

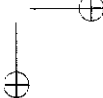
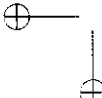
Media relations in health communication: The sources of information in cancer newspaper articles in Portugal

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Abstract: In Portugal, the use of strategic communication within the public health sector has been growing in the past decade. And the increase of health media relations is part of this process. Public organisations have the task of protecting and enhancing public health. However, this mission has become quite difficult with the growing interdependence of economies and societies, which increases the risks of diseases and other health global issues. This is why a relevant part of the literature on health communication is dedicated to studying the communication of diseases. Within this research area, there is a dominant perspective suggesting that communication aims for risk reduction, prevention and detection of diseases for treatment and survival rates. This approach also highlights the role of the mass media as actors of social awareness development on the most prevalent diseases and on the enlargement of health literacy in general. To which we add, the importance of health media relations activities developed by health organisations, to share relevant information within the health care delivery systems through mass media channels.

In order to know more about health media relations (and health journalism), we have been conducting a systematic study on health news coverage in Portugal. Our research design combines the examination of news content, news production practices and news sources. Each year we select the two most salient diseases covered by the press and we conduct a thorough study that aims to understand the process of health information construction. This study presents the results of 2011's research on cancer news – the most covered disease in that year – following the perspective of the information sources and having as a basis the Strategic Communication framework. The results indicate that health officials and institutional sources are predominant as a result of strate-

Organisational and Strategic Communication Research: European Perspectives, 217-243



gic communication actions, which gives them a powerful voice as news definers.

Keywords: health communication, cancer communication, health strategic communication, public relations, journalism.

Introduction

Whereas doctors were once terrified of speaking to reporters, today, many hire public relations agents to help them get their names in the news. The journals, too, compete for media attention—and they get it, especially when their reports involve cancer (Brody, 1999: 170).

IN Portugal, the use of strategic communication within the public health sector has been growing in the past decade. And the increase of health media relations is part of this process.

Public organisations have the task of protecting and enhancing public health. This mission has become quite difficult with the growing interdependence of economies and societies, increasing the risks of diseases and other health issues. This is why a relevant part of the literature on health communication is committed to studying the communication of diseases. There is a dominant perspective which suggests that communication aims for risk reduction, prevention and detection of diseases for treatment and survival rates. It also highlights the role of mass media as actors of social awareness development on the most prevalent diseases and on the enlargement of health literacy in general.

According to Kreps, Bonaguro and Query (1998), health communication has different levels of analysis and we have been studying the organizational health communication field, which examines the use of communication to share relevant information within the health care delivery system, namely using the mass media channels. Within this context, public relations (PR) are understood as important communication techniques to help public health institutions to organize “information packages” that are used by the journalists to prepare news contents.

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in Portugal. Our research design combines the examination of news content, news production practices and news sources. Each year we select the two most salient diseases covered by the press and we conduct a thorough study that aims to understand health information construction. This study presents the results of 2011's research on **cancer news** – the most covered disease in the year – following the perspective of the information sources and having as a basis the strategic communication and journalism frameworks.

Our study was based on a systematic quantitative analysis of three national newspapers, gathering 108 news articles on cancer. Then, the research was carried on in two stages: (1st) we tried to find out *who were the sources of information in cancer news*; and (2nd) we looked to reveal *how they became news sources* – in order to answer our initial question: *how do healthcare organisations promote cancer information in Portugal?*

To begin our research paper we review the literature on Health Communication, Health Journalism and Health Strategic Communication.

1. Health Communication: the research field

Cancer news

The meaning of cancer has shifted over the centuries. The public understanding of the disease went through different stages: from a stigmatized disease, to a personal tragedy – that should be managed with privacy and isolation – going through gender association (as for breast cancer) and evolving to a public epidemic that should be discussed and taken care. And the mass media are agents of this transformation process.

In fact, “cancer is an increasingly popular topic in the news”, as stated by Jensen, Moriarty, Hurley, and Stryker (2012: 40). Nevertheless, cancer news coverage has been criticized by Health Communication scholars. Terre (2009: 362), for example, wrote: “unfortunately, despite being a popular source of cancer information, the mass media often privilege coverage of biological risks over modifiable behavioral hazards”. Actually, cancer is often seen by the media within a biomedical paradigm, that view “diseases as a biochemical phenomenon that can be classified into diagnosis categories through technological methods and treated, where possible, according to standardized objectively validated mechanisms” (Cohen, 1998: 2).

However, the disease exists in both material and discursive territories. Some authors argue that cancer is also a cultural construction, as “a way of talking about how knowledge is produced and sustained within specific contexts, discourses, and cultural communities” (Teichler, 1999: 173). Consequently, cancer cannot be understood without the frame of culture or outside symbolic contexts. Symbols and general discursive contexts convey stories that organize human experience suggesting ways of living. So diseases are also culturally constructed. And perhaps the most important discursive contexts, regarding health issues, are the media texts, sounds and images, as they reach large sections of the population.

