Table 1 shows the sexual and reproductive characteristics of pregnant women participating in the research.

Table 2 shows the life habits of the pregnant women participating in the research.

In this study, the puerperal women indicated the contribution of breastfeeding to the development and growth of the baby, with the supply of nutrients needed by the

Table 1. Distribution of sexual and reproductive characteristics of pregnant women participating in the research (n=110). Sapé, Paraíba, Brazil, 2019

| Characteristics  | N   | %   |
|--|-----|-----|
| Sexarch  |     |     |
| Up to 15 years old   | 39  | 35  |
| After 15 years old   | 71  | 65  |
| Contraceptive use before pregnancy   |     |     |
| Yes  | 56  | 51  |
| No   | 54  | 49  |
| Type of Contraceptive(56)*   |     |     |
| Contraceptive pill   | 38  | 68  |
| Condom   | 12  | 22  |
| Injectable contraceptive   | 4   | 7   |
| IUD  | 1   | 1,5 |
| Didn't answer  | 1   | 1,5 |
| Parity   |     |     |
| Primiparous  | 37  | 34  |
| Multiparous  | 73  | 66  |
| Abortion   |     |     |
| Never had an abortion  | 79  | 72  |
| Have suffered an abortion  | 31  | 28  |
| Of those who had an abortion (31)*   |     |     |
| It happened once   | 23  | 74  |
| It happened more than once   | 8   | 26  |
| Communicable Infections  |     |     |
| Had it   | 107 | 98  |
| Didn't have it   | 3   | 2   |
| Pregnancy Planning   |     |     |
| Unplanned  | 22  | 20  |
| Planned  | 88  | 80  |
| * The Beginning of Libido **Multiple response variables.<br>Source: Research Data, 2019. |     |     |

Family

Television

Friends

Internet

School

\*\*Multiple response variables

Source: Research Data, 2019

Health Professionals

Posters and Folders

Campaigns and Lectures



child and reasons related to maternal weight loss. The lower prevalence pointed to a reduction in postpartum bleeding. Regarding the handle, most elicited care with the maximum opening of the baby's mouth, as shown in Table 3.

Regarding positioning, there is a need for the baby to be well supported with the body close to the mother with biomechanical alignment. Regarding the ways to increase milk production, the intake of water, juices and teas, with a balanced diet and satisfactory sleep are the most elicited (Table 3).

Still in table 3, regarding attitudes, the majority expressed a positive opinion about the need for exclusive breastfeeding. Regarding the practice of breastfeeding in the previous pregnancy, women reported having breastfeed all their children, with nipple trauma, absent support network and pain as the reasons for not breastfeeding exclusively.

Of the multiparous women who reported reasons for not exclusively breastfeeding, 30 (23.6%) reported nipple trauma, 25 (19.6%) reported no support network, 25 (19.6%) reported weaning without a defined reason, 24 (18.9%) pain,9 (7.1%) engorgement, 8 (6.3%) mastitis and 6 (4.7%) mentioned failure of experience, absence of breast milk, tiring and uncomfortable. Still, 96 (87.2%) pregnant women had satisfactory knowledge and 14 (12.7%) unsatisfactory. As for attitude, 81 (73.6%) had a satisfactory opinion and 29 (26.3%) had an unsatisfactory one. Regarding practice, among the 73 who had already breastfed, 42 (57.5%) women had satisfactory practice and 31 (42.4%) unsatisfactory (data not shown in the table). There was a significant association between age group and knowledge (p=0.003). Women over 26 years of age are 88.1% (OR=0.119 [0.025-0.561]) less likely to have unsatisfactory knowledge when compared to younger women. Another positive result is that non-white ethnicity is a protective factor, with 9.5% (OR= 0.905 [0.848-0.966]) less likely to have unsatisfactory knowledge than white people (Table 4).

