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Article

Factors Associated with Exclusive Breastfeeding during Admission to a BFHI Hospital A Cross-Sectional Study in Spain

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Abstract: Background: breastfeeding is the optimal nourishment for infants and recommends that children commence breastfeeding within the first hour of birth and be exclusively breastfed for the initial 6 months of life. Our objective was to determine which factors related to mothers could influence the degree of exclusive breastfeeding during hospitalization, as well as to assess breastfeeding mothers' attitudes towards breastfeeding. Methods: A multicenter cross-sectional study was undertaken in the healthcare area of Santiago de Compostela, Spain. The reduced Iowa Infant Feeding Attitude Scale (IIFAS-s) was employed to gauge maternal attitudes toward feeding their baby. Results: 64 women were studied. The overall score of IIFAS-s (mean \pm standard deviation) was 36.95 ± 5.17 . No use of pacifier by the newborn was associated with a positive attitude for breastfeeding. Having previous children (ORa=6,40; IC95% 1,26 – 32,51) and previous experience with breastfeeding (ORa=6,70; IC95% 1,31 – 34,27) increase the likelihood of exclusive breastfeeding during admission. Conclusions: It is important to identify the factors that contribute to increasing the probability that mothers choose exclusive breastfeeding. We must guide our training efforts to these factors.

Keywords: breastfeeding; attitudes; baby-friendly hospital

1. Introduction

The World Health Organization (WHO) recognizes breastfeeding (BF) as the optimal nourishment for infants and recommends that children commence breastfeeding within the first hour of birth and be exclusively breastfed for the initial 6 months of life. Subsequently, they should begin consuming safe and suitable complementary foods while continuing breastfeeding for up to two years or beyond [1]. BF not only provides nutritional benefits but also confers psychological and emotional advantages to both the newborn (NB) and the mother [2–6]. Additionally, it contributes to the economic and social well-being of families by promoting better infant health outcomes [7,8].

According to the latest National Health Survey in Spain from 2017, breastfeeding was the most prevalent feeding method for babies during the first 6 weeks (73.9%), but it decreased to 63.9% by 3 months. By 6 months, 41.6% of babies were being fed with formula milk, thereby relegating breastfeeding to a secondary position (39%) [9]. This trend is associated with various

sociodemographic, clinical, and psychological factors, including maternal insecurity and doubts during the breastfeeding process, as well as the absence of a supportive environment [10,11]. The sociolaboral and cultural shifts of recent decades have negatively impacted breastfeeding rates, with maternal return to work being a primary cause of breastfeeding cessation [12–14]. Insufficient maternal knowledge about breastfeeding is also a contributing factor to early breastfeeding discontinuation [15,16]. This may partly stem from the lack of or inadequate dissemination of information by nursing staff, which in turn can lead to premature breastfeeding cessation [17–19]. Furthermore, nursing staff providing care to women in the early postpartum days may also have insufficient knowledge about breastfeeding [20].

Currently, healthcare services are beginning to establish breastfeeding support groups and programs [21,22]. The Initiative for the Humanization of Birth and Breastfeeding Care (BFHI) launched by the WHO and UNICEF, aims to encourage hospitals, health services, and particularly maternity wards, to adopt practices that protect, promote, and support exclusive breastfeeding from birth [23–25]. One of the standards for continuous improvement in these hospitals is that at least 75% of mothers should practice exclusive breastfeeding during hospitalization [26]. Our hospital has been part of the IHAN network since 2015, in phase 2D since 2020. Hospitals in phase 2D are required to conduct self-assessments to identify areas for improvement in factors that may influence exclusive breastfeeding [27]. Our objective was to determine which factors related to mothers could influence the degree of exclusive breastfeeding during hospitalization, as well as to assess breastfeeding mothers' attitudes towards breastfeeding.

