



Original Research / Orijinal Araştırma

## Breastfeeding Related Posts on Instagram: A Content Analysis Instagram'da Emzirme ile İlgili İletiler: Bir İçerik Analizi

Serpil ABALI ÇETİN<sup>1</sup>, Şeyda BİNAY YAZ<sup>2</sup>, Hale SEZER<sup>3</sup>

### Abstract

**Aim:** This study aimed to analyze the content of Instagram posts on breastfeeding.

**Method:** The data from this descriptive and cross-sectional study were collected by one researcher three times. At each data collection time, the most recent 50 posts were coded using the following hashtags #breastfeeding, #breastmilk, #breastfeeding, #breastmilk, #breastfeeding, and #breastmilk.

**Results:** Of these posts, 62.7% were Turkish and 94.7% had visuals. The average number of likes for the posts was 815.70±1883.095 (Min:1-Max:10,531) and the average number of comments was 34.08±64.106 (Min:0-Max:391). Posts with higher likes were more likely to mention the benefits of breastfeeding to mothers (p= 0.030). Posts with a higher number of comments were more likely to mention the following: breastfeeding every time the infant was hungry (p=0.004), breastfeeding until the signs of satiety were observed (p=0.007), and the effect of breastfeeding on the infant's growth (p=0.013).

**Conclusion:** Sharing of posts by health professionals was determined to be the reason for the increased likelihood of getting likes. Therefore, the use of new technologies by health professionals is crucial for achieving better results in health education.

**Keywords:** breast-feeding, content analysis, Instagram

### Özet

**Amaç:** Bu çalışma, Instagram'da emzirme ile ilgili iletilerin içeriklerinin analiz edilmesi amacıyla yapıldı.

**Yöntem:** Tanımlayıcı ve kesitsel tipteki bu çalışma verileri bir araştırmacı tarafından üç farklı zamanda toplandı. Her veri toplama zamanında da #breastfeeding, #breastmilk, #emzirme, #annesütü ve #annesutu etiketleri kullanılarak en son 50 gönderi kodlandı.

**Bulgular:** İletilerin %62,7'si Türkçe dilindedir ve %94,7'sinde görsel olarak fotoğraf kullanılmıştır. İletilerin beğeni sayısı ortalaması 815,70±1883,095 (Min:1-Maks:10,531), yorum sayısı ortalaması ise 34,08±64,106 (Min:0-Maks:391) idi. Beğeni sayısı daha yüksek olan gönderilerin emzirmenin anneye yarar sağlıyor olmasından (p=0,030) bahsetme olasılığı daha yüksekti. Yorum sayısı daha yüksek olan gönderilerin bebeğin her acıktığında emzirilmesi (p=0,004), doyma belirtileri görülene kadar emzirilmesi (p=0,007) ve bebeğin büyümesinde etkili olmasından (p=0,013) bahsetme olasılığı daha yüksekti.

**Sonuç:** İletilerin sağlık profesyonelleri tarafından paylaşılması beğenilme olasılığını artıran bir neden olarak belirlendi. Dolayısıyla bu yeni teknolojilerin sağlık profesyonelleri tarafından kullanılması için kendilerini geliştirmeleri sağlık eğitiminin amacına ulaşmasında oldukça önemlidir.

**Anahtar Kelimeler:** Emzirme; içerik analizi; Instagram

Geliş tarihi / Received: 20.09.2023 Kabul tarihi / Accepted: 17.04.2024

<sup>1</sup> Izmir Bakırçay University, Department of Nursing, Faculty of Health Sciences, Department of Obstetrics and Gynecology Nursing, Izmir, Turkey

<sup>2</sup> Izmir Bakırçay University, Department of Nursing, Faculty of Health Sciences, Department of Pediatric Nursing, Izmir, Turkey

<sup>3</sup> Izmir Bakırçay University, Department of Nursing, Faculty of Health Sciences, Department of Nursing Education, Izmir, Turkey

Address for Correspondence / Yazışma Adresi Serpil ABALI ÇETİN. Gazi Mustafa Kemal District, Kaynaklar Road, Seyrek, Menemen 35665, Izmir / Turkey