News constructs, transform and frame reality by defining problems, identifying causes, suggesting remedies or reproducing social relationships. They play an active role in shaping everyday reality. As stated by Dubriwny (2009: 108): “News is a site of definitional struggle”. Regarding the health context, the understanding of a disease is also a discursive process of accommodation, and media offer narratives that help people to cope with the subject. Media coverage develops common identities, diseases’ consciousness, public vocabulary and health literacy.

It is worth noting that literature on cancer journalism suggests the increase of media coverage on the disease in recent years which raises public awareness. When analyzing this abundance of public information on cancer, Dubriwny’s research (2009) found two separate, and at times contradictory, narratives regarding breast cancer news coverage: (1st) the narrative of medical success, focusing on the stories of individual patients; and (2nd) the counternarrative of medical research, that gives voice to the growing medical and public concern on the prevalence of the disease. And these editorial options often have public consequences.

Cancer is a complex disease that raises a huge number of medical and social challenges. The messages on the subject should, therefore, be prepared carefully, meaning they should be designed and delivered according to the skills, needs and predispositions of the audiences. Hence, the content must be relevant and appealing in order to guide correctly the decision making process of the populations. To understand how cancer is communicated to the general public is therefore important within the Health Communication field.

Kreps (2003: 166) states that “cancer communication research is the study and the application of the process of exchanging and interpreting the array

of ambient and strategically designed messages delivered interpersonally and through selected media that convey relevant health information to targeted audiences". And different studies (as Friedman & Hoffman-Goetz, 2008; Kreps, 2012a) have proved that health literacy is critical to the development of cancer education. In fact, "the quality of communication in cancer care has been shown to affect patient satisfaction, decision making, patient distress, compliance, and even malpractice litigation" (Frenkel, Ben-Arye, & Cohen, 2010: 179).

Health literacy is a critical resource derived from effective Health Communication. And cancer poses a series of significant health threats that demand valuable Health Communication. Kreps (2003: 161) advocates the powerful potential of using strategically Health Communication "to reduce cancer risks, incidence, morbidity, and mortality while enhancing quality of life across the continuum of cancer care (prevention, detection, diagnosis, treatment, survivorship, and end-of-life care)".

Indeed, a large body of Health Communication literature has demonstrated the powerful influences of communication on health behaviors and health outcomes. Kreps (2009; 2012a) reports a series of studies showing the influences of intrapersonal, interpersonal, group, organizational and societal communications on health knowledge, behaviors, and outcomes; the positive influences of increased patient communicative involvement in treatment on desired health outcomes; and the affirmative influences of social marketing to adopt important prevention behaviors or to promote lifestyle changes. In a broad review of the literature, Kreps and Massimilla (2002) examined (1990–2000) published research on cancer communication that provided strong outcome data on the effectiveness of strategic communications in cancer control. The research literature is examined in three categories based on the communications strategy used and behavior targeted: 1) strategic communications on adoption of prevention behaviors in diverse populations; 2) tailored communications on promotion of cancer prevention and control; and 3) interpersonal communications on provision of social support to individuals living with cancer. The review of the literature suggests that communication interventions can influence important health outcomes in cancer prevention and control, and that communication is a central process for disseminating cancer information to key populations.

With reference to these cues suggested by the Health Communication n-

eld, we have been studying the media role on cancer education promotion by analyzing the role of the agents involved in the process, journalists and strategic communication professionals.

Health Journalism

Regarding health journalism, a study by Brody (1999) indicates dramatic changes in the US since the 1990s. Doctors, once reluctant to talk to the media, seem to be more open to speak with the journalists and many hire public relations agents to help them to get their names in the news. Medical researchers, also, seem to be freer to extrapolate on the implications of new findings. Editors easily find space for a medical news story, even when it is a minor development on health research or practice. And media widely recognize an intense public interest in health news.

However, there is the risk of an information overload. According to Brody (1999), radio and television short reports, often prepared by journalists with little or no specific knowledge on medical science, are frequently superficial, distorted or downright incorrect. As consequence, people are bombarded with information they are not prepared to process and, regarding cancer, public confusion on causes and treatments seems to occur. Within this context, Brody (1999) and Hodgetts (2012) suggest that print media (the focus of our study) should bring perspective and depth to news reports about cancer. Newspapers should move towards a more intense reporting, supported by a responsible investigation, with the consideration of different points of view and providing the necessary space.

The framing of health news plays a role in setting, legitimating, sustaining and undermining health agendas and policies (Hodgetts, 2012: 25).

Journalists are, therefore, central to the interface between science, health professionals and the public. The public has often an inadequate understanding of science and health issues, so in some cases the role of journalists is also to educate people. Regarding diseases, Jensen and his colleagues (2012) state that news are a key source of information that have the potential to shape illness representations (namely on cancer) at both individual and public level

Media templates serve to make sense of those issues and are pointed out as crucial to social relations (Hodgetts, 2012).