2. Materials and Methods

Study Design

The study was conducted from June 2023 to February 2024 in Galicia, a region in northwest Spain with a population of 2.7 million inhabitants, where breastfeeding abandonment stands at 58.8% within the first year of infant life [28]. To address the study objectives, a multicenter cross-sectional study was undertaken in the healthcare area of Santiago de Compostela, covering a population of 450,000. In 2023, there were 1948 births in this healthcare area. Five Primary Health Centers (PHCs) were selected for the study through intentional sampling. These comprised 2 urban PHCs (Concepción Arenal PHC and Vite PHC) and 3 rural PHCs (Boqueixón PHC, O Pino PHC, and Touro PHC).

Sample Selection and Procedure

To achieve the study objectives, women aged 18 or older, mothers of infants under 12 months who had chosen breastfeeding or started but switched to formula feeding before 6 months, and who gave birth at the clinical hospital of Santiago de Compostela, were randomly selected from the participating HCs. Participation was offered during contact with the pediatric nurse. Mothers of children older than 12 months or those opting for formula feeding were excluded.

Data were collected using a specific data collection notebook comprising sections on sociodemographic variables of women, variables related to children, and variables related to breastfeeding, including type of breastfeeding during admission and discharge, support and information on breastfeeding during admission and follow-up in the HC, and family support for breastfeeding.

Additionally, the Iowa Infant Feeding Attitude Scale (IIFAS) was employed to gauge maternal attitudes toward feeding their baby, validated for the Spanish population [29]. The IIFAS-s scale, containing 9 items, was administered either on paper or online via a QR code, voluntarily and anonymously, through the nurse or midwife.

Ethical and Legal Considerations

The study was approved by the Territorial Committee of Ethics in Research of Santiago-Lugo (registration code: 2023/199), ensuring informed consent from participants.

Variables and Statistical Analysis

Sociodemographic variables (mother’s age, child’s age, educational level, economic status, type of delivery, social and family support, return to work) and hospitalization-related variables (previous breastfeeding experience, skin-to-skin contact, child’s admission, information received about breastfeeding, type of breastfeeding during admission) were collected.

Qualitative variables were presented as numbers and percentages, and quantitative variables as mean and standard deviation or median and interquartile range.

Bivariate analyses explored the relationship between maternal characteristics or hospitalization-related variables and those measured through the IIFAS-s. Logistic regression models calculated crude and adjusted odds ratios (ORs), with confounding variables included based on significance in the bivariate analysis (p<0.1). All analyses adhered to a 95% confidence level and significance at p<0.05.

3. Results

Sample Description

A total of 64 women were studied, with a participation rate of 100%. All women offered participation in the study accepted. The mean age of the mothers was 36.6 ± 4.1 years, with 45 (70.3%) being ≥ 35 years old. The mean age of the children was 6.3 ± 3.6 months.

Nine (14.1%) newborns were admitted to the hospital’s neonatology unit at the time of birth. Further characteristics of the participating women can be seen in Table 1.

Table 1. Characteristics of Women.

Variable	n	%
Age (n=64)		
<35 years	19	20,7
≥35 years	45	70,3
Type of population (n=64)		
Urban	45	70,3
Rural	19	29,7
Family income (n=64)		
<18.000 €/año	12	18,8
≥18.000 €/año	52	81,3
Type of childbirth (n=64)		
Cesarean	15	23,4
Vaginal	49	76,6
Previous children (n=64)		
Yes	27	42,2
No	37	57,8
Use of pacifier by NB (n=64)		

	Yes	26	40,6
	No	38	59,4
Previous experience in breastfeeding (n=64)			
	Yes	27	42,2
	No	37	57,8
kin-to-Skin contact in first 30 minutes (n=64)			
	Yes	52	81,3
	No	12	18,8
Exclusive breastfeeding during hospital admission (n=64)			
	Yes	47	73,4
	No	17	26,6
Exclusive breastfeeding at hospital discharge (n=64)			
	Yes	54	84,4
	No	10	15,6

Regarding the assistance received from professionals during their hospitalization, 41 (64.1%) women consider it good, while 23 (35.9%) consider it improvable. Regarding the information received during hospitalization about breastfeeding, 36 women (56.3%) consider it good, while 28 (43.7%) consider it improvable.

