Attitudes of oncology health professionals to information from the Internet and other media

Genni M Newnham, W Ivon Burns, Raymond D Snyder, Anthony J Dowling, Nadia F Ranieri, Emma L Gray and Sue-Anne McLachlan

ABSTRACT

Objective: To investigate attitudes of Australian health professionals working in oncology to health-related information in the media and on the Internet and to patients who search for this information.

Design: Questionnaire-based survey.

Setting and participants: Questionnaires were mailed in January 2003 to all 333 health professionals belonging to the Victorian Cooperative Oncology Group.

Main outcome measures: 27 items about attitudes to information in the media and the Internet, patient information-seeking and its effects on the doctor–patient relationship.

Results: 226 surveys (68%) were returned and assessable. Most respondents took notice of medical information reported on television/radio, in newspapers (80% each) and on the Internet (56%), mainly to be informed when patients ask questions (82%) and to check its accuracy (60%). Most were concerned about this accuracy (64% believed it accurate only sometimes, and 23% rarely), and 91% believed information from the Internet had the potential to cause harm to patients. Nevertheless, they generally supported patients' information-searching, believing it allowed them to be better informed (58%), and did not affect their ability to cope with their illness (49%), or their trust in, and relationship with, their doctor (69% and 67%, respectively).

Conclusions: Oncology health professionals are aware of patients' use of the Internet and other media to obtain medical information. To ensure oncology patients find reliable and relevant information and to minimise the risk of harm, the health professionals treating them should provide guidance in finding information sources, and assistance in interpreting the information obtained.

MJA 2005; 183: 197–200

For patients to participate optimally in decision-making, they require timely provision of adequate and reliable information about their disease, its treatment and prognosis. Traditionally, sources of information have been the treating physician, family and friends and the publicly available media. The Internet has created an additional source of medical information. In 2000, there were 20 000 health-related websites reported on the Internet,[1] and a survey in the United States estimated that 52 million adults (55% of Internet users) used the Internet to find medical information.[2]

The ability of patients to assess the validity of Internet sites and accurately interpret information is a concern often voiced by health professionals. A recent study of Canadian oncologists and oncology patients found that most oncologists routinely paid attention to information in the public media. The most common reason was to be informed to answer patient queries. More than 90% of respondents felt that information from the media was difficult for patients to understand.[3] A similar survey in the United States revealed that most oncologists surveyed believed information from the Internet increased patients' understanding of their illness, but also increased anxiety and confusion.[4]

There are few published data on the effect of patient information-seeking on health professionals.[3-5] To our knowledge, there are no data specific to Australia. The aim of this study was to investigate the attitudes of oncology health professionals to medical and health-related information in the public media, and their perceptions of its impact on the doctor–patient relationship.

METHODS

The study was a mail survey of oncology health professionals. It was approved by the Human Research and Ethics Committees of St Vincent's Hospital and the St Vincent's and Mercy Private Hospitals, Melbourne, Victoria.

Questionnaire

The questionnaire was based on that used in a previous Canadian study (with permission from the authors).[3] It comprised 27 items, including questions about specialty training, average time spent in oncology practice, attitudes to information in the public media and patient information-seeking behaviour, and perceptions of its effect on the doctor–patient relationship. It also included specific questions about the potential for information from the Internet to cause harm and invited open-ended comments.

The questionnaire was modified to be relevant to a range of health care professionals involved in oncology practice, in contrast to the Canadian version which was administered only to medical, radiation or surgical oncologists and palliative care physicians.

Study population

Questionnaires and an explanatory letter were included in a mail-out by the Cancer Council Victoria in January 2003 to all health professionals registered as members of the Victorian Cooperative Oncology Group. These included medical practitioners, nurses and allied health professionals. A second copy of the questionnaire was sent with a reminder letter 3 months later to those who had not replied, and a further 3–4 months were allowed for its return.

Questionnaires were returned to the Victorian Cooperative Oncology Group. No identifying details were available to the researchers. Consent was implied by completion of the questionnaire.

