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Cancer News Coverage in Korean Newspapers: An Analytic Study in Terms of Cancer Awareness

Hye Sook Min[1], E Hwa Yun[2], Jinsil Park[2], Young Ae Kim[2]

[1]National Medical Center, Center for Public Healthcare Support, Seoul, Korea; [2]National Cancer Control Institute, National Cancer Center, Goyang, Korea

Objectives: Cancer diagnoses have a tremendous impact on individuals and communities, drawing intense public concern. The objective of the current research was to examine news coverage and content related to cancer-related issues in Korean newspapers.

Methods: Primarily using the database system of the Korea Press Foundation, we conducted a content analysis of 2806 articles from 9 Korean daily newspapers during a recent 3-year period from 2015 to 2017. Thematic categories, the types of articles, attitudes and tone, and the number of sources in each article were coded and classified.

Results: Many news articles dealt with a diverse range of themes related to cancer, including general healthcare information, the latest research and development, specific medical institutions and personnel, and technology and products, which jointly accounted for 74.8% of all articles. Those thematic categories differed markedly in terms of article type, tone, and the number of cited sources. News articles provided extensive information about healthcare resources, and many articles seemed to contain advertising content. However, the content related to complex social issues such as National Health Insurance did not include enough information for the reader to contextualize the issues properly or present the issues systematically.

Conclusions: It can be assumed that the media exert differential influence on individuals through news coverage. Within the present reporting framework, the availability and usefulness of information are likely to depend solely on individuals' capabilities, such as financial and health literacy; this dependency has a negative impact on knowledge gaps and health inequities.

Key words: Cancer, Information, Newspapers, Content analysis

INTRODUCTION

Cancer is the leading cause of death in many countries, including Korea. Reflecting the public's considerable concerns about cancer, a range of media outlets, including newspapers,

provide a large volume of news regarding cancer. The news media coverage of cancer spans various topics, including carcinogenesis, prevention, screening programs, and newly developed drugs and treatments [1-3]. Importantly, this content is reproduced and transmitted in various ways by broadcasting and Internet entities, such that media consumers have easy access to it [4].

However, the coverage of cancer in the news media has been criticized for providing biased information. For instance, the media report about treatment more frequently than about prevention [5,6] and often exaggerate the benefit of technological advances [7,8]; furthermore, relatively few articles tend to be published that present in-depth information about cost, quality

of evidence, potential risks, and alternative options for treatment [9,10]. By frequently highlighting certain medical providers and new drugs, the news media may deliver unrealistic expectations for a complete cure and prompt individuals to seek specific services for themselves [11-13]. Although content of this nature might be considered to be helpful for cancer care because it provides detailed information about healthcare resources, it can also cause problems. Such news articles promote an individualistic approach and excessively medicalize various cancer-related issues; furthermore, individuals in different socioeconomic status (SES) groups are disproportionately likely to recognize and accept useful information, which may lead to differential risk behaviors across SES groups [10,12,14]. Additionally, it has been claimed that cancer news coverage deflects the responsibility for cancer care onto the individual, which might worsen health inequities.

Since the health information conveyed by the media has a cumulative effect on the public's awareness and behavior [1, 11], it is of particular importance to understand how the news media cover cancer-related issues and how their coverage affects knowledge gaps in the domestic context. In previous international studies, researchers have shown that news coverage and ways of reporting differed according to ethnicity and geographic region, suggesting that some social groups might have greater information needs than the general population [5,14-17]. In Korea, although a few reports have found discrepancies between news coverage and the actual statistics or significance of various phenomena in reality [18,19], we do not have a broad understanding of the context of cancer news coverage. Because online news articles are rapidly published and circulated in Korea, the knowledge gaps among different SES groups might depend on information accessibility and media consumers' understanding of the content.