30 (46.9%) of the women had received information about breastfeeding at their HC from the pediatric nurse, 20 (31.3%) considered they didn't need it, and 14 (21.9%) did not receive any information at their HC. Regarding the level of satisfaction received, 5 (7.8%) women declared being not satisfied at all, 4 (6.3%) declared being somewhat satisfied, 6 (9.4%) fairly satisfied, and 15 (23.4%) very satisfied.

Despite receiving information about breastfeeding in the hospital and HC, 31 (48.4%) had contacted breastfeeding support groups/counseling, and 58 (90.6%) declared having good family support for breastfeeding.

Attitudes Towards Breastfeeding

Table 2 shows women's attitudes towards breastfeeding through the IIFAS-s. The overall score (mean ± standard deviation) of the test was 36.95 ± 5.17. Items 5 and 6 had the lowest and highest scores, respectively.

Table 2. Women's Attitudes towards Breastfeeding (IIFAS-s).

Ítem. Variable (a)	M	SD	Agreement (%)	Neutral %	Disagreement %
1. Formula feeding is more convenient than breastfeeding (b)	4,63	0,84	92,2	4,7	3,1
2. Breastfeeding strengthens the bond between mother and child	4,63	0,84	92,2	4,7	3,1

3. Formula feeding is the best option if the mother intends to work outside the home (b)	3,80	1,04	64,1	23,4	12,5
4. Mothers who do not breastfeed miss out on one of the best experiences of motherhood	3,53	1,19	50	34,4	15,6
5. Breastfed babies are healthier than formula-fed babies	3,44	1,27	50	29,7	20,3
6. Breast milk is the ideal food for the baby	4,78	0,58	95,3	3,1	1,6
7. Breast milk is more easily digested than formula milk	4,31	0,94	75	23,4	1,6
8. Formula milk is as healthy for the baby as breast milk (b)	3,70	1,11	57,8	28,1	14,1
9. Breastfeeding your baby is more convenient than not doing so	4,14	1,14	76,6	15,6	7,8
Total	36,95	5,17	72,57	18,58	8,85

(a) Participants (n = 64) were asked if they agreed with each statement on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). These scores were then grouped into the following three categories: disagree/positive towards formula feeding (scores 1 and 2), neutral (score 3), and agree/positive towards breastfeeding (scores 4 and 5). (b) These items were reversed when calculating the score. M: mean. SD: standard deviation.

Women whose newborns do not use pacifiers show higher scores on the IIFAS-s, indicating a more favorable attitude towards breastfeeding. Conversely, no differences are observed between women’s demographic variables and the mean scores of the IIFAS-s.

Table 3. Differences in attitudes towards breastfeeding by demographic factor, as determined by scores on the IIFAS-s scale. Higher IIFAS-s scores reflect more positive attitudes towards breastfeeding.

Factor (a)	category	Mean score (SD)	p
Mother’s age	< 35 years	35,32 (6,05)	0,145
	≥ 35 years	37,64 (4,66)	
Type of population	Rural	36,58 (6,24)	0,741
	Urban	37,11 (4,72)	
Family incomes	< 18.000 €/year	37,08 (5,73)	0,924
	≥ 18.000 €/year	36,92 (5,10)	
Type of childbirth	Cesarean	37,13 (4,44)	0,879
	Vaginal	36,90 (5,42)	
Previous children	Yes	37,30 (4,58)	0,537
	No	36,48 (5,94)	

Use of pacifier by the newborn	Yes	35,35 (5,61)	0,039*
	No	38,05 (4,61)	
Previous breastfeeding experience	Yes	36,67 (6,01)	0,708
	No	37,16 (4,54)	
Skin-to-skin contact during the first 30 minutes	Yes	36,92 (5,34)	0,924
	No	37,08 (4,56)	
Admission of the newborn to neonatology	Yes	37,22 (4,94)	0,868
	No	36,91 (5,25)	
Exclusive breastfeeding at hospital discharge	Yes	37,31 (5,14)	0,196
	No	35,00 (5,14)	
Perception of proper assistance from healthcare professional during admission	Yes	36,34 (5,26)	0,209
	No	38,04 (4,94)	
Perception of proper information about breastfeeding from healthcare professional during admission	Yes	35,86 (5,21)	0,055
	No	38,36 (4,86)	
Contact with breastfeeding support groups	Yes	37,84 (5,34)	0,186
	No	36,12 (4,94)	
Family support for breastfeeding	Yes	36,91 (4,99)	0,852
	No	37,33 (7,29)	

(a) n= 64. SD: Standard deviation. * p<0,05 test T-Student.

