Chapter 4

JOURNALISTS AND EXPERT SOURCES ON MEDICINES[1]

Abstract

We describe here how medical journalists writing for Dutch daily newspapers use experts when dealing with medicines. Two approaches, interviews and a content analysis, were used to answer the research questions. Both methods show that journalists can find relevant experts to give them information about various medicines. The pharmacist, however, is not one of them. Furthermore, the content analysis shows that two types of experts can be distinguished: the objective and independent experts who often were cited alone in an article, and the subjective experts who frequently were cited in combination with other experts.

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4.1 INTRODUCTION

The general public as well as health professionals may use many different sources to get information about health, illness and medicines. Results of studies show that family magazines and daily newspapers not only act as a source of medical information for the general public [1,2,3], but also inform physicians and other groups of health professionals [4,5,6]. Durant et al. (1989) showed that the general public is very interested in news about new medical discoveries [7]. Because of the role mass media can play in the diffusion of information about medicines, we were interested in the sources used by journalists who write about medicines in daily newspapers. The results of the first part of our study shows scientific journals and researchers to be important sources of information [8]. In this study we explore the role of experts, including researchers, as sources of information on medicines.

The most important source of information about medicines for the general public is the physician, followed by the patient package insert. The pharmacist is relatively unimportant as source of information on medicines [1-3]. But the World Health Organization recommends that the pharmacist should play a central role in the provision of advice and information to patients and the general public on the use of medicines [9]. Therefore, in this study, special attention is paid to the role of the pharmacist, is (s)he recognized as one of the experts on medicines by journalists?

Experts can have several reasons to talk to the press. According to DiBella et al. (1991) the most important reason cited by scientists was to educate the public. The second most important reason was to engender public interest in their field. The least important reason cited by scientists for participating in an interview was to enhance the opportunity to gain commercially financial rewards [10].

Although scientists and other professionals may have several reasons for having a positive attitude towards cooperation with journalists, several problems have been described in the communication process between experts and journalists. According to Willems there are two kinds of barrier in this communication process. Absolute barriers are created by scientists who stick to the principle that the diffusion of scientific information by means of the mass media is not right. Relative barriers are created by scientists who have a positive attitude towards communication through mass media, but who do not agree with the way it is done, and

therefore complain [11]. Willems found relatively few scientists who put up absolute communication barriers in the 1970s. But the scientists had complaints about journalists [11], and the scientific quality of the science articles in the newspapers [11].

A lot has changed since that time: universities and research institutions attach more importance to the education of the general public, and many have appointed public information officers [12]. To facilitate the contact between scientists' and journalists' the Scientists' Institute for Public Information in the U.S and the Ciba Foundation in the U.K have both founded a Media Resource Service (MRS). These free referral services have put journalists in touch with experts in science, medicine and technology.

Although various initiatives have been taken to facilitate contacts between scientists and journalists, there are still problems in the communication process. In the field of medicine,physicians and scientists still are suspicious of reporters. They fear remarks will be taken out of context, or that they will be misquoted [14]. Several studies, concerning the relative communication barriers, have focussed on the lack of accuracy in mass media reports of science [e.g 15-17]. These studies, however, did not deal with the question whether a relevant expert was consulted. This question seems relevant because a survey by Dunwoody and Ryan (1987) showed that scientists are often asked by journalists to comment on topics outside their area of expertise [18].

In the this study we look into the following questions:

- How do medical journalists writing for Dutch newspapers use experts when dealing with information about medication, both prescribed drugs as well as over-the-counter (OTC) medication?
- Which experts are consulted and why?
- Is the pharmacist recognized as an expert on medicines by journalists?
- Can these experts be considered as relevant experts?

4.2 Methods

Two approaches which gave complementary information were used in order to answer the research questions. Firstly, in-depth *interviews* were conducted with journalists who write about medicines. Secondly, a *content analysis* was undertaken of newspaper articles in which medication was mentioned.

Interviews were needed to collect information about the way journalists find relevant experts, the criteria they use in selecting an expert, the reasons for using an expert, the kind of expert consulted, and the policy of the journalists regarding corrections by experts prior to publication of the article. The content analysis gave information about the number of experts cited in newspaper articles, the kinds of experts, and if the experts consulted could be considered as a relevant experts. Because we used interviews there was a possibility we might receive social desirable answers (that is, answers biases by the respondent's attempt to give answers that are socially desirable or preferred); this was partly checked by using the results of the content analysis.