E-posta: serpil.cetin@bakircay.edu.tr Tel: + 90 232 493 00 00/11257

Abalı Çetin S, Binay Yaz Ş, Sezer H. *Breastfeeding Related Posts on Instagram: A Content Analysis. TJFPMC, 2024; 18 (3) :285-292*

DOI: 10.21763/tjfmpe.1363562

## Introduction

The World Health Organization (WHO) recommends 'feeding' the infants only with breast milk for the first 6 months from birth and breastfeeding should be continued with appropriate complementary foods until the infant reaches the age of two.<sup>1</sup> It is known that breastfeeding has significant and numerous benefits in terms of the infant, the mother, the community's health, and the country's economy. However, breastfeeding rates in Türkiye and the world have not reached the desired targets.<sup>2,3</sup> While breastfeeding is instinctive for babies, it is a learned skill for mothers, and social and societal factors significantly impact breastfeeding decisions and practices.<sup>4-6</sup> Studies have emphasized many factors affecting breastfeeding.<sup>5-9</sup>

In addition to all these factors, social media platforms, which recently have become significant in the lives of individuals, are areas that will positively or negatively affect, support, and encourage breastfeeding and breastfeeding education.

Instagram is one of the top three most used platforms in the world, and Türkiye currently has 1 billion active users worldwide.<sup>10,11</sup> It allows its users to search and interact with general content, and videos or images can be added with hashtagging (for example, #feeding). In addition, it is one of the important life spots that affect individuals' understanding and decisions about health issues<sup>12</sup> and with positive and negative impacts.<sup>13-15</sup>

Research has revealed that breastfeeding mothers use social media for education, counseling, and social support<sup>16,17</sup> and share their knowledge, experience, and views on breastfeeding, especially with visuals and videos on Instagram. However, very few studies exist in the literature on the content of breastfeeding education, the accuracy of the shared information, and the profile of the people who share it.<sup>18,19</sup>

This study was carried out to analyze the content of posts about breastfeeding on Instagram, the most-used social media platform worldwide in recent years. Thus, the study aimed to determine the adequacy of the information shared on Instagram, the characteristics of the people who shared these posts, the community they interacted with the reactions of the community, and the types of the shared posts.

## Material and Methods

### Study design

This research was descriptive and cross-sectional. The study was conducted using the researcher's Instagram profile. The search page of the relevant profile was searched by typing ±breastfeeding and ±breastfeeding for one week in September 2022. The tags used in the messages that received the most likes and comments were coded. At the time of the crawl, many tags related to the topic were coded, and the top five tags (breastfeeding 78,800, breastfeeding 25,400, breastmilk 18,500, breastfeeding 3400, breastmilk 1100) were determined as the tags of the study. In the second phase of the study, the last 10 messages (50 messages in total) of each label were analyzed in each of three different periods (October-November-December 2022). Thus, a total of 150 messages were included in the study. Considering that the methodology of this study is a newly emerging research area with developing methodology, the coding and analysis were decided on studies conducted with similar methodology in the literature.<sup>20-22</sup>

Before coding, whether the post was about breastfeeding was identified. Posts in Turkish and English on breastfeeding were included in the study. Duplicate and/or repetitive posts and those outside of the topic of breastfeeding were not included in the study.

### Data Collection Methods and Tools

Frequently used hashtags related to breastfeeding were determined by the researchers after an extensive Instagram search. Accordingly, the most used 5 hashtags in Turkish and English were defined (#breastfeeding, #breastmilk, #emzirme, ##annesütü ve #annesutu).

The Data Collection Form developed by the researchers in line with the literature<sup>2,23,24</sup> was used to collect the data. In addition to the items about the language of the post, the date of the post, the hashtag used, and the type of post, the Data Collection Form included questions about the gender, education level, and profession of the individual who shared the post, whether the individual was a mother, the number of followers, whether the post contained advertisements, the number of likes and comments and whether the post encouraged breastfeeding and whether the post included breastfeeding content presented in international breastfeeding guides. Data on the post owner (gender, occupation, motherhood status) were obtained by the researcher by scanning the profile page of the person who shared the relevant post.

### Statistical Analysis

Statistical Package for the Social Sciences (SPSS) (v24) was used to analyze the data. Frequency and percentage calculations were performed for descriptive data. Pearson's chi-squared test was used for the content analysis of posts based on the number of likes and comments, and Fisher's exact test was used for cases in which the expected cell number was greater than five.  $p < 0.05$  level was accepted as an indicator of a significant difference.