As for attitudes, again there was signifi-

(n=110). Sapé, Paraíba, Brazil, 2019 Characteristics M % Smoker Yes 6 5,5 No 104 94,5 Alcoholic Yes 2 1,9 108 No 98,1 Sedentaries Yes 58,1 64 No 46 41,9 Practiced Physical Activity (46)\* 1-2 times a week 29 26,3 2-3 times a week 17 15,4 Prenatal Consultations More than 6 consultations 69 62,7 0-5 consultations 41 37,2 Information sources (197)\*

50

43

27

22

20

19

10

6

25

22

14

12

10

9

5

3

Table 2. Distribution of life habits of pregnant women participating in the research

| Table 3 - Knowledge, attitudes and practices about breas<br>women participating in the research (n=110). Sapé, Pa |    |      |
|---|----|------|
| Knowledge   | f  | %    |
| Benefits (N=393)*   |    |      |
| All the nutrients needed by the baby  | 78 | 19,8 |
| Contributes to baby's development and growth  | 78 | 19,8 |
| Maternal weight loss  | 45 | 11,4 |
| Serves as a natural vaccine for the baby  | 37 | 9,4  |
| Reduction of colic in the baby  | 31 | 7,8  |
| Reduces the risk of breast and ovarian cancer   | 29 | 7,3  |
| Uterus returning to pre-pregnancy size  | 28 | 7,1  |
| Reduces the risk of postpartum depression   | 18 | 4,5  |
| Maturation of the baby's gastrointestinal trac  | 17 | 4,3  |



cance with age group (p<0.0001),

in which women over 26 years old have 81.3% (OR=0.187 [0.071-0.490]) less chance of having unsatisfactory opinions about EBF. In addition to the fact that primigravidae or pregnant women with up to one child may have appropriate attitudes towards breastfeeding, as the p-value was very close to significance (p=0.053), as shown in Table 5.

There was a significant relationship between practice and age group (p=0.015), indicating higher prevalences for suitability among more mature women with 70.9% (OR=0.291 [0.105-0.806]) less likely to stop breastfeeding satisfactorily compared to age groups younger than 26 years. Significance was observed between the number of prenatal consultations and the practice of breastfeeding (p=0.040). Multiparous women with up to five consultations are twice as likely to breastfeed adequately (OR=2.709 [1.034-7.099]) compared to those with a higher number of consultations (Table 6).

# **DISCUSSION**

Satisfactory knowledge, attitude and practice were more prevalent among women who did not have paid work, living in the urban area, more mature, with more than eight years of schooling, non-white, with an income of up to one minimum wage and a fixed partnership. The profile of postpartum women in southern Brazil is similar to data related to mean age, work, schooling and parity. (11)

In São Paulo, research identified that the early introduction of liquids in the diet was significantly associated with women without employment (p=0.0386), young people (p=0.0159) and primiparous women (p=0.003). In addition, 30% of postpartum women introduced liquids, despite reporting being exclusively breastfed. Therefore, clarification on the concept of exclusive breastfeeding, as well as its promotion in order to deconstruct beliefs and values, can ensure the effectiveness of the practice, through the incorporation of adequate knowledge. (12)

