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MEDIA & COMMUNICATION STUDIES | RESEARCH ARTICLE

To read or not to read? Identifying communication patterns in three cancer-related Facebook pages

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Abstract: In recent years, social media have become a popular tool for health communication. Healthcare professionals in many areas already take advantage of such media to communicate important messages to their audiences. Facebook pages are widely used for this purpose. This study analyzes three Brazilian Facebook pages related to cancer. The objective of this work is to explore whether there are communication patterns that generate greater public engagement. The pages selected for this study are the following: *Quimioterapia e Beleza* (Chemotherapy & Beauty), *Fundação do Câncer* (Brazilian Cancer Foundation) and *Cabelegria* (Hair and Happiness). We collected posts on these three pages over a period of six months, totaling 1,243 posts. Content analysis was used to classify the posts into categories. The categories that generated the greatest engagement were “testimonies”, “solidarity” and “anniversaries”. In two out of the three analyzed Facebook pages, those categories were not the most frequent; the potential of each page was underutilized. This result shows the importance of analyses that help health professionals to use social media to communicate effectively about prevention, risk factors, healthy living and early diagnosis, among other topics.

ABOUT THE AUTHORS

Priscila Biancovilli is a journalist in the field of Public Engagement with Science since 2010 and master’s student at the Federal University of Rio de Janeiro (UFRJ), Brazil. She has experience in analyzing social media in healthcare. Her research interests encompass big data analysis on Facebook, especially focusing on cancer prevention and early diagnosis.

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PUBLIC INTEREST STATEMENT

Social media have become a popular tool for health communication. In 2017, the largest social media is Facebook—around 1.65 billion people worldwide access this network at least once a month. This study analyzes three Brazilian Facebook pages related to cancer to explore whether there are communication patterns that generate greater public engagement.

Content producers on Facebook need to know how to draw the public’s attention to issues such as cancer prevention and early detection. Brazil has an incidence rate of 205.5 cases of cancer per 100,000 inhabitants, ranking tenth in South America.

However, the curability of most cancers is greatest when the disease is diagnosed early. Numerous cancer cases could be avoided if citizens were aware of risk factors related to the disease, such as tobacco use, unhealthy eating, unprotected sex and sun exposure. Facebook is an excellent tool to inform the public about these public health issues.

Subjects: Mass Communication; Communication Research Methods; Group Communication; Health Communication; Health & Society

Keywords: Facebook; cancer; engagement; effectiveness; communication

1. Introduction

Social media have become firmly established across sociodemographic groups (Korda & Itani, 2013). At the present time, social media, characterized by their interactive and participatory nature, have become a popular tool for health communication (Abramson, Keefe, & Chou, 2015).

Healthcare professionals in many areas already take advantage of social media to communicate important messages to their audiences. Some of the key benefits of using social media for health communication are: increased social interaction with others; information becomes more available, shared and tailored; boost of public health surveillance; and potential to influence health policy (Moorhead et al., 2013). Facebook pages are widely used for such purposes. For example, in 2014, the Centers for Disease Control and Prevention (CDC) in the United States launched social media-based health education initiatives on Facebook to increase women's knowledge of breast health and breast cancer (Theiss, Burke, Cory, & Fairley, 2016).

Today, the largest social network is Facebook (Hall, Pennington, & Lueders, 2014; Tunnecliff et al., 2016). In the second half of 2016, the number of users accessing the network at least once a month was 1.65 billion (Facebook Community Update, 2016). Facebook pages can be read by anyone with or without a Facebook account, as all these posts are public. However, only Facebook users can like, share and comment on a post.

It is highly desirable that health professionals know how to use Facebook efficiently, and thus arouse interest in public health. Considering health promotion in cancer prevention, this concern is valid since at least one-third of all cancer cases are preventable (World Health Organization, 2016). Besides, cancers figure among the leading causes of morbidity and mortality worldwide, with approximately 14 million new cases and 8.2 million cancer related deaths in 2012 (Ferlay et al., 2014). Numerous cancer cases could be avoided if citizens were aware of risk factors related to the disease, such as tobacco use, alcohol, physical inactivity, unhealthy eating, unprotected sex and sun exposure. Messages transmitted by social media, such as Facebook, should have appeal and arouse the attention of the audience to these risk factors (Picanço, Biancovilli, & Jurberg, 2016).

