Culture and Health Reporting: A Comparative Content Analysis of Newspapers in the United States and China

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Published online: 20 Nov 2014.


To link to this article: http://dx.doi.org/10.1080/10810730.2014.920060

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Health reporting has the potential to educate the public and promote health behaviors. Culture influences the style of such communication. Following the theorization of national cultures by Hofstede and Hofstede (2005) and Wilber (2000), this study compares health reporting in the United States and China through a content analysis of leading newspapers. The authors discover significant differences in health reporting in terms of controllability attribution, temporal orientation, citation of authority sources, and use of statistics. As one of the first comparative content analysis studies of health reporting in Eastern and Western cultures, this study provides a unique cultural lens for health communication scholars to better understand health information in the news media.

Health reporting has significant public health implications. It can raise the public’s collective awareness of society’s pressing health problems and potentially influence public health policies (McCombs & Reynolds, 2002; McCombs & Shaw, 1972). Furthermore, it not only informs individual readers but also influences their behavioral choices (Rice & Atkin, 2001). Newspapers are an important channel for health reporting. Around 75% of adults in the United States reported using newspapers as a source of health information (Kealey & Berkman, 2010). Similarly, in China, newspapers were found to be the second most used source of health information for urban residents (W. Tu et al., 2008; Y. Wang, 2009). Despite the exponential rise of new media such as the Internet where individuals can actively seek out health-related information (Fox, 2011; H. T. Tu, 2011), newspapers still remain an essential source for health information scanning, which is the passive reception of general health information (Kelly et al., 2010).

Recognizing the trend of globalization and the internal diversity in the United States, researchers have identified culture as an important factor in health communication (for a review, see Dutta, 2007). They have set out to examine how health reporting is influenced by the culture of its target audiences (e.g., Campo & Mastin, 2007; Cohen et al., 2008; Fung, Kang, & Brossard, 2011; Kean & Prividera, 2007; Wu, 2006). While making significant contributions to our understanding of how culture affects health reporting, most of these studies have a few limitations. First, rarely was a culture-based theoretical framework used in these studies. Second, analysis of the coverage of one specific health topic, such as obesity or HIV/AIDS (e.g., Campo & Mastin, 2007; Cohen et al., 2008; Wu, 2006) was conducted without offering an overview of health reporting in different cultural contexts. Last, most studies focused on the internal diversity of the United States, comparing ethnic media such as African American media (e.g., Campo & Mastin, 2007; Cohen et al., 2008; Kean & Prividera, 2007) or Hispanic media (e.g., Villar & Bueno, 2006), with general audience media.

Presented here is a theory-driven, culture-based comparative study of how health, as a general topic, was covered in leading newspapers in China and the United States—the first and fourth largest newspaper markets in the world, and two countries with distinctive cultures (World Association of Newspapers, 2006). The results of this study provide insight into how culture might have influenced health reporting, and allow communication researchers to better understand health information in the news media.

Culture and Health Reporting

Culture is becoming an important factor in health communication research. Early health communication research was largely started and situated in the Western context and has been criticized for its bias toward Western values such as individualism and scientific rationality (Airhihenbuwa, 1995; Lupton, 1994). More recently, researchers started to incorporate culture into health communication research. Dutta (2007) identified two general approaches to the relation between culture and health communication: the culture-centered approach and the cultural sensitivity approach.
The former is a critical approach to the relation between culture and health, and it focuses on how inequality in health is created and maintained through existing health communication efforts. The culture-centered approach seeks to disrupt such inequality by giving voices to disadvantaged groups. Alternatively, the cultural sensitivity approach builds upon the assumption that health communication and promotion efforts need to recognize the cultural characteristics of the audiences and adapt messages accordingly.

