



## Social media in promoting breastfeeding

### *Mídia social na promoção do aleitamento materno*

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#### ABSTRACT

Health content has been increasingly searched on the internet, especially through social media, and they are webs of relationships established between people. The objective of the study was to characterize the content of videos published on YouTube on breastfeeding, verifying the association between behavioral variables, quality of the video content, and problems with breastfeeding. This is a descriptive-analytical study, and the chi-square test was used to assess possible associations between variables ( $p < 0,05$ ). 62 videos were found and most of them (72.6%) did not have breastfeeding techniques. There was a statistically significant association between being a health professional and talking about milk production ( $p = 0,0105$ ), personal experience ( $p = 0,0001$ ), and problems with breastfeeding ( $p = 0,0001$ ). This study concludes that videos are a good health-promoting tool, however, on the topic of breastfeeding, videos without professionals tend not to deal with milk production; they are usually reported on personal experience and do not bring scientific information.

**Keywords:** Audiovisual resources. Breastfeeding. Health promotion.

#### RESUMO

Os conteúdos sobre saúde vêm sendo cada vez mais pesquisados na internet, especialmente por meio das mídias sociais, consideradas teias de relações estabelecidas entre pessoas. O objetivo deste estudo foi caracterizar o conteúdo dos vídeos publicados no *YouTube* sobre aleitamento materno, verificando a associação entre variáveis comportamentais, qualidade do material e problemas na amamentação. Trata-se de uma pesquisa descritivo-analítica, em que se utilizou o teste qui-quadrado para avaliar possíveis associações entre as variáveis ( $p < 0,05$ ). Foram encontrados 62 vídeos, e a maioria (72,6%) não apresentou técnicas de amamentação. Houve associação estatisticamente significativa entre ser profissional da saúde e falar sobre produção de leite ( $p = 0,0105$ ), experiência pessoal ( $p = 0,0001$ ) e problemas na amamentação ( $p = 0,0001$ ). Concluiu-se que os vídeos são uma boa ferramenta promotora de saúde, porém na temática sobre aleitamento materno, aqueles sem profissionais tendem a não tratar sobre produção de leite; normalmente são relatos de experiência pessoal e não trazem informação científica.

**Palavras-chave:** Aleitamento materno. Promoção da saúde. Recursos audiovisuais.

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## INTRODUCTION

Breastfeeding period (BF) is essential for the baby's development. In addition to the child's nutrition, breastfeeding prevents diseases by sending antibodies, narrows the mother-infant relationship and helps in cognitive and emotional development. In addition, it helps the mother's mental and emotional health<sup>1</sup>. Mother breastfeeding is considered the ideal diet for babies, as it contributes to the reduction of infant diseases and mortality, considered an indicator of quality of life<sup>2</sup>.

The World Health Organization (WHO) recommends mothers to exclusively breastfeed infants for the first six months, as well as complementary breastfeed until the 2nd year of life. Despite this, breastfeeding rates in Brazil are below the expected and desired, because only 41% infants under six months are in exclusive BF<sup>3</sup>.

There are many tools that have emerged in recent years, which allow internet users to communicate in different ways<sup>4</sup>. Social media has shown great growth worldwide. They act as a facilitator of life, help in connecting people, allow sharing ideas and moments, as well as finding common interest groups<sup>5-6</sup>. YouTubeBR is an example of social media that allows users to publish, view and download videos for free and has also been used as a health promotion tool<sup>7</sup>.

The population, in general, requires and needs a differentiated education, through innovations and technological advances. The video resources on social media seek to demonstrate, quickly, lively, simply and clearly, the importance of breastfeeding<sup>8</sup>. In addition, the health professional has a key role in the process of raising awareness and guiding pregnant women and women who have recently given birth to breastfeed. Therefore, it is necessary to be prepared and sensitive, understanding that each woman has an emotional, family and cultural history to be known.

In view of the scenario already exposed, all knowledge about breastfeeding has health education as a facilitating tool, it is necessary to know what has

been accomplished in social media on the topic<sup>9</sup>. In view of these considerations, the goal of this study was to characterize the content of videos published on YouTubeBR on breastfeeding, checking the association between behavioral variables, quality of the video content and problems with breastfeeding.

## METHODOLOGY

This is an analytical descriptive study, carried out by surveying videos posted on the YouTubeBR platform in June 2019. The descriptor used was: amamentação. As selection criteria, videos in Portuguese were considered, up to 20 minutes in length.