## Ethics approval

The study was approved by the Non-Interventional Clinical Research Ethics Committee of a state university in Türkiye (Research Date/ID: 07.02.2020/05) and was performed following the Declaration of Helsinki.

## Results

A total of 150 messages (50 in each month) were examined during October, November, and December 2022 during the study carried out to analyze the content of Instagram posts related to breastfeeding by using all the selected hashtags (#annesutu, #annesütü, #breastfeeding, #breastmilk, #emzirme) each month. It was identified that 62,7% of the posts were in Turkish and almost all (594,7) of the posts used photographs as visuals. It was found that 77% of the posts encouraged breastfeeding and only 8,0% contained advertisements (Table 1). The average number of likes for the messages was  $815,70 \pm 1883,095$  (Min:1-Max:10531), and the average number of comments was  $34,08 \pm 64,106$  (Min:0-Max:391).

**Table 1.** Characteristics of the Posts

Characteristics	n(%)
<b>Post Review Month</b>	
October	50(33.3)
November	50(33.3)
December	50(33.3)
<b>Hashtags</b>	
#annesutu	30(20.0)
#annesütü	30(20.0)
#breastfeeding	30(20.0)
#breastmilk	30(20.0)
#emzirme	30(20.0)
<b>Language</b>	
English	56(37.3)
Turkish	94(62.7)
<b>Post Type</b>	
Photograph	142(94.7)
Video	8(5.3)
<b>Encouraging Breastfeeding</b>	
Yes	116(77.3)
No	34(22.7)
<b>Advertisements</b>	
Yes	12(8.0)
No	138(92.0)

At the time of the research, 96,0% of the users who posted using the related hashtags were females, 32,7% were mothers, and the mean number of the followers of these users was  $56.049,13 \pm 89.539,033$  (Min.4-Max:441.000). Almost half of the users who shared these posts (48,0%) were health professionals, 24,0% were influencer, 11,3% were bloggers and 11,3% were photographers (Table 2).

**Table 2.** Characteristics of the Users

Characteristics	n(%)
<b>Gender</b>	
Male	6(4.0)
Female	144(96.0)
<b>Is the Message Owner's Mom?</b>	
Yes	49(32.7)
No	101(67.3)
<b>Profession</b>	
Healthcare Professional	72(48.0)
Influencer	36(24.0)
Blogger	17(11.3)
Photographer	17(11.3)
Other	8(5.3)

Comparing the number of likes the post received and the profession of the user who shared the post showed that the number of likes received by health professionals was higher compared to other occupational groups with a statistically significant difference ( $\chi^2:15,88, p=,003$ ) (Table 3).

**Table 3.** Comparison of Users' Professions and Number of Likes They Received for the Posts

Profession	Number of Likes		p-value
	1-99	100 ve ↑	
Healthcare Professional	38	34	$\chi^2:15,88/003$
Influencer	17	19	
Blogger	1	16	
Photographer	10	7	
Other	6	2	

$\chi^2$ : Chi-Square Test

**Table 4.** Comparison of Posts with Fisher's Exact Test

Post Content		Number of Likes		Sum	%	p	Number of Comments		p
		1-99 (n=74)	100 ve ↑ (n=78)				0-10 (n=79)	11 ve ↑ (n=71)	
Only breast milk should be given for the first 6 months.	Yes	10	7	17	11.3	0.245*	9	8	0.593*
	No	62	71	133	88.7		70	63	
Breast milk protects the infant from diseases.	Yes	15	18	33	22.0	0.447*	15	18	0.229*
	No	57	60	117	78.0		64	53	
Breast milk benefits the mother.	Yes	14	6	20	13.3	<b>0.030*</b>	9	11	0.309*
	No	58	72	130	86.7		70	60	
Breast milk benefits the child for a long time.	Yes	14	18	32	21.3	0.366*	13	19	0.090*
	No	58	60	118	78.7		66	52	
Breast milk protects the infant from the harmful effects of the formula.	Yes	3	2	5	3.3	0.462*	2	3	0.449*
	No	69	76	145	96.7		77	68	
Thanks to milking, breast milk can be provided at any time.	Yes	4	1	5	3.3	0.159*	4	1	0.218*
	No	68	77	145	96.7		75	70	
After switching to solid food, the main meal is breast milk.	Yes	2	2	4	2.7	0.659*	3	1	0.351*
	No	70	76	146	97.3		76	70	
Breast milk positively affects the infant's intelligence.	Yes	9	11	20	13.3	0.482*	8	12	0.164*
	No	63	67	130	86.7		71	59	
It is easy to digest.	Yes	8	6	14	9.3	0.330*	6	8	0.311*
	No	64	72	136	90.7		73	63	
No preparation is required.	Yes	6	6	12	8.0	0.560*	6	6	0.541*
	No	66	72	138	92.0		73	65	
It is sterile.	Yes	7	6	13	8.7	0.439*	6	7	0.419*
	No	65	72	137	91.3		73	64	