This study analyzes three Brazilian Facebook pages relating to cancer, each produced by a different organization. The objective of this work is to explore whether there are communication patterns that are more attractive to the audience and generate greater public engagement. Generating engagement is important because it not only reflects the ability of the content to capture the attention of users but also directly influences the reach of the content (Kite, Foley, Grunseit, & Freeman, 2016). If these standards are met, they can be used, for example, to convey cancer prevention messages to a larger number of individuals. The awareness of the population about the importance of cancer prevention or early diagnosis is of vital importance for new cases of the disease to be avoided or treated at an early stage.

2. Method

This is a quali-quantitative research study (Minayo & Minayo-Goméz, 2003), with a descriptive purpose (Jackson, 2009). The pages selected for this study are the following: *Quimioterapia e Beleza* (Chemotherapy & Beauty), *Fundação do Câncer* (Brazilian Cancer Foundation) and *Cabelegría* (Hair and Happiness). These pages were chosen because they are among those with the largest number of followers in Brazil in the area of cancer. In addition, these pages are updated daily, and often more than once a day. The *Fundação do Câncer* page (262,050 followers on 9 December 2016) raises funds and manages teaching and research projects in the oncology area. The *Cabelegría* page (310,253 followers on 9 December 2016) is run by an NGO that collects hair donations and produces

wigs for children with cancer. The *Quimioterapia e Beleza* page (107,260 followers on 9 December 2016) is a page created by Flávia Flores, a woman who had cancer and gives beauty/makeup tips for women with the disease. We collected the posts on these three pages over a period of six months, totaling 1,243 posts. To classify the posts into categories, two researchers participated in the analyses, using the content analysis method (Bardin, 2011).

The process of content analysis comprises: (1) Pre-analysis, that is, the researchers read all the selected material; (2) Categorization, which consists of creating categories so that all the individual posts fit into at least one of them. In this study, the two researchers created their categories independently and, in a second moment, they came together to produce a final listing of categories. When a category was created by one researcher and not by another, discussions were held between them until a final agreement was reached; (3) Interpretation, which consists of studying the data and developing inferences.

The identification of the keywords of each post was also carried out by two researchers. First, each of the researchers read all the posts and identified the keywords, which are the most important language units of given textual content. Each word can only be allocated to one category. Neutral words (which would fall into any category), such as “cancer”, were not considered as keywords. After each researcher produced his/her selection independently, the similarities and differences between his/her choices were established and a consensus was reached when there was a discrepancy.

With this method, we sought to find out if there was a pattern of themes or keywords that generate greater public engagement on Facebook pages relating to cancer, or if there are ways to escape the threat of what Bucher (2012) has classified as invisibility among users of the tool. In this study, engagement was measured by three metrics: likes, shares and comments. When a Facebook user sees a post, she/he can perform one or more of these three actions to interact with the author of the post or with other people who comment. When a user likes a post, this means that she/he clicked the “like” button, which is just below the content of the post. When the user shares it, she/he includes that content on their personal Facebook page, so that her/his friends in the social network can read that post. Finally, when the user comments on content, he/she either wants to communicate with the author of the post or with other readers.

To gain a more holistic view of the categories, we also established the total impact of each of them. This value considered the three metrics on each page. We calculated the weighted average likes, shares and comments, giving a weight of 0.05 for likes, 0.2 for shares and 0.75 for comments.