The influence of the news media on health awareness can be inferred from analyses of news coverage, as news coverage as a whole reflects the reporting framework of the media. The reporting framework represents the media's views on specific issues, through which the news media affect public awareness in a particular manner [10,20]. This study provides an overview of cancer news coverage in representative national Korean newspapers. Based on an in-depth examination of relevant articles utilizing content analysis, the researchers present a discussion of the implications of current cancer coverage in the news media and the reporting framework with regard to cancer awareness.

METHODS

Data Collection

We primarily collected cancer-related news articles from the Korean Integrated News Database System (KINDS, www.kinds.or.kr) operated by the Korea Press Foundation (KPF), to obtain national newspaper articles that had been written between January 1, 2015 to December 31, 2017. Eight daily publications were included in the search results: *Kyunghyang Shinmun*, *Kukmin Ilbo*, *Naeil Shinmun*, *Munhwa Ilbo*, *Seoul Shinmun*, *Segye Ilbo*, *Hankyoreh*, and *Hankook Ilbo*. We selected one daily newspaper (*Chosun Ilbo*) that was not included in the KPF database but had a high domestic circulation for additional data collection, considering the quantity of data and the capabilities of the research team. *ChungAng Daily* and *Dong-A Ilbo* were excluded because their news articles have been included in the KINDS since 2018. News articles from *Chosun Ilbo* written during the same period were searched and selected via the *Chosun Ilbo* archive (http://srchdb1.chosun.com/pdf/i_archive/index.jsp).

Of the news articles from these 9 publications, we restricted our analysis to news articles dealing with cancer-related healthcare or medical information. First, we conducted a primary search with a single keyword ("cancer") in all reporting fields to include as many articles as possible, and then we performed a secondary screening to exclude articles that did not contain cancer-related information about healthcare or medical issues; for example, name lists, obituaries, accident reports, anecdotes, previews, and sports articles. The same search method was applied in both the KINDS database and the *Chosun Ilbo* archive. We initially collected 13 480 articles from the primary search, and a total of 2806 news articles were included in the final analysis. Table 1 lists the number of articles from each newspaper.

Table 1. Number of news articles by newspaper

Newspaper	n (%)
Kyunghyang Shinmun	284 (10.1)
Kukmin Ilbo	665 (23.7)
Naeil Shinmun	98 (3.5)
Munhwa Ilbo	117 (4.2)
Seoul Shinmun	395 (14.1)
Segye Ilbo	510 (18.2)
Chosun Ilbo	307 (10.9)
Hankyoreh	128 (4.6)
Hankook Ilbo	302 (10.8)
Total	2806 (100)

Method of Analysis

In order to analyze the collected news articles, the following 4 items were coded and categorized for each article: (1) main theme, (2) type of the article, (3) overall attitudes and tone, and (4) number of sources.

We coded the themes of the news articles using an inductive method, which enabled a comprehensive categorization and understanding of a broad scope of diverse content [21]. First, the main researcher carefully read each article at least twice and then inspected and abstracted the content to form the primary coding framework. Two additional researchers read a random sample comprising 10% of the articles and classified the articles independently. Through repeated discussions, the 3 researchers jointly modified the primary coding framework and finalized the thematic categories by consensus.

The type of newspaper article was classified into 3 categories depending on the method through which information was conveyed: "informational," "analysis," or "opinion/review." Informational articles were those that simply described, explained, or cited factual information without a detailed analysis or interpretation. Basic summaries and explanations of factual information were classified as informational articles. Analysis articles were those that focused on analyzing the causes or mechanisms of certain phenomena, explaining the background and history of various issues, or presenting a discussion or interpretation based on factual information. Opinion/review articles were those that mostly included judgments, claims, and commentary based on subjective values. The tone of the articles was categorized as positive, negative, or neutral. Newspaper articles that mostly highlighted positive aspects or conveyed generally optimistic attitudes were classified as positive; those that highlighted negative aspects, adopted a critical attitude, or described problems were classified as negative; and articles that contained a mix of positive and negative tones or ones that did not show any clear attitude were classified as neutral. According to the number of informational sources that were either directly or indirectly cited, articles were classified as citing a single source or multiple sources, or as having unclear sources.