Statistical analysis

The data were analysed with the SPSS statistical package, version 11.5 (SPSS Inc, Chi-

Oncology, St Vincent's Hospital, Melbourne, VIC.
Genni M Newnham, MB BS(Hons), Medical Oncology Fellow; **W Ivon Burns**, FRACP, Department Head; **Raymond D Snyder**, FRACP, Oncologist; **Anthony J Dowling**, FRACP, Oncologist; **Nadia F Ranieri**, Data Manager; **Emma L Gray**, Data Manager; **Sue-Anne McLachlan**, MSc, FRACP, Oncologist.
Reprints will not be available from the authors. Correspondence: Dr Genni M Newnham, Oncology, St Vincent's Hospital, PO Box 2900, Melbourne, VIC 3000. **Genni.Newnham@svhm.org.au**

1 Demographic characteristics of 226 survey respondents

Variable	No. of respondents*
Age in years	(*n* = 224)
Mean (range)	46 (24–74)
Sex	(*n* = 225)
Male	153 (68%)
Average weekly clinical contact hours	(*n* = 212)
0	12 (6%)
1–9	35 (17%)
10–49	102 (48%)
50–69	53 (25%)
⩾70	10 (5%)
Specialty	(*n* = 226)
Surgical oncologist	62 (27%)
Medical oncologist	41 (18%)
Radiation oncologist	29 (13%)
Palliative care physician	16 (7%)
Other medical specialists	15 (7%)
General and specialist surgeons	13 (6%)
Oncology nurse	12 (5%)
Psychologist	9 (4%)
Other†	29 (13%)

* Unless otherwise defined.

† Included advanced trainees (6), genetic counsellors (6), general practitioners (4), psychiatrists (4), oncology nurse researchers (2), radiologists (2), and an academic, clinical geneticist, clinical trials coordinator, dental oncologist and speech pathologist (1 each).

◆

cago, Ill, USA). The final analysis included only those questionnaires with responses to more than 70% of questions.

RESULTS

Of the 333 questionnaires mailed, 247 (74%) were returned, and 226 (68%) were assessable. Demographic characteristics of the 226 respondents are shown in Box 1. Their average age was 46 years, and almost 70% were male. Respondents were mostly oncologists (58%), but also included palliative care physicians, other specialists, nurses, allied health professionals and researchers. Almost half the respondents had 10–49 hours of clinical contact per week, while 23% had fewer than 10 hours.

Attitudes to the media and Internet

Health professionals were asked whether they paid attention to medical information from various sources (Box 2). Most paid attention to information in the media, including the Internet. The most common reasons for this were to enable them to answer patient questions (82%) and to check the accuracy of the information (60%).

Most respondents were concerned about the accuracy of health-related information in the public media, with 64% thinking it accurate only sometimes, and 23%, rarely. Almost all (91%) believed the Internet has the potential to cause harm, leading to unrealistic expectations (87%) and the adoption of unproven remedies over conventional treatments (80%) (Box 2).

Several respondents stated in "comments" sections of the questionnaire that they believed health professionals had some responsibility to assist patients in both finding and interpreting medical information from the public media.

Perceptions about patients and the doctor–patient relationship

More than half the respondents believed that patients search for information to learn more about their disease and its prognosis (63%), or to find out about new or alternative therapeutic options (59%), while fewer believed it was to learn more about a treatment they had been offered (39%), or because health professionals provided insufficient information (19%) (Box 3).

Health professionals were asked to rank sources of health information in order of their perceived popularity among patients. Television and radio were most often cited as the most popular source, followed by the Internet, then newspapers. Almost two-thirds (62%) of respondents believed patients interpret media information accurately only sometimes, and 28% that they interpret it accurately rarely. Nevertheless, more than half considered that information-searchers are better informed than non-searchers; while 71% considered that they cope no differently or better with their illness.

Health professionals' perceptions of the effect of information-searching on the doctor–patient interaction are shown in Box 4. Most respondents reported that fewer than half their patients wanted to discuss medical information obtained from the media, and that such discussions usually lasted 15 minutes or less.