Culture is inherently related to health reporting. It not only influences how health is represented in news media, but also how audiences respond to the news (Beaudoin, 2009). Understanding the relation between culture and health reporting provides insight into the current state of health reporting as well as prescribes guidelines for health communicators to better inform the public. To achieve this goal, this paper adopts the cultural sensitivity approach as it enables a cross-cultural comparison of health reporting. Consistent with this approach, culture is defined as the shared values and beliefs of a nation. Hofstede and Hofstede (2005) characterized national culture along several dimensions: individualism/collectivism, uncertainty avoidance, power distance, masculinity/femininity, and long-term orientation. Several dimensions of national culture, such as individualism/collectivism, power distance, and long-term orientation, can potentially influence aspects of health reporting such as controllability attribution, time-orientation in discussing prevention and treatment, and the citing of legitimate authority. Furthermore, the integration/analysis dimension proposed by Wilber (2000) is another cultural characteristic that can affect health reporting, especially the use of analytical persuasion cues such as statistics.

**Individualism/Collectivism and Controllability Attribution**

*Individualism/collectivism* refers to the extent to which a society emphasizes independence or connection. People in an individualist culture emphasize independence and the achievement of personal goals, whereas those from a collectivist culture tend to give priority to group goals and value interdependence (Hofstede & Hofstede, 2005; Triandis, 2001). In this regard, U.S. culture is highly individualist, whereas Chinese culture is collectivist (see Table 1 for the scores of the two countries on the three cultural dimensions reported in Hofstede and Hofstede, 2005). The individualism/collectivism dimension of culture is closely associated with controllability attribution.

Attraction refers to the process by which people explain the cause of a situation and assign responsibilities (Weiner, 1995). Weiner (1995) identified three dimensions of attribution: locus, controllability, and stability, among which controllability has been found to be the most relevant in predicting health behaviors (e.g., Jeong 2007; Miller, Fellows, & Kizito, 2007). In health communication research, *controllable attribution* refers to attributing a health condition to causes that individuals can control and hence are responsible for (e.g., individual’s dietary habit), whereas *uncontrollable attribution* refers to blaming the condition on causes that are beyond individuals’ discretion and control, including genetic, environmental, or social causes (Kim & Willis, 2007).

Attributing a health condition (disease or risk factor) to controllable or uncontrollable causes may influence not only attitudes and behaviors of individuals affected by the condition, but also how the general public perceives it. From an individual’s perspective, controllability attribution may affect their perceived behavior control, which is the antecedent of behavioral intentions and actual behaviors (Ajzen, 2002). For the public, controllability attribution may influence their attitudes toward different diseases and risks. For example, attributing obesity to genetic causes decreases the perceived controllability of obesity. As a result, the public is less likely to blame obese people for their weight problems and is more willing to help them (Jeong, 2007). Understanding controllability attribution made in health reporting could potentially offer insight into how effective health reporting would be in promoting health behaviors and in influencing public opinion toward different health conditions.

A few studies have examined how individualism/collectivism has affected controllability attribution. For example, Leigh and Choi (2007) argued that people from an individualist culture were more likely to attribute life events to controllable factors, whereas those from a collectivist culture tended to make uncontrollable attributions. Miller, Fellows, and Kizito (2007) compared how Kenyans and Americans made attributions of people living with HIV and found that Kenyans, who were more collectivist in culture, tended to make uncontrollable attributions. In doing so, they avoid blaming the individual, and thus reduce the potential damage to the harmony of a collective group. With a highly collectivist culture, China is thus hypothesized to have health reporting that tends to attribute diseases or risk factors to uncontrollable causes. In contrast, the more individualist-oriented country—the United States—is hypothesized to make more controllable attributions in health reporting.

**Hypothesis 1:** Chinese newspapers (collectivist culture) are more likely to make uncontrollable attributions in their health reporting than are U.S. newspapers (individualist culture).

**Hypothesis 2:** U.S. newspapers (individualist culture) are more likely to make controllable

<table>
<thead>
<tr>
<th>Individualism</th>
<th>United States</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term orientation</td>
<td>29 (31)</td>
<td>118 (1)</td>
</tr>
<tr>
<td>Power distance</td>
<td>40 (37–59)</td>
<td>80 (12–14)</td>
</tr>
</tbody>
</table>

*The score that a country receives on a particular cultural dimension reported in Hofstede and Hofstede (2005). Sometimes a country’s ranking is range instead of a single number. This happens when several countries tie on the score they receive for this cultural dimension.*

*Rank of a country on a specific cultural dimension among the 74 countries included in Hofstede and Hofstede (2005).*
attributions in their health reporting than are Chinese newspapers (collectivist culture).

