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Beyond the Drama: the Beautiful Life in News Feeds on Cancer

Luisa Picanço[1] · Priscila Biancovilli[2] · Claudia Jurberg[3]

Abstract Facebook is one of the main communication tools in the world nowadays. In Brazil, it is used for almost half of the population. Knowing what is conveyed about cancer by this social network can be an important step for the development of efficient health communication strategies. We evaluate Facebook user's comments on pages about cancer; verify if there is a pattern of public awareness on the disease and compare it with results from other studies. Three pages about cancer on Facebook were selected among those with more followers in Brazil. For 6 months, from January to June 2014, all posts were selected and evaluated, and we created eight categories. On each page, the categories that generated most comments were elected for the second analysis. The behavior of empowered citizens by new communication tools is the target of this study. Similarities and differences between 12,926 comments coming from 1243 posts in three different Facebook pages on cancer were analyzed. Four new categories were identified: "religion," "positive," "negative," and "information." Despite the differences among the three pages selected for this study, we observed the predominance of positive speeches associated with religious terms. Following

public perceptions on cancer is an important step for the development of efficient health communication strategies.

Keywords Cancer · Social media · Facebook · Comments · Religion

✉ Claudia Jurberg
  cjurberg@bioqmed.ufrj.br

1 Dissemination of Biomedical Science at Institute of Medical Biochemistry Leopoldo de Meis, Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ 21941-901, Brazil

2 Dissemination of Biomedical Science at Institute of Medical Biochemistry Leopoldo de Meis, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ 21941-901, Brazil

3 Laboratório de Imunologia Tumoral, Instituto de Bioquímica Médica Leopoldo de Meis, Universidade Federal do Rio de Janeiro, Av. Carlos Chagas Filho, 373 – bloco H – sala H2003, Rio de Janeiro 21941-902, Brazil

Introduction

Brazil has a population of 204 million [1], half of which is connected. During the time spent on online activities, most (78 %) make use of social networks, which lead the country to the top of the rankings in the use of social media [2]. For, about one and a half billion active Facebook users in the world are in Brazil; almost half of the population [3] uses the tool, representing about 10 % of the Facebook community worldwide.

Given the spread of social media, many studies [4, 5] deepen the influence of such media on the way we live, think, and act [6]. Researchers have addressed the differences between the offline and self online [4, 5, 7, 8]. According to Gonzales and Hancock[6], Facebook users "actively engages in creating, maintaining, and modifying an image that reflects one's ideal self", something they call "identity shift". The tendency to show a beautiful life in news feeds can be an aspect of what Goffman [9] characterized as the "dramaturgy being a metaphor of social interactions." Perhaps this is one of the best descriptions of Facebook. Despite this optimistic bias, studies [10, 11] also describe the opposite approach of pain through user texts on the loss of loved ones or friends.

Being identified as a popular communication tool in Brazilian society, Facebook can be an important vehicle in the dissemination of information about cancer. Cancer is the second cause of mortality in the country and is seen by the population rather pessimistically [12, 13]. This can lead to the effect reported by some authors [14, 15] of individuals

who avoid medical appointments or perform less diagnostic tests for fear of discovering a disease that is believed to be incurable.

Goal

Analyze comments from Brazilians in three different Facebook pages on cancer from the following: (1) institutional, (2) Non Governmental Organization, and (3) ordinary citizen and investigate if they follow any trend.

The newsfeed on pages about cancer generates what types of comments? Are they positive or do they follow the negative view that society has, about the disease [12, 13]?

