

Cancer Communication: Media Portrayal of the Cost of Cancer Treatments

Sydney Roberts, Jessica Hunnell, and Megan DeArmit
Robert Morris University

Abstract

By constructing a content analysis of news stories on the cost of cancer treatments, this study investigates how cancer treatment costs have been portrayed in traditional media. Who is blamed for the high cost of cancer treatment? This examines whether the pharmaceutical companies, government, doctors, or another source were portrayed more responsible for the cost of cancer treatments in the media. Through the content analysis of a total of ninety different online news stories from six sources including the New York Times, LA Times, USA Today, The Huffington Post, CNN, and Fox News, our findings will show a pattern of how the cost of cancer is viewed. Our results found that the traditional media does not often place blame on the cost of treatments. We also found that the traditional media showed the cost of treatment to be too high and the majority of articles were focused on finances. When a source was involved, the articles were more negative when talking about the costs but positive when talking about the treatment of health.

Traditional media has a large influence of all ages, and throughout the years has reported on the most up-to-date health care. To the general public, traditional media is seen as a trusted source and extremely influential. When CBS aired a 60 Minutes segment called “The Cost of Cancer Drugs” on October 5th, 2014 about the rising costs of the drugs treating cancer, viewers began to ask questions about why treatment was so expensive. After much speculation, researchers began to study the cost of cancer treatment and the drug companies selling the drugs were completely analyzed. It was found that drug companies were using generic drugs with a different title and skyrocketing the cost of the drug while advertising it was a better, more successful product. That led to even more research about why the drugs were so expensive. However, traditional media is what greatly influences the patients who are taking the medications, not the research analyzing the different drugs. Since the video was aired on CBS, the traditional media has continued to report on the rising drug costs in the past year.

We sought to find how the traditional media portrays the cost of cancer treatment. No research has been done to show the correlation of traditional media and the cost of treatment. This research could lead to a better understand of how to prepare cancer patients to the expenses of cancer treatment through more reliable sources. This could also encourage researchers to specifically target traditional media to convey the new information they find about the costs of cancer treatment.

Literature Review

The cost of cancer treatment is viewed as too expensive and raises questions as to why this is the case. Five published articles were specifically analyzed that provided more insight on the theme of the cost of cancer treatment.

Key Terms

- *Cancer*: Cancer is the name given to a collection of related diseases. In all types of cancer, some of the body’s cells begin to divide without stopping and spread into surrounding tissues. There are many popular cancer types such as prostate, breast, lung, and colon cancer.
- *Treatment*: Treatment in this study and in medical terms can be defined as the management and care of a patient or the combating of disease or disorder.
- *Medicare*: Medicare is the federal health insurance program for people who are 65 or older, certain younger people with disabilities, and people with End-Stage Renal Disease.

Cost of Cancer Treatment

‘*The Out of Pocket Cost of Breast Cancer Survivors*,’ (Azuro, Benz, Burkhardt, McNees, Meneses, and Pisu, 2010) reviews the price breast cancer survivors must pay to receive treatment. It was a content analysis and it focused specifically on the out of pocket costs that breast cancer survivors paid for their treatment. Three articles were selected for the content analysis that were able to estimate the out of pocket fees breast cancer patients had to pay, during treatment and after. The results showed that the direct medical costs such as physician fees ranged from \$300 to \$1,180 per month during active treatment and were about \$500 per month one year post diagnosis. Non-medical costs were also calculated the cost of transportation to and from the doctor’s office or hospital and parking which ranged from \$137 to \$174 per month in the year post diagnosis and \$509 per month one year or more after diagnosis. The researchers suggested that implications of out of pocket costs for breast cancer survivors are rarely

considered. As out of pocket costs affect the well-being of cancer survivors, they should be understood more fully and possibly addressed in interventions aimed at improving quality of life.

'Cost of Cancer Care Leads to Rise in Health Scheme Prices' (Occupational Health, 2013) also used the content analysis method and analyzed the relationship between the cost of cancer treatment and health schemes. The study by consultancy Towers Watson was done in the United Kingdom in 2013 and revealed that employers need to review their stance on cancer care and delivery, including consideration of developing suggested treatment pathways. The author found that within five years, most insurers expect cancer to be the top medical condition driving claim costs based on the Towers Watson Global Medical Trends Survey. A separate study, that looked at the cost of providing health-related benefits places outside the United Kingdom found that the cost of providing health-related benefits for companies in Europe, the Middle East, and Africa increased by an average of 3.6% in 2012. The anonymous author analyzed the results of a poll as well. More than three-quarters of firms polled by Mercer Marsh Benefits provided medical insurance to all of their employees and to their dependents. While coverage for employees was almost always subsidized, 26% of the firms polled required employees to pay the full cost of dependent coverage. As a result, many corporate healthcare schemes are beginning to increase their prices as the cost of cancer treatment is rising and this will start to affect future scheme funding.