Long- and Short-Term Orientation, Prevention, and Treatment

Orientation toward time is a new dimension of culture that emerged in the study of Asian cultures and has been incorporated into Hofstede’s widely adopted theory of culture (Hofstede & Hofstede, 2005). Long-term orientation refers to a collection of cultural characteristics that are typically found in East Asian countries and focuses on the cultivation of virtues for future rewards. Chinese culture is classified as having the most long-term orientation among the 76 countries reported in Hofstede and Hofstede’s (2005) study, whereas U.S. culture ranks 31st. In the context of health communication, it could be translated as the extent to which people emphasize the long-term or immediate consequences of their health-related behaviors (Beaudoin, 2002). For example, in studying food advertisements in China and the United States, Cheong, Kim, and Zheng (2010) found that Chinese advertisements are more likely to appeal to health and nutrition as long-term benefits than are U.S. advertisements. In a long-term–oriented culture such as China, it is expected that people are willing to undertake long-term behavioral changes to reap future benefits. Moreover, because of Chinese culture’s orientation toward long-term outcome, Chinese newspapers are more likely to discuss the long-term effects of medical treatment. This leads to the following hypotheses.

Hypothesis 3: Chinese newspapers are more likely to discuss long-term prevention methods in health reporting than are U.S. newspapers.

Hypothesis 4: Chinese newspapers are more likely to discuss the long-term effects of treatment in health reporting than are U.S. newspapers.

Power Distance and Source

Power distance is the extent to which people in a particular culture accept the inequalities of power (Hofstede & Hofstede, 2005). It reflects how much reverence people give to authority figures. Chinese culture is characterized by high power distance (ranked 12th to 14th among the 76 countries examined), whereas U.S. culture has low power distance (ranked 57th). French and Raven (1959) proposed a typology of authority that is based on the resources one has: legitimate, referent, expert, reward, and coercive. Legitimate and expert powers are most relevant to the study of sources of health reporting. Legitimate power comes from the position one holds, such as the formal authority of governmental offices, whereas expert power is based on one’s knowledge and expertise.

Although people are generally persuaded by an authoritative source (Cialdini, 2001), people in high power distance cultures are more likely to be more trustful of legitimate authorities than are those in low power distance cultures. In a high power distance culture such as that of China, sources of legitimate authority tend to be considered credible in health communication, even if they lack expertise of the subject matter (Perea & Slater, 1999). In low power distance cultures such as that of the United States, legitimate authority figures are considered to be less credible (Perea & Slater, 1999). This leads to the next hypothesis:

Hypothesis 5: Chinese newspapers are more likely to cite sources with legitimate authority in health reporting than are U.S. newspapers.

Analysis/Integration and Statistics

Another cultural dimension useful for the study of health reporting is analysis/integration. Western cultures rely on analysis as their primary way of making sense of the world, whereas Eastern cultures are more likely to take an integrative approach (Wilber, 2000). Researchers have attributed this difference to the philosophical roots of the two cultures. The Western way of thinking is based on its traditional emphasis on scientific rationalism and empiricism. In contrast, Eastern culture’s tendency toward the integrative approach comes from Confucius’ holistic worldview. The analytical approach is often associated with the use of scientific evidence such as statistics, and the use of logic and experimentation, whereas the integration approach is more likely to rely on intuition and a gestalt approach to understanding (Nisbett, Peng, Choi, & Norenzayan, 2001). Citing statistics is one indication of the analytical approach to health (Nisbett et al., 2001). U.S. culture is perceived as primarily analytical; thus, it is predicted that health reporting in the United States is more likely to incorporate analytical cues such as statistics. This leads to the following hypothesis:

Hypothesis 6: U.S. newspapers are more likely to present statistics in health reporting than are Chinese newspapers.