Factors Influencing Exclusive Breastfeeding during Hospitalization

The following table (Table 4) shows factors associated with the woman or certain hospitalization characteristics that may influence the implementation of exclusive breastfeeding during hospitalization. It can be observed that having previous children, prior experience with breastfeeding, and the newborn not being admitted to the neonatology unit increase the likelihood of exclusive breastfeeding during admission.

When adjusting the odds ratio (OR) associated with these variables for possible confounding variables, having previous children and prior experience with breastfeeding remain associated with exclusive breastfeeding during hospitalization.

Table 4. Factors influencing exclusive breastfeeding during hospitalization.

Factor	Exclusive breastfeeding during hospital admission (n=64)			
	YES n (%)	NO n (%)	ORc (IC 95%)	ORa (IC 95%)
Mother’s age ≥ 35 years	36 (76,6)	9 (52,9)	2,91 (0,91 – 9,35)	1,89 (0,50 – 7,06)
Urban population	31 (66,0)	14 (82,4)	2,41 (0,60 – 9,62)	3,21 (0,55 –

				18,82)
Incomes ≥ 18.000 €/year	39 (83,0)	13 (76,5)	1,50 (0,39 – 5,81)	2,08 (0,43 – 10,10)
Vaginal childbirth	36 (76,6)	13 (76,5)	1,01 (0,27 – 3,73)	1,34 (0,28 – 6,41)
≥ 1 previous children	25 (53,2)	2 (11,8)	8,52 (1,75 – 41,49)	6,40 (1,26 – 32,51)
Previous breastfeeding experience	25 (53,2)	2 (11,8)	8,52 (1,75 – 41,49)	6,70 (1,31 – 34,27)
Skin-to-skin contact during the first 30 minutes	40 (85,1)	12 (70,6)	2,38 (0,64 – 8,88)	1,18 (0,22 – 6,19)
No admission of the newborn to neonatology	43 (91,5)	12 (70,6)	4,48 (1,04 – 19,33)	3,41 (0,68 – 17,02)
Use of pacifier by the newborn	20 (42,6)	6 (35,3)	1,36 (0,43 – 4,29)	1,71 (0,45 – 6,50)
Perception of proper assistance from healthcare professional during admission	31 (66,0)	10 (58,8)	1,36 (0,43 – 4,24)	1,67 (0,45 – 6,20)
Perception of proper information about breastfeeding from healthcare professional during admission	29 (61,7)	7 (41,2)	2,30 (0,74 – 7,13)	1,92 (0,54 – 6,86)
Contact with breastfeeding support groups	24 (51,1)	7 (41,2)	1,49 (0,48 – 4,58)	1,59 (0,46 – 5,57)
Family support for breastfeeding	43 (91,5)	15 (88,2)	1,43 (0,24 – 8,64)	1,04 (0,14 – 7,87)

ORc: Crude Odds Ratio. ORa: Adjusted Odds Ratio. Adjusted for the following variables: mother’s age, information regarding breastfeeding during hospitalization, performing skin-to-skin contact in the first 30 minutes.

4. Discussion

To our knowledge, this is the first study to evaluate factors associated with exclusive breastfeeding, especially during hospital admission. Our results show that factors such as having previous children or prior experience with breastfeeding increase the likelihood of exclusive breastfeeding during subsequent births. Studies have linked multiparity with a positive association with breastfeeding duration. Additionally, other studies have confirmed that previous breastfeeding experiences, unsuccessful attempts at breastfeeding, and the inability to breastfeed the first child have been associated with lower breastfeeding initiation rates in subsequent children.