The weights for the calculation of the total impact were established in this way since the type of engagement (like, share or comment) follows a hierarchy according to the effort required of the users to perform these actions. We considered “liking” a post as low type engagement because it entails, among the three options, the simplest and fastest action. “Sharing” was evaluated as medium engagement, because in this case the Facebook users identify with that content to the point of wanting to publish it on their own pages. Finally, we considered “commenting” as high engagement. In this case, the Facebook users need to reflect on the topic, compose text and expose themselves by associating their thoughts with the post. In addition, we considered “commenting” as high engagement because, in Brazil, there are still 16 million people over 10 years old who are illiterate (Instituto Brasileiro de Geografia e Estatística, 2010), representing 9.3% of the population above this age. Furthermore, 28 million Brazilians are functionally illiterate, which means that they can only find information in short texts and perform simple math operations (Haddad & Siqueira, 2015).

3. Results

By analyzing in depth (Bardin, 2011) all 1,243 posts published by these three Brazilian fanpages, we defined eight categories, as follows: “Testimonies” (when people wrote about their experiences in relation to cancer), “Solidarity” (occurring when the post asked people to make some donation, such as blood or hair), “Anniversaries” (when the main subject of the post was the celebration of some

important date), “Science and health” (scientific discoveries, academic novelties and advances in treatments), “Events” (when the person in charge of the administration of the page organized or helped to publicize some event), “Institutional” (when the institution wrote about itself), “Risk factors” (texts addressing habits that increase the risk of cancer, such as cigarettes) and “Beauty” (texts about makeup, clothes and hairstyles).

Table 1 displays the percentage of posts of each category found in the three pages studied.

In this qualitative phase of the research (Minayo & Minayo-Gómez, 2003), we identified the keywords in each category. The number of keywords per category varied widely and can be seen in Table 2.

To illustrate the content of each category, we highlighted some examples of textual units per page:

Testimonies

Fundação do Câncer:

Gianne Carvalho, recovering from breast cancer, tells how she went through this difficult phase in her life. Go to: <http://bit.ly/1roWsFi>.

Table 1. Percentage of posts by category

	Quimioterapia e Beleza (%)	Cabeleçria (%)	Fundação do Câncer (%)
Testimonies	36	1.5	5.6
Solidarity	13.5	49	14.4
Anniversaries	3.0	2.6	5.1
Science and health	23	3.3	37.1
Events	4.6	1.1	9.2
Institutional	7.3	41.8	9.2
Risk factors	0	0.3	19
Beauty	12.3	0	0
Total	≅100	≅100	≅100

Table 2. Keywords by category

Categories	Number of keywords	Examples
Testimonies	152	Hug, thank, self-awareness, confidence, courage, challenge, God, emotion, faith, happiness
Solidarity	13	Help, charity, caring, donation, saving lives, solidarity, volunteer
Anniversaries	11	Celebration, date, day, right, homage, world, national, international
Science and health	104	Self-examination, scientist, cell, early diagnosis, estimation, study, blood test, immunotherapy, method
Events	13	Action, collect, walk, inscription, lecture, participation, sale
Institutional	11	Center, institution, award, specialist, edict, work
Risk factors	18	Smoke, cigarette, obesity, pollution, sun, tobacco, sunscreen
Beauty	23	Beauty, look, makeup, turban, dress

Cabelegria:

The donor of the wig is Isabella Aldebaran, an 11 years old girl. She had leukemia at age 4 and this year is the last year of her treatment maintenance. She wanted to cut her hair and make the donation. She, more than anyone else, knows the importance of your job.

Quimioterapia e Beleza:

During cancer treatment, I was always very optimistic and I was sure that everything would work out. Positive thinking is fundamental.

Science and health

Cabelegria:

Look, what good news! An examination considered fundamental for the follow-up of patients who have or had cancer, will be done by the public health system (SUS).

Quimioterapia e Beleza:

On Monday, I want to start eating right. The vacations are finished and we have to catch up. If I eat right during the week, it's already something!

Fundação do Câncer:

The use of immunotherapy against cancer was chosen as the biggest scientific advance of 2013. Learn more: <http://bit.ly/1dBSUzy>.

Anniversaries

Cabelegria:

Congratulations to you, a woman who donates! You donate yourself as a mother, as a sister and as a friend. You donate hair, blood and clothes. You give hugs, smiles (...) You donate work and time (...) Happy women's day!