The main researcher assigned the final categories for the classification of the theme, type, and tone of all articles, while another researcher independently coded a random sample comprising 10% of the articles. The two researchers then convened to compare and adjust the results. After repeated discussions and adjustments, the interrater reliability (measured using the Cohen kappa coefficient) was high (≥ 0.800) [22], with kappa values of 0.875 for themes, 0.843 for the article type, and 0.823 for the tone of the description.

Ethics Statement

This study are not done on human or human material, and the review of institutional review board is not required.

RESULTS

The numbers of news articles reporting cancer-related information were unevenly distributed across the source newspapers. A few newspapers, such as *Kukmin Ilbo* (23.7%) and *Segye Ilbo* (18.2%), reported far more frequently about cancer than others (Table 1).

As for the thematic classification, the top 4 categories were general healthcare information, the latest research and development (R&D), specific medical institutions/personnel, and specific technology/products, which jointly accounted for 74.8% of all articles (Table 2). General healthcare information, corresponding to articles delivering validated information or relatively established facts about cancer, was the most common theme, followed by articles on the latest R&D, which illuminated the R&D results of certain researchers or institutions. The articles on specific medical institutions/personnel and technology/products mostly highlighted the positive aspects of clinics, professionals, drug, devices, or other resources, as illustrated in Table 2. The less common categories included official cancer-related statistics, followed by national cancer policies/programs for public relations or debates on the necessity of various programs and National Health Insurance (NHI) policies (informing readers about coverage changes or arguing for the need to expand coverage). Articles dealing with private insurance, cancer and environmental factors, and occupational cancer comprised only 1-3% of all articles.

Table 3 shows the proportional distribution of article type and tone by the thematic category. Although informational articles had the highest proportion in all categories, informational articles were more common in articles dealing with the latest R&D and specific medical institutions/personnel than in other categories (97.4% and 98.7%, respectively). The category of articles on specific medical institutions/personnel had a remarkably high proportion of informational articles with a positive tone (81.1%). This pattern was directly linked with the tendency for these informational articles to introduce particu-