Within such context, research on Health Communication suggests that populations have been audiences to a nearly continuous stream of information about risk factors for cancer and recommended strategies for cancer prevention. And the public health field was the most visible source of such information (Hawkins, Berkowitz, & Peipins, 2010). Other sources were identified though, such as advocacy groups and nonprofit organisations, private industries or manufacturers of medical products. All of them have contributed to the content and quality of information on cancer conveyed by the media.

2. Health Public Relations

As noted by Kreps (2012b: 120), "strategic health communication is needed to provide consumers with the information and support needed to reduce cancer threats and improve cancer-related health outcomes". From this perspective strategic communication refers to the intentional use of communication by public and private health organisations, in pursuit of its objectives or mission, which includes the preparation and delivery of persuasive messages to target audiences with the purpose of influencing opinions, attitudes and behaviours.

However health promotion messages must be carefully designed, and conveyed to be effective. That is why health strategic communication is extremely complex. The central point is to adapt those messages to public needs and to public literacy. Kreps (2012b) advocates the use of a "consumer orientation" to health information and education, by employing tailored communication systems that inform the customized use of messages by each person. But it is also critically important to choose the most effective communication channels to deliver the messages. And the mass media are referred to frequently as very successful conduits for disseminating health information and acting on health behaviours, as they are familiar, attractive and easy for target audiences to use (Brechman, Lee, & Cappella, 2009; Friedman & Hoffman-Goetz, 2008; Kreps, 2012b). And they can be used to carry campaign or informational messages. This second kind of messages is the work of PR departments and it is the central part of our study.

As referred to above (Brody, 1999), health journalism increasingly uses

public relations sources to prepare news contents. And research has been showing evidence that there is a positive correlation between PR activities and the news media agenda (Hodgetts, Chamberlain, Scammell, Karapu, & Nikora., 2008; Len-Ríos, Hinnant, Park, Cameron, Frisby, & Lee, 2009; Ruão, Lopes, Marinho & Araújo, 2012).

This active role of health news sources has been strengthened by the use of strategic communication or marketing techniques that help them gain access to the public sphere. Studies highlight the growing activities carried out by official or specialized sources in the health field seeking to influence debates, agendas, and audiences. Several studies show the increase of public relations campaigns by health organisations, including governments, research foundations, hospitals, and other health care institutions. They seek to produce accessible, reliable, and specialized information as part of a conscious strategy to control news production and the social interpretation of the health reality (Briggs & Hallin, 2010; McAllister, 1992; Miller & Williams, 1998; Zook, 1994).

The need for and use of strategic communication by public health organisations can be detected in different phenomena. Health institutions are experiencing a consumer-driven demand and, as a consequence, are beginning to deal with patients as 'clients'. Health issues have become of high media interest. Public relations costs in health organisations have increased and many communication agencies have created specialized teams in health information (Longest & Rohrer, 2005; Moreira, 2007; Springston & Larisey, 2005; Moreira, 2007; Wise, 2008). All those factors have generated impressive news coverage.

In addition, the power of health public relations was reinforced by some peculiarities of health journalism. According to the literature (Cho, 2006; Tanner, 2004a; Tanner, 2004b), the health information context is different from general news reporting because media are strongly dependent on the expertise of health organisations, scientists, and the medical community in order to cover the stories. This particular requirement of health journalism (shared with science news reporting) is confirmed in several investigations (Cho, 2006; Len-Ríos *et al.*, 2009).

In Portugal, the landscape seems to be very similar. There are few journalists covering exclusively health issues and the lack of training is evident (Marinho, Lopes, Ruão & Araújo, 2012). This absence of specific training.

coupled with the complex nature of the field and an heavy workload, seems to drive health reporters to rely strongly upon the health community and its communication experts. These circumstances can affect health media coverage and could be a source of distortion in the dissemination of political, medical and scientific orientations.

Following this insight, Brechman et al. (2009) made a comparison between the press releases and subsequent newspaper coverage relating genetic research on cancer, from 2004 to 2007. They assumed that inaccurate or exaggerated coverage found in print media (and reported in Health Communication research) was a byproduct of this translation process. They wanted to access the complex negotiation process that occurs among the press, the public information officers and the scientific sources. Their data showed that the intermediary press release may serve as a source of distortion towards deterministic claims in news articles. However, the authors also argued that public information officers and journalists are charged with the task of communicating highly complex material to the audiences of non specialists; they both “sell” their stories to their publics; both economize and glamorize science; both are limited in time and space; and both employ practices that might distort scientific knowledge.

In Portugal, a study by the Portuguese Society of Oncology¹ – on the “Degree of Knowledge, perceptions and behaviors in the face of cancer”, 2011 – also indicates that news media are the primary source of information on cancer (along with family and friends). Considering this information, and our data – that puts cancer as the most covered disease in 2011 – we have carried out a study on the work developed by the organisational news sources on cancer in Portuguese newspapers.