The seven journalists, interviewed in this study, were responsible for news about medicines at four national and two regional newspapers. All of them participated in the first interview; one respondent did not participate in the second interview. The newspapers these journalists work for were all content analyzed except for one regional newspaper. Regional newspapers do not pay much attention to science news in general [19], but is was considered wise to carry out a content analysis on one of them. The circulation of these six dailies for which the respondents accounts for approximately 42% of the total circulation of all Dutch dailies. The circulation of the five newspapers in the content analysis accounts for 39% of the total circulation [20].

Interviews

In the interviews we used open-ended questions regarding the kind of experts consulted about medicines, the reasons for consulting an expert, and how to find relevant experts. Because the Media Resource Service (MRS) is also open to European journalists we asked our respondents if they were aware of this service, whether they had ever used it, and if they would welcome a Dutch database of experts.

Furthermore we asked the journalists about their requirements regarding experts, and if they would consult professor X about medicine Y. Professor X is a famous Dutch professor in a medical specialty and who is active in research concerning medicines such as medicine Y. He has been interviewed frequently by mass media journalists. In the interviews we mentioned professor X's real name.

Lack of accuracy in the reporting on science may be a reason for scientists to be reluctant to talk to the press. One way to overcome this problem, at least in part, is to send a newspaper article prior to publication to the scientist or expert interviewed so that they can

check the text. We asked the respondents about their policy regarding this inspection prior to publication.

We also talked with the journalists about their education and experience in journalism.

Content Analysis

All articles in which medication of some sort was discussed were selected from five daily newspapers over a period of four months (June -September 1991). However, articles on drug policy were excluded: because the journalists who were interviewed indicated that they do not write articles on this topic, as it is covered by other colleagues.

The newspapers were divided in two categories: national daily newspapers (four) and regional daily newspapers (one). Within the category national newspapers, we subdivided papers in quality newspapers (two) and popular newspapers (two) [21].

The articles were coded on several topics. First of all we excluded stories from news agencies (NA stories) because we wanted to compare the results of the content analysis with those of the interviews and our respondents are not involved in NA stories. We differentiated between articles published in the science section of the newspaper and articles published in other parts of the newspaper to test whether the number of experts used differed between these two sections. We also noted the names of the experts mentioned in the articles, and how often these experts were cited.

An expert was considered to be a relevant expert if they gave information about a subject in which they were involved. For this reason we regarded patients (experts by experience), spokespersons from interest groups, professional groups and companies as relevant experts. For the other experts we coded the reason for mentioning the expert, and used the Comprehensive Medline® Database (January 1990 - August 1992) to see whether or not the expert published any scientific articles on the subject about which they were cited.[1] We also studied how often different types of experts were mentioned alone, or in combination with other types of experts. We also checked the profession of the experts mentioned, differentiating between physicians and pharmacists. When the profession was not made clear in the newspaper articles, we checked the Dutch register for physicians and pharmacists. The

1 This database is compiled by the National Library of Medicine, and contains information about publications in about 3600 scientific journals. It contains all the information from the Index Medicus, Index Dental literature and the International Nursing Index. In this database it is possible to search for authors of publications, even when the exact name or initials of the author are unknown.

people who could not be found in these two registers were coded in the category 'other profession'.

4.3 RESULTS OF THE INTERVIEWS

The journalists

The length of experience in journalism varied from 6 to 37 years. The journalists' training was also diverse. Only one journalist had followed a special course in science journalism. Three of them have an academic degree (in political sciences, chemistry and biology). Only one of the journalists contributed items other than medical news.

Reasons for consulting experts

According to five of the seven journalists, an expert is consulted whenever a story is incomplete or to get more background information on a particular subject. Another reason (mentioned by three respondents) for consulting an expert is to obtain information on the Dutch situation. Again, three journalists mentioned spontaneously that they sometimes consult experts to check information. As one of them putted it:"I check everything. I can not allow myself to make mistakes. Medical information has to be treated very carefully". In answering a question in which different reasons for consulting an expert were given, six journalists indicated that to check information is very often a reason for consulting an expert.

Kind of experts consulted

The kind of expert consulted depends on the subject of the article. All journalists spontaneously mentioned a physician or medical specialist as possible expert to consult on medicines. The pharmacist and spokespeople of pharmaceutical companies were both mentioned by three journalists.