Quimioterapia e Beleza:

They still have their whole lives ahead! < 3 February 15 - International Day Against Childhood Cancer.

Fundação do Câncer:

The whole world celebrates February 4 as the World Day Against Cancer. This date, created by the Union for International Cancer Control (UICC), seeks to bring to the public the debate on some of the main myths related to the topic. The Cancer Foundation has been affiliated to UICC since 2008. Share this cause. <http://bit.ly/1da1z1w>.

Event

Cabelegria:

In partnership with the faculty Fecap Oficial, next Monday (...) we will participate in the solidarity trot, organized by Fecap Júnior. All students, friends and newbies will be able to donate part of their

hair to make wigs for children with cancer, with a free cut in the university with professional hairdressers!

Quimioterapia e Beleza:

Today was my Xuxa day, and those are my little ones from the Ronald McDonald Support House.¹ Thank you all for your affection!

Fundação do Câncer:

Registration is now open for the 10th edition of the Walk Against Cancer - Walkathon, which will be held on March 30, starting at 9:30 am, at Lagoa Rodrigo de Freitas, in Rio de Janeiro. Join us!

Institutional

Cabelegria:

We did it!!!!!!! Thank you to everyone who helped us sharing and reaching him. Our project would be nothing without all of you helping, donating, disclosing or otherwise! Thanks @lucianohuck² and all his incredible production! It was GREAAAAAAT!!!

Quimioterapia e Beleza:

(...) look how great, the book Chemotherapy and Beauty is in the 2nd edition, what a thrill!!! This is the best gift for any patient. In the book I teach how to deal with the side effects of cancer treatment, with a lot of charm and good humor. It has makeup tips, moisturizers, nourishing, women's everyday life and much more!

Fundação do Câncer:

The Cancer Foundation presents an interview on the theme "Cancer of the cervix, uterus and ovaries". Learn more about risk factors, symptoms, diagnoses and treatments for these cases by visiting the link: <http://ow.ly/uqgeh>.

Solidarity

Cabelegria:

And once again we are presented with a story that motivates us more! This is Ingrid, she's only 10 years old. A friend of her mother donated hair and, after knowing that, she wanted to help too! Ingrid is visually impaired, but she sees the world with the eyes of the heart! (...)

Quimioterapia e Beleza:

Gigi!!! How many friends are emanating strength for you! We need you healthy soon, then: #strengthgigi. I told her about this beautiful gesture and she was super happy! In the photo, she is receiving support from Ilna Leite, Henrique Cosenday and myself.

Fundação do Câncer:

Together we are stronger. Help. Donate. Share: <http://bit.ly/ZIwblj>

Risk factors

Cabelegria:

Very good the campaign created by illustrator Andy Yang. What do you care more about? Your rebellious hair or your health?

Fundação do Câncer:

Cigarettes increase the risk of the most common type of breast cancer <http://bit.ly/1jx3TIu>.

Beauty

Quimioterapia e Beleza:

Did you know that hair starts to grow 30 days after the end of red chemo? It begins with a plumage, veeeeeeery fine... then it starts to thicken, it grows with faults, it takes time to grow near the ears.

After the qualitative analysis, we carried out a quantitative investigation. Table 3 shows the simple arithmetic mean of likes, shares and comments of the posts, according to the category. This table