The following relevance variables were observed: number of views, likes, dislikes, number of subscribers to the channel and the duration of each video, breastfeeding technique, milk production, myths and taboos, health professional, profession, personal experience, infant formula, scientific information, women, reports of problems in breastfeeding and use of artificial nipples and the relationship with health professionals.

Data obtained were entered into a Microsoft Excel 2010 spreadsheet and analyzed statistically using the Statistica Single User software 13.2. Descriptive measures were calculated: mean and standard deviation of the quantitative variables, while the qualitative variables were arranged in single frequency and double entry tables. To check for possible associations between the qualitative variables evaluated, the chi-square test was applied. The level of significance adopted in the tests was 5%, that is, associations with  $p < 0.05$  were considered significant.

In the present study, consideration by the Research Ethics Committee (CEP) was disregarded since they are public information, available online. According to the National Health Council (CNS) and the National Research Ethics Commission (CONEP) studies involving only public domain data, where it is not possible to identify the research subjects, do not

require approval from the CEP-CONEP System (<http://council.saude.gov.br/>).

## RESULTS

Sixty-eight videos were found, of which 4 were excluded for exceeding the stipulated time, 1 for being in another language and 1 for being without audio. Therefore, 62 videos were considered for analysis. The number of views of the videos was on average 3,566.8 ( $\pm$  12,809.9), the number of likes was 222.4 ( $\pm$  855.0) and dislikes was 3.9 ( $\pm$  13.2).

On average, the videos were 09:31 ( $\pm$  04:18) minutes long. Most of the channels that post videos about breastfeeding were small with an average of 87,942.0 ( $\pm$  233,337.8) subscribers, only one of them had more than 1 million subscribers and 4 (6.5%) more than 500 thousand subscribers (Table 1).

**Table 1.** Distribuição da caracterização do canal e do vídeo com postagens sobre amamentação.

Variables	Mean	SD
Views	3566.8	12809.9
Likes	222.4	855.0
Dislikes	3.9	13.2
Video time	09:31	04:18
Channel Subscribers	87942	233337.8

  

Channel	N	%
<b>Over 1 million subscribers</b>		
Yes	01	1.6
No	61	98.4
<b>More than 500 thousand subscribers</b>		
Yes	04	6.5
No	58	93.5

Most videos, 72.6% (n = 45), did not address breastfeeding techniques. Among the themes, 22.6% (n = 14) addressed milk production. Most videos, 56.5% (n = 35), dealt with myths and taboos. Only 35.5% (n = 22) had the presence of a health professional.

Among health professionals, the one who most recorded videos was a medical professional, (16.1%) (n = 10). Half of the videos, 50% (n = 31) addressed reports about breastfeeding problems. Just over half of the videos, 53.2% (n = 33) did not have scientific content (information), 21.0% (n = 13) brought content about the use of artificial teats (Table 2).

**Table 2.** Characterization of videos posted on breastfeeding

Variables	n	%
<b>Breastfeeding technique</b>		
Yes	17	27.4
No	45	72.6
<b>Milk production</b>		
Yes	14	22.6
No	48	77.4
<b>Infant formula</b>		
Yes	18	29.0
No	44	71.0
<b>Content about using artificial nipples</b>		
Yes	13	21.0
No	49	79.0
<b>Myths and Taboos</b>		
Yes	35	56.5
No	27	43.5
<b>Reports on breastfeeding problems</b>		
Yes	31	50.0
No	31	50.0
<b>Scientific content</b>		
Yes	29	46.8
No	33	53.2
<b>Video with healthcare professional</b>		
Yes	22	35.5
No	40	64.5
<b>Professional category</b>		
Physician	10	16.1
Nutritionist	6	9.7
Psychologist	1	1.6
Nurse	3	4.8
Breastfeeding consultant	2	3.2
Not professional	40	64.5

Table 3 lists the association between being a health professional and the study variables. It appears that there was an association between being a health professional and milk production ( $p=0.0105$ ); scientific content/information ( $p=0.0001$ ) and

reports of breastfeeding problems ( $p=0.0001$ ). In summary, videos without healthcare professionals tend not to address milk production, they are usually reports about breastfeeding problems and do not bring scientific content/information.