The results of our study show a percentage of women exclusively breastfeeding during admission of 73.4%, with 75% being the sentinel indicator for the rate of exclusive breastfeeding at discharge for IHAN accreditation. This study identified that the number of women breastfeeding exclusively post-discharge increased by seven respondents (10% more), possibly explained by the role of the primary care pediatric nurse or the mother’s contact with breastfeeding support groups. Evidence demonstrates that interventions to support breastfeeding in primary care have a positive effect on breastfeeding rates, duration, or exclusive maintenance. A systematic review by Balogun et

al. asserts that the rate of breastfeeding initiation improves among women who received breastfeeding education and support led by healthcare professionals compared to those who received standard care.

Skin-to-skin contact, performed by 81.3% of participants, appears to be beneficial for breastfeeding in the short and long term, as shown in a systematic review that observed improvements in both breastfeeding status and duration. Regarding factors influencing exclusive breastfeeding during hospitalization, we observed that if the child is not admitted to the neonatal unit, there is an increased probability of establishing exclusive breastfeeding during admission, as well as having previous experience with exclusive breastfeeding. This is consistent with studies demonstrating that rooming-in mother/child in neonatal units increases the probability of successful exclusive breastfeeding.

The total score of the IIFAS-s scale in our study does not differ from available evidence, where it can be observed that women present positive attitudes towards exclusive breastfeeding, especially during pregnancy and hospital admission. Regarding the results extracted from the IIFAS-s scale, it can be observed that mothers' attitudes towards breastfeeding through the IIFAS-s scale do not show statistically significant differences by demographic factor. Concerning pacifier use, systematically questioned since numerous studies demonstrate that pacifier use is related to a lower rate of exclusive breastfeeding, although some demonstrate the opposite. Our data reflect that women whose newborns do not use pacifiers show higher scores on the IIFAS-s, indicating a more favorable attitude towards breastfeeding. Additionally, it is noteworthy that only 50% of surveyed mothers report that breastfed babies are healthier than formula-fed babies, when no literature has been found to demonstrate otherwise.

As strengths of this study, we would like to highlight the survey as a cost-effective and efficient tool for obtaining data: its accessibility, ease of use, and availability in both paper and QR code formats have allowed us to reach the target population in a short period. Additionally, the IIFAS-s scale is considered a good predictor of attitudes towards initiating exclusive breastfeeding, although not as a predictor of maintaining exclusive breastfeeding during hospital admission. By using these two methods in this study, we consider that we used the appropriate tool to obtain a representative picture of the attitudes and characteristics of our group.

Regarding the study's limitations, it is worth mentioning the inherent limitations of a cross-sectional design, although our results serve to generate hypotheses on the topic of work. On the other hand, the achieved sample size may not be sufficient to provide high power to our results. It would be necessary to carry out studies with prospective designs to corroborate our results.

5. Conclusions

There is still a long way to go in promoting breastfeeding and maintaining it. Mothers must be supported by the healthcare personnel who attend to them at all times and all under the same consensus and protocol, avoiding providing contradictory information. Despite this, the fact that the increase in exclusive breastfeeding occurs post-discharge indicates that good work is being done by primary care pediatric nursing staff. It is important to identify the factors that contribute to increasing the probability that mothers choose exclusive breastfeeding. We must guide our training efforts to these factors.

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Conflicts of Interest: The authors declare no conflicts of interest.