| Edema improvement  | 16  | 4    |
|--|-----|------|
| Decreased uterine/menstrual cramping                             | 16  | 4    |
| "Grip" care (N=296)*   |     |      |
| Baby's mouth wide open   | 70  | 23,6 |
| Squeeze most of the areola                                       | 67  | 22,6 |
| Baby's chin touching the breast                                  | 57  | 19,2 |
| Baby facing the breast, with the nose at the level of the nipple | 56  | 18,9 |
| More areola visible above baby's mouth                           | 46  | 15,5 |
| Care with positioning (N=298)*                                   |     |      |
| The baby must be well supported                                  | 77  | 25,8 |
| Baby's body next to mother                                       | 76  | 25,5 |
| Baby with head and torso well aligned                            | 60  | 20,1 |
| Sitting/lying and well supported                                 | 48  | 16,1 |
| Baby facing the breast with the nose at the level of the nipple  | 37  | 12,4 |
| Ways to increase production (N=290)*                             |     |      |
| Drink plenty of water, juices and teas                           | 101 | 34,8 |
| Balanced diet  | 84  | 28,9 |
| Sleeping properly  | 56  | 19,3 |
| Proper grip and positioning                                      | 49  | 16,9 |
| How long should the baby be breastfed? (N=110)                   |     |      |
| Up to 6 months   | 68  | 61,8 |
| After 6 months   | 21  | 19,1 |
| Before 6 months  | 16  | 14,5 |
| Doesn't have an opinion  | 5   | 4,5  |
| Foods for the first six months of life (N=110)                   |     |      |
| Breast milk only   | 88  | 80   |
| Breast milk and more   | 17  | 15,4 |
| Doesn't have an opinion  | 5   | 4,5  |
| Attitudes (N=110)  |     |      |
| Desire to breastfeed   |     |      |
| Up to 6 months   | 57  | 51,8 |
| Up to 24 months  | 47  | 42,7 |
| Doesn't have an opinion  | 5   | 4,4  |
| Doesn't want to breastfeed                                       | 1   | 1    |
| Complemented breast milk   |     |      |
| After six months of healthy baby                                 | 81  | 73,6 |
| Doesn't have an opinion  | 12  | 10,9 |
| Before six months old of a healthy baby.                         | 10  | 9,1  |
| At any age of a healthy baby                                     | 7   | 6,3  |
| Exclusive breastfeeding  |     |      |
| Always necessary   | 82  | 74,5 |
| Doesn't have an opinion  | 11  | 10   |
| A little necessary   | 11  | 10   |



Adequate knowledge and opinions were more frequent in pregnant women with more than six prenatal care appointments. However, the practice showed a higher prevalence among women with up to five consultations. It is believed that the experience of previous pregnancies can justify this influence on the intention to breastfeed, since the practice could only be evaluated in multiparous women, explaining the relationship between the number of consultations below the expected, that is, to intervene in an individualized way, the experiences of mothers must be considered, in order to improve the health orientation process.

International research pointed out the importance of prenatal care for adequate knowledge about pregnancy and mo-

| Unnecessary                                | 6  | 5,4  |
|--|----|------|
| Practices (N=73) †                         |    |      |
| Previously breastfed                       |    |      |
| All her children                           | 62 | 84,9 |
| Not all her children                       | 9  | 12,3 |
| Doesn't know/Doesn't want to answer        | 2  | 2,7  |
| Exclusive breastfeeding                    |    |      |
| From 1 to 5 months old baby                | 36 | 49,3 |
| Up to 6 months old baby                    | 21 | 28,7 |
| After 6 months of age baby                 | 16 | 1,9  |
| Complementary breastfeeding                |    |      |
| From 6 to 12 months old baby               | 30 | 41,1 |
| From 1 to 5 months old baby                | 24 | 32,8 |
| After the baby is 12 months old            | 19 | 6    |
| *Multiple response variables. †Multiparous |    |      |

Table 4 - Odds ratio and association between knowledge about breastfeeding with sociodemographic, sexual, reproductive variables and number of consultations (n=110). Sapé, Paraíba, Brazil, 2019