**Table 4. (continued)** Comparison of Posts with Fisher's Exact Test

It strengthens the infant's immunity.	Yes	11	15	26	17.3	0.337*	13	13	0.466*
	No	61	63	124	82.7		66	58	
Breastfeeding protects against pregnancy.	Yes	1	0	1	.7	0.480*	1	-	0.527*
	No	71	78	149	99.3		78	71	
It's cheap.	Yes	4	4	8	5.3	0.595*	4	4	0.579*
	No	68	74	142	94.7		75	67	
Infants should be breastfed whenever they are hungry.	Yes	9	12	21	14.0	0.393*	5	16	<b>0.004*</b>
	No	63	66	129	86.0		74	55	
Infants should be breastfed until they demonstrate signs of satiety.	Yes	9	11	20	13.3	0.482*	5	15	<b>0.007*</b>
	No	63	67	130	86.7		74	56	
It is effective in the infant's growth.	Yes	8	11	19	12.7	0.382*	5	14	<b>0.013*</b>
	No	64	67	131	87.3		74	57	
While breastfeeding, mother and the infant should be comfortable.	Yes	8	7	15	9.9	0.434*	7	8	0.413*
	No	64	71	137	90.1		72	63	
C-hold position should be preferred during breastfeeding.	Yes	5	2	19	12.7	0.189*	2	5	0.179*
	No	67	76	131	87.3		77	66	
Colostrum must be given.	Yes	7	10	17	11.2	0.368*	9	8	0.593*
	No	65	68	133	88.8		70	63	
Breastfeeding should start within one hour after the birth at the latest.	Yes	4	6	10	6.6	0.424*	5	5	0.558*
	No	68	72	142	93.4		74	66	
Water should not be given during breastfeeding.	Yes	1	1	2	1.3	0.731*	1	1	0.724*
	No	71	77	148	98.7		78	70	
During breastfeeding, pacifier bottles should not be used.	Yes	1	1	2	1.3	0.731*	1	1	0.724*
	No	71	77	148	98.7		78	70	
Nighttime breastfeeding is important.	Yes	2	7	9	6.0	0.104*	2	7	0.060*
	No	70	71	141	94.0		77	64	
The infant should be able to swallow during breastfeeding.	Yes	6	3	9	6.0	0.209*	6	3	0.303*
	No	66	75	141	94.0		73	68	
Nipple cracks do not occur if breastfeeding is properly done.	Yes	4	4	8	5.3	0.595*	2	6	0.106*
	No	68	74	142	94.7		77	65	
Breastfeeding has a positive effect on maternal psychology.	Yes	10	9	19	12.7	0.425*	9	10	0.401*
	No	62	69	131	87.3		70	61	
Breastfeeding should continue until the age of 2.	Yes	1	1	2	1.3	0.731*	2	-	0.276*
	No	71	77	148	98.7		77	71	

\*Chi-square, Bold:  $p < 0.05$ 

Instagram posts about breastfeeding were analyzed with Fisher's Exact Test in the study. Accordingly, posts with a higher number of likes were more likely to mention that breastfeeding benefited the mother ( $p=0.030$ ). Examining the likes received by the posts related to breastfeeding showed that the most liked posts were related to the benefits of breast milk such as protecting the infant from diseases ( $n=18$ ), providing long-term benefits to the infant ( $n=18$ ), strengthening the infant's immunity ( $n=15$ ), the need to breastfeed whenever the infants were hungry ( $n=12$ ), breastfeeding until they showed signs of satiety ( $n=11$ ), positively affecting the infant's intelligence ( $n=11$ ) and being effective in the growth of the infant ( $n=11$ ).