Table 3. Simple arithmetic mean of likes, shares and comments

Pages	Categories	Simple arithmetic mean			Total impact
		Shares	Likes	Comments	
Quimioterapia e Beleza	Testimonies	57.2	806.62	62.68	98.78
	Solidarity	103.34	390.88	22.18	56.84
	Anniversaries	133.55	431.22	20.8	63.87
	Science and health	77.12	330.56	15.48	43.56
	Events	9.66	342.2	11.13	27.38
	Institutional	24	264.62	15.29	29.49
	Risk factors	0	0	0	0
	Beauty	23.94	346.83	30.16	44.74
Cabelegria	Testimonies	142.5	3,833.25	130.75	318.22
	Solidarity	299.66	1,765	67.52	198.82
	Anniversaries	59.57	749.57	11.85	58.28
	Science and health	41.77	299.77	7.44	28.92
	Events	27	392.33	18.33	38.76
	Institutional	130.75	1,006.55	60.69	121.99
	Risk factors	36	953	23	72.1
	Beauty	0	0	0	0
Fundação do Câncer	Testimonies	243	689.81	80.9	143.76
	Solidarity	130	520.42	7.4	57.57
	Anniversaries	1,390	704.9	11.2	321.64
	Science and health	115	236.43	4.8	38.42
	Events	118	216.66	4.33	37.68
	Institutional	115	326.77	3.33	41.83
	Risk factors	77	156.13	2.97	25.43
	Beauty	0	0	0	0

Table 4. Ranking of the total impact of each category, which is the sum of the impact of the three pages studied

Category	Total impact
Testimonies	560.77
Anniversaries	443.79
Solidarity	313.24
Institutional	193.32
Science and health	110.90
Events	103.83
Risk factors	97.53
Beauty	44.74

also shows, in the last column, the total impact of each category per page. Table 4 shows the ranking of categories, considering the three pages together.

It is important to note that, in the *Cabelegria* page, categories with the highest impact were “Testimonies” and “Solidarity”. In the *Fundação do Câncer* page, the greatest weight was given to the category “Anniversaries” (321.64), which engenders high engagement among its readers. In this page, this category’s impact was more than twice that of “Testimonies”, which came in second place. Categories with the lowest impact factors varied according to the page. In *Quimioterapia e Beleza*, the worst performing category was “Events”; in *Cabelegria*, it was “Science and health” and in *Fundação do Câncer* page, “Risk factors”.

“Testimonies” was the category with the highest impact factor both in the *Quimioterapia e Beleza* and the *Cabelegria* pages. “Events” was the second category with the worst performance both in *Cabelegria* and *Fundação do Câncer*.

4. Discussion

Each of the three pages had a very distinctive style. Most of the posts in the *Quimioterapia e Beleza* page were in the category “Testimonies”, while in the page *Cabelegria*, the most frequent category was “Solidarity”, and in the *Fundação do Câncer* page, “Science and Health”.

However, on all three pages, the most frequently appearing category was often different from the one that generated the most likes, shares and comments. The exception to this concerned the *Quimioterapia e Beleza* page; the average number of comments in the category “Testimonies” (most frequent on this page) was the largest of all (62.68). The average of likes in the “Testimonies” category on this same page was also the largest of all (806.62). In the other cases, there was no such compatibility. It is worth noting the average post’s comments on the *Fundação do Câncer* page. The most frequent category on the page, which was “Science and Health”, had an average of 4.8 comments. However, the “Testimonies” category stood out, with an average of 80.9 comments.

This shows that, in the analyzed pages, the categories that generated greater engagement are not among the most frequent; that is, the potential of each page was underutilized. This result shows the importance of analyses that help health professionals to use social media to communicate effectively about prevention, risk factors, healthy living and early diagnosis, among other topics.

Other strategies that succeed on other Facebook pages can also be harnessed to address the topic of cancer. As an example we have: frequent and individual interaction of page administrators with users who comment on posts; publishing multimedia content such as videos, featuring contributions from celebrities; and stimulating user interaction through questions (Veale et al., 2015).

Facebook posts on health pages ... that made use of positive emotional appeal received on average 18% more likes than call-to-action posts [which encourage users to undertake a specific action] but 27% fewer shares. Humorous posts and testimonials also received fewer shares than call-to-action, while informative posts received more than twice as many shares but with no effect observed for likes or comments (Kite et al., 2016, p. 8).

Although the categories used in this study were different, it is possible to note that, both in this study and in our investigation, the categories that generated emotional appeal (in our case, Testimonies and Solidarity) received the largest number of likes.