| Variables                | Knowledge |         |        |          |        | ORJJ (CI)¶           |
|--------------------------|-----------|---------|--------|----------|--------|----------------------|
|                          | Satis     | factory | Unsati | sfactory | p†     |                      |
|                          | f         | %       | f      | %        |        |                      |
| Occupation               |           |         |        |          |        |                      |
| Unpaid                   | 53        | 48,1    | 11     | 10       |        |                      |
| Paid                     | 43        | 39,1    | 3      | 2,7      | 0,147§ | 0,336 (0,088-1,282)  |
| Location                 |           |         |        |          |        |                      |
| Urban                    | 59        | 53,6    | 20     | 18,1     |        |                      |
| Rural                    | 22        | 20      | 9      | 8,1      | 0,691‡ | 1,207 (0,478-3,048)  |
| Age group                |           |         |        |          |        |                      |
| 18-25 years old          | 40        | 36,3    | 12     | 10,9     |        |                      |
| >26 years old            | 56        | 50,9    | 2      | 1,8      | 0,0034 | 0,119 (0,025-0,561)  |
| Education                |           |         |        |          |        |                      |
| 0-8 years                | 21        | 19,1    | 1      | 1        |        |                      |
| >8 years                 | 67        | 60,9    | 13     | 11,8     | 0,292§ | 4,075 (0,503-33,015) |
| Color                    |           |         |        |          |        |                      |
| White                    | 9         | 8,1     | 0      | 0        |        |                      |
| Non-white                | 86        | 78,1    | 14     | 11,7     | 0,601§ | 0,905 (0,848-0,966)  |
| Conjugality              |           |         |        |          |        |                      |
| With partner             | 90        | 81,8    | 12     | 10,9     |        |                      |
| Without partner          | 6         | 5,4     | 2      | 1,8      | 0,269§ | 2,500 (0,452-13,821) |
| Income*                  |           |         |        |          |        |                      |
| Up to 1 Minimum Wage     | 63        | 57,2    | 6      | 5,4      |        |                      |
| More than 1 Minimum Wage | 33        | 30      | 8      | 7,2      | 0,100‡ | 2,545 (0,815-7,953)  |
| Number of children       |           |         |        |          |        |                      |



| 0-1   | 60                  | 54,5 | 11 | 10   |        |                     |
|---|---------------------|------|----|------|--------|---------------------|
| More than 1   | 36                  | 32,7 | 3  | 2,7  | 0,371§ | 0,455 (0,119-1,739) |
| Sexarch   |                     |      |    |      |        |                     |
| Up to 15 years old  | 34                  | 30,9 | 5  | 4,5  |        |                     |
| More than 15 years old  | 62                  | 56,3 | 9  | 8,1  | 1,000‡ | 0,987 (0,306-3,182) |
| Religion (N=104)  |                     |      |    |      |        |                     |
| Catholic  | 71                  | 68,2 | 11 | 10,5 |        |                     |
| Evangelical   | 20                  | 19,2 | 2  | 1,9  | 0,731§ | 0,645 (0,132-3,153) |
| Number of consultations   |                     |      |    |      |        |                     |
| Up to 5   | 35                  | 31,8 | 6  | 5,4  |        |                     |
| ≥6  | 61                  | 55,4 | 8  | 7,2  | 0,644‡ | 0,765 (0,245-2,385) |
| *Current Minimum Wage: R\$934.00, Brazil, 2019. †p= Statistical significance. $\pm$ p-value in $\pm$ P-value in Fisher's Exact Test. $\pm$ 0R= Odds Ratio. $\pm$ 1Cl= Confidence Interval of 95%. | the chi-square test |      |    |      |        |                     |
|   |                     |      |    |      |        |                     |

Table 5 - Odds ratio and association between attitude towards breastfeeding with sociodemographic, sexual, reproductive variables and number of consultations (n=110). Sapé, Paraíba, Brazil, 2019