References

1. OMS. Lactancia Materna. [Internet]. WHO [citado 3 de enero de 2023]. Disponible en: <https://www.who.int/es/health-topics/breastfeeding#tab=tab1>
2. Bachrach VR, Schwarz E, Bachrach LR. Breastfeeding and the risk of hospitalization for respiratory disease in infancy: a metaanalysis. *Arch Pediatr Adolesc Med.* 2003; 157:237-43. doi: 10.1001/archpedi.157.3.237
3. De Kroon ML, Renders C, Buskermolen MP, Van Woume JP, Van Buuren S, Hirasing RA. The Terneuzen Birth Cohort. Longer exclusive breastfeeding duration is associated with leaner body mass and a healthier diet in young adulthood. *BMC Pediatrics.* 2011; 11(33). doi:10.1186/1471-2431-11-33
4. Wallby T, Lagerberg D, Magnusson M. Relationship Between Breastfeeding and Early Childhood Obesity: Results of a Prospective Longitudinal Study from Birth to 4 Years. *Breastfeed Med.* 2017; 22(1):48-53. doi: 10.1089/bfm.2016.0124
5. Harder T, Bergmann R, Kallischnigg G, Plagemann A. Duration of Breastfeeding and Risk of Overweight: A Meta-Analysis. *American Journal of Epidemiology.* 2005; 162(5). doi: 10.1093/aje/kwi222
6. Krol KM, Grossmann T. Psychological effects of breastfeeding on children and mothers. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz.* 2018; 61(8):977-985. doi: 10.1007/s00103-018-2769-0
7. Quesada, J.A., Méndez, I. & Martín-Gil, R. The economic benefits of increasing breastfeeding rates in Spain. *Int Breastfeed J* 2020; 15(34). doi:10.1186/s13006-020-00277-w
8. Krol KM, Grossmann T. Psychological effects of breastfeeding on children and mothers. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz* 2018; 61(8):977-985. doi: 10.1007/s00103-018-2769-0
9. Instituto Nacional de Estadística [web]. Determinantes de Salud (sobrepeso, consumo de fruta y verdura, tipo de lactancia, actividad física, cuidados en el entorno familiar). [citado 08 feb 2024]. Disponible en: http://www.ine.es/ss/Satellite?L=es_ES&c=INESeccion_C&cid=1259926457058&p=1254735110672&pagina me=ProductosYServicios%2FPYSLayout
10. Maleki-Saghooni N, Amel Barez M, Karimi FZ. Investigation of the relationship between social support and breastfeeding self-efficacy in primiparous breastfeeding mothers. *J Matern Fetal Neonatal Med.* 2020; 33(18):3097-3102. doi: 10.1080/14767058.2019.1568986
11. Santacruz-Salas E, Segura-Fragoso A, Cobo-Cuenca AI, Carmona-Torres JM, Pozuelo-Carrascosa DP, Laredo-Aguilera JA. Factors associated with the abandonment of exclusive breastfeeding before three months. *Children (Basel)* [Internet]. 2020; 7(12):298. doi:10.3390/children7120298
12. Maleki-Saghooni N, Amel Barez M, Karimi FZ. Investigation of the relationship between social support and breastfeeding self-efficacy in primiparous breastfeeding mothers. *J Matern Fetal Neonatal Med.* 2020; 33(18):3097-3102. doi: 10.1080/14767058.2019.1568986
13. Cortés-Rúa L, Díaz-Grávalos GJ. Interrupción temprana de la lactancia materna. Un estudio cualitativo. *Enferm Clí (Engl Ed)* [Internet]. 2019; 29(4):207-15. doi: 10.1016/j.enfcli.2018.11.003
14. Ramiro González MD, Ortiz Marrón H, Arana Cañedo-Argüelles C, Esparza Olcina MJ, Cortés Rico O, Terol Claramonte M, et al. Prevalencia de la lactancia materna y factores asociados con el inicio y la duración de la lactancia materna exclusiva en la Comunidad de Madrid entre los participantes en el estudio ELOIN. *An Pediatr (Barc)* [Internet]. 2018; 89(1):32-43. doi: 10.1016/j.anpedi.2017.09.002
15. Wu Q, Tang N, Wacharasin C. Factors influencing exclusive breastfeeding for 6 months postpartum: A systematic review. *Int J Nurs Knowl.* 2022; 33(4):290-303. doi: 10.1111/2047-3095.12360
16. Hernández MIN, Riesco ML. Exclusive breastfeeding abandonment in adolescent mothers: a cohort study within health primary services. *Rev Lat Am Enfermagem* [Internet]. 2022; 30(spe):e3786. doi: 10.1590/1518-8345.6252.3786
17. Beake S, Pellowe C, Dykes F, Schmied V, Bick D. A systematic review of structured compared with non-structured breastfeeding programmes to support the initiation and duration of exclusive and any breastfeeding in acute and primary health care settings. *Matern Child Nutr.* 2012; 8(2):141-161. doi: 10.1111/j.1740-8709.2011.00381.x
18. Robert E, Michaud-Létourneau I, Dramaix-Wilmet M, Swennen B, Devlieger R. A comparison of exclusive breastfeeding in Belgian maternity facilities with and without Baby-friendly Hospital status. *Matern Child Nutr.* 2019; 15:e12845. doi:10.1111/mcn.12845
19. Pérez-Escamilla R, Martínez JL, Segura-Pérez S. Impact of the Baby-friendly Hospital Initiative on breastfeeding and child health outcomes: a systematic review. *Matern Child Nutr.* 2016; 12:402-417. doi: 10.1111/mcn.12294