Despite feeling their advice was questioned at times, and being concerned about the accuracy and patients' interpretation of information, most health professionals were supportive of patients' searching for health-related information (Box 4). Only 9% reported feeling mildly annoyed by patients searching for information, while 71% had made further enquiries or referrals based on information obtained by the patients.

2 Health professional attitudes to information in the public media

Question	Percentage (95% CI)
Do you pay attention to medical information in*	(*n* = 226)
TV/radio	80% (75%–85%)
Newspaper	80% (75%–85%)
Cancer society	73% (67%–79%)
Internet	56% (50%–62%)
Popular magazines	21% (16%–26%)
Non-medical books	15% (10%–20%)
Other	14% (9%–19%)
Reason for paying attention to information*	(*n* = 216)
To be informed when patients ask questions	82% (76%–87%)
To check accuracy of information	60% (53%–67%)
Leisure	26% (20%–32%)
To learn more about new tests/treatments	18% (13%–23%)
Other	7% (4%–10%)
How often do you feel medical information in the media is accurate?	(*n* = 225)
Often	14% (10%–18%)
Sometimes	64% (58%–70%)
Rarely	23% (18%–28%)
Can the Internet cause harm?	(*n* = 224)
Yes	91% (87%–95%)
Mechanisms of harm*	(*n* = 204)
Create unrealistic expectations	87% (82%–91%)
Unproven treatment used in place of proven treatment	80% (74%–85%)
Internet used in place of doctor	23% (17%–28%)
Other†	33% (26%–39%)

*More than one answer allowable.

† Inaccurate information, distressing content, misinterpretation of information, inadequate assessment of quality and reliability of information, financial cost and mistrust of the treating team.

◆

3 Perceptions about patients and health information in the media

Question	Percentage (95% CI)
Reasons for patients searching for information*	(*n* = 222)
To learn more about their disease and its prognosis	63% (57%–69%)
To find out new or alternative therapies	59% (51%–67%)
To learn more about treatment they have been offered	39% (33%–45%)
Because insufficient information provided by health professionals	19% (14%–24%)
Other†	18% (13%–23%)
Most popular information source with patients	(*n* = 219)
TV/radio	48% (41%–55%)
Internet	32% (26%–38%)
Newspaper	17% (12%–22%)
Cancer society	1% (0–2%)
Popular magazines	2% (0–4%)
Non-medical books	0.5% (0–1%)
Other	0.5% (0–1%)
How often do patients accurately interpret media information?	(*n* = 224)
Always	0
Often	10% (6%–14%)
Sometimes	62% (56%–68%)
Rarely	28% (22%–34%)
Are information-searchers better informed than non-searchers?	(*n* = 223)
Better	58% (52%–64%)
No difference	29% (23%–35%)
Worse	8% (4%–12%)
Do information-searchers cope better or worse with their illness than non-searchers?	(*n* =221)
Better	22% (17%–27%)
No difference	49% (42%–56%)
Worse	16% (11%–21%)

*More than one answer allowable.
† Included desperation/hope, seeking control, reassurance.

◆

Around two-thirds of respondents reported that information-searchers had the same degree of trust in their doctor as those who did not search, and that the doctor–patient relationship was unaltered by patient information-searching (Box 4).

DISCUSSION

This study demonstrates that health professionals frequently pay attention to information from the public media and the Internet, mainly to assess its accuracy and address patient questions. Most of those surveyed had a guarded approach to health information obtained from these sources, their main concerns being lack of accuracy and potential to cause harm. Most believed patients frequently have difficulty interpreting information from the public media. This level of caution has been documented in studies of North American oncologists.[3,4]

A significant number of respondents indicated that the medical profession has a responsibility to ensure patients receive quality information and assistance in understanding it. Interestingly, most reported spending no more than 15 minutes discussing information from the public media with patients, consistent with other studies.[3,4] Although this could be explained by time constraints, health professionals surveyed believed this was the amount of time desired by patients. Information collected concurrently from patients supported this conclusion (data not shown). While these discussions lengthen consultations, they can potentially improve patient care by correcting misinformation and improving patients' understanding of their illness.