| Variables                  |        |                             | Attitude |      |          | OR   (CI) ¶          |
|----------------------------|--------|-----------------------------|----------|------|----------|----------------------|
|                            | Satisf | Satisfactory Unsatisfactory |          | p†   |          |                      |
|                            | f      | %                           | f        | %    |          |                      |
| Occupation                 |        |                             |          |      |          |                      |
| Unpaid                     | 44     | 40                          | 20       | 18,1 |          |                      |
| Paid                       | 37     | 33,6                        | 9        | 8,1  | 0,170‡   | 0,535 (0,218-1,316)  |
| Location                   |        |                             |          |      |          |                      |
| Urban                      | 59     | 53,6                        | 20       | 18,1 |          |                      |
| Rural                      | 22     | 20                          | 9        | 8,1  | 0,691‡   | 1,207 (0,488-3,048)  |
| Age Group                  |        |                             |          |      |          |                      |
| 18-25 years old            | 30     | 27,2                        | 22       | 20   |          |                      |
| >26 years old              | 51     | 46,3                        | 7        | 6,3  | <0,0001‡ | 0,187 (0,071-0,490)  |
| Education (N=102)          |        |                             |          |      |          |                      |
| 0-8 years                  | 18     | 17,6                        | 4        | 3,9  |          |                      |
| >8 years                   | 56     | 54,9                        | 24       | 23,5 | 0,419§   | 1,929 (0,590-6,303)  |
| Color                      |        |                             |          |      |          |                      |
| White                      | 8      | 7,2                         | 1        | 1    |          |                      |
| Non-White                  | 72     | 64,4                        | 28       | 25,4 | 0,440§   | 3,114 (0,372-26,028) |
| Conjugality                |        |                             |          |      |          |                      |
| With partner               | 77     | 70                          | 25       | 22,7 |          |                      |
| With partner               | 4      | 3,6                         | 4        | 3,6  | 0,204§   | 0,689 (0,279-1,702)  |
| Income*                    |        |                             |          |      |          |                      |
| Up to 1 Minimum income     | 49     | 44,5                        | 20       | 18,1 |          |                      |
| More than 1 Minimum income | 32     | 29,1                        | 9        | 8,1  | 0,418‡   | 0,689 (0,279-1,702)  |
| Number of children         |        |                             |          |      |          |                      |
| 0-1                        | 48     | 43,6                        | 23       | 20,9 |          |                      |
| More than 1                | 33     | 30                          | 6        | 5,4  | 0,053‡   | 0,379 (0,139-1,033)  |
| Sexarch                    |        |                             |          |      |          |                      |
|                            |        |                             |          |      |          |                      |

| Up to 15 years old   | 29                      | 26,3 | 10 | 9,1  |        |                     |
|--|-------------------------|------|----|------|--------|---------------------|
| More than 15 years old   | 52                      | 47,2 | 19 | 17,2 | 0,899‡ | 1,060 (0,435-2,581) |
| Religion (N=104)   |                         |      |    |      |        |                     |
| Catholic   | 63                      | 60,5 | 19 | 18,2 |        |                     |
| Evangelical  | 14                      | 13,4 | 8  | 7,6  | 0,210‡ | 1,895 (0,691-5,196) |
| Number of consultations  |                         |      |    |      |        |                     |
| Up to 5  | 28                      | 25,4 | 13 | 11,8 |        |                     |
| ≥6   | 53                      | 48,1 | 16 | 14,5 | 0,327‡ | 0,650 (0,274-1,542) |
| Current Minimum Wage: R\$934.00, Brazil, 2019. †p= Statistical significance. ‡p-value § P-value in Fisher's Exact Test.   OR= Odds Ratio. ¶C = Confidence Interval of 95%. | in the chi-square test. |      |    |      |        |                     |

Table 6 - Odds ratio and association between breastfeeding practice with sociodemographic, sexual, reproductive variables and number of consultations (N=73). Sapé, Paraíba, Brazil, 2019 Variables **Practices** OR|| (CI) ¶ Satisfactory Unsatisfactory p† % f % Occupation Unpaid 23 31,5 20 27,3 Paid 19 26 0,402‡ 0,666 (0,256-1,729) 11 15 Location Urban 29 39,7 24 32,8 Rural 7 9,5 0,651 (0,224-1,890) 13 17,8 0,428‡