Methodology

Initially, three Facebook pages composed our analysis. They are the following: Fundação do Câncer (Brazilian Cancer Foundation), Cabelegria (Hair and Happiness), and Quimioterapia & Beleza (Chemotherapy & Beauty). These pages were selected because they are among those with greater number of followers in the area of cancer in Brazil. Additionally, they are constantly updated, at least three threads per day, each of which is produced by a different actor. Fundação do Câncer (250,000 fans in March 2016) raises funds, and manages research projects and institutional development in oncology. Cabelegria (302,000 fans in March 2016) is an NGO that collects hair donations and mediates the production of wigs for children with cancer. Quimioterapia & Beleza (97,000 fans in March 2016) is a page created by Flavia Flores, a woman who had cancer and gives beauty and makeup tips for women with the disease.

Two researchers studied all publications of the pages, available between January and June 2014. As the Facebook is an organic tool, whose fans can view the content on their news feeds long after publication, we decided to wait a period of one year and a half after the final date for this analysis. Therefore, we had access to all actions (likes, shares, and comments) of Internet users involved.

In the first stage of this research, the content analysis [16] method was used to examine and classify posts into categories. Under this method, the material was organized, codified, and categorized.

Of the three selected pages, available between January and June 2014, we raised a total of 1243 posts. The content analysis comprises some steps which are the following: (1) Pre-analysis, which consists of the detailed reading of material selection (corpus); (2) Categorization, which is the separation of the material selection (in this case, the Facebook posts) into categories. Categories are created in order to make all the corpus fit in at least one of them. In this study, the two

researchers have created their categories independently. Afterwards, they came together to a final consensus; and (3) Interpretation, which consists of analyzing the data and developing inferences.

We classified the data into eight categories: "testimonies" (when people talk about their life experiences), "solidarity" (when donations are asked or when they are acknowledged), "anniversaries" (health awareness dates such as the World No Tobacco Day), "Science and Health" (research and new scientific discoveries), "event" (events which readers are invited to participate), "institutional" (when the institution writes about itself), "risk factors" (texts addressing habits that increase the risk of cancer, such as cigarette), and "beauty" (texts about makeup, clothes, and hairstyles). We use a qualitative and quantitative methodology [17] to verify the presence or absence of a given characteristic in the fragments of the published texts.

We also analyzed quantitatively the number of likes, shares, and comments of each post, which are indicators of the impacts of a publication. These three items make up the audience factors on Facebook.

After this initial analysis, in the second step, we selected and analyzed the category that generated the most comments, which is considered the action of greater engagement on Facebook. In Facebook, Fundação do Câncer fanpage, it was the category "testimony" with 898 comments; in Cabelegria fanpage, we selected the category "solidarity" with 8411 comments; and in Quimioterapia & Beleza fanpage, the category "beauty" generated the highest engagement (3617). This universe with 12,926 comments became the scope of this study. The comments were analyzed and categorized by two researchers, using again content analysis methodology.

Four categories have been identified to classify the most frequent topics in the comments. They are the following: "religion," when users write about God, faith, and aspects related to religion; "negative," which brings together aspects associated with pain, suffering, and death; "positive," whose keywords are encouraging; and "information" for cases where the Facebook users are asking for more data on a post. All the words of each category were identified in Table 1.

To categorize comments, the authors identified the predominant message in the speech. For example, if a comment has some negative words but the main message is positive, it will be included in the category "positive". At first, each researcher did the analysis independently. Then they gathered to verify the differences and similarities among their analyses. Eventually, they came to a final conclusion together.

Results

Despite the fact that all the pages have cancer as a central theme, significant differences were found in the profile of each of them, such as more emphasis on publications were included

Table 1 Keywords by category

Religion	Negative	Positive	Information
God, faith, Jesus, bless, blessed, Lord, angel, save, pray, Catholic, praying	suffering, trouble, pain, death, hard, depression	victory, positive, win, cure, life, power, strength, courage, pride, love, fight, battle, love, cool, congratulations, beautiful, donate, support, warrior, loved, good, awesome	chemotherapy, radiation therapy, how do I do, subscription, hair

Four categories were found in the analysis of text fragments, embedded in the comments of Facebook users on cancer fanpages. All words of each category were mentioned in this table

in the "institutional" category in fanpage Cabelegria, or "testimonies" in Quimioterapia & Beleza fanpage, or "science and health" in the Fundação do Câncer fanpage.