**Table 3.** Distribution of variables assessed according to whether or not they are health professionals

Variables	Video with a healthcare professional				<i>p</i>
	Yes		No		
	n	%	n	%	
<b>Breastfeeding technique</b>					
Yes	9	14.5	8	12.9	0.0774
No	13	21.0	32	51.6	
<b>Milk production</b>					
No	13	21.0	35	56.5	0.0105*
Yes	9	14.5	5	8.1	
<b>Infant formula</b>					
No	17	27.4	27	43.5	0.4173
Yes	5	8.1	13	21.0	
<b>Content about using artificial nipples</b>					
No	20	32.3	29	46.8	0.0884
Yes	2	3.2	11	17.7	
<b>Myths and Taboos</b>					
Yes	15	24.2	20	32.3	0.1671
No	7	11.3	20	32.3	
<b>Reports on breastfeeding problems</b>					
No	22	35.5	9	14.5	0.0001*
Yes	0	0.0	31	50.0	
<b>Scientific content</b>					
Yes	21	33.9	8	12.9	0.0001*
No	1	1.6	32	51.6	

\*Significant chi-square test considering a 5% significance level.

## DISCUSSION

Internet and social media have been widely used as a source of health information. A review study showed that the main purpose in the use of

the internet by medical professionals is the search for medical and health information<sup>10</sup>. This purpose of use is also common among users of health services, as observed in a study conducted in Anápolis, state of Goiás, with patients from a university outpatient

clinic, where 65% patients reported having sought information about health-disease on the internet<sup>11</sup>. It was found in this study that although the channels where the videos were posted are not so broad reach, in number of subscribers, on average each video related to the theme of BF reaches a universe of more than three and a half thousand people. It is noticed that the network communication technology is an efficient tool to promote communication, characterized as a powerful instrument for the circulation of information<sup>12</sup>, including in health.

Every day the number of people who consume information via the internet and social networks increases; according to Cruz et al.<sup>13</sup>, communication is a means of maintaining relationships, establishing knowledge exchanges and socializing information, thus, the internet emerges as a benefit from the moment the spread of information increased, revolutionizing the way of doing communication.

BF is an extremely important dietary practice for the child development<sup>14</sup> and constitutes the main food for the infant, containing essential nutrients for the protection and promotion of children health. The mother's lack of information leads to attitudes that interfere with breastfeeding, such as early weaning<sup>15</sup>, which is why conveying reliable information, based on science, contributes to promoting the health of infants.

Benefits of breastfeeding for the child are already well known, but the benefits of lactation for the health of women are still poorly known. Several studies show that breastfeeding is capable of bringing benefits to women health both in the short and long term. Informing pregnant women about these benefits will certainly influence their decision to breastfeed<sup>2</sup>.

The breastfeeding technique, that is, the way the mother/baby binomial is positioned to breastfeed and the baby's grip is relevant for the baby to be able to efficiently remove the breast milk and also not to hurt the nipples<sup>1</sup>. In the present study, the breastfeeding technique was addressed in the researched videos, although not mostly. The theme is

relevant since when performed incorrectly, it makes the baby's nutrition difficult, as well as providing trauma and breast engorgement<sup>16</sup>. A study carried out in Feira de Santana, state of Bahia, sought to evaluate the effect of an educational intervention directed to the breastfeeding technique on the prevalence of exclusive breastfeeding in the first month of life. The intervention consisted of individual guidance on the breastfeeding technique in the first 48 hours after delivery. In the end, the prevalence of exclusive breastfeeding, in the first month of the infant's life, was 76.6% and the women undergoing the intervention, presented the correct breastfeeding technique<sup>16</sup>. Thus, it is evident that health education interventions have shown significant results in promoting breastfeeding.

Another aspect addressed in the analyzed videos was related to milk production. This theme is part of a series of myths and taboos that involve breastfeeding. A study conducted with pregnant women treated at a prenatal clinic in the state of Rio Grande do Sul reported the existence of several myths related to the BF process. Among the most common: weak, insufficient milk, milk dry up, baby did not want to take the breast, etc. The authors found that myths and beliefs about BF were very present in the daily lives of pregnant women, being possible causes of early weaning, in addition, they emphasize that strategies should be developed to mitigate the negative impact of myths and beliefs about BF in the lactating population<sup>17</sup>.

Lactation is considered a natural process of pregnancy and birth, but it is strongly influenced by cultural, demographic and socioeconomic factors. The support of health professionals, family and community are decisive for breastfeeding to be successful and to last for at least two years. It is known that the social constructions of "little milk" and "weak milk" are still strong enough to lead to early weaning<sup>18</sup>.

It was observed that practically one third of the videos presented content about infant formulas. Although it is not a high percentage, it could have been lower. BF helps the digestive process, favors the

mother-child bond, facilitates emotional development, favors immunity, among others. Infant formulas are indicated only when breastfeeding is impossible, their composition reaches a large part of the nutrients that make up human milk, but its composition does not match the physiological properties of BF<sup>19</sup>.