3. The Study

3.1 Methodology

To answer the research question – *how do healthcare organisations promote cancer information in Portugal?* – we conducted an analysis of cancer news

¹“Grau de Conhecimento, percepções e comportamentos face às doenças oncológicas”, Sociedade Portuguesa de Oncologia (in *Jornal de Notícias*, 14/11/2011).

in the Portuguese press, within the strategic communication and journalism frameworks. This involved a systematic analysis of three national newspapers, which published, in 2011, a total 108 news articles on cancer.

The three newspapers were selected according to a set of criteria, which make them typical cases (non probabilistic sampling): different periodicity, distinctive editorial orientations and diverse locations (newsrooms). *Expresso* is a weekly newspaper, based in Lisbon (the Portuguese capital, in the south) and is considered a quality paper. *Publico* is also a quality paper, published daily and its' newsroom is based in Lisbon, although its' Oporto newsroom can be considered the 'strongest'. Finally, *Jornal de Notícias* (JN), is classified as popular daily press, and has its headquarters in Oporto (north of Portugal). These differences will be considered further ahead, as explanatory variables.

Although 2011 is the reference year for analysis, our research has been carried out since 2008, which allows comparative analysis (2008-2011), as well as the identification of some tendencies, namely regarding diseases (cited and most referred to); and news framing (tone, location and moment of the events, journalistic genre, size). These data will be presented and discussed first, followed by a two step analysis: (1st) *sources in cancer news are identified and characterized*, according to a set of variables such as their place of origin, gender, profession and, in the case of doctors, their medical expertise; in addition, we will try to understand to what extent variations in the use of sources can be explained by variables such as the periodicity of newspapers (daily and weekly), editorial tendencies, and the location of the newspaper; and (2nd) *we try to explain how they became news sources* – in order to answer our initial question: *what was the media relations' role on the news coverage on cancer in Portugal?* At this stage interviews were conducted (data collection technique). Interviewees were selected among the most quoted sources, as identified in the previous stage, and among journalists specialized in health issues. Data were examined using content analysis (data analysis technique).

3.2 Results

From 2008 to 2011, 6.304 news articles on health issues were published by the 3 newspapers that constitute our sample. From these, 2.206 were on diseases, which represents about a third of the total (35%). More specifically, 433 news

articles about diseases were published in 2008; 868 in 2009 (an increase that can be explained by the amount of reporting on influenza A); 362 in 2010; and 543 in 2011.

From these 2,206 news articles, 344 were about a specific disease. The most referred to every year (with the exception of influenza A in 2009) was cancer. From 2008 to 2011, cancer accounts for 15,6% of the total of news about diseases (81 news articles in 2008; 77 in 2009; 78 in 2010; and 108 in 2011). In 2011, the year this analysis will focus on, cancer represented 19,9% of all diseases.

The framing of cancer news in 2011

When we look at the period 2008-2011, the most frequent angle (theme) of the news on cancer are *situation portraits* (98 of 344 news), followed by R&D (87), *prevention* (28) and *health politics* (inaugurations, new facilities, etc) (26). If we focus on 2011, as shown by Table 1, *situation portraits and health politics* are the most common, followed by R&D, leaving *prevention* less represented (4,6%). This variation could be explained by the context of economic crisis, which implies restructuring measures and cutbacks on the public health budget, topics intensely covered by the media.

Table 1: Themes of news articles on cancer in 2011

	Publico	JN	Exp resso	Total
Situation portraits	13,3%	35,0%	18,2%	25,9%
Politics	27,0%	23,3%	36,4%	25,9%
Research & Investigation	32,4%	18,3%	18,2%	23,1%
Clinical Practices	10,8%	13,3%	27,3%	13,9%
Prevention	8,1%	3,3%	0%	4,6%
Health Economy and Business	2,7%	1,7%	0%	1,9%
Others	5,4%	5,0%	0%	4,6%

When we consider other aspects of news framing, such as tone, location and moment of the events' reporting, journalistic genre and size of news articles, these are the main features of cancer reporting in 2011: the tone is mostly positive, but we can identify a balance between "positive", "negative" and "neutral" (Table 2); the most common journalistic genre is the "news" (86,5% in *Público*, 93,3% in *JN*, and 45,5% in *Expresso*) and the "interview"

is, by far, the least represented (2,7% in *Público*; 0% in *JN*; and 9,1% in *Expresso*), whereas the highest value for “reports” (45,5%), could be explained by the circumstance that *Expresso* is a weekly newspaper and therefore more likely to favor “larger” genres. The most frequent size of news articles on cancer is “medium” (59,5% in *Público*; 60% in *JN*; and 45% in *Expresso*) and the highest value obtained for “extensive” (54,5% in *Expresso*) could be once more explained by the relevance given by this newspaper to the “report”.