An earlier study that investigated user comments on these three pages (Picanço et al., 2016) observed that there is a substantive number of keywords related to religion, such as God, faith, Jesus, bless and pray, among others. These words carry a strong emotional appeal. This observation suggests that users are driven by emotions when reading cancer posts; this is probably one of the reasons why texts with strong emotional appeal attract more attention from this audience. If we look at all the studied pages combined, we see that the “Anniversaries” category tended to generate a significantly larger number of shares. The category “Testimonies”, during the analyzed period, generated a greater number of comments. We believe that cancer page followers are somehow personally involved with the condition, whether they are in treatment or have a family member or friend afflicted by the disease (Picanço et al., 2016).

We noticed that some categories, such as “Risk factors” and “Events”, did not generate such a high engagement on any of the three pages. An interesting strategy to increase the visibility of these posts may be the use of hooks. Knowing that users of these pages tend to share more posts that address commemorative dates, it may be interesting to use these dates, such as World No Tobacco Day (May 31) and World Cancer Day (February 4) to publicize risk factors, clarify the symptoms and encourage users to perform preventive tests. In relation to testimonies, the same strategy can be used, using the stories of people who have gone through cancer treatment to clarify these aspects, and informing the reader about the importance of taking action to avoid the disease.

To publicize an event, one can, for example, use the testimony of an interesting person (anonymous or famous). In this way, we exploit the success of the category “Testimonies” to draw the attention of readers to less attractive categories. Kite et al. (2016, p. 8) observed that “... posts with celebrities and sportspeople generally received a greater level of engagement, obtaining 62% more likes, two and a half times the number of shares and 64% more comments than posts without celebrities and sportspersons”. The strategy of using famous people to publicize events or to address risk factors may be a good solution, since the chances are that this content will increase the degree of engagement.

Considering the whole of Facebook, we note that, of the ten pages with the largest number of fans worldwide, in April 2017, five belong to the following celebrities: Cristiano Ronaldo, soccer player; Shakira, singer; Vin Diesel, actor; Eminem, singer; And Leo Messi, soccer player (Socialbakers, 2017). Celebrities generate high engagement in this social network and this fact should be considered to facilitate health promotion campaigns. In addition, cancer is a subject that catches the attention of users of this network. In 2015, the Facebook post with the most interactions (likes, shares and comments) “was an image of a child holding up a sign that says, ‘Can I get 1 million likes? I beat cancer.’” (Berenson, 2015).

5. Final considerations

The data presented in this manuscript may support new communication strategies aimed at cancer prevention and early diagnosis. It is of fundamental importance that the designers of Facebook pages communicating about cancer know precisely what their audience likes to read and what encourages more engagement in this social medium. This network has many users around the world encompassing people of diverse cultures, ages and social classes; a well-designed public engagement strategy can make a difference in shaping public opinion about the disease by helping to inform about the importance of cancer prevention and early diagnosis.

Some limitations of this work are the restriction of the analysis to Brazilian Facebook pages and the limited time period of six months. However, we suggest that this time limit does not invalidate the conclusions; it was possible to perceive that the data tended to reproduce itself in the same way. Perhaps, future studies that devote themselves to analyzing other cancer pages over a longer period of time may encounter different patterns of page-user interactions.

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Notes

1. Xuxa is a famous Brazilian TV presenter, and Ronald McDonald Support House is a non-profit institution whose mission is to provide quality of life for children and adolescents with cancer.
2. Luciano Huck presents a large audience TV show on Saturday afternoons, which is broadcasted throughout Brazil.