A small part of the videos analyzed in the study brought content about the use of artificial nipples. In Brazil, the prevalence of bottle and pacifier use in children under one month is 58.4% and 42.6%, respectively. The use of artificial nipples is among the main causes of early interruption of breastfeeding, as the infant has difficulty sucking the mother's breast after having learned to suck the bottle<sup>18</sup>. Thus, it is clear the need to popularize this scientific knowledge, mainly in social media, to avoid the introduction of artificial nipples so that they can promote the babies' health.

Problems with breastfeeding have been reported in several videos, most of them addressing difficulties encountered in the period of milk outflow, nipple cracks, mastitis and pain when breastfeeding. Among the main breast complications related to lactation are flat or inverted nipples, breast engorgement, nipple trauma, candidiasis, block of lactiferous ducts, puerperal mastitis and breast abscess<sup>20</sup>. These issues are of great relevance to be addressed in social networks, since they are often experienced by many women in the breastfeeding process.

All mothers can breastfeed as long as they have accurate information and support within their families, communities and the health system<sup>21</sup>. Breastfeeding information is important for promoting the health of the baby and the mother. It is noted that in the analyzed videos, this information is not always based on scientific content, which can lead to problems for the baby and mother. In the last decades, the internet and social media have expanded access to information and its use as a tool for obtaining health information has grown exponentially<sup>22</sup>. YouTubeBR is among the most used social media in Brazil and has proved

to be an important space for sharing content and exchanging experiences between users. Nevertheless, several studies indicate that most of the information made available on the internet on health is considered scientifically inadequate or incorrect<sup>23</sup> and the misuse of this content can cause serious damage to the health of users. It is very important that health professionals have knowledge of the mother's daily life and the socio-cultural context to which they belong, as well as their doubts, fears, expectations and difficulties, so that it is possible to demystify the beliefs consolidated by "common sense" that influence negatively during lactation<sup>17</sup>. Likewise, it is important that professionals know how content is approached and broadcast on social networks, favoring that they understand the reality that people are often inserted in.

There was a statistically significant association between being a health professional and the theme of milk production, as well as scientific content/information in addition to reports about breastfeeding problems. Health professionals are expected to be the facilitators of learning for pregnant and lactating women since self-learning or learning mediated by laypeople can be determinant for breastfeeding failure<sup>24</sup>.

In this sense, there is no doubt that breastfeeding promotes an increase in quality of life not only for the mother-baby binomial, but also for society as a whole, so it is necessary to overcome the obstacles that arise during breastfeeding. The precariousness of informational and educational health techniques and a mistaken sociocultural heritage can give rise to beliefs and myths capable of negatively influencing the thinking and actions of some mothers, making them feel unable to perform the breastfeeding.

It is necessary not only to intensify strategies that encourage and support breastfeeding through the implementation of public policies, but it is also essential to empower women so that they are able to decide what is best not only for their baby's health, but for theirs too. The internet has proven to be

an important tool for searching for health-related information, but more studies are required to assess the impact of content shared on YouTubeBR videos and how they can influence breastfeeding.

The present study has some limitations, highlighting mainly the small number of videos found using the adopted criteria. Possibly, search in several languages or even adopting other descriptors could result in a larger universe of videos posted on the theme, thus allowing perhaps to obtain distinct and peculiar characteristics about the theme. The academic community knows where to look for and consume quality information that is produced by science. However, little is known about how much the lay population absorbs from what is conveyed in academic circles, so social networks can be configured as a way to disseminate scientific knowledge to the general population.

## CONCLUSION

Videos are a good health-promotion tool, however, on the topic of breastfeeding, videos without professionals tend not to address milk production, they are usually reports about personal experience and do not bring scientific information.