Table 2. Classification of themes of newspaper articles

Theme	Main content and examples	Articles, n (%)
General healthcare information	Healthcare or medical information about cancer prevention, risk factors, diagnosis, treatment, prognosis, or patient management	816 (29.1)
	"If the necessary tests are not performed or treatment is delayed, it can lead to severe consequences. Now take a look at the proper tests and diagnostic methods for thyroid cancer together with Chief [name] of [hospital] in [region]…" (*Naeil Shinmun*; September 20, 2016)	
	"In stage 3 cancer, the cancer detected in one or both ovaries is found, histologically, to have metastasized to an extrapelvic part of the abdominal cavity or to the retroperitoneal lymph nodes… New blood vessels form as vascular endothelial growth factor (VEGF) secreted by cancer cells binds to VEGF receptors on the surface of vascular endothelial cells" (*Kukmin Ilbo*; April 3, 2016)	
Latest research and development	News about the latest published research, or development of technology and products	629 (22.4)
	"The research teams of professor *[name]* in *[hospital name]* and professor *[name]* in *[research institute name]* have, for the first time, devised a new anticancer strategy suitable for patients' genetic characteristics. This research paper was featured on the cover of the latest issue of the renowned international journal, *[journal name]*…The team said that this will be an important step towards gene-based, customizable cancer treatment for individual patients" (*Chosun Ilbo*; September 16, 2015)	
Specific medical institutions/ personnel	Issues relating to information about specific medical institutions or personnel	382 (13.6)
	"*[Hospital name]* (Hospital Chief *[name]*) is one of the top cancer hospitals in Asia, leading advances and setting the standard for cancer treatment in Korea… Across 13 centers and 4 specialized centers for different types of cancer, the hospital receives 1800 outpatients and performs 50 operations per day, on average. As the first hospital to introduce a multidisciplinary approach to cancer treatment, *[hospital name]*… provides one-stop treatment for severe cancer patients" (*Kyunghyang Shinmun*; May 8, 2015)	
Specific technology/ products	Issues relating to certain currently used services, technologies, drugs, or devices	271 (9.7)
	"*[Pharmaceutical company name]* revealed that they had launched *[drug name]*, an adjuvant oral medication for use in anticancer therapy… this product is harmless if swallowed, so it is effective at treating esophageal disorders caused by mouth sores… After rinsing the whole oral cavity for 1 minute with a dose of 5-10 mL, the medication can be swallowed or spat out. This process should be repeated 4-6 times a day" (*Segye Ilbo*; March 19, 2016)	
Statistics	Statistics published at the national or institutional level	175 (6.2)
	"The incidence of cancer in the whole population has declined for the last 3 years in a row, with the number of cancer patients falling below 300 persons per 100 000 population in 2014… The number of new cancer patients per 100 000 population was 323.3 persons in 2012, 314.1 persons in 2013, and 289.1 persons in 2014" (*Seoul Shinmun; December* 21, 2016)	
National policies/ programs	Issues regarding cancer-related policies, institutions, and programs at the national level	122 (4.3)
	"The Ministry of Health and Welfare will convene the National Cancer Management Committee… In accordance with the latest general plan, starting next year, free cancer screening will be provided to 8000 individuals who have smoked one pack a day for the last 30 years, before gradually expanding the project to a broader population" (*Seoul Shinmun*; September 12, 2016)	
National Health Insurance	Issues relating to health insurance coverage and ways to reduce expenses	122 (4.3)
	"Although the government is trying to offer coverage for new drugs, including anticancer agents, it said to be having little effect on patient satisfaction… New anticancer drugs are the most important factor in increasing the life expectancy of stage 4 cancer patients, but the insurance coverage rate is not even one-third…" (*Kukmin Ilbo*; May 15, 2016)	
Private insurance	Information about and issues relating to private health insurance	85 (3.0)
	"The most common complaints at the stage of encouraging insurance registration were regarding insincere explanations and the ceremonious nature of providing a written signature. The Financial Supervisory Service pointed out that this situation arose because many insurance sales occurred via acquaintances (insurance agents), and because the insurance terms and conditions were difficult to understand for most registrants" (*Hankook Ilbo*; January 5, 2015)	
Cancer and environmental factors	Issues relating to carcinogenic factors in the surrounding environment, such as nuclear power plants or industrial facilities	65 (2.3)
	"Among 10 elementary, middle, or high schools fitted with urethane running tracks, lead concentrations were found to exceed the accepted threshold in 6 schools… the education authorities have been unable to prepare the required funds to remove these tracks, the schools have had no choice but to leave these carcinogen-containing tracks in place for a considerable time… There are growing voices calling for high-risk students, who have experienced high-dose or long-term exposure, to be offered health examinations" (*Naeil Shinmun*; July 26, 2016)	

Table 2. Continued from the previous page

Theme	Main content and examples	Articles, n (%)
Occupational cancer	Issues relating to carcinogenic factors in the workplace	37 (1.3)
	"The three units participating in the mediation committee discussing the issue of victims of occupational disease such as leukemia at [company name] have revealed their stance… The mediation committee plans to announce their recommendations for three matters based on the standpoints of the three bargaining unit" (*Hankyoreh*; January 16, 2015)	
Other	Other issues (including interests, disputes, corporate activities, the healthcare system, etc.)	102 (3.6)
Total		2806 (100)

lar medical providers or hospitals favorably; in fact, this category had only two articles with a negative tone, which reported a medication error that occurred in one hospital and a case of failed medical equipment introduction, respectively. Similarly, the category of specific technology/products contained the second highest frequency of articles with a positive tone (67.9%) and informational articles with a positive tone (61.3%), showing a similar pattern to that of the specific medical institutions/personnel category. Additionally, the articles in the categories of the latest R&D (23.7%) and private insurance (22.4%) were more positively written than other categories.