Considering the comments, among the followers of the pages of Fundação do Câncer, Cabelegria, and Quimioterapia & Beleza, we identified a strong presence of the category "regilion", among the comments (558/898, 841/8411, and 1958/3617), respectively. To illustrate the position of the citizens in this regard, we clamped a few comments:

[...] "God is Faithful. God provides. God will provide his mercy will never fail us!" (Fundação do Câncer, 03.12.2014)

[...] "Really Bella! God bless you, princess. You will be a winner, in the name of Jesus, he loves you!" (Cabelegria, 05.03.2014)

[...] "See, this is what makes the real power to fight cancer. A unified family, the support of friends, and, above all, accepting yourself at the time of treatment. So I better than anyone can say I am blessed by the family and true friends I have. God has always been with me in this battle and today; I have already won my 1st step against the disease, which was the surgery. I have left the hospital 100% cured, without the cancer that was diagnosed early. Now comes the treatment so that cancer will never come back. So, those who really love me and are my friends are going to accept me bald, without my blonde locks if need to do chemotherapy. I am already a winning and a miracle of God. Hang in there LOL. I love you all." [...] (Quimioterapia & Beleza, 2.15.2014)

Encouraging aspects in speeches fragments were identified also quite significantly in the three fanpages. In the Fundação do Câncer fanpage, there were 493 keywords of the category "positive" in 898 comments; in Cabelegria fanpage, we found 4193 positive keywords in a total of 8411 comments; and in Quimioterapia & Beleza fanpage, we identified 4212 positive keywords in 3617 comments. That is, in some comments, we found more than a keyword with a positive slant. To illustrate these fragments, we extracted some comments of each fanpages:

[...] "Beautiful girl, you will win this damn disease. Your smile is the reality of this victory." (Fundação do Câncer, 06.04.2014)

[...] "Beautiful Warrior! I wish you all the wonderful things in life ...... Big kiss and lots of positive energy." (Cabelegria, 02.04.2014)

[...] "We are together. You were more than winner. I'm happy for your healing. You gave an example of faith, beautiful." (Quimioterapia & Beleza, 03.09.2014)

Few Internet users on different platforms (10 keywords in 898 comments in the Fundação do Câncer, 23/8411 in Cabelegria, and 62/3617 in Quimioterapia & Beleza) wrote a word considered to belong to the category "negative." Interesting to note that despite identifying negative aspects in these fragments, they did not have an exclusively pessimistic bias:

[...] "It is not easy, but offer your suffering for those who are far from God and do not value life." (Fundação do Câncer, 03.21.2014)

[...] "No matter if it is hard it is important to smile. Warrior!" (Cabelegria – 09.04.2014)

[...] "I love to see these examples of victory. There are many pages here that the people is keen to spread death, I prefer to know in life, it helps all men and women." (Quimioterapia & Beleza, 04.02.2014)

Few were also requests for more information or exchange of experience in the category "information," except in the case of Non Governmental Organization Cabelegria (1186/8411), whose focus is to collect hair donations that will be turned into wigs:

[...] "How can I donate? I have a few strands of hair with me, and I'm trying to raise more. How to proceed with donations?" (Cabelegria, 05.08.2014)

[...] "I have two wigs, how do I send?" (Cabelegria, 03.06.2014)

Little more than 200 keywords in this category have been identified in fanpage Quimioterapia & Beleza in a total of 3,617 comments. An example is the exchange of experiences:

[...] My hair spring, as I call, after the hair fall, began just before the second session of the Red chemo. The hair is very thin and fluffy. Now after the 4th and last session my hair is already stronger and black. I love to feel them. I am very happy for you. Congratulations! (Quimioterapia & Beleza, 11.01.2014)

Discussion

A striking aspect found in this research was the use of terms with strong religious appeal. According to the authors [18], religious beliefs may emerge more strongly during periods such as the diagnosis of cancer. According to this study, 82 % of 500 US respondents confirmed cling to religion to overcome the difficulties faced during treatment. To circumvent the fatalistic and terrifying vision of cancer observed in previous studies [12, 19–22], patients and their families start looking for more information about advances in treatment. In parallel, there is a huge commitment to faith [18, 23].