Examination of the distribution based on the number of comments for the posts showed that the contents of the posts that received the highest number of comments were as follows: benefiting the child for a long time ( $n=19$ ), protecting the infant from diseases ( $n=18$ ), breastfeeding whenever the infant is hungry ( $n=16$ ), and breastfeeding until the infant showed signs of satiety ( $n=19$ ).  $n=15$ ) and its effect on the growth of the infant ( $n=14$ ). In addition,

the posts with a higher number of comments were more likely to mention the following: breastfeeding every time the infant was hungry ( $p=0.004$ ), breastfeeding until the infant showed signs of satiety ( $p=0.007$ ), and the effect of breast milk in the growth of the infant ( $p=0.013$ ) (Table 4).

## Discussion

This study analyzed Instagram posts on breastfeeding. The most striking and pleasing finding was the lack of negative content in the posts related to breastfeeding. The obtained findings varied due to the nature of breastfeeding. It was quite significant in this small sample that the post containing the expression "breastfeeding benefits the mother" was liked the most. Also, posts that included breastfeeding every time the infant was hungry, breastfeeding until the signs of satiety were observed, and that it was effective in the growth of the infant were more likely to be commented on. As far as we know, this is the first to analyze breastfeeding content found on Instagram. Previously, Marcon et al. systematically analyzed 4.089 images and 20.532 comments about breastfeeding and concluded that breastfeeding was generally supported but posts were not evaluated in this study.<sup>19</sup> On the other hand, the present study did not analyze images and comments. Therefore, for future studies, it can be suggested that images, posts, and comments related to breastfeeding should be included in the analysis together.

In their study which examined Turkish Instagram accounts that posted about child health and diseases, Bülbül et al. suggested that the posts about breast milk and breastfeeding were significantly higher in number compared to the posts about infant formula and bottle feeding.<sup>25</sup> In the present study, it was concluded that the possibility of commenting on posts about infant feeding was higher. This result supports the study of Griauzde et al. which reported that mothers' information source about infant feeding was insufficient.<sup>26</sup>

Based on this, it can be suggested that healthcare professionals evaluate the need for information on the subject in this context. It is also important for healthcare professionals to monitor popular internet and social media platforms to be aware of information that mothers may be accessing.

Another remarkable finding in this study was that the posts containing the phrase "breastfeeding benefits the mother" were liked at higher rates. This result may be proof that the multifaceted benefits of breastfeeding should be included in all educational content. Focusing on only the infant in the breastfeeding process can be interpreted as neglecting the mother, especially during a stressful period such as postpartum. The fact that the post included the additional benefits related to the mother may have increased the likelihood of being liked by individuals who were likely mothers themselves. Indeed, recent World Health Organization reviews of the short- and long-term benefits of breastfeeding have concluded that there is strong evidence for many public health benefits of breastfeeding.<sup>27</sup>

In our study, the messages that received the most reactions/comments were generally related to the time and duration of breastfeeding. This result differs from the study conducted by Padro-Arocas et al., which examined how breastfeeding mothers seek support at critical breastfeeding points in breastfeeding and according to the age of their babies. In the aforementioned study, the most frequently consulted topics were breastfeeding technique, infant sleep, breast milk management and storage of breast milk, breastfeeding myths, stages of breastfeeding, complementary feeding, infant care, and returning to work.<sup>28</sup> However, it is similar to the study by Lebron et al. in which mothers examined their information-seeking and sharing practices in an online breastfeeding support forum.<sup>29</sup> Based on these results, it may be recommended that future studies to investigate this difference between the topics that mothers are most curious about/respond to regarding breastfeeding.

This study concluded that the individuals who shared the posts were generally healthcare professionals and that the posts shared by healthcare professionals were liked at higher rates compared to the other occupational groups. According to studies, the main reliable source for health information and support is healthcare professionals,<sup>30</sup> but especially mothers tend to prefer resources such as social media for reasons such as having instant access to unlimited information from the internet and social media, getting instant advice without waiting for the next visit to the healthcare professional and being able to easily ask questions that they may be embarrassed to ask in person.<sup>31,32</sup> Therefore, as new technologies emerge and are widely adopted, it may be recommended that healthcare professionals specialize in using these technologies to influence specific audiences.