Table 2: Angle of news articles on cancer in 2011

	Público	JN	Expresso	Total
Positive	37,8%	38,3%	27,3%	37,0%
Negative	29,7%	35,0%	36,4%	33,3%
Neutral	32,4%	26,7%	36,4%	29,6%

Still considering other aspects of news framing, events are usually reported as “national” (global country) (25,9% of the total; 32,4% in *Público*; and 36,4% in *Expresso*), but, in the case of *JN*, the most common referred location is the “north” (30%). This could be explained by the fact that *JN* is based precisely in the north of Portugal (Oporto) and has a strong and public editorial vocation to value regional events. Naturally, the second most referred location in all three newspapers is “Lisbon and the Valley of Tejo”, which comprises the capital and its surrounding area, the place where decisions are made and major events occur.

The predominance of official and institutional sources

After a brief overview of the way cancer news is generally framed, our analysis will now be focused on the identification and characterization of the sources brought into play by journalists, which constitutes the first step of this study, as previously clarified.

We can verify that journalists use sources in their published work: in all the news articles from *Público* and *Expresso* there was at least a reference to one source and that can be observed in 98,3% of the sample from *JN*. The same goes to the issue of identification: the vast majority of sources are identified by the journalist (89,8% in *Público*; 94,8% in *JN*; and 92,7% in *Expresso*).

As for the number of sources, we can detect that in most situations only one source is referred (47,7% of the global), but some differences can be perceived, as shown in Table 3: *JN* uses usually one source (62,7%), but in the case of *Público*, this distinction isn't so clear, because although "one source" is the highest category (32,4%) all the other categories are well represented, creating an equilibrium ("two sources", 21,6%; "three sources", 21,6%; and "four or more sources"). As for *Expresso*, journalists clearly tend to use multiple sources: the most frequent category is "three sources" (36,4%), followed by "four or more sources" (27,3%). In terms of gender, sources are usually male, which is much evident in the case of *Expresso* (41,8% in *Público*; 43,3% in *JN* and 73,2% in *Expresso*). As for the location of cancer news sources, they are mostly "national" (40,3% of the total of the three newspapers), or come from Lisbon (the capital) (14,8% of the total of the three newspapers) even though *JN* exhibits as second most frequent category not Lisbon, but the north of Portugal (24,7%), which could be explained by the fact that its main newsroom is in Oporto and acknowledges a strong editorial inclination to report news that concern the northern region, and specifically Oporto.

Table 3: Number of sources used in news articles on cancer in 2011

	Público	JN	Expresso	Total
One source	32,4%	62,7%	13,2%	47,7%
Two sources	21,6%	13,6%	13,2%	19,6%
Three sources	21,6%	13,6%	36,4%	18,7%
Four sources or more	24,3%	5,1%	27,3%	14,0%

When we look at the "status" of the news sources (Table 4), it becomes evident that the vast majority come from the healthcare area, and, in that category, most of them are "specialized and institutional" (39,8% of the total of the three newspapers), which is very salient in the case of *Expresso* (70,8%). Next, appears the category "media/sites/blogs", outside the healthcare area (14% of the total of the three newspapers), and "official" sources (11,5% of the total of the three newspapers).

Table 4: Categories of sources used in news articles on cancer in 2011

	SOURCES	NEWSPAPERS			TOTAL
		Publico	JN	Exp resso	
In healthcare field	Official	16,3%	10,3%	4,9%	11,9%
	Specialized and institutional	36,7%	29,9%	70,7%	39,4%
	Specialized non institutional	5,1%	4,1%	2,4%	4,2%
	Documents	12,2%	0,4%	4,9%	3,3%
	Media/sites/blogs	6,1%	2,1%	0%	3,4%
	Patients/family	3,1%	14,4%	7,3%	8,5%
	Other	0%	0%	0%	0%
Outside the healthcare field	Official	2%	1%	2,4%	1,7%
	Institutional	2%	3,1%	0%	2,1%
	Specialized non institutional	2%	1%	2,4%	1,7%
	Other documents	1%	2,1%	2,4%	1,7%
	Common citizen	0%	2,10%	0%	0,30%
	Celebrities	0%	2,10%	0%	0,30%
	Media/sites/blogs	14,30%	19,60%	0%	1,4%
	Other sources	0%	2,1%	0%	0,3%
Non identified status	0%	0%	2,4%	0,4%	

When we look closer at the category “specialized and institutional” sources (in the healthcare area) (Table 5), we can observe that “doctors” are the most represented (24,2%), followed by “researchers” (5,1%) and “patients” (4,2%). PR professionals are much less represented (0,8%), which doesn’t mean, however, that PR doesn’t play a role in the definition and implementation of the strategy by which other individuals and institutions become news sources (this aspect will be discussed in the next section). When we look at “press releases” (in the category documents), we find a higher value (3%), which could indicate that this is an effective instrument. Outside the healthcare area, PR professionals have the same value as in the healthcare area (0,8%). Also, when we look at “medical expertise” (in the case of “doctors”, there’s no surprise in the result: “oncology” is the most represented (47,1% of the total of the three newspapers). Still, an observation: in many situations (17,6% of the total of the three newspapers) the medical expertise is not identified.