20. Gavine A, MacGillivray S, Renfrew MJ, Siebelt L, Haggi H, McFadden A. Education and training of healthcare staff in the knowledge, attitudes and skills needed to work effectively with breastfeeding women: a systematic review. *Int Breastfeed J*. 2017; 12:6. doi: 10.1186/s13006-016-0097-2
21. Dykes, F. The education of health practitioners supporting breastfeeding women: time for critical reflection. *Maternal & Child Nutrition*, 2006; 2:204-216. doi:10.1111/j.1740-8709.2006.00071.x
22. Martín-Ramos S, Domínguez-Aurrecoechea B, García Vera C, Lorente García Mauriño AM, Sánchez Almeida E, Solís-Sánchez G. Lactancia materna en España y factores relacionados con su instauración y mantenimiento: estudio LAYDI (PAPenRed). *Atencion Primaria* 2024; 56(1). doi: 10.1016/j.aprim.2023.102772
23. iHan [Internet]. Ihan.es. [citado el 02 de febrero de 2024]. Disponible en: <https://www.ihan.es/>
24. Grupos de Apoyo [Internet]. Ihan.es. [citado el 02 de febrero de 2024]. Disponible en: <https://www.ihan.es/grupos-apoyo/>
25. García García N, Fernández Gutiérrez P. Conocimientos y actitudes de las madres ante la lactancia materna en un hospital IHAN. *Metas Enferm* 2018; 21(1):50-8. doi: 10.35667/MetasEnf.2019.21.1003081174
26. UNICEF/OMS. IHAN España. Criterios Globales. 2021. [citado el 22 de febrero de 2024]. Disponible en: https://www.ihan.es/docs/documentacion-acreditacion/hospitales/documentacion_para_la_acreditacion_hospitales_actualizados_2021/documentos_generales/Criterios-Globales_IHAN-Espan%25CC%2583a-2021.pdf
27. Grupo de trabajo Hospitales IHAN. Guía para la solicitud del certificado de Fase 2D-Maternidad. UNICEF/OMS. IHAN España. 2021.
28. Candal-Pedreira C, Pérez-Ríos M, Pérez-Franco D, Vila-Farinas A, Santiago-Pérez MI, Rey-Brandariz J, Mourino N, Ruano-Ravina A. Abandono de la lactancia materna en Galicia: ¿cuándo se produce y por qué?. *Galicia Clin* 2023; 84-1: 7-12. doi: 10.22546/68/2725
29. Tomás-Almarcha R, Oliver-Roig A, Richart-Martínez M. Reliability and Validity of the Reduced Spanish Version of the Iowa Infant Feeding Attitude Scale. *J Obstet Gynecol Neonatal Nurs*. 2016; 45(5): e26-e40. Doi: 10.1016/j.jogn.2016.08.001
30. Duque de Rodríguez G, Laredo S, Soriano JM. Cuestionarios validados en español para la investigación en lactancia materna: Una revisión sistemática. *Nutr Clín Diet Hosp*. 2022; 42(2):43-57. doi: 10.12873/422soriano
31. Cohen SS, Alexander DD, Krebs NF, Young BE, Cabana MD, Erdmann P, et al. Factors associated with breastfeeding initiation and continuation: A meta-analysis. *J Pediatr*. 2018; 203: 190-196.e21. Doi:10.1016/j.jpeds.2018.08.008
32. Hobbs AJ, Mannion CA, McDonald SW, Brockway M, Tough SC. The impact of caesarean section on breastfeeding initiation, duration and difficulties in the first four months postpartum. *BMC Pregnancy Childbirth*. 2016; 16(1). doi:10.1186/s12884-016-0876-1