'Cost Analysis of Inpatient Cancer Chemotherapy at a Tertiary Care Hospital,' (Wani, Tabish, Jan, Khan, and Wafai, 2013) analyzed the cost of inpatient cancer chemotherapy at a tertiary care hospital in the United States. To achieve the researcher's objective that the health sector should devise cost-effective measure to be put in place for better affordability of treatments, this study was based on information generated through indigenous hospital data on unit cost of inpatient cancer chemotherapy in medical oncology. After permission from the ethical committee, a prospective study of a six month duration was carried out to study the cost of treatment provided to inpatients in medical oncology. Direct costs that included the cost of material, labor, and laboratory investigations, along with indirect costs were calculated and data was analyzed to find unit cost of treatment. The Results showed that the major cost components of inpatient cancer chemotherapy are cost of drugs and materials and the labor to perform the chemotherapy. The researchers also found that the average unit cost per patient per bed for a chemotherapy session was about \$125.96. The economic burden of cancer treatment is high for both the patient and the healthcare provider.

'Health System Cost for Stage-Specific Breast Cancer; A Population Based Approach,' (Dainty, DeAngelis, Evans, Hoch, Leighl, Porter, Rangrej, and Trudeau, 2013) observed the health system cost for stage-specific breast cancer. The objective of the study was to determine the publicly funded health care costs associated with the care of breast cancer patients by disease stage in Canada. Female breast cancer cases from 2005 to 2009 were extracted from the Ontario Cancer registry and linked to administrative datasets from the publicly funded system. The type and use of health care services were stratified by disease stage over the first two years after diagnosis. Mean costs and costs by type of clinical resource used in the care of breast cancer patients were compared with costs for a matched control group. The attributable cost for the two year time horizon was determined in 2008 Canadian dollars. The study involved close to 40,000 patients with breast cancer and 190,000 control subjects. The analysis resulted that the average age in those groups was 61.1 and 60.9 years respectively. Most breast cancer patients were classified as either stage one or stage two and the overall mean cost per breast cancer patient

from a public payer perspective in the first two years after diagnosis was \$41, 686, and the costs increased depending on the stage of breast cancer.

'*Treatment of Pancreatic Cancer: A Narrative Review of Cost-Effectiveness,*' (Bardou, Le Ray, 2013) reviewed the treatment of pancreatic cancer, which is the second most frequent digestive cancer in the US, accounting for about 44,000 new cases per year. The majority of cases are diagnosed above the age of 65 and in about 60% of cases at an advanced stage, often leaving radical surgery the only curative treatment of pancreatic cancer. This study reviewed cost effectiveness studies in 170 different articles published on pancreatic treatment. The method of the study being content analysis, the researchers reviewed the 170 articles and reported their findings. In conclusion, the researchers found that as pancreatic cancer is associated with a very short life expectancy, any therapeutic advances that can meaningfully extend survival or improve quality of life will be considered of great value in the disease. However, as both the number of cases, with the ageing population, and costs for the new pharmacological options are expected to increase, the total economic burden for the treatment of pancreatic cancer brings up a big issue. Besides assessment of effectiveness and safety, the researchers concluded that it will be essential to evaluate the value of new therapies in relation to their expected health benefit.

After reviewing current literature on the topic, research questions were developed to determine what this study sought to find through this content analysis: RQ1: What issue was more focused on in the traditional media? RQ2: How does the traditional media portray the feeling of the cancer treatments? RQ3: Who is to blame for the high cost of cancer treatment? RQ4: How is cost viewed by the traditional media? RQ5: Who are the major sources in the traditional media? RQ6: Do the article topic affect the tone of the article?

Method

The method used was a content analysis, which analyzes communication in a systematic, objective and quantitative manner for the purposes of measuring variables.

The unit of analysis was traditional news stories on cancer treatment costs. Articles were chosen from the past year that included key words such as *cancer, cost, and treatment*. The traditional media outlets specifically analyzed were the New York Times, the Los Angeles Times, USA Today, the Huffington Post, CNN, and Fox News. A total of 90 articles were coded, 15 articles from each media outlet. We chose to analyze 90 articles because in the past year, each media outlet only produced about 15 articles each that included the keywords we searched for.

Coding Categories

Seven coding categories were developed, five for the article and two for the source in the article. The five article categories were: (a) Focus of news, (b) tone of article, (c) who is blamed, (d) perceived cost of treatment, and (e) frame. The two source-specific factors were: (a) Source of news (who was interviewed), and (b) the tone of the source. The variables were measured on multiple scales specific to each variable.

Focus of News

The focus of the news was specifically what the article was written about or what the article's category was in the media outlet. The specific categories we looked at were as follows: Treatment of health, political, Finance, and personal. If there was more than one theme to the article, we chose the strongest theme or the category the article was placed in through the media outlet. Many of the articles were pre-categorized.