| Age group                |    |      |    |      |        |                      |
|--------------------------|----|------|----|------|--------|----------------------|
| 18-25 years old          | 9  | 12,3 | 15 | 20,5 |        |                      |
| >26 years old            | 33 | 45,2 | 16 | 21,9 | 0,015‡ | 0,291 (0,105-0,806)  |
| Education                |    |      |    |      |        |                      |
| 0-8 years                | 21 | 28,7 | 22 | 30,1 |        |                      |
| >8 years                 | 21 | 28,7 | 9  | 12,3 | 0,072‡ | 0,409 (0,153-1,094)  |
| Color                    |    |      |    |      |        |                      |
| White                    | 5  | 6,8  | 3  | 4,1  |        |                      |
| Non- White               | 36 | 49,3 | 28 | 38,3 | 1,000§ | 1,296 (0,285-5,892)  |
| Conjugality              |    |      |    |      |        |                      |
| With partner             | 40 | 54,7 | 2  | 2,7  |        |                      |
| Without partner          | 28 | 38,3 | 3  | 4,1  | 0,645§ | 2,143 (0,336-13,672) |
| Income*                  |    |      |    |      |        |                      |
| Up to 1 Minimum wage     | 29 | 39,7 | 23 | 31,5 |        |                      |
| More than 1 Minimum wage | 13 | 17,8 | 8  | 10,9 | 0,631‡ | 0,776 (0,275-2,188)  |
| Number of children       |    |      |    |      |        |                      |
| 0-1                      | 20 | 2,7  | 15 | 20,5 |        |                      |
| More than 1              | 22 | 30,1 | 16 | 21,9 | 0,948‡ | 0,970 (0,383-2,455)  |
| Sexarch                  |    |      |    |      |        |                      |
| Up to 15 years old       | 16 | 21,9 | 17 | 23,2 |        |                      |
| More than 15 years old   | 26 | 35,6 | 14 | 19,1 | 0,155‡ | 0,507 (0,197-1,301)  |
| Religion (N=69)          |    |      |    |      |        |                      |



| Catholic   | 35                   | 47,9 | 7  | 9,5  |        |                     |
|--|----------------------|------|----|------|--------|---------------------|
| Evangelical  | 21                   | 28,7 | 6  | 8,2  | 0,565‡ | 1,429 (0,423-4,826) |
| Number of consultations  |                      |      |    |      |        |                     |
| Up to 5  | 29                   | 39,7 | 14 | 19,1 |        |                     |
| ≥6   | 13                   | 17,8 | 17 | 23,2 | 0,040‡ | 2,709 (1,034-7,099) |
| Current Minimum Wage: R $\$934.00$ , Brazil, 2019. †p= Statistical significance. $\$p$ -value in $\$p$ -value in Fisher's Exact Test. $\$p$ -Odds Ratio. $\$p$ -Cl Confidence Interval of 95%. | the chi-square test. |      |    |      |        |                     |

therhood. <sup>(13)</sup> When this service is weakened, the system ends up depriving the child of the benefits of breastfeeding, in addition to exposing the newborn to diseases such as pneumonia and diarrhea. <sup>(14)</sup>

Regarding prenatal care, research in the north and northeast of Brazil identified adequate coverage of this service, that is, at least six consultations in 73.2% of the evaluated pregnant women's cards. Although there is persistence of regional and social inequalities in access to adequate care, less adequacy of care was found in young women. (15)

Regarding the sources of information, family members and health professionals were important references to the strengthening of exclusive breastfeeding, in line with national and international investigations. (16-19) Although the school was the least cited source in this study, experimental research showed that educational intervention with school children significantly contributed to their knowledge of exclusive breastfeeding, strengthening the primary support network for this practice. (20)

As for health professionals, theoretical-practical training contributes to the improvement of knowledge, attitudes and practices in exclusive breastfeeding and is fundamental to maternal and child hospital care, above all, in the correct management and reduction of early weaning rates. (21) An investigation of 400 mothers in rural Kenya, showed that about 84% of mothers agreed that a newborn should be fed only with breast milk. (22) Regarding the benefits of breastfeeding, a CAP study with 200 postpartum women in Aurangabad found that 61% were aware of the importance of free demand, 84% were aware of the nutritional value of breast milk and 27% were aware of the anti-infective property of milk.