Most comments on posts about cancer were expressed by women, as in other studies on gender and type of engagement [24, 25]. And the strong positive aspect of comments can be considered similar to that Carrion and colleagues [26] described as the search for meaning and positive emotions that help to tackle the disease. Moreover, it is possible that the comments on posts about cancer are similar to what is observed normally on Facebook, where there is a prevailing positive bias. Interactions between people through a narrative, where there is a predominance of positive keywords and faith, can mean that Caers and colleagues [5] pointed out as an antidote to feelings of loneliness and sadness.

Carrion and others [26] also report the role of religion and spirituality in the life of citizens as a way to deal in a less traumatic way with the disease. The use of these types of strategies has been recognized in reducing the perception of vulnerability, feelings of anxiety, and the relentless presence of finitude in our lives. This can also be a way to improve the well-being of patients and their families.

"The participants articulated their reliance on God, which assisted them to surrender and, as a result, gain strength in order to carry on with cancer treatment. They also expressed a sense of comfort knowing their lives were in God's hands, which reduced stress and enabled them to cope with the current situation" [27].

Final Considerations

This study provided evidence that Brazilian citizens who use Facebook and follow pages about cancer look for similar cases to those they are experiencing. The narratives are predominantly based on faith and hope. Knowing what is conveyed about cancer by the most popular social media nowadays should not be negligible for professionals working in the health field. Facebook users' comments should be considered and these professionals can be agents of change when they hear the lay public, as described in other studies [27]. Following public perceptions on cancer can be an important step for the development of efficient health communication strategies.

References

1. Estimativas da População Brasileira. Diário Oficial. 28 de agosto de 2015. In http://pesquisa.in.gov.br/imprensa/jsp/visualiza/index.jsp?jornal=1&pagina=98&data=28/08/2015

2. O futuro digital da América Latina em Foco 2015. comScore. In http://www.comscore.com/Insights/Blog/2015-Latin-America-Digital-Future-in-Focus

3. Facebook tem 89 milhões de usuários no Brasil. Meio e Mensagem. In. http://www.meioemensagem.com.br/home/midia/noticias/2014/08/22/Facebook-tem-89-milhoes-de-usuarios-no-Brasil.html. Acessed March 2016

4. Hall JA, Pennington N, Lueders A (2014) Impression management and formation on Facebook: a lens model approach. New Media Soc 16(6):958–982. doi:10.1177/1461444813495166

5. Caers R, Feyter TD, Couck Stough T, Vigna C, Bois CD (2013) Facebook: a literature review. News Media & Society 15(6):182–1002. doi:10.1177/1461444813488061

6. Gonzales AL, Hancock JT (2008) Identity shift in computer-mediated environments. Media Psychology 11:167–185. doi:10.1080/15213260802023433

7. Tong ST, Van Der Heide B, Langwell L, Walther JB (2008) Too much of a good thing? The relationship between number of friends and interpersonal impressions on Facebook. J Comput-Mediat Commun 13:531–549. doi:10.1111/j.1083-6101.2008.00409.x

8. Utz S (2010) Show me your friends and I will tell you what type of a person you are: how one's profile, number of friends, and type of friends influence impression formation on social network sites. J Comput-Mediat Commun 15:314–335. doi:10.1111/j.1083-6101.2010.01522.x

9. Goffman E (1959) The presentation of self in everyday life. Anchor, New York

10. Kern R, Forman AE, Gil-Egui G (2013) R.I.P.: remain in perpetuity. Facebook memorial pages. Telematics and Informatics 30:2–10. doi:10.1016/j.tele.2012.03.002