Tone of the Article

The tone of the article observed how the author wrote the article. The articles either came across as positive, negative, neutral, or there was no tone.

Who was blamed?

This code is the main observation being made in this research. Throughout the articles, who was being blamed for the high treatment costs was a main topic. This showed who the media outlet saw as being “guilty” for causing cancer patients to pay high amounts of money to be treated. The options given were as follows: The doctor, the hospital, the drug company, a government official, a health insurance company, the researchers or scientists, or no one was being blamed.

Perceived Cost of Treatment

We used this code to determine whether the cost of treatment was perceived by the author to be either high, low, just about right or there was no opinion given.

Source of News

The source of the news is who was interviewed in the article. If there was more than one source, we coded the source that was used most frequently. The source of the news ranged from the family of the patient, the patient, the doctor, the hospital, a government official or there was no interview.

Tone of Source

This code described the tone the source gave when being interviewed. The source either had a positive, negative, or neutral tone or there was no interview.

Frame

The frame of the article fell in two categories: Thematic or episodic. Thematic is when the article provides facts and statistics and there is no emotion involved. These articles are more professional and don't involve opinion or personal stories. Episodic articles contained a personal story or feeling and emotion. These stories had opinions and flowed like they were telling a story.

Coders

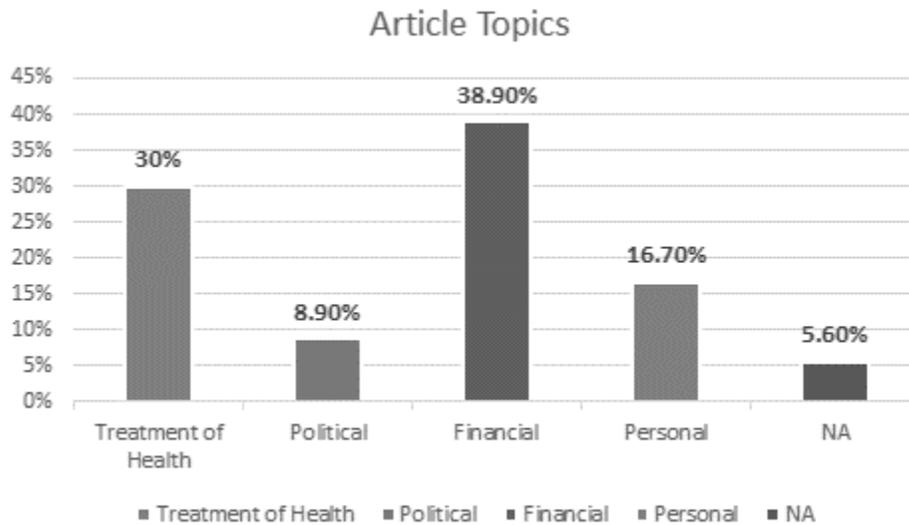
Three undergraduate students (females) coded the data. Intercoder reliabilities were calculated using Scott's pi index (1955), which corrects for the number of categories used and the probable frequency of use. An overall intercoder agreement of .96 was reached, which exceed the minimum accepted reliability of .75.

Results

What issue was more focused on in the traditional media?

The first research questions was “What issue was more focused on in the traditional media? After the content analysis was complete, it was found that 38.9% of the 90 articles analyzed were financial. 30% of the articles focused on the treatment of health, 16.7% on personal life, 8.9% on politics, and 5.6% did not have a specified topic.