As stated before, we must acknowledge that PR theory is, most of the time, developed in the “backstage”, which could explain these values. Our analysis, at this stage, is focused on the sources as presented in the news articles and does not account for the process by which certain individuals/institutions are given by journalists the status of news sources. This is, however, the crucial and most valuable aspect to be considered.

Table 5: Description of sources used in news articles on cancer in 2011

			Publico	JN	Expreso	Total
Healthcare field	Official	Politicians	4,1%	5,2%	0%	3,8%
		Administrators/directors of public health units	0%	2,1%	2,4%	1,3%
		Other	12,2%	3,1%	2,4%	6,48%
	Specialized and institutional	Doctors	23,7%	16,5%	33,2%	24,1%
		Researchers	4,1%	4,1%	9,8%	5,1%
		Pharmaceuticals and Labs	1%	0%	0%	0,4%
		Press Officers	2%	0%	0%	0,8%
		Patients	1%	5,2%	9,3%	4,2%
		Other	5,1%	4,1%	7,3%	5,1%
	Specialized non institutional	Doctors	2%	3,1%	2,4%	2,5%
		Researchers	3,1%	1%	0%	1,7%
	Society	Patients/family	3,1%	14,4%	7,3%	8,5%
		Other	4,1%	0%	2,4%	2,1%
	Documents	Official	4,1%	0%	2,4%	2,1%
		Specialized	3,1%	3,1%	2,4%	3%
		Press releases	4,1%	3,1%	0%	3%
		Other	1%	0%	0%	0,4%
	Media and sites	Media	4,1%	2,1%	0%	2,5%
		Websites/Blogs	2%	0%	0%	0,8%
	Outside the healthcare field	Official	Politicians	2%	0%	0%
Press officers			0%	1%	2,4%	0,8%
Institutional		Political parties	2%	2,1%	0%	1,7%
		Other	0%	1%	0%	0,4%
Non-institutional		Businessmen, economists, industrials	1%	0%	0%	0,4%
		Lawyers/Judges	0%	0%	2,4%	0,4%
		Scholars	1%	0%	0%	0,4%
		Other	0%	1%	0%	0,4%
Documents		Media/ news websites	14,3%	19,6%	0%	14%
		Other	1%	2,1%	2,4%	1,7%
		Common citizens	0%	2,1%	0%	0,8%
		Celebrities	0%	2,1%	0%	0,8%
	Other	0%	2,1%	0%	0,8%	
	Non identified status	0%	0%	2,4%	0,4%	

Considering that the most frequent sources are, as we have just seen, "specialized and institutional", it is of the utmost importance to verify to which institutions they belong to. Table 6 displays these results.

Table 6: Specialized and Institutional sources in news articles on cancer in 2011

Institutions	Público	Expresso	JN	Total
Portuguese Oncological Institute	7	5	7	19
Champalimaud Foundation	13	2	2	17
Ministry of Health	5	1	3	9
National Coordination of Oncological Diseases	3	2	2	7
Portuguese Cancer League	1	3	3	7
College of Specialty on Oncology	3	1	2	6
Portuguese National Board of Health	4	1	0	5
Portuguese Society of Oncology	0	2	2	4
Infarmed - National Authority of Medicines and Health Products	4	0	0	4
College of Specialty on Plastic Surgery	2	0	0	2
Board of Physicians	1	1	0	2

The *Portuguese Oncological Institute* is a well known public hospital dedicated to cancer treatment and research. It is the public institution with most visibility in our ranking (it came out 19 times in our sample). The *Champalimaud Foundation* is a prestigious private institution, dedicated to the development of programs on advanced biomedical research and clinical care. It is the second source in the ranking (17 occurrences). The *Ministry of Health* is part of the Portuguese government and formulates, executes and evaluates health policy in the country. It is the third most quoted news source in our sample (9 occurrences). The *National Coordination of Oncological Diseases* is a governmental program dedicated to cancer control and it is the fourth source of information in the study (7 occurrences). The *Portuguese Cancer League* is a popular private non-profit organization dedicated to health education and cancer prevention. It emerges also in the fourth place (with 7 occurrences). The *College of Specialty on Oncology* of the national *Board of Physicians* is an official group of specialists that are dedicated to cancer observation and act as official counselors on the disease. It is the fifth news source on the study (6 occurrences). The *Portuguese National Board of Health* is part of the Ministry of Health and it is responsible for coordinating the activities of health promotion and disease prevention, as well as ensuring the development and implementation of the National Health Plan. It comes in sixth position (5 occurrences). The *Portuguese Society of Oncology* is a scientific non-profit association that aims to work closely with public and private institutions with the

purpose of fighting cancer. It is our seventh most quoted information source on cancer (4 occurrences). *Infarmed – National Authority of Medicines and Health Products* is a governmental agency (accountable to the Health Ministry), whose objective is to monitor, assess and regulate all activities relating to human medicines and health products for the protection of public health. It is also the seventh news source in the sample (4 occurrences). The *College of Specialty on Plastic Surgery* is another official group of specialists, within the Board of Physicians, dedicated to stimulate research and development on their medical expertise. It is the eighth news source (with only 2 occurrences). The *Board of Physicians* is a medical association, recognized by the Portuguese government, with the competence to act as disciplinary authority of the medical practice. It comes also in the eighth place (2 occurrences) and it is our last institutional/specialized news source on cancer within the sample we have gathered.

After collecting data and identifying the main sources in cancer articles – which answers our first research question: *who were the sources of information in cancer news?* – we looked for a deeper analysis in order to respond to our second question: *what was the media relations' role on the news coverage on cancer in Portugal?* To achieve this objective we interviewed the press officers of the most quoted institutions in our sample. Seven interviews were conducted, according to their willingness to collaborate. The institutions that responded positively to our request were: the Board of Physicians, the Champalimaud Foundation, the Infarmed - National Authority of Medicines and Health Products, the Portuguese Cancer League, the Portuguese National Board of Health, the Portuguese Oncological Institute, and the Portuguese Society of Oncology. At the same time, we interviewed Portuguese journalists that deal with health issues in the national media (regarding a wide range of subjects), and we took the opportunity to explore their point of view on media relations in the health/cancer field. Thirteen interviews were conducted and we compared those results with the press officers' responses.

How to become a news source on health/cancer?

The interviews conducted to these institutional and specialized sources were designed around three main information objectives: we sought to find out (1st) how do their press offices work, (2nd) how do they evaluate media production,

and (3th) how do they work with journalists. The analysis of the results allowed us to identify some trends in health/cancer media relations which will be described below:

a) **When framing their activity**, institutional sources...

- Advocate the advantages of the development of health and cancer literacy;
- Acknowledge the role that the mass media play in that information process;
- Confirm the increase in health and cancer news coverage in national media, in the last 5 years;
- Report the development of media relations practices in the health sector; and suggest that public institutions are getting close to corporate communication models;
- Narrate problems of health journalism in Portugal, such as the lack of specialized journalists, financial problems (resulting in a lack of research and lack of time), editorial interferences or attraction for controversial issues;
- Believe that the institutional relationship with the media is positive, because the news are faithful to the stories, the journalists seek for the information they need, and there is a reciprocal respect among press officers and journalists.

b) **When describing their activities**, institutional sources...

- Confirm the development of communication management practices, such as the following: they have communication departments and they work with communication agencies; they do planning, integrated management, branding, crisis management, media training; and they have a close relationship with top management;
- Report, also, more traditional communication activities related to media relations departments which are reactive, unstructured, and very dependent on the leader:

- Describe the mechanisms that are used in media relations, such as: press releases, press conferences (exceptionally), events, telephone contacts, institutional websites and recently Facebook.

c) **When reflecting on their work, institutional sources...**

- Admit to have a strong power in the information production process, as conductors and translators;
- Acknowledge that there are risks associated with the growing strength of health media relations and the power of health institutions in media production;
- Refer as risks to public health promotion: the lack of qualification among press officers and consultants or the strength of commercial interests;

In an effort to confront these testimonies with the other side of the information production process, we also interviewed journalists – from Portuguese daily and weekly newspapers and magazines. In these semi-structured interviews journalists confirmed the previously identified trends:

a) **On mass media thematic selection, journalists...**

- Admit that reporting diseases may not be a priority, unless it refers to R&D (research and development), because currently there are other more important topics in Portugal (such as health policies);
- Confirm that cancer has a special impact in audiences (because it reveals proximity to the population);

b) **On their work, journalists...**

- Admit that institutional sources are very relevant for their work (and they refer specifically to the institutional sources we have interviewed);
- Perceive that institutional sources (and sources in general) are more organised than ever;

- Advocate that sources' organization can be positive, but also negative – journalists use expressions such as “they know who we are” or “they have their own agenda”;

c) When reflecting on their profession, journalists...

- Feel that health journalism suffers from the same problems as journalism in general; they refer the lack of resources to do a better news coverage on health issues;
- See advantages in health journalism training (but they are very emphatic about the need for “real training” in opposition to the sessions organized by laboratories and pharmaceuticals which seem to always have commercial interests behind them).

4. Discussion

We have been crystallizing the behavior of Portuguese health institutions by framing media relations' models-in-use in the sector. In that context, we could confirm that most public institutions related to cancer follow a *media relations high profile model*, and by this we mean that: they are very proactive when contacting the media; they have created a kind of *brotherhood* with easy access to media channels; they want to inform, get support and goodwill for their causes; in sum, they follow most of the public information model's rules, as described by Grunig and Hunt (1984).

However, we believe that this is changing and public health institutions are moving from tactic (*high profile*) to strategic (*low profile*) media relations (see figure 1). Thus we also found *media relations low profile models*. Some institutions are already developing strategic communication management, with planning and control, brand building, image and reputation promotion; that is, they follow a corporate approach in their relationship with the journalists or the media.

Figure 1. From tactic to strategic Media Relations

Tactic Media relations (classical profile)	Hybrid Media relations (high profile)	Strategic Media relations (low profile)
<ul style="list-style-type: none"> ✓ Reactive ✓ Informational ✓ Short term ✓ Based in actions 	<ul style="list-style-type: none"> ✓ Mixed behaviors 	<ul style="list-style-type: none"> ✓ Proactive ✓ Reputational ✓ Long term ✓ Based in campaigns



Tactic media relations are reactive, informational, short term and developed through isolated actions. Strategic media relations are proactive, reputational, long term and developed through integrated campaigns. But most of the respondents can be classified as using an hybrid model, with mixed communication behaviors.

Conclusion

When applying these findings to cancer news analysis, we came to the conclusion that the role of healthcare organisations in cancer news production (our research question) is: (a) to influence the agenda-setting process, by placing the cancer topic as an editorial option; (b) to exert the “expert power” (Len Ríos *et al.*, 2009) within health themes; (c) to reinforce their institutional legitimacy as sources; and (d) to act as agent for cancer literacy promotion.

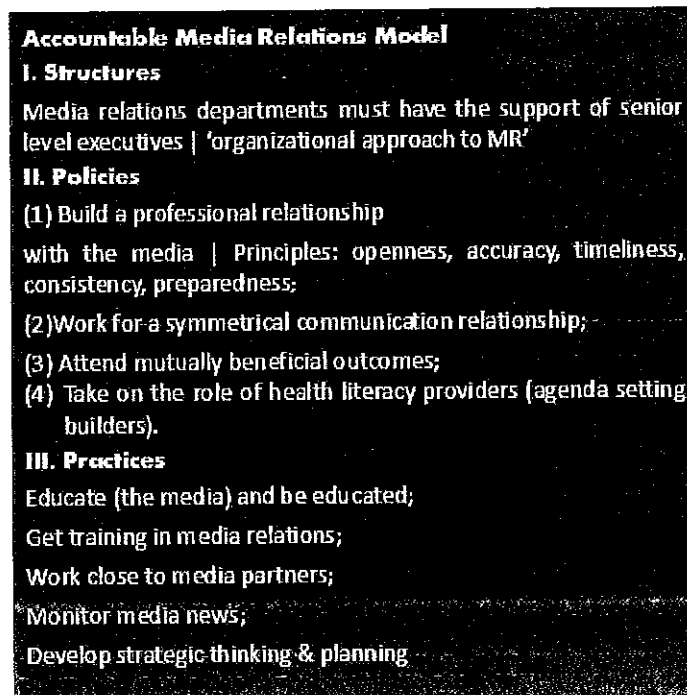
At this stage we have decided to take into account van Ruler’s (2004) advice – about how important it is to public relations to search for communication models that can serve as criteria for the analysis of public relations’ practices – and we have been developing a media relations’ model for the health sector.

... the question of what’s good and what’s not in public relations practice, is constantly debated. It is unfortunate that as a consequence of the absence of a list of constructed options and criteria, the discussions

never fail to be dominated by strong emotional overtones. As a result, opinions on 'questionable behavior in pr' are formulated without any reasonable explanation to justifying this. ... (van Ruler, 2004: 123, 125)

This ideal media relations model in the health sector was named *Accountable Media Relations Model*. And our proposal is to design a communication model for health media relations that is able: to develop strategies to improve the information exchange; to promote cooperation among agents involved in news production: and to enhance the quality of health information for prevention and control.

Figure 2. Accountable Media Relations Model



This model is still a work in progress, however it intends to give strategic health communication – and public relations in particular – an orientation on the process of exchanging and strategically designing messages to be delivered to the population, through the mass media, in a way that improves health outcomes. As the study shows the media are relevant information suppliers on cancer-related diseases, and accountable media relations activities can improve information to the citizens thereby reducing cancer threats.

Health/cancer communication research is, thus, an important form of social and political participation.

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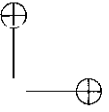
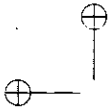
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* This work is supported by the European Fund for Regional Development (FEDER), through the funds of Competitiveness Factors Operational Programme – COMPETE (FCOMP-01-0124-FEDER-009064), and by National funds through FCT – Foundation for Science and Technology – under the scope of the research project “Disease in news” – (PTDC/CCI-COM/103886/2008).