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## REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Saúde da criança: aleitamento materno e alimentação complementar. 2. ed. Brasília: Ministério da Saúde; 2015.
2. Ciampo LAD, Ciampo IRLD. Breastfeeding and the Benefits of Lactation for Women's Health. *Rev Bras Ginecol Obstetr.* 2018;40(6):354–9.
3. Francisco MBS, Brasil MS, Brasil MS, Braz. Perception of pregnant women about exclusive breastfeeding in a Family Health Strategy in the city of Icó–Ceará. *ID Online.* 2019;13(47):383-96.
4. Carvalho JA, Gurgel PKF, Lima KYN, Dantas CN, Martins CCF, Tourinho FSV. Análise de vídeos do youtube sobre aleitamento materno: importância e benefício. *Revi Enferm UFPE.* 2013;7(3):1016-22.
5. Souza MHDN, Nespoli A, Zeitoune RCG. Influência da rede social no processo de amamentação: um estudo fenomenológico. *Esc Anna Nery.* 2016;20(4):e20160107.
6. Nóbrega VCFD, Melo RHVD, Diniz ALTM, Vilar RLAD. As redes sociais de apoio para o Aleitamento Materno: uma pesquisa-ação. *Saúde em Debate.* 2019;43(121):429-40.
7. Dantas KFD, Deus SE, Bernuci MP, Lucena TFR. Youtube e promoção da saúde: uma análise dos vídeos mais populares sobre câncer do colo do útero. *Anais Eletrônico do XI EPCC,* 2019.
8. Prevedello BP, Dotto PP, Santos BZ. Animação no formato de vídeo como tecnologia para a promoção do aleitamento. *Res Soc Develop.* 2020;9(1):1-10.
9. Scorupski RM, Ravelli APX, Julek L, Matos MR, Skupien SV, Alves FBT. Vídeos Educativos em Aleitamento Materno: Educação em Saúde Online. *Ext Foco.* 2020;21(1):127-43.
10. Camargo AL, Ito M. Utilização das tecnologias de informação e comunicação na área da saúde: uso das redes sociais pelos médicos. *J Health Inform.* 2012;4(4):165-9.
11. Rodrigues ACM, Lima GC, Coelho LO, Oliveira AS, Torres TG. A internet como fonte de informação em saúde para pacientes de uma unidade de saúde pública de Anápolis, Goiás. *Centro Universitário de Anápolis – Unievangélica, Curso De Medicina,* 2018.

12. Vermelho SC, Velho APM, Bonkovoski A, Pirola A. Refletindo sobre as redes sociais digitais. *Educ Soc.* 2014;35(126):179-96.
13. Cruz A et al. Consumo das redes sociais digitais pela terceira idade. In: *Anais do 40º Congresso Brasileiro de Ciências da Comunicação*, Curitiba-PR. 2017. p. 1-14.
14. Carvalho JLS, Cirino IP, Lima LHO, Sousa AF, Carvalho MF, Oliveira EAR. Conhecimento das mães sobre aleitamento materno exclusivo e alimentação complementar. *Saúde em Redes.* 2016;2(4):383-92.
15. Lima APC, Nascimento DS; Martins MMF. A prática do aleitamento materno e os fatores que levam ao desmame precoce: uma revisão integrativa. *Journal of Health & Biological Sciences*, v. 6, n. 2, p. 189-196, 2018.
16. Souza TOD, Moraes TEDV, Martins CDC, Bessa Júnior JD, Vieira GO. Efeito de uma intervenção educativa sobre a técnica de amamentação na prevalência do aleitamento materno exclusivo. *Rev Bras Saúde Mater Infant.* 2020;20(1):297-304.
17. Lahós NT, Pretto ADB, Pastore CA. Mitos e crenças acerca do aleitamento materno no estado do Rio Grande do Sul (Brasil). *Nutr Clin Diet Hosp.* 2016;36(4):27-33.
18. Parizotto J, Zorzi NT. Aleitamento Materno: fatores que levam ao desmame precoce no município de Passo Fundo, RS. *Mundo Saúde.* 2008;32(4):466–74.
19. Gnoatto TM, Baratto I Prevalência e determinantes do aleitamento materno exclusivo e uso de fórmulas infantis em crianças de 0 a 6 meses no município de Itapejara D'Oeste-PR. *Rev Bras Obes Nutr Emagr.* 2018;12(69):27-37.
20. Oliveira AKS, Branco JGO, Costa FBC, Santos MSN, Freire FDFS. Prevenção e cuidados frente às complicações mamárias relacionadas à amamentação na atenção primária à saúde. *Enferm Brasil.* 2019;18(1):158-65.
21. Moreira ASH, Murara AZ. Aleitamento materno, desmame precoce e hipogalactia: O papel do nutricionista. *Rev Eletr Faculd Evangol Par.* 2012;2(2):51-61.
22. Garbin HBR, Guilam MCR, Pereira Neto AF. Internet na promoção da saúde: um instrumento para o desenvolvimento de habilidades pessoais e sociais. *Physis.* 2012;22(1):347-63.
23. Moretti FA, Oliveira VED, Silva EMKD. Acesso a informações de saúde na internet: uma questão de saúde pública?. *Rev Assoc Méd Bras.* 2012;58(6):650-8.
24. Silvestre PK, Carvalhaes MADBL, Venâncio SI, Tonete VLP, Parada CMGDL. Breastfeeding knowledge and practice of health professionals in public health care services. *Rev Latino-Am Enfermagem.* 2009;17(6):953–60.