In contrast, analysis and opinion/review type articles were more heavily concentrated in the category of articles dealing with the NHI (28.7% and 14.7%, respectively). As seen in Table 2, all of these articles dealt with coverage expansion, criticizing the limited coverage of the NHI with a negative tone or arguing for the expansion of drug coverage. The categories of cancer and environmental factors and occupational cancer showed higher proportions of analysis articles (24.6%, and 21.6%, respectively), while only a few articles in these categories belonged to the opinion/review type. The analysis articles in these categories tended to describe the perspectives of stakeholders briefly, dealing with issues such as leukemia occurring at a workplace (Table 2).

As for the number of news sources, the articles in the categories of specific medical institution/personnel and the latest R&D most frequently cited a single source (Table 4). In contrast, the articles from the categories of occupational cancer and cancer and environmental factors were more likely to cite multiple news sources.

DISCUSSION

The media actively engage in communication with the public through a certain reporting framework, both affecting and reflecting the public's awareness and attitudes on specific is-

sues such as cancer [20]. Thus, news coverage about cancer can provide empirical evidence regarding the messages that the media convey to the public about cancer and how Koreans cope with cancer, and it can suggest how the reporting framework of the media affects the public. In this regard, the results of this study provide a few crucial points relevant for a discussion of the media's influence on cancer awareness.

Above all, the thematic categories of specific medical institution/personnel, specific technology/products, and the latest R&D accounted for a significant proportion of all news articles (45.7%), aside from general healthcare information about cancer care. These categories contained many news articles about certain medical providers, hospitals, facilities, new drugs and devices, and the latest medical information, on which basis people might be able to access healthcare resources on their own. However, to utilize the information presented in articles in practice, the content should be read carefully, because a large part of the information generally has yet to be verified in terms of its accuracy and adequacy [23,24]. It is also likely that some healthcare resources are not easily accessible for some people even if they wanted to do so, due to limitations of finances, time, and distance.

Thus, the reporting framework of the news articles has two implications. First, within this framework, one should sort out the relevant information and seek specific healthcare resources to cope with cancer on an individual basis, depending on one's own financial and health literacy. However, this approach is likely to widen knowledge gaps and to exacerbate health inequities in cancer care, because it tends to highlight and expand the role of personal capabilities. Second, many of the news articles contained advertising messages for specific healthcare resources, to the point that some of them seemed to be practically advertorials, rather than news. Articles in the categories of specific medical institutions/personnel and technology/products actively introduced readers to certain medical providers, clinics, hospitals, and new drugs. These categories tended to