Figure 1

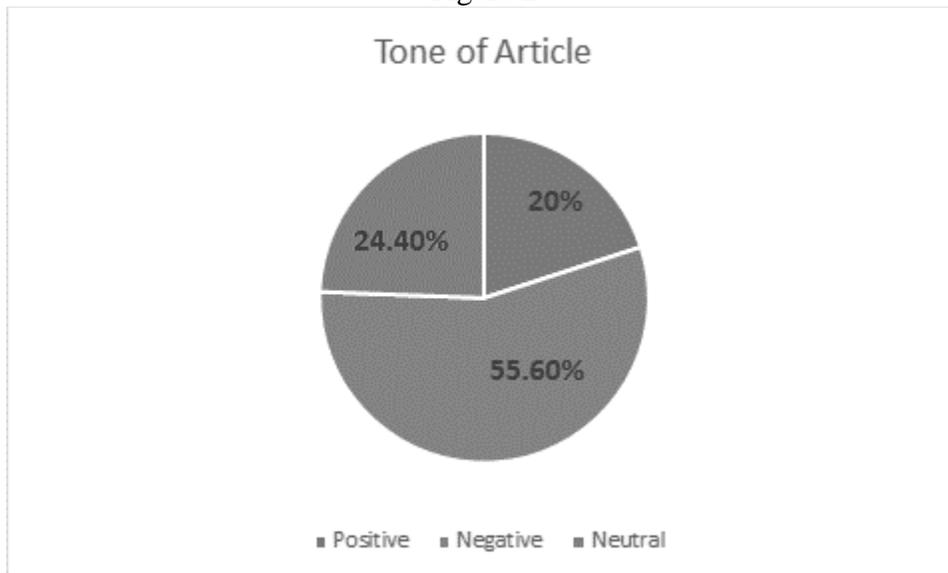


As shown in figure 1, the majority of the articles focused on the cost or financial aspect of the cost of treatment. The actual treatment of health was the second highest topic closely relating to the financial category.

How does the traditional media portray the feeling of the cancer treatments?

The second research question asked, "How does the traditional media portray the feelings of the cancer treatments?" Through the research and content analysis, it was found that 55.6% of the articles were negative. 20% of the articles were positive, and 24.4% were neutral.

Figure 2

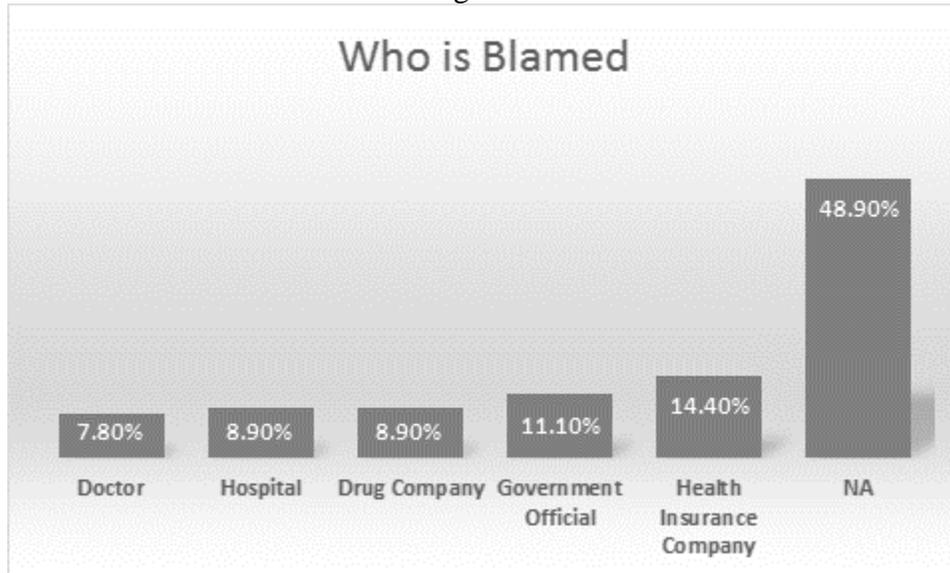


As shown in figure 2, there were far more negative articles than any others. There were about the same amount of neutral and positive articles.

Who is to blame for the high cost of cancer treatment?

The third research question asked, “Who is to blame for the high cost of cancer treatment?” The variables analyzed were: Doctor, hospital, drug company, government official, and health insurance. 48.9% of the articles did not place any blame on anyone for the high cost of cancer treatment. 14.4% blames the health insurance companies, 11.1% placed blame on government officials, 8.9% on hospitals, and 7.8% on the doctors.

Figure 3

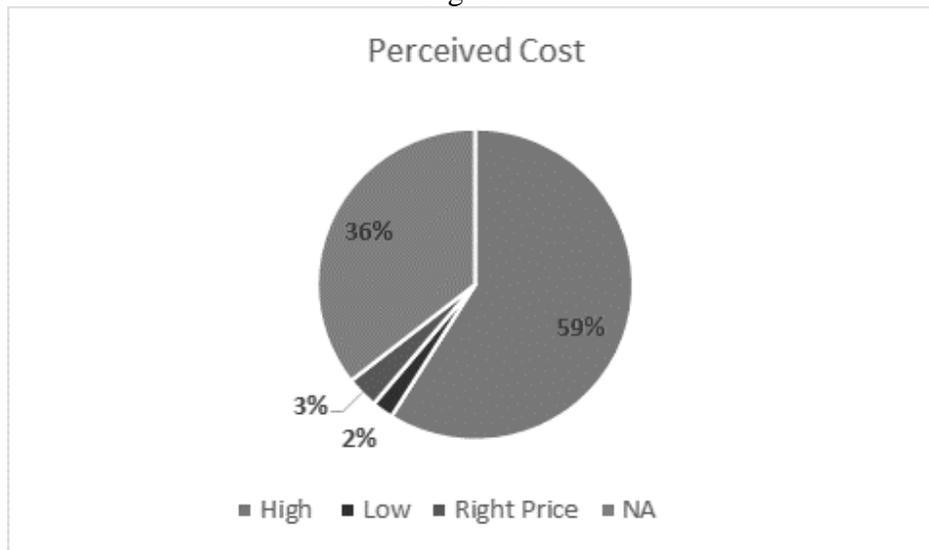


As seen in Figure 3, a majority of the articles placed no blame for the high cancer treatment costs. The blame was close to evenly placed on the other variables.