But sometimes it can be difficult to find an expert. This has nothing to do with absolute communication barriers, but is of a practical nature: there are subjects on which no-one is working in the Netherlands. Sometimes nobody is available at that particular moment. This can be a reason to drop the article or subject. All the respondents indicated that they seldom meet experts unwilling to talk to them. "Sometimes it is difficult to find a relevant expert. But I never found that an expert did not want to talk to me".

The journalists use several different search strategies to find an expert. They referred to their own address books, in which they note, for example, persons they have met on symposia or con-

gresses, or people they have interviewed before. They referred to address books from universities, and to their own files in which most of them keep scientific articles. Sometimes a public relations officer of a university or university hospital or a medical doctor they know is asked for advice on finding an expert.

Four of the six journalists were familiar with the Media Resource Service (MRS); two respondents had never heard of it. None had ever used the MRS to get in touch with an expert. The respondents indicated no need for a Dutch equivalent to the MRS because they themselves are capable of finding relevant experts. One respondent indicated that such a service might be useful to journalists who are less experienced and less specialized in a particular field.

Conditions in the selection of experts

One of the major conditions in selecting an expert is their independence, i.e an expert should not have any interest in the company producing that drug unless their opinion is asked to illustrate the company's view. Other important criteria in this selection process are scientific status and number of scientific publications on a particular subject. Furthermore it seemed important whether the expert was recommended by someone the journalist knew and if they had a positive experience with the expert in the past. Another more practical condition the journalists mentioned was that the expert had to be available.

Relative unimportant were the age and the gender of the expert and whether the expert was known from the mass media. However, two journalists indicated that they preferred an expert the newspaper readers would know. A relevant expert, however, seemed to be preferred over a famous one.

We asked the respondents if they would consult the famous Professor X. All journalists indicated to prefer to consult another expert because Professor X is already too often interviewed in the mass media and/or they were not certain about his independence.

Correction of articles prior to publication

Two journalists seemed to have a strict policy regarding the correction options prior to publication for experts interviewed. One respondent always asked the expert to check the information. Another respondent never allowed this, because in his opinion what is published is the journalists' responsibility, and whenever one asks the person interviewed to check the information before publication part of this responsibility is placed on the shoulders of the expert. This respondent indicated that whenever the expert has

factual comments on the published article a correction can be published in the newspaper. His policy seldom has a negative effect on the willingness of experts to speak to him.

For the other journalists' policy regarding this correction option seemed to depend on several conditions, such as the size of the article, the amount of information given by the person interviewed, the time available prior to publication and the experts' own wishes. If the journalist is not sure theat they have got the information right, then this would be another reason to ask the expert to check it. One journalist indicated there was one exception to this: an expert from a pharmaceutical company never gets the opportunity to check the information about medicines before publication.

Only facts can be changed during the correction process. The person interviewed has no influence on the style, order or conclusions drawn by the journalist.

4.4 RESULTS OF THE CONTENT ANALYSIS

Number of experts in articles

Of the 178 original articles, 86 articles contained the names of 128 people. Seventeen experts were cited in more than one article, usually in relation to the same subject but in different newspapers. A total of 108 different people were cited, of whom 80% came from the Netherlands.

The mentioning of experts did not differ significantly over the different sections of the newspapers (Chi Square, $p > 0.05$): an expert was cited in 55% of the articles on the news pages and in 42% of the articles in the science sections. The mentioning of experts in the articles did differ for the types of newspapers (Chi Square, $p < 0.05$; see Table 1): in the regional newspaper proportionally fewer experts were mentioned. The quality newspapers mentioned more often than the popular and regional newspapers more than two experts in one article (Chi Square, $p < 0.05$).

In 13 of the 86 articles (15%) only foreign experts were mentioned. In six articles a foreign experts in combination with a Dutch expert was cited; 67 articles (78%) cited only Dutch experts (see Table 1). No significant difference was found for the different types of newspapers (Chi Square, $p < 0.05$).

Kind of Dutch experts consulted

The experts consulted can be subdivided in different categories (see Table 2 for Dutch experts and Table 4 for all experts). The

Table 1
Articles with experts by type of newspaper

Types of newspaper	Total number of articles	Articles with experts	Articles with Dutch experts only	Articles with foreign experts only
Quality	50	26 (52%)	21	3
Popular	91	49 (54%)	37	8
Regional	37	11 (32%)	9	2
Total	178	86	67	13

group of the 51 "real" experts can be distinguished in different ways (see Table 2). Approximately half of this group (25 people) was cited or mentioned in connection with the results of their own research projects, or because a research project in which they were going to participate was starting. The other 26 experts were consulted for various reasons, some discussed a typically Dutch problem or situation (six people) and some reacted on a foreign study or foreign situation (12 people).