Table 3. Article types and tone by topic

Topic	Tone	Informational	Analysis	Opinion/review	Total
General healthcare information	Positive	34 (4.1)	8 (0.9)	5 (0.6)	47 (5.7)
	Negative	32 (3.9)	22 (2.7)	17 (2.1)	71 (8.7)
	Neutral	633 (77.5)	58 (7.1)	7 (0.8)	698 (85.5)
	Total	699 (85.6)	88 (10.7)	29 (3.5)	816 (100)
Latest research and development	Positive	149 (23.7)	4 (0.6)	0 (0.0)	153 (24.3)
	Negative	7 (1.1)	0 (0.0)	0 (0.0)	7 (1.1)
	Neutral	457 (72.6)	12 (1.9)	0 (0.0)	469 (74.6)
	Total	613 (97.4)	16 (2.5)	0 (0.0)	629 (100)
Specific medical institutions/personnel	Positive	310 (81.1)	4 (1.0)	0 (0.0)	314 (82.2)
	Negative	1 (0.2)	1 (0.2)	0 (0.0)	2 (0.5)
	Neutral	66 (17.3)	0 (0.0)	0 (0.0)	66 (17.3)
	Total	377 (98.7)	5 (1.3)	0 (0.0)	382 (100)
Specific technology/ products	Positive	166 (61.3)	18 (6.6)	0 (0.0)	184 (67.9)
	Negative	5 (1.8)	4 (1.5)	2 (0.7)	11 (4.1)
	Neutral	65 (23.9)	10 (3.7)	1 (0.4)	76 (28.0)
	Total	236 (87.1)	32 (11.8)	3 (1.1)	271 (100)
Statistics	Positive	8 (4.6)	3 (1.7)	0 (0.0)	11 (6.3)
	Negative	2 (1.1)	0 (0.0)	0 (0.0)	2 (1.1)
	Neutral	142 (81.1)	20 (11.4)	0 (0.0)	162 (92.6)
	Total	152 (86.8)	23 (13.1)	0 (0.0)	175 (100)
National policies/ programs	Positive	16 (13.1)	2 (1.6)	3 (2.4)	21 (17.2)
	Negative	5 (4.1)	4 (3.3)	7 (5.7)	16 (13.1)
	Neutral	73 (59.8)	10 (8.2)	2 (1.6)	85 (69.6)
	Total	94 (77.0)	16 (13.1)	12 (9.8)	122 (100)
National Health Insurance	Positive	15 (12.3)	1 (0.8)	0 (0.0)	16 (13.1)
	Negative	8 (6.5)	24 (19.6)	17 (13.9)	49 (40.2)
	Neutral	46 (37.7)	10 (8.2)	1 (0.8)	57 (46.7)
	Total	69 (56.5)	35 (28.7)	18 (14.7)	122 (100)
Private insurance	Positive	19 (22.4)	1 (1.2)	0 (0.0)	20 (23.5)
	Negative	4 (4.7)	7 (8.2)	0 (0.0)	11 (12.9)
	Neutral	49 (57.6)	5 (5.9)	0 (0.0)	54 (63.5)
	Total	72 (84.7)	13 (15.3)	0 (0.0)	85 (100)
Cancer and environmental factors	Positive	0 (0.0)	0 (0.0)	0 (0.0)	0 (0)
	Negative	10 (15.4)	8 (12.3)	1 (1.5)	19 (29.2)
	Neutral	38 (58.4)	8 (12.3)	0 (0.0)	46 (70.7)
	Total	48 (73.8)	16 (24.6)	1 (1.5)	65 (100)
Occupational cancer	Positive	1 (2.7)	0 (0.0)	1 (2.7)	2 (5.4)
	Negative	2 (5.4)	3 (8.1)	1 (2.7)	6 (16.2)
	Neutral	24 (64.8)	5 (13.5)	0 (0.0)	29 (78.4)
	Total	27 (72.9)	8 (21.6)	2 (5.4)	37 (100)
Other	Positive	46 (45.1)	0 (0.0)	0 (0.0)	46 (45.1)
	Negative	1 (0.9)	1 (0.9)	1 (0.9)	3 (2.9)
	Neutral	49 (48.0)	3 (2.9)	1 (0.9)	53 (51.9)
	Total	96 (94.1)	4 (3.9)	2 (1.9)	102 (100)
Total		2483 (88.4)	256 (9.1)	67 (2.3)	2806 (100)

Values are presented as number (%).