How is cost viewed by the traditional media?

The fourth research question asked, “How is cost viewed by the traditional media?” The results from the data showed that from the 90 articles, 59% of them perceived the costs of treatment as too high. 36% did not perceive the cost at all, 3% saw the price of treatment as being just right, and 2% perceived the cost of treatment as too low.

Figure 4

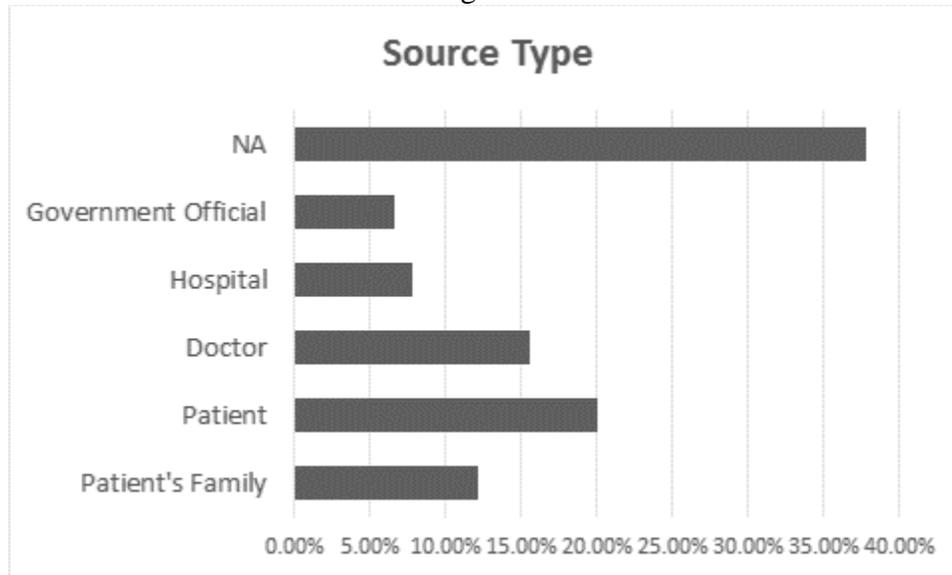


As shown in figure 4, over half of traditional media perceived the cost of treatment as too high. The perceived cost being too low and at the right price are extremely miniscule compared to no perceived cost and high cost.

Who are the major sources in the traditional media?

The fifth research question asked, “Who are the major sources in the traditional media?” The study showed that 37.8% of the articles did not even have a source. 20% of the articles cited the patient receiving the cancer treatment. 15.6% of the articles cited a doctor, 12.2% cited the patient’s family, 7.8% cited the hospital, and 6.7% a government official.