More than half of the health professionals surveyed felt that patients who search for information question their advice at least sometimes. However, most reported information-seeking behaviour in a neutral or positive light. They felt it allowed patients to be better informed, without affecting their ability to cope with their illness, or their trust in, and relationship with, their doctor.

A limitation of this study was its size, with only 226 health professionals surveyed — all members of the Victorian Cooperative Oncology Group. Although this is similar to the number surveyed in a US study,[4] it represents a minority of oncology health professionals in Victoria. The response rate of 68% compares very favourably with other studies,[3,4] making bias less likely. However, it is possible that members of the Group are not representa-

4 Perceived effect of patient information-searching on doctor–patient interactions

Question	Percentage (95% CI)
Percentage of patients wanting to discuss information	(*n* = 226)
0–25%	66% (60%–72%)
25%–50%	21% (18%–24%)
50%–75%	10% (8%–12%)
75%–100%	3% (0.6%–5%)
Time wanted by patients discussing information	(*n* = 217)
0–15 min	93% (90%–96%)
15–30 min	5% (2%–7%)
30–60 min	2% (0.1%–4%)
> 60 min	0.5% (–0.4%–1%)
Time spent discussing information	(*n* = 222)
0–15 min	93% (90%–97%)
15–30 min	5% (2%–8%)
30–60 min	1% (–0.1%–3%)
> 60 min	0
Feelings towards patients searching for information	(*n* = 226)
Supportive	56% (50%–62%)
Neutral	35% (29%–41%)
Mildly irritated	9% (5%–13%)
Very annoyed	0
How often do you feel your advice is questioned by information searchers?	(*n* = 226)
Always	2% (0.2%–4%)
Often	7% (4%–10%)
Sometimes	45% (39%–51%)
Rarely	40% (34%–46%)
Never	7% (4%–10%)
Do information-seekers have greater or less trust in their doctors	(*n* = 223)
Greater trust	3% (1%–5%)
No difference	69% (63%–75%)
Lesser trust	21% (16%–26%)
Do information-seekers have better or worse relationships with their doctors?	(*n* = 225)
Better	10% (6%–14%)
No difference	76% (70%–82%)
Worse	6% (3%–9%)

tive of all oncology health professionals in Victoria.

The main strength of this study is that it documents the opinions of Australian health professionals, including health professionals other than oncologists, which to our knowledge has not been done previously.

Further detailed studies are required to delineate more precisely the nature and cause of concerns about accuracy and patient interpretation of information in the public media, as well as methods used by health professionals to deal with the increased time demands created by patient information-searching.

In recognising that patients will probably search for information in the media and the Internet, pre-emptive measures to ensure they find appropriate, reliable sources and have assistance interpreting information may reduce the risk of inaccurate information causing distress to themselves and their families. We recommend that health professionals provide guidance in finding information sources, and assistance in interpreting the information obtained.

ACKNOWLEDGEMENTS

We thank the Cancer Council Victoria for distributing the questionnaires.

COMPETING INTERESTS

None identified.

REFERENCES

1 Pastore M. The mess known as online health care. ClickZ Network, 2000. Available at: http://www.clickz.com/stats/big_picture/demographics/article.php/5971_379231 (accessed May 2005).

2 Fox S, Rainie L, Horrigan J, et al. The online health care revolution: how the Web helps Americans take better care of themselves. Washington, DC: Pew Internet & American Life Project, 2000. Available at: http://www.pewinternet.org/PPF/&/26/report_display.asp (accessed May 2005).

3 Chen X, Siu L. Impact of the media and the Internet on oncology: survey of cancer patients and oncologists in Canada. *J Clin Oncol* 2001; 19: 4291-4297.

4 Helft P, Hlubocky F, Daugherty C. American oncologists' views of internet use by cancer patients: a mail survey of American Society of Clinical Oncology members. *J Clin Oncol* 2003; 21: 942-947.

5 Eysenbach G, Kohler C. Does the Internet harm health? Database of adverse events related to the internet has been set up [letter]. *BMJ* 2002; 324: 239.

(Received 29 Sep 2004, accepted 8 Jun 2005) ❑