Table 4. Number of news sources in newspaper articles

Topic	No. of sources			
	Single	Multiple (≥2)	Unclear	Total
General healthcare information	422 (51.7)	287 (35.2)	107 (13.1)	816 (29.1)
Latest research and development	546 (86.8)	73 (11.6)	10 (1.6)	629 (22.4)
Specific medical institutions/personnel	336 (87.9)	34 (8.9)	12 (3.1)	382 (13.6)
Specific technology/products	172 (63.4)	63 (23.2)	36 (13.2)	271 (9.7)
Statistics	132 (75.4)	40 (22.8)	3 (1.7)	175 (6.2)
National policies/programs	68 (55.7)	28 (22.9)	26 (21.3)	122 (4.3)
National Health Insurance	59 (48.3)	45 (36.8)	18 (14.7)	122 (4.3)
Private insurance	54 (63.5)	18 (21.2)	13 (15.3)	85 (3.0)
Cancer and environmental factors	38 (58.4)	26 (40.0)	1 (1.5)	65 (2.3)
Occupational cancer	13 (35.1)	23 (62.1)	1 (2.7)	37 (1.3)
Other	58 (56.8)	22 (21.6)	22 (21.6)	102 (3.6)
Total	1898 (67.6)	659 (23.5)	249 (8.9)	2806 (100)

Values are presented as number (%).

have more informational articles with a positive tone and a single source, suggesting a lack of well-balanced information. Advertising messages were also found in the categories of general healthcare information and the latest R&D. As shown in Table 2, some news articles emphasized the name of a certain clinic with detailed information (e.g., the address of the clinic) in a corner, or they highlighted the name of medical providers with titles and affiliations [12]. These findings are consistent with the previous criticism that the mass media publicize products or services on behalf of their news sources [24,25], inducing the public to visit specific providers or medical institutions. It has also been pointed out that advertorials confuse the public, because such articles are advertisements in the form of news articles [26]. Again, only individuals with a high level of health literacy will be able to discern whether the information can be trusted and is helpful in terms of its accuracy and adequacy.

Lastly, the analysis and opinion/review articles mostly focused on the categories that reflected higher levels of social concern such as the NHI, cancer and environmental factors, and occupational cancer. However, the scope of news coverage seemed to be fairly limited, although the details should be clarified in further qualitative studies. As briefly illustrated in Table 2, all of the analysis and opinion/review type articles in the NHI category uniformly argued for the expansion of insurance coverage; however, a number of issues closely related to NHI, such as financial sustainability and the relationship of the NHI with private insurance, were not dealt with. By presenting such cursory information, these articles could not properly contextualize and present complex issues systematically; in-

stead, the issues were simplified and reduced to ethical problems [10,20,24], and the lack of detailed information might widen knowledge gaps among different SES groups [14].

As the present study was exploratory with the goal of understanding the overall coverage of cancer news, additional studies are required to clarify the media's influence on cancer awareness with a more specific focus. Studies of the articles published in particular newspaper sections or focusing on certain subjects are required to verify and elaborate the present results. Moreover, in-depth qualitative analyses would clarify the details of the content and its latent meaning, or could provide concrete evidence of the nature of advertising. In addition, an analysis of the comprehensibility of news content from the reader's perspective would more directly shed light on the differential influence of the media according to SES subgroups.

To summarize, the cancer news articles in Korean daily newspapers included diverse thematic categories, and the categories markedly differed in terms of the type of articles, their tone, and the number of cited sources. The news articles provided extensive information about healthcare resources, but frequently included advertorials, and they seemed to be deficient in conveying comprehensive and in-depth information regarding complex issues such as NHI. It is therefore inferred that the availability and usefulness of the information presented in these articles depend on individuals' capabilities, such as financial and health literacy, and the current reporting framework is likely to widen knowledge gaps across SES subgroups.

CONFLICT OF INTEREST

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AUTHOR CONTRIBUTIONS

Conception and design: HSM, YAK. Acquisition of data: HSM, JP. Formal analysis: HSM. Funding acquisition: YAK. Writing - original draft: HSM. Writing - review & editing: EHY, JP, YAK.

ORCID

Hye Sook Min   https://orcid.org/0000-0003-0029-5163
E Hwa Yun   https://orcid.org/0000-0002-8325-1854
Jinsil Park   https://orcid.org/0000-0001-6834-8802
Young Ae Kim   https://orcid.org/0000-0002-3819-0028

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