Figure 5

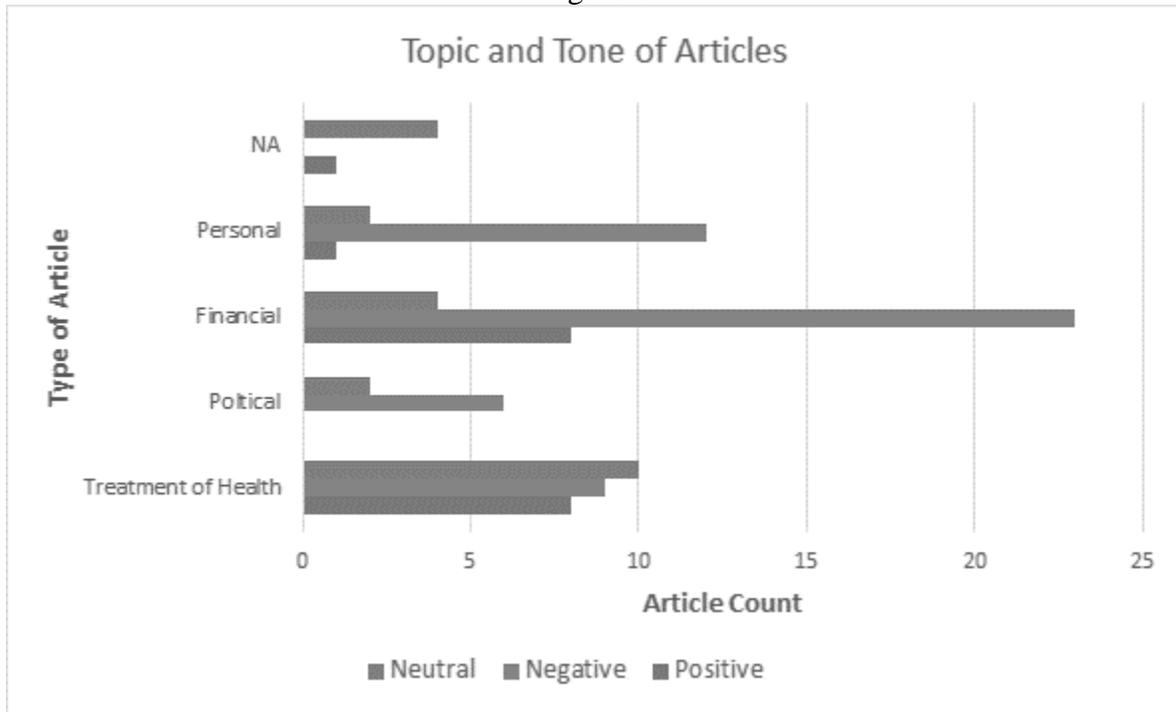


As shown in figure 5, there is a large percentage of articles that did not cite a source at all. The patient was the second highest to be cited in an article about the cost of cancer treatment. The lowest percentage of sources cited was government officials.

Do the article topic affect the tone of the article?

The sixth research questions asked, “Do the article topic affect the tone of the article?” The data of the tone of the article and the topic of the article was cross tabulated in the data system. The results showed that for the treatment of health category, eight articles were positive, nine articles were negative, and ten were neutral. For the political articles, none of them showed to be positive, six were negative, and two were neutral. Financial articles showed eight positive, 23 negative, and four neutral. The personal articles only had one positive, 12 negative, and two neutral. Finally, there was one positive article and four neutral articles that did not have a specific category.

Figure 6



As shown in figure 6, financial articles were the most negative, following with personal stories and then the treatment of health. Treatment of health articles showed a high number of neutral articles. There was only one personal article that was positive, but a high number of negative articles based on people's personal stories.

Discussion

Through our content analysis, we found that the traditional media portrays the costs of cancer treatment as costly. Less than three percent of the articles gave the perception that they believed the costs were too low or just right. We expected this from the start since the entire study was based on the knowledge that patients and the public were unhappy about the expensive treatments.

Our study also supported that the traditional media would report the cost of cancer treatment in a negative way; however, traditional media did not often take the path of placing blame. When analyzing who was blamed, we estimated that the government would most likely be the target for the traditional media. This was very interesting to find because we figured the authors of the articles would write in a cause-effect style to give the audience answers.

The cost of treatment was portrayed by traditional media as high like we expected. We were surprised, however, that so many of the articles would not portray any opinion about the cost at all.

Finally, it was surprising to see that while many of the articles that were about finances were negative, when the article focused more about the treatment of the patient, there was an increase in the positive tone. This showed us that traditional media is generally unhappy with the cost of cancer treatments but is continuously optimistic about the treatment itself.

These findings lead us to believe that the traditional media seems to be writing articles to reach out to the health care and drug companies about the cost while at the same time, not discouraging the patients about their illness.

Conclusion

We sought to find whether there was any correlation to how traditional media portrayed the cost of cancer treatment. We gathered 90 articles from the past year from six different traditional media outlets and analyzed them using seven variables to describe each article. A majority of the articles were about finances. We found that the media portrayed cancer treatment in a negative way. The results also showed that most of the articles showed no blame was placed for the high drug costs. More than half of the articles stated that the cancer treatment costs were too high and although there wasn't usually a source in the articles, but there were more patients being interviewed than anyone else and the sources had negative views about the cost of treatment.

Some of the results were interesting to us. We were surprised that more of the articles did not place blame on anyone for the cost of cancer treatment. We were not surprised that a majority of the traditional media portrayed the treatment prices to be high.

Traditional media portrays the cost of cancer treatment as too high, there is generally no blame for this and in the articles they mostly want to hear from the patients themselves. Also, the financial burden of the cancer treatment is the most common theme in the traditional media, although the traditional media remains positive about the treatment for the patients.

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Appendix

Codebook: **The Cost of Cancer as Portrayed in the Traditional Media**

V1. Identification #_i.e. (1 of 90)

V2. Coders

- A. Sydney Roberts
- B. Megan DeArmit
- C. Jessica Hunnell

V3. Media Organization

- A. New York Times
- B. Los Angeles Times
- C. USA TODAY
- D. The Huffington Post
- E. CNN
- F. Fox News

V4. Headline (Title of Article)

V5. Date _ (YEAR.Month.Date)_0000/00/00_

V6. Focus of News (Topic)

- A. Treatment of health
- B. Political
- C. Finance
- D. Personal
- E. NA

V7. Tone of Article about the topic

- A. Positive
- B. Negative
- C. Neutral
- D. NA

V8. Who is blamed for high prices?