11. Rossetto KR, Lannutti PJ, Strauman EC (2014) Death on Facebook: examining the roles of social media communication for the bereaved. J Soc Pers Relat:1–21. doi:10.1177/0265407514555272

12. INCA. Concepção dos Brasileiros sobre o Câncer. Instituto Nacional do Câncer. [S.l.]. 2007. In. http://www.inca.gov.br/releases/press_release_view_arq.asp?ID=1396

13. Machado GOC, Biancovilli P, Jurberg C (2015) Voices about a stigma: cancer in the opinion of three different segments in Brazilian society. J Cancer Educ:1–4. doi:10.1007/s13187-015-0962-5

14. Chavez L, Hubbell FA, Mishra SI, Valdez RB (1997) The influence of fatalism on self-reported use of Papanicolaou smears. Am J Prev Med 13:418–424

15. Straughan P, Seow A (1998) Fatalism reconceptualized: a concept to predict health screening behavior. J Gend Cult Health 3:85–100. doi:10.1023/A:1023278230797

16. Bardin L (2011) Análise de conteúdo. São Paulo: Edições 70:229p

17. Minayo C, Sanches O (1993) Quantitativo-Qualitativo: oposição ou complementaridade. Cadernos de Saúde Pública 9(3):239–362. doi:10.1590/S0102-311X1993000300002

18. Soothill K, Morris SM, Harman JC, Thomas C, Francis B, McIllmurray MB (2002) Cancer and faith. Having faith — does it make a difference among patients and their informal careers? Scandinavian Journal of Caring Science 16(3):256–263. doi:10.1046/j.1471-6712.2002.00097.x

19. Niederdeppe J, Levy AG (2007) Fatalistic beliefs about cancer prevention and three prevention behaviors. Cancer Epidemiology Biomarkers Prevention 16:998–1003. doi:10.1158/1055-9965.EPI-06-0608

20. Niederdeppe J, Fowler EF, Goldstein K, Pribble J (2010) Does local television news coverage cultivate fatalistic beliefs about cancer prevention? J Commun 60(2):230–253. doi:10.1111/j.1460-2466.2009.01474.x

21. Verjovsky M, Jurberg C (2012) Spotlight on news: a critical review of cancer disclosure. Journal of Media and Communication Studies 4(8):150–158 In. http://www.academicjournals.org/journal/JMCS/article-stat/45F944B14112

22. Moser RP, Arndt J, Han PK, Waters EA, Amsellem M, Hesse BW (2013) Perceptions of cancer as a death sentence: prevalence and consequences. J Health Psychol (0):1–7. doi:10.1177/1359105313494924

23. Hamilton JB, Worthy VC, Moore AD, Best NC, Stewart JM, Song MK (2015) Messages of hope: helping family members to overcome fears and fatalistic attitudes toward cancer. Journal of Cancer Education, August. doi:10.1007/s13187-015-0895-z

24. Brandtzaeg PB (2015) Facebook is no "great equalizer": a big data approach to gender differences in civic engagement across countries. Social Science Computer Review Published first online October doi. doi:10.1177/0894439315605806

25. Ross K, Fountaine S, Comrie M (2015) Facing up to Facebook: politicians, publics and the social media(ted) turn in New Zealand. Media, Culture & Society 37(2):251–269. doi:10.1177/0163443714557983

26. Carrion IV, Nedjat-Haiem F, Macip-Billbe M, Black R (2016) "I told myself to stay positive" perceptions of coping among Latinos with a cancer diagnosis living in the United States. Am J Hosp Palliat Med:1–8. doi:10.1177/1049909115625955

27. Sedrak MS, Cohen RB, Merchant RM, Schapira MM (2016) Cancer communication in the social media age. Jama Oncology. doi:10.1001/jamaoncol.2015.5475