Method

Sampling

In this study, we examined the leading newspapers in the United States and China. One national newspaper was selected for each country: USA Today for the United States and People’s Daily for China. Furthermore, four local newspapers representing the leading newspapers in the four largest cities in the United States were selected (The New York Times, Los Angeles Times, Chicago Tribune, and Houston Chronicle). Likewise, five local newspapers from the five largest cities in China were included (Beijing Evening News (Beijing Wan Bao), Ximmin Evening News (Xin Min Wan Bao), Guangzhou Daily (Guangzhou Ri Bao), Chongqing Evening News (Chongqing Wan Bao), and Tonight News (Jin Wan Bao)). Together, these newspapers represent the
An article was coded as containing statistics when it included any numbers based on scientific study (e.g., the prevalence of a disease) or medical tests (e.g., blood sugar level). Nonmedical statistics (e.g., number of hospital beds, or the amount of money spent on treatment) were not coded as statistics.

Genetic, social, and environmental causes were collapsed into the category of uncontrollable causes, as individuals had little or no control over these factors in preventing diseases or health risks. Individual behavioral cause was coded as a controllable cause.

**Long-term orientation**

Long-term prevention was coded when an article discussed measures that could reduce the likelihood of a disease or risk factor when adopted for an extended period of time (e.g., changing a dietary habit). In contrast, short-term prevention referred to those prevention methods that would have immediate benefits, such as avoiding contaminated vegetables during a salmonella outbreak.

**Long-term effect of a treatment:**

An article was coded as long term when the enduring effects of a treatment were discussed.

**Legitimate authority cited**

Legitimate authority referred to people who had official positions that gave them power, but did not have expert power (Berry et al., 2007). An article was coded as citing legitimate authority when it included citations or quotations from a governmental official who was not a medical doctor or expert.

**Statistics**

An article was coded as containing statistics when it included any numbers based on scientific study (e.g., the prevalence of a disease) or medical tests (e.g., blood sugar level). Nonmedical statistics (e.g., number of hospital beds, or the amount of money spent on treatment) were not coded as statistics.

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**Table 2. Codebook: Theoretical constructs and their measurements**

| Controllability attribution | Four types of causes were coded to assess controllability attribution and these included: genetic, social, environmental, and individual behavioral causes (Kim & Willis, 2007).
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic cause: attributing a disease or risk to genes.</td>
</tr>
<tr>
<td>Social cause: blaming society for a disease or risk factor, such as blaming the fast food industry for obesity.</td>
</tr>
<tr>
<td>Environmental cause: attributing a disease or risk to the problems with physical surroundings; for example, attributing asthma to increased pollen.</td>
</tr>
<tr>
<td>Individual behavioral cause: blaming the individual for a disease or risk factor, such as blaming a person for an unhealthy dietary habit that leads to heart disease.</td>
</tr>
<tr>
<td>Long-term orientation</td>
</tr>
<tr>
<td>Long-term prevention:</td>
</tr>
<tr>
<td>Long-term prevention was coded when an article discussed measures that could reduce the likelihood of a disease or risk factor when adopted for an extended period of time (e.g., changing a dietary habit). In contrast, short-term prevention referred to those prevention methods that would have immediate benefits, such as avoiding contaminated vegetables during a salmonella outbreak.</td>
</tr>
<tr>
<td>Long-term effect of a treatment:</td>
</tr>
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<td>An article was coded as long term when the enduring effects of a treatment were discussed.</td>
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<td>Statistics</td>
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</tr>
</tbody>
</table>

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1. We used the top newspapers in the largest cities to represent the leading newspapers of the two countries. We did not use circulation as the criteria for choosing the most prominent newspapers, because circulation numbers of Chinese newspapers were often inflated and thus did not reflect the influence of the newspapers accurately (Zhao, 2008).

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**Unit of Analysis and Measurements**

The unit of analysis was each health news article. Initially, each news article in the sample was coded in terms of the general topics covered, including: diseases (e.g., cancer, HIV/AIDS, mental illnesses), risk factors (e.g., food safety, environmental risk), benefit factors (e.g., healthy diet and exercise), and other health topics (e.g., public health policy and law, health infrastructure, health education, scientific advancement, medical maltreatment). These health topics were generated based on the categorization of topics in existing studies on media coverage of health (e.g., Berry, Wharf-Higgins, & Naylor, 2007; Subervi-Velez, 1999; Z. Wang & Gantz, 2007). We allowed new health topics to emerge from the reading of the news articles in the sample. A news article could have more than one health topic. For the present study, only health articles about diseases and risk factors were analyzed to test the hypotheses. Health articles that...
only dealt with benefit factors or other health topics were analyzed since attribution of cause and time-orientation of prevention and treatment were not relevant for these articles. A resulting sample of 233 health articles from U.S. newspapers and 211 health articles from Chinese newspapers were included in the final analysis. These articles were then coded for controllability attribution, long-term orientation of prevention and treatment, type of authority cited, and use of statistics (for a detailed description of the coding scheme used, see Table 2).

**Coding and Inter coder Reliability**

Two graduate students—a native speaker of English and a native speaker of Mandarin Chinese—served as the primary coders of the U.S. and Chinese newspapers, respectively. To calculate intercoder reliability, a smaller sample (20%) from each group was randomly selected and coded by an additional coder. Percentage agreement was used to measure intercoder reliability of the health topics, and Cohen’s kappa was calculated to measure intercoder reliability for the remaining variables. The intercoder reliabilities of the sample of Chinese newspapers were as follows: health topics (percentage agreement = .99), causes (κ = .88), prevention (κ = .88), treatment (κ = .94), sources cited (κ = .77), and statistics (κ = .92). The intercoder reliabilities of the sample of U.S. newspapers were as follows: health topics (percentage agreement = .99), causes (κ = .71), prevention (κ = .73), treatment (κ = .83), sources cited (κ = .70), and statistics (κ = .75).

**Results**

First, the health topics covered in U.S. and Chinese newspapers were tabulated (see Table 3 for frequencies). In the newspapers of both countries, the first, second, and third most covered diseases were cancer, mental illnesses, and heart/cardiovascular diseases. Food-borne diseases were the fourth most covered disease in Chinese newspapers, whereas HIV/AIDS received considerable coverage in U.S. newspapers. In addition, environmental hazard and food safety were the top risk factors covered in U.S. and Chinese newspapers, respectively. Unhealthy food/diet and malnutrition, and the side effects of medicine were the second and third most covered risk factors in both countries.

A series of chi-square tests was conducted to test the hypotheses. To account for the effects of multiple testing, Holm’s sequential Bonferroni correction was used to adjust the p value when multiple tests were run simultaneously (Abdi, 2010). Hypotheses 1 and 2 examined the difference between U.S. and Chinese newspapers in their tendencies to attribute diseases or risk factors to controllable or uncontrollable causes. U.S. newspapers were significantly more likely to attribute diseases and risk factors to uncontrollable causes, \( \chi^2(1, N = 444) = 23.41, p = .000 \), adjusted \( p = .000 \), whereas Chinese newspapers tended to attribute them to controllable causes, \( \chi^2(1, N = 444) = 40.69, p = .000 \), adjusted \( p = .000 \). Although we found a difference in attribution between Chinese and U.S. newspapers’ health reporting, the direction was the opposite of what we hypothesized. Therefore, Hypotheses 1 and 2 were not supported.

We conducted a set of chi-square tests to further compare the different types of uncontrollable causes discussed, and found that U.S. newspapers were more likely than Chinese newspapers were to attribute health conditions to genes, \( \chi^2(1, N = 444) = 18.90, p = .000 \), adjusted \( p = .000 \); and social causes, \( \chi^2(1, N = 444) = 14.61, p = .000 \), adjusted \( p = .000 \). However, they were equally likely to cite environmental causes.

Hypotheses 3 and 4 examined the temporal immediacy in health reporting. Chinese newspapers were more likely to discuss long-term prevention methods, \( \chi^2(1, N = 444) = 15.62, p = .000 \), than were U.S. newspapers. In terms of the treatment of diseases, Chinese newspapers were significantly more likely to mention the long-term effects of treatment than were U.S. newspapers, \( \chi^2(1, N = 249) = 19.21, p = .000 \). As a result, Hypotheses 3 and 4 were supported.

Hypothesis 5 addressed the power distance difference between the two cultures. The result indicated that U.S. newspapers were significantly more likely to cite legitimate authority, \( \chi^2(1, N = 442) = 37.49, p = .000 \), than were Chinese newspapers. Thus, Hypothesis 5 was not supported.

On the basis of the assumption that American culture emphasizes analytical thinking and Chinese culture relies more on integrative thinking, Hypothesis 6 predicted that U.S. newspapers were more likely to cite statistics in health reporting than were Chinese newspapers. A chi-square test showed that this hypothesis was supported, \( \chi^2(1, N = 442) = 22.50, p = .000 \).

**Discussion**

The results of this study provide some empirical support for culture’s influence on health reporting. A number of differences between health reporting in the United States and China can be explained when considering culture. Time orientation predicts the discussion of the temporal immediacy of prevention methods and treatments. Health reporting in a long-term-oriented culture is more likely to adopt a long-term approach, discussing long-term prevention methods and the long-term effects of treatments. The analysis/integration dimension is another cultural characteristic associated with the style of health reporting. Health reporting in an analytical culture is likely to adopt persuasion cues associated with analytical thinking, such as the use of statistics. However, some differences between the health reporting in China and the United States cannot be explained through a cultural lens alone, and deserves further study. The following section will discuss the main
findings of this study, paying special attention to the public health implications of these findings.

Hypotheses 1 and 2 explore how U.S. and Chinese newspapers make attributions differently. Understanding attribution is important in health communication, as it is associated with how people make sense of the cause of a condition, which, in turn, affects their perceived control of health behaviors (Ajzen, 2002). Data from this study suggest that Chinese newspapers tend to attribute the cause of a disease or risk factor to individual behaviors, which are highly controllable, whereas U.S. newspapers are more likely to make uncontrollable attribution, citing genetic and social causes.

This finding is the opposite of the prediction, which was based on the previous literature on individualist/collectivist cultures and attribution. One possible explanation is that in the United States, the more traditional individual behavior-centered approach has been replaced by the more contemporary social-ecological model, which involves more than simply educating individuals about healthy practices, but includes efforts to change organizational behavior as well as the physical and social environment of communities (McLeroy, Bibeau, Steckler, & Glanz, 1988). Health communication and health reporting are relatively new in China (Lee, 2004) and are still at the early stage of educating individuals on healthy practices, which may explain the adoption of an individual behavior change model.

Another possible explanation is political systems. In China, one of the uncontrollable attribution factors (i.e., social cause) is predominately controlled by the government. It seems that attributing the cause of diseases or health risks to social causes such as the lack of medical infrastructure may be interpreted as a criticism of the government. Therefore, journalists in China might try to avoid this by citing individual behavioral causes instead of social causes in health reporting. However, overemphasis on individual behaviors as causes of diseases or health risks without addressing social causes may create a biased perception of health problems and lead to serious public health consequences (Beaudoin, 2007).

It is speculated that the health coverage in Chinese newspapers sends the message that people are in control of their

### Table 3. Diseases and risk factors covered in leading newspapers in the United States and China

<table>
<thead>
<tr>
<th></th>
<th>U.S. newspapers (n = 233)</th>
<th>Chinese newspapers (n = 211)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Cancer</td>
<td>Cancer</td>
</tr>
<tr>
<td>2</td>
<td>Mental illness</td>
<td>Mental illnesses</td>
</tr>
<tr>
<td>3</td>
<td>Heart/cardiovascular disease</td>
<td>Heart/cardiovascular disease</td>
</tr>
<tr>
<td>4</td>
<td>HIV/AIDS</td>
<td>Food-borne diseases</td>
</tr>
<tr>
<td>5</td>
<td>Diabetes</td>
<td>Stress</td>
</tr>
<tr>
<td>6</td>
<td>Flu</td>
<td>Dental diseases</td>
</tr>
<tr>
<td>7</td>
<td>Respiratory diseases</td>
<td>Obstructive and gynecological diseases</td>
</tr>
<tr>
<td>8</td>
<td>Arthritis</td>
<td>Foot-and-mouth disease</td>
</tr>
<tr>
<td>9</td>
<td>Diseases of the eye</td>
<td>Skin diseases</td>
</tr>
<tr>
<td>10</td>
<td>STD (including HPV)</td>
<td>Insomnia</td>
</tr>
<tr>
<td>11</td>
<td>Digestive system</td>
<td>Hepatitis</td>
</tr>
<tr>
<td>12</td>
<td>Alzheimer’s/dementia</td>
<td>Digestive diseases</td>
</tr>
<tr>
<td>13</td>
<td>Hepatitis</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Obstetric and gynecological diseases</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Bird flu</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>West Nile disease</td>
<td></td>
</tr>
<tr>
<td>Risks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Environmental hazard</td>
<td>Food safety</td>
</tr>
<tr>
<td>2</td>
<td>Unhealthy food, diet, malnutrition</td>
<td>Unhealthy food, diet, malnutrition</td>
</tr>
<tr>
<td>3</td>
<td>Side effect of medicine</td>
<td>Side effect of medicine</td>
</tr>
<tr>
<td>4</td>
<td>Illegal drugs/addiction</td>
<td>Risks associated with childcare</td>
</tr>
<tr>
<td>5</td>
<td>Food safety</td>
<td>Environmental hazard</td>
</tr>
<tr>
<td>6</td>
<td>Smoking</td>
<td>Exercise-related risk</td>
</tr>
<tr>
<td>7</td>
<td>Aging-related risks</td>
<td>Reproductive health</td>
</tr>
<tr>
<td>8</td>
<td>Obesity</td>
<td>Counterfeit medicine</td>
</tr>
<tr>
<td>9</td>
<td>Alcohol/alcoholism</td>
<td>Alcohol/alcoholism</td>
</tr>
<tr>
<td>10</td>
<td>Stress and anxiety</td>
<td>Smoking</td>
</tr>
<tr>
<td>11</td>
<td>Reproductive health</td>
<td>Aging-related risks</td>
</tr>
<tr>
<td>12</td>
<td>Unsafe sexual practices</td>
<td>Obesity</td>
</tr>
</tbody>
</table>

Note. U.S. newspapers include USA Today, The New York Times, Los Angeles Times, Chicago Tribune, and Houston Chronicle. Chinese newspapers include People’s Daily, Beijing Evening News, Xinxin Evening News, Guangzhou Daily, and Chongqing Evening News. The unit of analysis is each news article. One news article can potentially cover more than one disease or risk. Values in column 1 represent the respective ranking of diseases and risks by the number of times they are covered.
health. This might increase readers’ perceived behavioral control, which, in turn, might lead to the adoption of positive health behaviors (Ajzen, 2002). However, blaming individual behaviors for diseases and health risks, especially stigmatized diseases, may exacerbate the misunderstanding of such diseases and sway public opinion away from supportive health policies in favor of discriminatory policies (Jeong, 2008). Past research shows that when the public considers obesity to be caused by individuals’ own behavior, it tends to support regulatory policies that discriminate against obese people (Jeong, 2008).

U.S. newspapers are more likely to attribute health conditions to uncontrollable factors (i.e., genetic and social causes). A follow-up analysis showed that among the 120 U.S. articles that made uncontrollable attributions, only 4 (3.3%) discussed controllable attributions at the same time. In comparison, among the 61 Chinese articles that discussed uncontrollable attributions, 26 (42.6%) mentioned controllable attributions simultaneously. Emphasis on uncontrollable causes without identifying any controllable cause may discourage individuals from adopting healthy behavioral changes.

Hypotheses 3 and 4 deal with a culture’s long-term orientation in the discussion of prevention and treatment of diseases or risk factors. As predicted, health news articles in China were more likely to demonstrate a long-term orientation by discussing long-term prevention methods. We also found that Chinese newspapers were more likely to cite short-term prevention methods compared to U.S. newspapers, $\chi^2(1, N = 444) = 13.59, p = .001$. A possible interpretation is that taking the prevention approach to health, that is, engaging in behaviors that would prevent diseases or risk factors before actually being affected by them, is itself a long-term–oriented behavior. Furthermore, Chinese newspapers were more likely to discuss the long-term effects of treatment than were U.S. newspapers, but they were equally likely to discuss the short-term effects of treatments.