- A. Doctor
- B. Hospital
- C. Drug company
- D. Government official
- E. Health insurance company
- F. Researcher/scientist
- G. NA

V9. Perceived cost of treatment

- A. High
- B. Low
- C. Right price
- D. NA

V10. Source of News (Who was interviewed)

- A. Family of patient
- B. Patient
- C. Doctor
- D. Hospital
- E. Government official

- F. NA
- V11. Tone of the source
 - A. Positive
 - B. Negative
 - C. Neutral
 - D. NA
- V12. Frame
 - A. Thematic (Fact, statistical)
 - B. Episodic (Storyline, emotion)
 - C. NA

Figure 1:

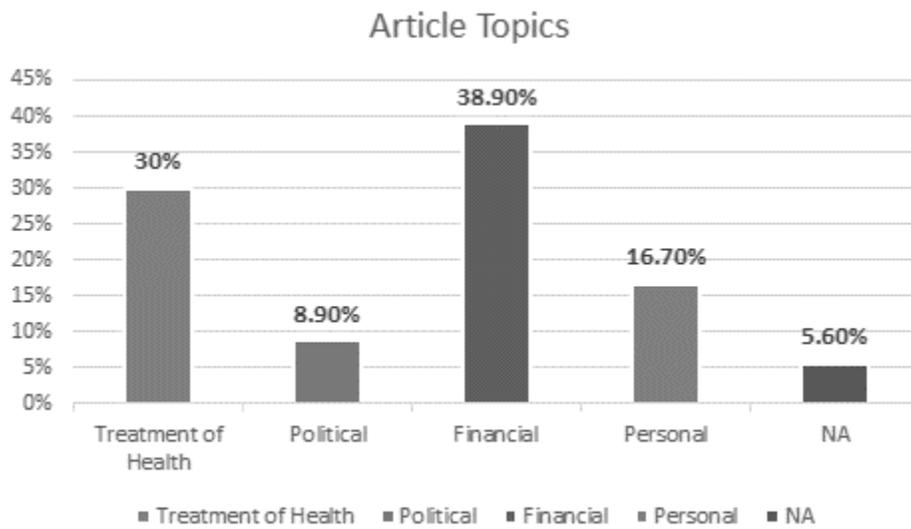


Figure 2:

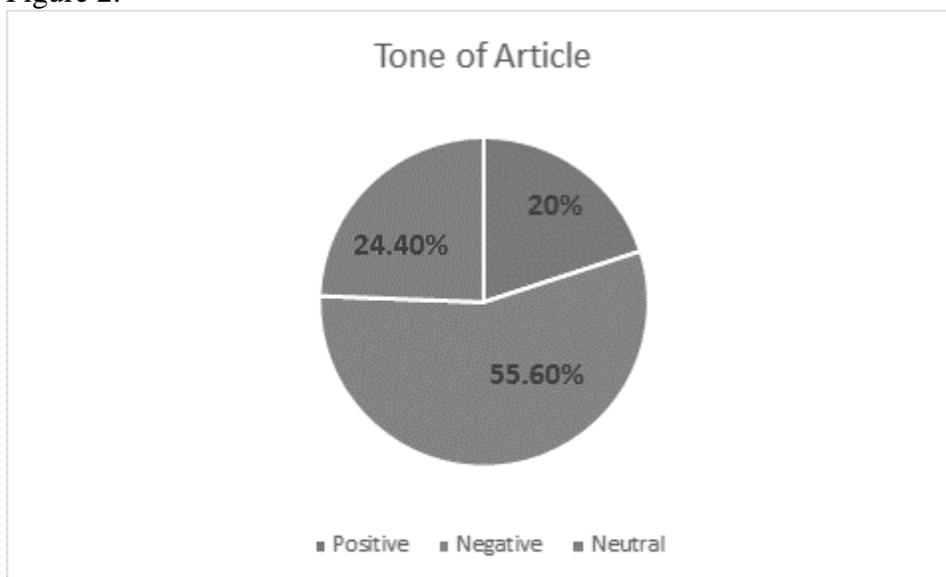


Figure 3:

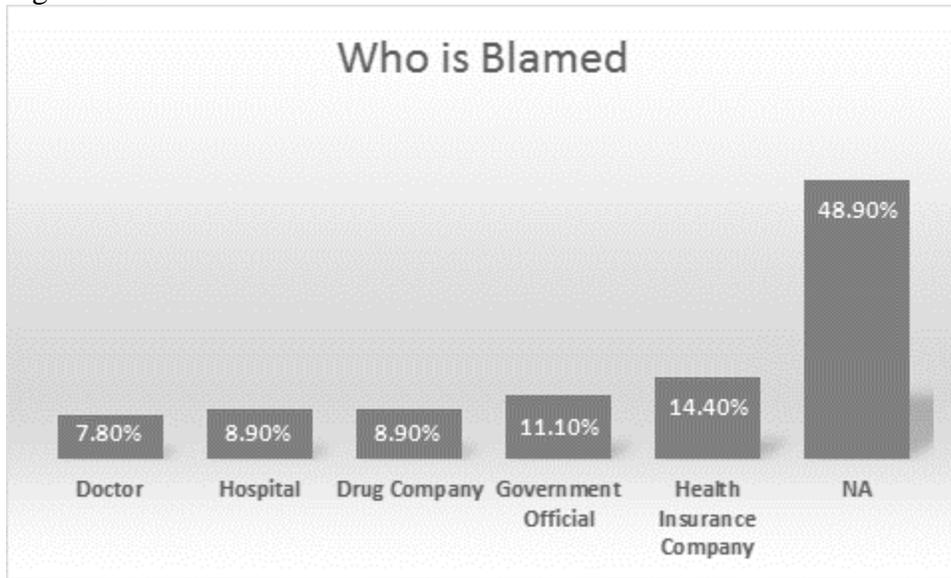


Figure 4:

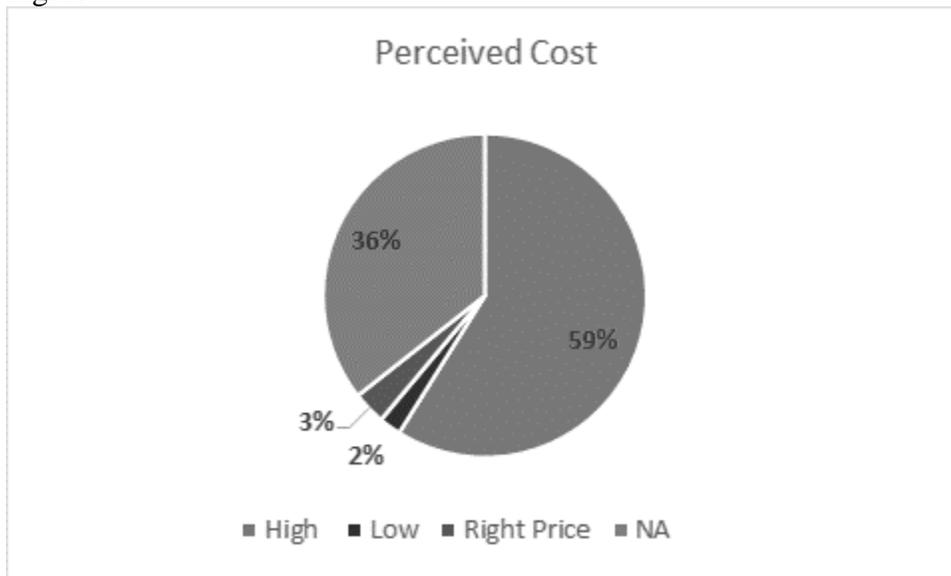


Figure 5:

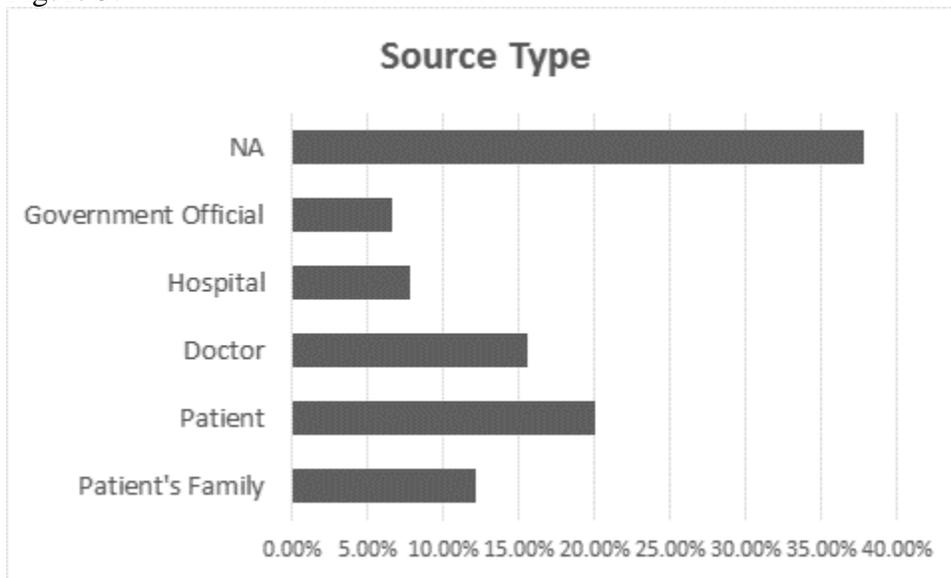


Figure 6:

