Communicating “Pink”: An analysis of the communication strategies, transparency, and credibility of breast cancer social media sites

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According to Willard (2009), three technologies have most contributed to the “explosion of the social web”: mobile communications (handheld computers and mobile phones); social media (enables users to upload their own content and find content generated by others); and online social networking (allows users to maintain and extend their personal and professional networks). In public relations, this “explosion” has significantly impacted how organizations communicate to their various publics through social media, Facebook, and Twitter.

While previous studies have investigated dialogic communication and relationship building strategies in organizations, few have done this in terms of an organization’s overall social media presence. Rybalko and Seltzer (2010) analyzed Twitter postings of Fortune 500 companies and found more than half employed Kent and Taylor’s (1998) dialogic loop of communication. Similarly, McCorkindale’s (2010b) analysis of brands on Twitter found employment of the dialogic loop depended on the purpose of the account. Those heavily focused on customer service were more likely to engage in dialogic communication.

Social media studies in public relations have primarily focused on corporations’ use of social media. Few have examined nonprofits use of social media. For example, Zoch, Collins, Sisco, and Supa (2008) found that activist organizations weren’t fully utilizing their Web sites while Waters, Burnett, Lamm, and Lucas (2009) analyzed Facebook profiles and found most nonprofits are not taking advantage of social media. Moreover, the organizations that did use social media typically employed one-way communication strategies focusing primarily on information dissemination. In addition, Henderson and Bowley (2010) analyzed a nonprofit’s use of social networking to communicate with potential stakeholders during a recruitment campaign. They found that the use of social media enhanced the nonprofit’s authenticity and attracted new stakeholders.
Considering the tremendous impact of social media on public relations, how nonprofit organizations are using various forms of social media is important. Little research has analyzed the overall social media presence of an organization. Using Kang’s (2010) credibility scale and Rawlins transparency scale (2009), this study will quantitatively analyze the content of the Twitter account and Facebook page, of the top 15 breast cancer charities. Results and suggestions for future research will be included.

Social media and public relations

Social media provide a variety of ways for users to become involved with organizations. Social media creates the perception of close interaction regardless of time and space, thereby connecting individuals and groups with organizations (Fuchs, 2004). Furthermore, social media allow “interpersonal dialogue between and among users, has offered new opportunities for both institutions and individuals to connect with stakeholders and each other” (Gilpin, Palazzolo & Brody, 2010, p. 259).

Tredinnick (2006) defined social networking sites as those sites driven by user-participation and user-generated content. Social networking sites provide organizations with a space to interact with key publics and to allow users to engage with one another on topics of mutual interest. Social media allows users to participate but also to give feedback and foster a sense of community with an organization. The outcome of this connection is a ”collaborative, participatory culture where users feel comfortable expressing themselves, creating and sharing their creations and communicating with a variety of people across the world” (Henderson & Bowley, 2010 p. 239).

For public relations practitioners, one of the advantages of social media is the ability to speak directly to publics without the influence of gatekeepers; this in turn opens the space to
more dialogue with many different publics (Henderson & Bowley, 2010). Although as recently as 2008, research (Eyrich, Padman, & Sweetser) has found that practitioners were still more likely to use traditional tools because of their ease of use. Several studies have documented the hesitancy of public relations practitioners to fully adopt social media to interact with publics (Briones, Kuch, Liu, & Jin, 2010; Eyrich, Padman, & Sweetser, 2008; Porter, Sweetser, & Chung, 2009; Waters, Burnett, Lamm, & Lucas, 2009). This finding may be surprising, as social media has been found to be a great tool in fostering relationships with publics. McCorkindale (2010a) studied corporate Facebook pages and found most engaged in one-way communication by merely posting information, as opposed to engaging in dialogic communication with its fans. As Wright and Hinson (2008) found, blogs and social media have enhanced what happens in public relations and that social media and traditional mainstream media do complement each other.

**Nonprofits usage of social media**

Social media can be especially beneficial for nonprofit organizations. In addition to strengthening relationships with publics, Waters (2009) found nonprofit organizations use social media to streamline management functions, educate the public about programs and services, and communicate with constituents. Furthermore, O'Neil (2008) found communications that help donors understand how their donations will be used are the most significant predictor of commitment, satisfaction, and trust. The author concluded communications make a significant difference in predicting donor's long-term attitudes toward the organizations, and influence donor support.

According to Waters (2009), typically, nonprofit organizations lag behind others in social media adoption, waiting to see how other organizations adopt and use this new technology.
Waters, Burnett, Lamm, and Lucas (2009) found that despite its prevalence nonprofit organizations are not fully utilizing the interactive functions of Facebook to build relationships with publics. Bortree and Seltzer (2010) found similar findings in their study of advocacy organizations. Most organizations “seem to adopt the position that the mere creation of an interactive space via a social networking profile is sufficient for facilitating dialogue” (p. 318). Bortree and Seltzer further suggest that in order to encourage dialogue and interaction with publics organizations should “post frequently to their own profile via applications that provide photos of events, videos, RSS feeds, calendars of events, etc., and that will serve to stimulate discussion” (p. 319). On the other hand, a 2009 study found 93 percent of the U.S. charities studied had a Facebook profile while 87 percent had a Twitter page. The authors, Barnes and Mattson, concluded U.S. charities outpaced both academia and the business world in terms of adoption.

One of the biggest obstacles for nonprofit organizations is a lack of resources, specifically available time and a trained staff. Most nonprofits know that having a Facebook page or Twitter account is beneficial but may not maintain their own social media sites. Bortree and Seltzer (2010) recommend that:

nonprofit organizations designate someone to be responsible for following through on dialogic opportunities by responding to user posts, as well as by providing timely, relevant information about issues of mutual concern to the organization and stakeholders and by providing useful information about the organization itself. (p. 319).

Measuring online relationships

Yang and Lim (2009) found that individuals tend to trust organizations when they perceive greater level of interactivity in social media. The ability to interact continuously and
keep publics informed also increases an organization’s credibility. Johnson and Kaye (1998) found when individuals consider a medium credible they are also more likely to rely on that medium for information. Furthermore, Kang (2009) suggested credibility is “one of the key factors driving the traffic of individuals to organizations’ social media” (p. 20). Organizations should prioritize the credibility of their social media in order to enhance their relationships with current publics as well as attract new publics.

In addition to being perceived as credible, an organization should strive to maintain transparency with key publics. Transparency is often viewed as openness with the community (Ledingham & Bruning, 2000). Rawlins (2008) states, “transparent organizations must share information that allows stakeholders to make informed decisions regarding their relationship with the organization” (p. 6).

Transparency has become a familiar term in the public relations literature despite lacking a universal definition. In an attempt to measure this construct, Rawlins (2009) developed a scale that divides the transparency of the organization’s communication efforts into four dimensions: participation, substantial information, accountability, and secrecy. In the analysis of these four factors, Rawlins (2008) found that there is a strong correlation between organizational transparency and public trust. Therefore, as an organization becomes more open with their publics through social media they have the ability to increase relational trust. The second part of his scale measures three dimensions of the organization’s transparency: respect for others, clarity, and integrity.

Breast cancer organizations have developed extremely sophisticated techniques for communicating with publics. Samantha King (2006) identifies breast cancer nonprofits as optimal charitable organizations. King describes how in a very short time span (1993-1997) the
public went from thinking about breast cancer as grassroots activism to an undertaking involving "wealthy individuals, CEOs and politicians who had succeeded in making breast cancer chic" (p. ix). These organizations have done an excellent job of incorporating social media in order to maintain their online presence and improve relationships with their publics.

The current study will use Kang’s (2010) credibility scale and Rawlins’ transparency scale (2009) to quantitatively analyze the content of the Twitter account and Facebook page of the top 15 breast cancer charities in an effort to measure their social media effectiveness. The list of the top 15 Charities Working to Prevent and Cure Breast Cancer was obtained from CharityNavigator.org. Charity Navigator is a 501 (c) (3) non-profit organization that provides an open evaluation of charities in terms of their financial health for prospective donors. Based on the above literature review, the following research questions and hypotheses will be addressed:

RQ1: How active are breast cancer nonprofits on Facebook and Twitter?

RQ2: What is the relationship between Twitter/Facebook activity and an organization’s transparency?

RQ3: What is the relationship between Twitter/Facebook activity and the organization’s credibility?

H1: Breast cancer nonprofits that are ranked higher will have higher levels of transparency than its counterparts

H2: Breast cancer nonprofits that are ranked higher will have higher levels of credibility than its counterparts

Methodology

The study consisted of a quantitative survey of the content of Facebook pages and Twitter accounts of the top 15 breast cancer charities during the month of January 2011. The basic
sampling unit was the content of one Facebook page and one Twitter account for each organization. The 15 organizations included the Dana-Farber Cancer Institute, Susan G. Komen for the Cure, Breast Cancer Research Foundation, National Breast Cancer Coalition Fund, The Rose, SHARE, National Breast Cancer Foundation, Inc., Living Beyond Breast Cancer, Breastcancer.org, Young Survival Coalition, Barbara Ann Karmanos Cancer Institute, Breast Cancer Network of Strength, Breast Cancer Fund, United Breast Cancer Foundation, and the American Breast Cancer Foundation. Five other charities from the same list were excluded because of their lack of social media: Breast Cancer Connections, John Wayne Cancer Institute, American-Italian Cancer Foundation, Walker Cancer Research Institute, and Coalition Against Breast Cancer.

Survey Instrument

The measurement instrument asked participants to describe in detail the organization’s Facebook page including the number of likes and fans. It also asked participants to analyze the organization’s Twitter account including followers, those following, tweets and the number of dialogic tweets during the month of January.

To measure the organization’s transparency, the authors implemented Rawlins’ (2009) measurement instrument. The transparency semantic differential scale was composed of organizational traits such as being reliable, ethical, honest, open, sincere, consistent, and willing to listen. The second part of the index measured the communication efforts of the organization according to the four components of transparency: accountability, voluntary disclosure, and sharing of information that is complete, relevant, verifiable, accurate, balanced, comparable, clear, timely, reliable, and accessible. This scale used a 7-point Likert-type scale. (i.e., 1 = strongly disagree; 4 = neither agree or disagree; 7 = strongly agree).
The instrument also included Kang’s (2010) blog credibility scale, which the authors adapted for social media measurement. This scale asked respondents to recognize the importance of 14 attributes in evaluating credibility of the organization’s social media, in terms of two theoretical dimensions (i.e., credibility and content credibility), using a 7-point Likert-type scale. (i.e., 1 = strongly disagree; 4 = neither agree or disagree; 7 = strongly agree). The source credibility scale items measured if the organization’s social media was: knowledgeable; influential; passionate; transparent; and reliable. The message/content credibility items measured if the organization’s social media was: authentic; insightful; informative; consistent; fair; focused; accurate; timely; and popular.

Before the survey was implemented, a pretest was conducted to ensure that the survey and directions were clear and effective. After the pretest, minor revisions were made to both the survey and the directions; both were deemed suitable for implementation. For each organization, respondents were instructed to visit the entire Facebook page (including photos, wall posts, events, and info) and Twitter account. The respondents were asked to restrict their viewing of both the Facebook pages and Twitter accounts to the month of January 2011.

Regarding the reliability check for dependent measures, dimensions within Rawlins organizational transparency scale showed appropriate Cronbach’s alphas: integrity (.77), respects others (.83), and clear (.76). Dimensions relating to the transparency efforts in terms of the organization’s communication efforts also were appropriate: participative (.76), provides substantial information (.78), provides accountability (.71), secretive (.73). Regarding Kang’s blog credibility scale, the Cronbach’s alphas of the two dimensions were .80 for the organization’s credibility and .89 for the credibility of the content, both meeting the minimum standards for reliability (Nunnally, 1978).
Results

RQ1 asked about the level of activity of the breast cancer nonprofits on Facebook and Twitter. The Susan G. Komen for the Cure was the most active breast cancer nonprofit on Facebook and Twitter. Susan G. Komen had the most Facebook likes (M = 447,264), Twitter followers (M = 18,569), number of accounts they followed on Twitter (M = 4,677), total tweets (2,104), and tweets for the month examined in January (M = 70). The organization also scored in the top three for Facebook posts in January (M = 28) and the number of dialogue tweets in January (M = 7). Some organizations were more likely to be active on Twitter than Facebook compared to their counterparts, and vice versa. For example, the National Breast Cancer Foundation had the third most followers (M = 2,941) and the most dialogue tweets in January (M = 12). Activity, though, is not an indicator of participation. The United Breast Cancer Foundation was the second most active breast cancer charity on Facebook with an average of 46 posts in January, but had the second to lowest number of Facebook likes (M = 426). In addition, the organization had the second highest number of tweets in January (M = 55) and the second highest number of dialogue tweets (M = 11). However, the United Breast Cancer Foundation had 530 followers and 222 tweets in total indicating this account may have recently become more active (Table 1).

Hypothesis 1 suggested the breast cancer nonprofits that were higher in ranking would be more transparent than those that were ranked lower. This hypothesis was partially supported. ANOVAs were used to compare differences of the dimensions within Rawlins’s organizational transparency scale among the breast cancer nonprofits. Using Scheffe’s post hoc analysis, Susan G. Komen for the Cure (ranked 2) and the National Breast Cancer Foundation (ranked 3) scored significantly higher in terms of integrity, $F(14, 36) = 6.3, p = .00$, than its counterparts. Several
charities, including Susan G. Komen for the Cure, reported stronger levels of clarity, $F(14, 36) = 7.4, p = .00$) than the Breast Cancer Network of Strength (ranked 12) and the American Breast Cancer Foundation (ranked 15). In terms of overall organizational transparency, the National Breast Cancer Foundation (ranked 7), the National Cancer Coalition Fund (ranked 4), the Susan G. Komen for the Cure, the Dana Farber Cancer Institute (ranked 1) and the Young Survival Coalition (ranked 10) had significantly higher levels of overall transparency ($F(14, 33) = 6.3, p = .00$) than the American Breast Cancer Foundation (ranked 15). Significant differences were not found among the breast cancer charities regarding whether the organization respects others (see Table 2).

ANOVA\textsc{\textregistered} and Scheffe’s post hoc tests were also used to compare differences of the transparency of the communication efforts among the breast cancer nonprofits. Differences were not found among the breast cancer charities regarding whether the communication efforts were participative, whether they provided accountability, or whether they were secretive. Regarding the communication efforts, the Susan G. Komen for the Cure and the National Cancer Coalition Fund were found to be significantly more substantial ($F(14, 36) = 6.6, p = .00$) than the American Breast Cancer Foundation. Overall, there was not a significant difference of the overall transparency of the organization’s communication efforts (see Table 3).

H2 posited organizations ranked higher would have higher levels of credibility than those ranked lower, which was partially supported using ANOVA\textsc{\textregistered} and Scheffe’s post hoc analysis. Using Kang’s credibility scale, The Susan G. Komen for the Cure was found to have significantly higher levels of organizational credibility ($F(14, 33) = 7.1, p = .00$) than the American Breast Cancer Foundation and the Breast Cancer Network of Strength. As far as the content, Susan G. Komen for the Cure, National Cancer Coalition Fund, National Breast Cancer
Foundation, Breastcancer.org (ranked 9), Young Survival Coalition, Living Beyond Breast Cancer (ranked 8), The Rose (ranked 5), and the Dana Farber Cancer Institute had significantly higher levels of content credibility ($F(14, 36) = 11.4, p = .00$) than the American Breast Cancer Foundation and Breast Cancer Network of Strength (see Table 4).

RQ2 asked about the strength of the relationship between Twitter and Facebook activity, and an organization’s transparency. Pearson correlations revealed a moderate relationship between an organization’s transparency and the total number of tweets ($r = .36, p < .05$). There was also a moderate relationship between the transparency of the organization’s communication efforts and the number of Facebook likes ($r = .33, p < .05$), Twitter followers ($r = .33, p < .05$), total tweets ($r = .40, p < .01$), and tweets for the month of January ($r = .33, p < .05$).

RQ3 examined the strength of the relationship between Twitter and Facebook activity, and an organization’s credibility. Pearson correlations found a moderate relationship between the organization’s credibility and the number of Facebook likes ($r = .34, p < .05$), the number of Twitter followers ($r = .34, p < .05$), total tweets ($r = .46, p < .01$), and tweets in January ($r = .35, p < .05$). Similarly, moderate relationships were also found in regards to the credibility of the content and the number of Facebook likes ($r = .34, p < .05$), the number of Twitter followers ($r = .35, p < .05$), total tweets ($r = .45, p < .01$), and tweets in January ($r = .35, p < .05$).

Finally, there was also a strong correlation between the organizational credibility dimension, and both the overall organizational transparency ($r = .76, p < .01$), and overall transparency of the organization’s communication efforts ($r = .73, p < .01$). Similarly, a strong correlation existed between the credibility of the organization’s content, and both the overall transparency of the organization ($r = .76, p < .01$), and its communication efforts ($r = .79, p < .01$).
Discussion and Conclusion

The purpose of this study was to determine how breast cancer nonprofits are participating on social media sites, specifically Facebook and Twitter, and how these sites affect perceptions of credibility and transparency. This research indicates Twitter and Facebook both affect the perception of organizational credibility and transparency. Overall, most top breast cancer nonprofits are active on both Twitter and Facebook, but differ in terms of activity. Some nonprofits were more active on Facebook than Twitter, while others were more active on Twitter than Facebook. Organizations, though, need to take advantage of the benefits of both sites, which do appeal to different audiences. Therefore, the usage and content on both sites needs to be consistent, as well as frequently updated. Also, organizations need to use both sites to not only communicate with their audiences, but also to engage in dialogue. Similar to Waters et al. (2009) and McCorkindale (2010a), organizations are not taking advantage of the dialogic nature of Facebook or Twitter, and use the sites to merely communicate one-way and post information.

The top charities, Susan G. Komen for the Cure and the Dana Farber Cancer Institute, were most active on both Twitter and Facebook. Even though followers or likes should not be used as metrics of success, some followers or fans do become exposed to the organization’s message, which in turn can affect donations and volunteer efforts. In fact, the United Breast Cancer Foundation (ranked 14) was the second most active breast cancer nonprofit in terms of postings, but had one of the lowest numbers of “likes,” which emphasizes the importance of brand awareness. However, it should be noted the organization was still most likely to score higher in terms of credibility and transparency than its counterparts that were ranked higher.

Those breast cancer nonprofits that were ranked higher in the top list of nonprofit charities were more likely to be seen as more transparent and credible than those that were
ranked lower. For example one respondent said of the Dana-Farber Cancer Institute (ranked 1) “they’re very active on Facebook with weekly posts, with testimonials, press releases, (and) polls concerning their new application for the iPad.” Another respondent described the social media of the Susan G. Komen for the Cure (ranked 2), “the visuals are amazing. They are informative, educational and give inspiration to viewers. They comment back to many people and provide information everyday.” On the other hand, the American Breast Cancer Foundation (ranked 15) was described as “not very active, they don’t have many posts and they don’t respond to posts by fans.”

A moderate relationship was also found between activity on the Facebook and Twitter page, and the organization’s credibility and transparency. Organizations that tweeted more, had more likes, more followers, and more overall tweets were seen to be more transparent and credible by virtue of activity alone. Therefore, organizations need to spend time crafting thoughtful, and open communication, but also do so frequently. The organizations who updated less frequently also appeared to be less transparent. Public relations practitioners must keep their Twitter and Facebook pages active in order to be perceived as transparent and credible.

However, it should be noted that even though followers, fans, and the number of tweets should not be used as a metric for success, the findings do indicate users assess this information to determine how credible or transparent the organization is. In essence, this is the bandwagon effect.

Interestingly, the number of dialogic tweets did not impact perceptions of credibility or transparency. However, it should be noted the participants viewed the pages as a whole and were not active followers or fans of the Facebook or Twitter profile. Therefore, they have not engaged or attempted to engage with the organizations studied. The finding may have been different if
the user followed all the sites or had attempted to engage with the organization on social media sites.

Many social media tools are freely available to nonprofit organizations, but the time and technology necessary to configure, update, and monitor them is certainly not without cost. Having a social media presence isn’t enough; the organization must ensure high quality interactions to keep individuals engaged. In essence, merely putting together a Facebook page is ineffective if the page is not going to be kept up-to-date and serve as an engaging forum for stakeholders.

This study found a strong link between the transparency and credibility of the organization. This is a significant finding. For public relations practitioners, those organizations that appear to be transparent were also seen to be more credible, indicating openness, honesty, and respect do influence the credibility. Jo (2005) found that online credibility has a direct influence on relational trust. As research has shown, trust is an essential element for nonprofit organizations especially those that rely on donor support (O’Neil, 2008).

There were some limitations to the study, including only breast cancer charities were studied. Even though the study was based on assessing the nonprofit’s Facebook and Twitter page, prior brand awareness in terms of the more popular charities such as Susan G. Komen for the Cure, was not assessed so the participants’ prior attitudes or knowledge could have impacted their responses. Another weakness was the participants assessed one snapshot of the organization’s Twitter or Facebook page, which may not represent their typical page. In order to truly gauge the utility of social media there has to be some way to measure key indicators. This study incorporated just two measures that may not encompass all the advantages
of social media use. More research is required before any overall conclusion can be drawn about social media and its ability to engage stakeholders.

Although this study was limited to breast cancer nonprofits, the findings have implications not just for nonprofits, but organizations as a whole as well as the body of public relations knowledge in how they interact and participate on social media sites such as Facebook and Twitter. There are obvious benefits for organizations that are using social media. It can strengthen an organization’s existing communication attempts, open an avenue to new publics and potentially gain fresh support for the organization. For nonprofit organizations, the key to doing this successfully is keeping publics engaged and differentiating the organization from others.
References


communications contribute to trust, satisfaction, and commitment in nonprofit organization. *Journal of Promotion Management, 14*, 263-274.


## Table 1

Means of the Top 15 Breast Cancer Organizations’ Activities on Facebook and Twitter

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<tbody>
<tr>
<td>Facebook Likes</td>
<td>12,662</td>
<td>447,264</td>
<td>10,595</td>
<td>29,857</td>
<td>4,414</td>
<td>20,691</td>
<td>3,617</td>
<td>3,854</td>
<td>23,201</td>
<td>1,319</td>
<td>8,671</td>
<td>7,821</td>
<td>427</td>
<td>2,493</td>
<td>43,666</td>
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<td>Facebook posts in January</td>
<td>19</td>
<td>28</td>
<td>20</td>
<td>17</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>24</td>
<td>11</td>
<td>8</td>
<td>0</td>
<td>16</td>
<td>46</td>
<td>0</td>
<td>20</td>
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<tr>
<td>Twitter Followers</td>
<td>2,522</td>
<td>18,569</td>
<td>1,456</td>
<td>387</td>
<td>119</td>
<td>2,941</td>
<td>1,814</td>
<td>1,315</td>
<td>1,070</td>
<td>295</td>
<td>1,459</td>
<td>3,285</td>
<td>148</td>
<td>35</td>
<td>2,589</td>
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<td>Tweets to date</td>
<td>945</td>
<td>2,104</td>
<td>663</td>
<td>260</td>
<td>344</td>
<td>735</td>
<td>625</td>
<td>476</td>
<td>905</td>
<td>166</td>
<td>447</td>
<td>453</td>
<td>222</td>
<td>9</td>
<td>588</td>
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<td>Reply tweets in January</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>0</td>
<td>11</td>
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<tr>
<td>Number of tweets in January</td>
<td>26</td>
<td>70</td>
<td>16</td>
<td>16</td>
<td>5</td>
<td>2</td>
<td>27</td>
<td>17</td>
<td>24</td>
<td>9</td>
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<tr>
<td>Integrity</td>
<td>9.00ab (.82)</td>
<td>6.50a (1.30)</td>
<td>14.25abc (5.12)</td>
<td>8.33ab (.82)</td>
<td>10.00ab (2.45)</td>
<td>11.25abc (3.30)</td>
<td>7.00bc (1.41)</td>
<td>8.33b (2.89)</td>
<td>10.00abc (2.65)</td>
<td>9.33abc (3.22)</td>
<td>12.00abc (0.00)</td>
<td>19.33bc (2.08)</td>
<td>12.00abc (1.00)</td>
<td>12.33abc (3.51)</td>
<td>20.33c (5.86)</td>
<td>6.30**</td>
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<tr>
<td>Respects others</td>
<td>11.75a (1.89)</td>
<td>16.00a (4.55)</td>
<td>23.75a (8.38)</td>
<td>15.33a (3.06)</td>
<td>14.75a (5.56)</td>
<td>15.00a (6.22)</td>
<td>12.33a (1.53)</td>
<td>21.00a (7.07)</td>
<td>16.00a (2.65)</td>
<td>14.00a (3.14)</td>
<td>19.67a (3.79)</td>
<td>18.67a (4.51)</td>
<td>17.00a (3.60)</td>
<td>16.33a (4.04)</td>
<td>29.00a (1.93)</td>
<td>2.86*</td>
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<td>Clear</td>
<td>10.25 ab (1.89)</td>
<td>8.25a (1.30)</td>
<td>13.25ab (4.37)</td>
<td>6.67a (1.53)</td>
<td>10.50ab (2.75)</td>
<td>11.50ab (2.38)</td>
<td>7.50a (2.89)</td>
<td>8.00a (2.00)</td>
<td>8.33a (2.89)</td>
<td>8.33a (2.31)</td>
<td>12.00ab (5.00)</td>
<td>21.00b (1.00)</td>
<td>12.33ab (1.53)</td>
<td>13.67ab (5.69)</td>
<td>21.67b (4.73)</td>
<td>7.43**</td>
</tr>
<tr>
<td>Overall transparency</td>
<td>31.00a (3.74)</td>
<td>30.75a (6.30)</td>
<td>51.25ab (16.03)</td>
<td>30.33a (4.93)</td>
<td>35.25ab (7.89)</td>
<td>37.75ab (10.62)</td>
<td>28.00a (0.00)</td>
<td>40.00ab (8.49)</td>
<td>35.50ab (2.12)</td>
<td>31.67a (1.16)</td>
<td>43.67ab (2.08)</td>
<td>59.00ab (6.25)</td>
<td>41.33ab (6.11)</td>
<td>42.33ab (9.29)</td>
<td>71.00b (14.00)</td>
<td>6.39**</td>
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Note. * = p < .05, ** = p < .001. Standard deviations appear in parentheses below means. Means with differing subscripts within rows are significantly different at the p < .05 based on Scheffe’s post hoc paired comparisons. The lower the mean, the more likely the nonprofit was to exhibit the measured characteristic.
### Table 3

**Means of Transparency of Organization’s Communication Efforts for the Top 15 (in order) Breast Cancer Organizations**

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</thead>
<tbody>
<tr>
<td>Participative</td>
<td>32.50, a</td>
<td>31.00, a</td>
<td>22.00, a</td>
<td>32.67, a</td>
<td>26.50, a</td>
<td>27.00, a</td>
<td>28.50, a</td>
<td>25.33, a</td>
<td>28.00, a</td>
<td>27.00, a</td>
<td>26.00, a</td>
<td>20.33, a</td>
<td>24.67, a</td>
<td>26.67, a</td>
<td>17.33, a</td>
</tr>
<tr>
<td></td>
<td>(3.70)</td>
<td>(5.60)</td>
<td>(4.69)</td>
<td>(6.66)</td>
<td>(2.08)</td>
<td>(7.62)</td>
<td>(3.70)</td>
<td>(9.87)</td>
<td>(4.00)</td>
<td>(3.60)</td>
<td>(1.00)</td>
<td>(.58)</td>
<td>(6.43)</td>
<td>(4.62)</td>
<td></td>
</tr>
<tr>
<td>Accountability</td>
<td>22.00, a</td>
<td>24.00, a</td>
<td>16.75, a</td>
<td>19.00, a</td>
<td>18.75, a</td>
<td>18.00, a</td>
<td>17.00, a</td>
<td>16.67, a</td>
<td>21.00, a</td>
<td>21.00, a</td>
<td>21.00, a</td>
<td>16.33, a</td>
<td>20.33, a</td>
<td>16.67, a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.94)</td>
<td>(7.48)</td>
<td>(5.06)</td>
<td>(2.65)</td>
<td>(3.59)</td>
<td>(3.65)</td>
<td>(7.00)</td>
<td>(6.43)</td>
<td>(3.46)</td>
<td>(1.00)</td>
<td>(1.73)</td>
<td>(4.93)</td>
<td>(1.53)</td>
<td>(2.31)</td>
<td></td>
</tr>
<tr>
<td>Substantial</td>
<td>40.50, a, b, c</td>
<td>43.50, c</td>
<td>31.75, a, b, c</td>
<td>43.33, c</td>
<td>39.75, a, b, c</td>
<td>35.25, a, b, c</td>
<td>41.25, b, c</td>
<td>39.33, a, b, c</td>
<td>40.67, a, b, c</td>
<td>40.33, a, b, c</td>
<td>37.00, a, b, c</td>
<td>26.00, a</td>
<td>36.33, a, b, c</td>
<td>35.67, a, b, c</td>
<td>28.00, a, b</td>
</tr>
<tr>
<td></td>
<td>(3.42)</td>
<td>(1.29)</td>
<td>(7.14)</td>
<td>(4.73)</td>
<td>(2.63)</td>
<td>(5.06)</td>
<td>(2.06)</td>
<td>(2.89)</td>
<td>(.58)</td>
<td>(2.89)</td>
<td>(3.61)</td>
<td>(1.73)</td>
<td>(3.79)</td>
<td>(3.79)</td>
<td></td>
</tr>
<tr>
<td>Secretive</td>
<td>26.75, a</td>
<td>28.00, a</td>
<td>19.50, a</td>
<td>30.67, a</td>
<td>26.25, a</td>
<td>23.50, a</td>
<td>29.75, a</td>
<td>27.67, a</td>
<td>30.33, a</td>
<td>28.00, a</td>
<td>26.00, a</td>
<td>18.33, a</td>
<td>21.00, a</td>
<td>23.00, a</td>
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<tr>
<td></td>
<td>(4.27)</td>
<td>(4.24)</td>
<td>(6.76)</td>
<td>(5.8)</td>
<td>(2.36)</td>
<td>(4.51)</td>
<td>(3.20)</td>
<td>(3.22)</td>
<td>(1.53)</td>
<td>(1.73)</td>
<td>(5.00)</td>
<td>(1.16)</td>
<td>(3.61)</td>
<td>(4.36)</td>
<td></td>
</tr>
<tr>
<td>Overall transpar-</td>
<td>121.75, a</td>
<td>126.50, a</td>
<td>90.00, a</td>
<td>125.67, a</td>
<td>111.25, a</td>
<td>103.75, a</td>
<td>117.00, a</td>
<td>109.00, a</td>
<td>120.00, a</td>
<td>116.33, a</td>
<td>110.00, a</td>
<td>81.00, a</td>
<td>102.33, a</td>
<td>105.00, a</td>
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</table>

Note. * = p < .05, *** = p < .001. Standard deviations appear in parentheses below means. Means with differing subscripts within rows are significantly different at the p < .05 based on Scheffe’s post hoc paired comparisons. The higher the mean, the more likely the nonprofit was to exhibit the measured characteristic.
Table 4

Means of Organization’s Credibility for the Top 15 (in order) Breast Cancer Organizations

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</thead>
<tbody>
<tr>
<td>Organization credibility</td>
<td>28.25&lt;sub&gt;bc&lt;/sub&gt; (2.36)</td>
<td>30.75&lt;sub&gt;c&lt;/sub&gt; (3.59)</td>
<td>21.25&lt;sub&gt;abc&lt;/sub&gt; (3.30)</td>
<td>28.00&lt;sub&gt;bc&lt;/sub&gt; (1.73)</td>
<td>27.00&lt;sub&gt;abc&lt;/sub&gt; (5.10)</td>
<td>22.00&lt;sub&gt;abc&lt;/sub&gt; (2.71)</td>
<td>27.67&lt;sub&gt;bc&lt;/sub&gt; (3.06)</td>
<td>29.00&lt;sub&gt;bc&lt;/sub&gt; (1.41)</td>
<td>28.50&lt;sub&gt;bc&lt;/sub&gt; (1.71)</td>
<td>28.67&lt;sub&gt;bc&lt;/sub&gt; (3.22)</td>
<td>25.00&lt;sub&gt;abc&lt;/sub&gt; (1.73)</td>
<td>16.33&lt;sub&gt;ab&lt;/sub&gt; (5.69)</td>
<td>26.33&lt;sub&gt;abc&lt;/sub&gt; (1.53)</td>
<td>24.67&lt;sub&gt;abc&lt;/sub&gt; (1.53)</td>
<td>12.67&lt;sub&gt;a&lt;/sub&gt; (3.79)</td>
<td>7.13*</td>
</tr>
<tr>
<td>Content credibility</td>
<td>48.50&lt;sub&gt;b&lt;/sub&gt; (7.33)</td>
<td>56.75&lt;sub&gt;b&lt;/sub&gt; (1.5)</td>
<td>41.50&lt;sub&gt;ab&lt;/sub&gt; (6.35)</td>
<td>56.00&lt;sub&gt;b&lt;/sub&gt; (1.00)</td>
<td>50.75&lt;sub&gt;b&lt;/sub&gt; (2.99)</td>
<td>40.25&lt;sub&gt;ab&lt;/sub&gt; (4.35)</td>
<td>54.25&lt;sub&gt;b&lt;/sub&gt; (5.12)</td>
<td>51.67&lt;sub&gt;b&lt;/sub&gt; (4.04)</td>
<td>53.67&lt;sub&gt;b&lt;/sub&gt; (5.51)</td>
<td>51.67&lt;sub&gt;b&lt;/sub&gt; (3.06)</td>
<td>47.00&lt;sub&gt;ab&lt;/sub&gt; (5.30)</td>
<td>28.67&lt;sub&gt;a&lt;/sub&gt; (2.52)</td>
<td>45.00&lt;sub&gt;ab&lt;/sub&gt; (3.61)</td>
<td>43.67&lt;sub&gt;ab&lt;/sub&gt; (4.51)</td>
<td>28.00&lt;sub&gt;a&lt;/sub&gt; (7.55)</td>
<td>11.37*</td>
</tr>
</tbody>
</table>

Note. * = p < .05, *** = p < .001. Standard deviations appear in parentheses below means. Means with differing subscripts within rows are significantly different at the p < .05 based on Scheffe’s post hoc paired comparisons. The higher the mean, the more likely the organization was to exhibit the measured characteristic.