Table 2
Categories of Dutch experts

Total	Categories
87 Dutch experts	51 'real' experts
	9 patients (experts of experience)
	13 spokespeople for companies
	14 spokespeople of interest or professional groups

Of this group of 51 "real" experts, 30 (59%) have been found in the Medline® database. They published scientific articles between 1990 and 1992 which were related to the subject in the newspaper article. Six experts who were described in the newspaper as researchers could not be traced in the database. Of the other 15 experts no relevant scientific articles have been found in the database, but they can be viewed as experts on the subject because of their jobs (we will call this category "functional experts"). In this last category we found, for example, the manager of the Dutch equivalent of the American FDA giving information about the process of registration of medicines.

Three quarters of the experts who discussed the results of their own study or the results of a foreign study have been found in the Medline® database; these were experts with relevant research experience. Most of the experts who reacted to a foreign problem or a foreign situation were not found in the database (see Table 3).

Because the journalists indicated that the scientific status of an expert is a relevant condition we also counted the number of pro-

Table 3
Type of information given by the 'real' experts, and the number of people traced in Medline ® (n=51)

	Number of experts	Number of people traced in Medline®
Information about results own research	20	17
Information about a new project	5	2
Reaction to a foreign study	7	5
Reaction to a foreign problem	5	1
Information about a Dutch problem/situation	6	2
Other reason	8	3
Total number of 'real' experts	51	30

fessors mentioned. Of the 51 "real" experts 18 (35%) were professors. More than half of all the experts (patients excluded) was a medical doctor and six pharmacists were mentioned in the articles. The profession of 28 people was neither physician nor pharmacist.

Articles with more than one expert

In 33 articles more than one expert was found. They can be subdivided in five categories. Table 4 shows how often different types of experts, including foreign experts, were mentioned alone or in combination with others.

When only one expert was mentioned, this expert was most often a reseacher. Spokespeople from interest and professional groups and patients were seldom mentioned as the only expert. Often patients were combined with spokespeople from interest and professional groups (see Table 4).

In five of the 33 articles with more than one expert, the experts did not agree with each other, or they had different opinions over a certain therapy or the relation between a drug and its side effects. Most of the time the different experts gave the same or supplementary information.

Table 4
Combinations of experts in articles (%)

Type of expert	Cited alone	Cited in combination with				
		Research	Functional	Interest group	Industry	Patient
Research (n=64)	56	26	18	2	3	3
Functional (n=21)	48	28	10	5	14	0
Interest groups (n=16)	12	6	6	38	19	31
Industry (n=15)	20	13	20	20	27	20
Patient (n=11)	18	18	0	45	27	18

One politician cited as an expert was excluded from this analysis. The horizontal percentag es add up to more than 100% because sometimes more experts from different categories were mentioned.

4.5 DISCUSSION

Reasons for consulting an expert

An important reason for consulting an expert is to check information on medicines. Journalists have to be very careful with medical news, including news about medicines. One of the concerns within the medical community seems to be that newspaper articles promising new cures may raise false hopes. Therefore sources should be carefully checked and counter checked before releasing this kind of information [22]. On the other hand, media reports on the adverse effects of medicines may also have the potential to change health behaviour. Both Wellings in the UK and Jones et al. in the USA describe the influence of negative publicity in the mass media on the drop in the use of oral contraceptives [23,24]. According to Wellings some women bypassed their medical practitioners and acted purely on the basis of media reports [23].

The results of the interviews show that an important condition in the choice of experts is their independence. Scientific status is also reported as an important condition. The results of the content analysis show that about one third of the researchers and functional experts is a professor, so it would seem that journalists prefer an authorative source with 'high' scientific status. In the interviews most of the journalists indicated that they would rather consult a relevant expert than an expert the public will know. This is in contrast with the "American" idea of the "visible scientist". These scientists have usually established their reputations in their own professional areas before venturing into the public domain, but they are usually interviewed about topics tangential to their scientific expertise [25].