Public health professionals must consider the temporal dimension of a culture when designing public health campaigns. For example, in a long-term–oriented culture, public health campaigns focusing on the long-term consequence of a risky behavior (such as smoking) or the long-term benefits of a health behavior (such as exercising) might be effective. In a short-term–oriented culture such as that of the United States, appealing to short-term consequences and benefits may yield better results.

Hypothesis 5 concerns the difference between the sources cited in U.S. and Chinese newspapers’ health reporting. According to Hofstede and Hofstede (2005), people in high power distance cultures such as China are more likely to defer to authority figures whereas people from low power distance cultures tend to adopt an egalitarian approach. However, our data indicate that U.S. newspapers’ health coverage was more likely to cite legitimate authority than was that of Chinese newspapers. The cause might not be cultural factors, but differences in the political systems of the two countries. In the Chinese context, governmental officials are less involved in public health promotion, either out of their own will or due to certain social and regulatory constraints. On the contrary, the democratic political system in the United States demands more transparency from the government. As a result, government officials are more likely to talk about health-related issues in the media, thus getting cited more frequently.

Hypothesis 6 deals with the analysis/integration dichotomy. Traditionally, U.S. culture is labeled as analytical, whereas Chinese culture is perceived as holistic (Wilber, 2000). As predicted, U.S. newspapers were significantly more likely to cite statistics in health reporting than were Chinese newspapers. While using statistics is only one indicator of the analytical approach, it can be speculated with caution that U.S. newspapers seem to rely on persuasion cues typically associated with science and rationalism. U.S. and Chinese newspapers seem to have adopted the persuasion styles suitable to their respective cultures.

Understanding where a culture stands on the analysis/integration continuum enables public health professionals to better design health messages. Health messages incorporating persuasion cues associated with the analytical approach, such as citing statistics or using logical analysis, may be more effective in an analytical culture such as the United States. In contrast, an integrative culture might be more receptive to holistic health messages that offer a gestalt approach toward health.

Overall, the current study contributes to health communication literature by adopting a cultural lens to examine the different styles of health reporting in two distinctive cultures: the United States and China. This study provides support to the cultural sensitive approach to health communication. Cultural differences are able to predict some styles of health reporting in these two countries. In other words, the styles of health reporting reflect the culture of their target audience. The differences among health reporting in different cultural contexts might be related to the varied health outcomes or even health disparity among different populations globally or domestically. Such a finding is important in understanding multicultural health communication. A further question to ask is whether such a style will be effective for health education and promotion. Matching and tailoring the message style toward the audience’s culture may make the message effective. For some dimensions, such as temporal orientation, it seems that the lack of emphasis on prevention and long-term effects in the United States may be detrimental to the health communication effort. For example, lack of health education for “lifestyle diseases” that do not have an immediate effect will take a toll on the society in the long run (Larsen, 2012). The results suggest that health communicators, such as health journalists, need to take this into consideration in their reporting and dissemination of information.

Furthermore, this study illustrates that cultural theories, such as the theorizations of Hofstede and Hofstede (2005) and Wilber (2000), are somewhat applicable in the study of culture in health communication. Despite their usefulness, these theories were proposed for the purpose of general cultural comparisons. Further research could develop cultural
theories specific to the subject of health communication, identifying cultural factors that are directly related to how different health messages influence people’s health behaviors and habits.

This study has limitations. In comparing health reporting in the United States and China, this study only examines one medium—newspapers. It is conceivable that other media (e.g., TV or the Internet) may yield distinct results. Newspapers are a major source of health information scanning; however, research has shown that in recent years, the public is increasingly engaged in information seeking, that is, actively looking for health information. Future research should examine whether there are culture-based differences in media better suited for health information seeking.

Acknowledgements
The authors thank Jie Zhuang and Jacob Bonander for their assistance in coding.

References