The knowledge and attitudes were adequate, however, the practice was not timely. (23)

Meta-analysis indicated benefits of exclusive breastfeeding related to protection against infections and oral malocclusion, increased intelligence, reduction of uterine cramping, improvement of edema, weight loss <sup>(24)</sup>, prevention of anemia, reduced risk of breast, ovarian and uterine cancer, postpartum depression and obesity. <sup>(25)</sup>

In addition, breastfeeding is associated with a reduction in postpartum fasting blood glucose, may play a relevant role in reducing glucose intolerance in women who have had gestational diabetes (26), although long-term breastfeeding increases the prevalence of dental caries in children.

Multiparous women have satisfactory knowledge in relation to positioning and latching, referring to care such as the child's body facing the mother, alignment of the head/trunk and nose at the level of the nipple. First-time mothers need guidance and positive reinforcement regarding positioning and correct latching in the postpartum period, with technical instructions especially among women undergoing cesarean section. (27)

Authors claim that early weaning is associated with sleep deprivation. <sup>(28)</sup> It is believed that inadequate rest generates the possibility of abandoning breastfeeding because frequent episodes of breastfeeding at night cause maternal overload, bringing fatigue and mood changes. Thus, with the pattern of insufficient sleep, mothers prioritize their need for rest, and end up introducing other foods into the child's diet, facilitating the daily routine. A systematic review concluded that nursing mothers with engorged breasts, inadequate positioning, and incorrect attachment of the infant to the

breast were more prone to the occurrence of nipple trauma. There was an association between nipple trauma and pain, which can occur in the first feedings, indicating inadequacy of the attachment and positioning of the infant to the mother's breast. (27) In addition, women who experienced pain during breastfeeding tend to perform early weaning in the absence of guidance and a support network. (27) Another factor such as postpartum depression is a risk factor for exclusive breastfeeding (29) and not offering artificial teats and establishing breastfeeding support groups increases the prevalence of exclusive breastfeeding. (30)

In this study, there was a higher prevalence of satisfactory practice for women without paid employment. It is believed that factors related to paid work may be suggestive of advancing the complementation, considering that maternity leave for private companies restricts the child's right to exclusive breastfeeding directly from the mother's breast. This situation can generate in the woman an apprehension about the child's adaptation to her absence, favoring the insertion of complementary foods as soon as possible.

Previous pregnancy experience is cited as a protective factor against adherence to exclusive breastfeeding. According to the number of pregnancies, the greater the practice of mothers, and therefore, the longer the duration of breastfeeding for the next children. (31-32) In addition, a randomized and controlled study showed that educational interventions via telephone can improve the duration of breastfeeding. Although the links do not guarantee exclusive breastfeeding, they can favor the incorporation of knowledge to women for nutritious food for babies. (33)

The quantitative nature of the data did



not allow the assessment of women's social representations about breastfeeding, considering that the structured instrument did not favor the incorporation of discourse or content. In addition, although it is a survey carried out in all units of a northeastern municipality, it is not possible to generalize the results to other cities in the state, constituting limitations of the research.

Regarding the scientific benefits, this research provided a situational and collective diagnosis of knowledge, attitudes and practices about breastfeeding. After the research, the data offered subsidies for the implementation of strategies that improved the level of information on the subject among the target population. Nevertheless, the use of an instrument widely dissemina-

ted in the national and international literature supports the results and encourages the incorporation of these tools in Nursing, as multidisciplinary models for the identification of health phenomena that improve the quality of care.

## CONCLUSION

There is an association between age group and knowledge, attitude and practice, indicating higher prevalence of satisfaction among women over 26 years of age. Pregnant women in this age group are more likely to have adequate knowledge and non-white women are more likely to have the same outcome. Age also emerged as a protective factor for the attitude and

practice of breastfeeding.

Fewer prenatal care visits were associated with satisfactory breastfeeding practice in multi-pregnant women, who are twice as likely to breastfeed properly, contradicting expectations that the more appointments, the better the practice. It is believed that previous gestational experiences may have influenced this outcome. More mature women have satisfactory knowledge, attitude and practice regarding breastfeeding, with nipple trauma, absence of a support network and pain being the main reasons for early weaning. During prenatal care, information on exclusive breastfeeding should be strengthened to white primiparous women under the age of 25 years.

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