References

- Abramson, K., Keefe, B., & Chou, W. Y. S. (2015). Communicating about cancer through Facebook: A qualitative analysis of a breast cancer awareness page. *Health Communication, 20*, 237–243. doi:10.1080/10810730.2014.927034
- Bardin, L. (2011). *L'Analyse de Contenu* [Content analysis]. Québec: Presses de l'Université du Québec.
- Berenson, T. (2015). Facebook: These are the top Facebook posts of 2015. Retrieved April 12, 2017, from <http://time.com/4164895/top-facebook-posts-2015/>
- Bucher, T. (2012). Want to be on the top? Algorithmic power and the threat of invisibility on Facebook. *New Media & Society, 14*(7), 1–17. doi:10.1177/1461444812440159
- Facebook Community Update. (2016). Retrieved December 9, 2016, from <https://www.facebook.com/photo.php?fbid=10102803309152781&set=pb.4-2207520000.1470166491.&type=3&theater>
- Ferlay, J., Soerjomataram, I., Dikshit, R., Eser, S., Mathers, C., Rebelo, M., ... Bray, F. (2014). Cancer incidence and mortality worldwide: Sources, methods and major patterns in GLOBOCAN 2012. *International Journal of Cancer, 136*(5). doi:10.1002/ijc.29210
- Haddad, S., & Siqueira, F. (2015). Analfabetismo entre jovens e adultos no Brasil [Illiteracy among youth and adults in Brazil]. *Revista Brasileira de Alfabetização – ABAlf, 1*, 88–110.
- Hall, J. A., Pennington, N., & Lueders, A. (2014). Impression management and formation on Facebook: A lens model approach. *New Media & Society, 16*, 958–982. doi:10.1177/1461444813495166
- Instituto Brasileiro de Geografia e Estatística. (2010). *Você sabe que o número de pessoas que não sabe ler está diminuindo no Brasil?* Retrieved December 9, 2016, from <http://7a12.ibge.gov.br/vamos-conhecer-o-brasil/nosso-povo/educacao.html>
- Jackson, S. L. (2009). *Research methods and statistics: A critical thinking approach* (3rd ed.). Belmont, CA: Wadsworth.
- Kite, J., Foley, B. C., Grunseit, A. C., & Freeman, B. (2016). Please like me: Facebook and public health communication. *Plos One, 11*, e0162765. doi:10.1371/journal.pone.0162765
- Korda, H., & Itani, Z. (2013). Harnessing social media for health promotion and behavior change. *Health, Promotion Practice, 14*, 15–23. doi:10.1177/1524839911405850
- Minayo, M. C. S., & Minayo-Gómez, C. (2003). Dífíceis e possíveis relações entre métodos quantitativos e qualitativos nos estudos de problemas de saúde [Difficult and possible relationships between quantitative and qualitative methods in the study of health problems]. In P. Goldenberg, R. M. G. Marsiglia, & M. H. A. Gomes (Eds.), *O clássico e o novo: Tendências, objetos e abordagens em ciências sociais e saúde* (pp. 117–142). Rio de Janeiro: Fiocruz.
- Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. A. (2013). New dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research, 15*, e85. doi:10.2196/jmir.1933
- Picanço, L., Biancovilli, P., & Jurberg, C. (2016). Beyond the drama: The beautiful life in news feeds on cancer. *Journal of Cancer Education, 1–5*. doi:10.1007/s13187-016-1094-2
- Socialbakers (2017). *Statistics of the top Facebook pages*. Retrieved April 12, 2017, from <https://www.socialbakers.com/statistics/facebook/pages/total/>
- Theiss, S. K., Burke, R. M., Cory, J. L., & Fairley, T. L. (2016). Getting beyond impressions: An evaluation of engagement with breast cancer-related Facebook content. *MHealth, 2*, 41. doi:10.21037/mhealth.2016.10.02
- Tunnecliff, J., Weiner, J., Gaida, J. E., Keating, J. L., Morgan, P., Ilic, D., ... Maloney, S. (2016). Translating evidence to practice in the health professions: A randomized trial of Twitter vs Facebook. *Journal of the American Medical Informatics Association. doi:10.1093/jamia/ocw085*
- Veale, H. J., Sacks-Davis, R., Weaver, E. R., Pedrana, A. E., Stoové, M. A., & Hellard, M. E. (2015). The use of social networking platforms for sexual health promotion: Identifying key strategies for successful user engagement. *BMC Public Health, 15*, 85. doi:10.1186/s12889-015-1396-z
- World Health Organization. (2016). *Cancer prevention*. Retrieved December 9, 2016, from <http://www.who.int/cancer/prevention/en/>



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