While Instagram has emerged as an important resource for women debating questions and conditions such as breastfeeding, breast milk, and infant feeding, it remains unclear how the Internet plays a role in challenging the current paradigm and empowering women to make meaningful choices.

## Conclusion

In conclusion, this study determined that the number of comments about infant feeding was quite high, but the posts that included the benefits of breastfeeding for the mother tended to be liked at higher rates. In addition, it was found that the posts shared by healthcare professionals were liked more compared to others.

Given that Instagram is widely used by various segments of society globally, this platform can also be used by public health or education campaigns to promote breastfeeding. However, there is little evidence of the accuracy of the existing information and whether breastfeeding is promoted. Therefore, it is necessary to control the posts

related to issues such as breastfeeding, which affects a large part of society, and to evaluate the responses related to these posts.

In addition to the very important results obtained limiting the analysis to five hashtags was the main limitation of this study. Therefore, the full diversity of breastfeeding-related content on Instagram may not have been fully captured. Its cross-sectional design was another limitation of this study. The data were collected over three different periods to allow for a broader analysis of the content on Instagram, but this still does not allow for broad generalizability as the content on social media is constantly changing. However, this study provides new insights into the content of a common topic in a social media platform with a large user base.

### Funding

No specific funding for received for this study.

### Conflict of Interest

No conflict of interest was declared by the authors.

## References

1. World Health Organization. 2017. Exclusive breastfeeding WHO website <http://www.who.int/nutrition/topics/exclusive-breastfeeding/en/> Accessed Feb 5, 2023
2. Victora CG, Bahl R, Barros AJ, et al. Lancet Breastfeeding Series Group Breastfeeding in the 21st century: epidemiology mechanisms and lifelong effect. *Lancet*. 2016 Jan 30;387(10017):475-90. doi: 10.1016/S0140-6736(15)01024-7.
3. Türkiye Demographic and Health Survey (TNSA: Türkiye Nüfus ve Sağlık Araştırması). (2018) [http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/sonuclar\\_sunum.pdf](http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/sonuclar_sunum.pdf) Accessed Jan 27, 2020.
4. Niela-Vilén H, Axelin A, Melender HL, Salanterä S. Aiming to be a breastfeeding mother in a neonatal intensive care unit and home: A thematic analysis of peer-support group discussion in social media. *Maternal & Child Nutrition*. 2015; 11(4):712–726.
5. Rollins NC, Bhandari N, Hajeebhoy N, et al. Why invest and what it will take to improve breastfeeding practices? *The Lancet*. 2016;387(10017) 491–504.
6. Sriraman N, Kellams A. Breastfeeding: What are the barriers? Why women struggle to achieve their goals. *Journal of Women's Health*. 2016;25(7):714–722.
7. Yenil K, Aluş M, Durgun YO, Çeçe Ö, Abalın FB. The relation between breastfeeding self-efficacy and breastfeeding success in mothers. *Journal of Education and Research in Nursing*. 2013;10(2):14-19.
8. Brown A. What do women want? Lessons for breastfeeding promotion. *Breastfeeding Medicine*. April 2016;11(3):102–110. <https://doi.org/10.1089/BFm.2015.0175>
9. Özlüses E, Çelebioğlu A. Educating fathers to improve breast feeding rates and paternal-infant attachment. *Indian Pediatrics*. 2014;51(15):54-57
10. We are Social Agency. 2023. <https://wearesocial.com/uk/blog/2023/01/the-changing-world-of-digital-in-2023/> Accessed Feb 1, 2023.
11. Turkish Statistical Institute. 2022. [https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-\(BT\)-Kullanim-Arastirmasi-2022-45587](https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-(BT)-Kullanim-Arastirmasi-2022-45587) Accessed March 5, 2023.
12. Centola D. Social media and the science of health behavior. *Circulation*. 2013;127(21):2135–44.
13. Lup K, Trub L, Rosenthal L. Instagram #instasad? Exploring associations among Instagram use depressive symptoms negative social comparison and strangers followed. *Cyberpsychology Behavior and Social Networking*. 2015;18(5):247–252
14. Cwynar-Horta J. The commodification of the body positive movement on Instagram Stream: Inspiring. *Critical Thought*. 2016;8(2):36–56
15. Salam M. 2017. Why 'Radical Body Love' is thriving on Instagram New York Times. <https://www.nytimes.com/2017/06/09/style/body-positive-instagram.html> Accessed March 02, 2023.
16. Asiodu IV, Walters CM, Dailey DE, Lee KA, Lyndon A. Breastfeeding and use of social media among first-time African American mothers. *Journal of Obstetric Gynecologic & Neonatal Nursing*. 2015; 44:2268-278
17. Tomfohrde OJ, Reinke J S. Breastfeeding mothers' use of technology while breastfeeding. *Computers in Human Behavior*. 2016; 64:556–561
18. Locatelli E. Images of breastfeeding on Instagram: Self-Representation publicness and privacy management. *Social Media+Society*. 2017;3(2):1–14
19. Marcon AR, Bieber M, Azad MB. Protecting, promoting, and supporting breastfeeding on Instagram. *Maternal & child nutrition*. 2019;15(1): e12658.
20. Basch C.H, MacLean S.A. Colorectal cancer on Instagram: a content analysis. *Journal of Consumer Health on the Internet*. 2019;23(4), 378-383.