Type of experts consulted

The results of both the interviews and the content analysis show that physicians are preferred over pharmacists as experts on medicines. Some journalists do recognize the pharmacist as expert (interviews), but a pharmacist is seldom cited in newspaper articles on medicines (content analysis). The recommendation of the World Health Organization in 1989 that the pharmacist should play a central role in the provision of advice and information to the general public on the use of medicines [9] has therfore not yet been implemented. The pharmacist is not used as source of information either by the general public [1,2,3] or by journalists.

Although we considered patients as experts of experience, the results of the content analysis show that a patient is seldom the only expert mentioned in a newspaper article. It seems that science

journalists consider the expertise of one patient an insufficient basis for an article. The journalists interviewed do not consider patients to be experts; patients do not satisfy one of their most important conditions for selecting an expert: high scientific status. In the society, however, the expertise of patients is recognized to be important. Patients and interest groups do play a role as experts by experience in the development or implementation of health policy. Patients also become more involved in decisions concerning the treatment of their own disease [26]. In the newspaper articles the information from patients is often combined with information of experts who represent the view of more patients and/or the view of a group of health care professionals, and/or the spokespeople of interest groups. But spokespeople of interest groups are also seldom the only experts consulted; their information is often combined with information from patients or other spokespeople from interests groups. Researchers, on the other hand, are the only expert consulted in more than half of the cases; if they are mentioned in combination with other experts it is most likely to be with another researcher. So the different kind of experts are treated differently. There seems to be a differentiation between two sorts of experts: the objective experts - researchers and functional experts - and the subjective experts - patients and spokespeople of interest groups and pharmaceutical companies. The objective experts are more often cited alone in articles, whereas the subjective experts are often combined with other experts.

The different experts, including patients, cited in the same article most of the time gave the same or complementary information. This is in contrast with, for example, political reporting, where experts are used to express different views.[1] In the field of medicine, however, the media exclude dissident experts and voices [27].

Can a relevant expert be found?

The respondents indicated that they have no problems finding relevant experts. An expert database, like the Media Resource Service (MRS), is not considered necessary. With the interpretation of these results we have to keep in mind that our respondents are specialized science journalists; most of them only write about medicine. A service like the MRS might be useful to general science writers or journalists who have to write about some scientific drama or controversy only once. Peaks in the use of the MRS have

1 Newspaper articles on drug policy were excluded in this study. In those articles patients and interest groups are more likely to express different views.

followed disasters at Chernobyl and the Piper alpha oil platform, the Alaskan oil spill, and the Gulf war [13].

In relation to the results of the content analysis, we have to make some remarks about the method(s) used. First of all, we do not know if the journalists actually had personal contact with the expert mentioned in the article. Moreover, not all sources and experts consulted when preparing an article are always mentioned in the article [8]. To check whether or not a relevant expert gave information about research we checked if the expert could be found in the Medline® database. We realize that Medline® is only one of the databases containing information about published research articles. It does not contain information about all Dutch professional medical journals and does not give any information about the status of the published research. The method used only gives us global information about a person's publishing activity. If we want to know if they are viewed by their peers as a relevant expert, we can, for example, use the Science Citation Index, like Shepherd (1981) did in his case study about the experts cited in mass media reports in the marijuana controversy [28]. Because we wanted to check if an expert was consulted within their field of experience, this latter approach seemed irrelevant. We choose this definition of relevant expert because it is stated in a concept code of the Dutch Federation of Medical-Scientific Associations concerning the relations of scientists and the press that a scientist only may give information to journalists about research within his or her field of expertise [29].

Keeping in mind these restrictions, we may conclude that, contrary to the findings of Dunwoody and Ryan [18], our results suggest that the experts are referred to within their area of expertise. Journalists seem capable of finding relevant experts and scientists. This difference in results may be explained in two ways:

- We interviewed specialized science reporters in the Netherlands, while Dunwoody and Ryan base their conclusions upon a survey among scientists in the USA. The scientists in Dunwoody and Ryan's study may have dealt with general science writers or general journalists. So the experience of the reporters in our study may explain the ease in finding relevant experts.
- The respondents in our study were writing about medicines. Perhaps journalists writing about medicine are more aware of possible unwanted negative effects of their articles and therefore try harder to find relevant experts because media reports on medicine sometimes may influence health behaviour and/or give false hope.

Conclusion

In conclusion we may say that the journalists in this study are able to find relevant experts to give them information about various medicines. The pharmacist, however, is not one of them. Furthermore, two types of experts can be distinguished: the objective experts who may be cited alone in an article, and the subjective experts who have to be cited in combination with other experts.

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