33. Sutherland T, Pierce CB, Blomquist JL, Handa VL. Breastfeeding practices among first-time mothers and across multiple pregnancies. *Matern Child Health J*. 2012; 16(8): 1665-71. doi:10.1007/s10995-011-0866-x
34. Rius, J. M., Ortuño, J., Rivas, C., Maravall, M., Calzado, M. A., López, A., Aguar, M., & Vento, M. (2014). Factores asociados al abandono precoz de la lactancia materna en una región del este de España. *Anales de pediatría* 2003; 80(1), 6-15. doi:10.1016/j.anpedi.2013.05.011
35. UNICEF/OMS. Declaración de Innocenti sobre la Protección, Promoción y Apoyo a la Lactancia Materna. Florencia, 1 de agosto de 1990.
36. Pallás Alonso CR, Soriano Faura J, Colomer Revuelta J, Cortés Rico O, Esparza Olcina MJ, Galbe Sánchez-Ventura J, et al. Apoyo a la lactancia materna en Atención Primaria. *Rev Pediatr Aten Primaria*. 2019; 21(82): 191-201.
37. Balogun OO, O'Sullivan EJ, McFadden A, Ota E, Gavine A, Garner CD, et al. Interventions for promoting the initiation of breastfeeding. *Cochrane Libr*. 2016; 2016 (11). doi:10.1002/14651858.cd001688.pub3
38. Tolppola O, Renko M, Sankilampi U, Kiviranta P, Hintikka L, Kuitunen I. Pacifier use and breastfeeding in term and preterm newborns-a systematic review and meta-analysis. *Eur J Pediatr*. 2022; 181 (9): 3421-3428. doi:10.1007/s00431-022-04559-9.
39. Miñones Suarez L, Fernández Morales M, García Pérez L, Huguet Gorriz A, Fernández Romasanta A, Aldaz Calvo M, Ramillete Bandrés S. Ingreso neonatal en alojamiento conjunto: efecto sobre la lactancia materna durante los 6 primeros meses de vida. *Revista De Lactancia Materna* 2024;2: e30790. Doi:10.14201/rm.30790
40. Martín-Ramos S, Domínguez-Aurrecoechea B, García Vera C, Lorente García Mauriño, AM, Sánchez Almeida E, Solís-Sánchez G. Lactancia materna en España y factores relacionados con su instauración y mantenimiento: estudio LAYDI (PAPenRed). *Atencion primaria* 2024; 56(1):102772. doi:10.1016/j.aprim.2023.102772
41. Santacruz-Salas E, Segura-Fragoso A, Cobo-Cuenca AI, Carmona-Torres JM, Pozuelo-Carrascosa DP, Laredo-Aguilera JA. Factors Associated with the Abandonment of Exclusive Breastfeeding before Three Months. *Children*. 2020; 7(12): 298. doi:10.3390/children7120298

42. Bednarek A, Bodys-Cupak I, Serwin A, Cipora E. Mothers' Attitudes Towards Breastfeeding in Terms of Health Safety and Professional Lactation Education: A National Survey of Women. *J Multidiscip Healthc.* 2023; 16: 3273-3286. doi: 10.2147/JMDH.S431576
43. Cole J, Bhatt A, Chapple AG, Buzhardt S, Sutton EF. Attitudes and barriers to breastfeeding among women at high-risk for not breastfeeding: a prospective observational study. *BMC Pregnancy Childbirth.* 2024; 24(1): 81. doi: 10.1186/s12884-024-06264-x

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