21. Basch C.H, MacLean S.A. A content analysis of HPV related posts on instagram. *Human vaccines & immunotherapeutics*.2019; 15(7-8), 1476-1478,
22. Basch C.H, Milano N, Hillyer G.C. An assessment of fluoride related posts on Instagram. *Health Promotion Perspectives*. 2019; 9(1), 85.).
23. World Health Organization. 2018. Guideline: counseling of women to improve breastfeeding practices. <https://apps.who.int/iris/bitstream/handle/10665/280133/9789241550468-eng.pdf> Accessed Feb 5, 2023.
24. McFadden A, Siebelt L, Marshall JL, Gavine A, Girard LC, Symon A, MacGillivray S. Counselling interventions to enable women to initiate and continue breastfeeding: a systematic review and meta-analysis. *Int Breastfeed J*. 2019; 21:14:42. doi:10.1186/s13006-019-0235-8
25. Bülbül S, Çelik C, Gülbahçe A, Kocagözoğlu SG. Social media and breastfeeding: an Instagram study. *Anatolian Current Medical Journal*. 2021;3(4):269-273. <https://doi.org/10.38053/acmj.932785>
26. Griauzde DH, Kieffer EC, Domoff SE, Hess K, Feinstein S, Frank A, Pesch M H. The influence of social media on child feeding practices and beliefs among Hispanic mothers: A mixed methods study. *Eating behaviors*. 2020; 36:101361
27. Binns, C., Lee, M., & Low, W. Y. The long-term public health benefits of breastfeeding. *Asia Pacific Journal of Public Health*, 2016; 28(1), 7-14.
28. Padró-Arocas, A., Quifer-Rada, P., Aguilar-Camprubí, L., & Mena-Tudela, D. Description of a mHealth tool for breastfeeding support: LactApp. Analysis of how lactating mothers seek support at critical breastfeeding points and according to their infant's age. *Research in Nursing & Health*. 2021;44(1), 173-186.
29. Lebron, C. N., St. George, S. M., Eckembrecher, D. G., & Alvarez, L. M. "Am I doing this wrong?" Breastfeeding mothers' use of an online forum. *Maternal & child nutrition*. 2020; 16(1), e12890.
30. Fox S, Duggan M. 2013. Health Online 2013 Washington DC: Pew Research Center. <http://www.pewinternet.org/2013/01/15/health-online-2013>. Accessed March 02, 2023.
31. Criss S, Woo Birdal JA, Goldman RE, Perkins M, Cunningham C, Taveras EM. The role of health information sources in decision-making among Hispanic mothers during their children's first 1000 days of life. *Matern Child Health J*. 2015;19(11):2536-43 doi:10.1007/s10995-015-1774-2
32. Moon RY, Mathews A, Oden R, Carlin R. Mothers' perceptions of the internet and social media as sources of parenting and health information: qualitative study. *Journal of medical Internet research*. 2019;21(7): e14289