Concordance in communication between surgeon and patient

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Objectives: To examine (1) the capability of using interactive voice response (IVR) system technology for clinical research studies involving assessment of clinician–patient interactions and (2) the concordance of surgeons and their breast cancer patients about the content of a postbiopsy pre-treatment decision meeting.

Design: A descriptive comparison of the perceptions of 2 volunteer groups — surgeons and their patients — using interactive voice technology.

Setting: Surgeons' offices.

Participants: Twenty-six dyads of surgeons and their patients with newly diagnosed breast cancer.

Outcome measures: Concordance as determined through a 15-item patient questionnaire and a parallel 11-item surgeon questionnaire addressing surgical and psychosocial aspects of breast cancer treatment.

Results: Fifty-four percent to 100% of the 26 dyads indicated concordance about treatment preference, treatment choice, how treatment was chosen, preference for how treatment was chosen, time for discussion about treatment, and discussion about lymph-node removal. Only 27% to 50% of dyads agreed about patient understanding of lymph-node removal, the thoroughness of discussions about adjuvant treatment, the thoroughness of discussion about emotional coping, and the sufficiency of time for the discussion of patient's concerns. In these areas of disagreement surgeons often underestimated the patient's ability to understand and underestimated the patient's perception of the thoroughness of discussions about the psychosocial aspects of the illness (concerns and coping).

Conclusion: Surgeons and patients demonstrated concordance on their perceptions of the type of treatment desired and needed but were discordant on their perceptions of the degree of patients' understanding about post-treatment and psychosocial issues.

Objectifs : Examiner 1) la capacité d'utiliser la technologie des systèmes de réponse vocale interactive (RVI) pour des études cliniques comportant l'évaluation d'interactions clinicien–patiente et 2) la convergence de l'opinion des chirurgiens et de leurs patientes atteintes d'un cancer du sein au sujet de la tenue, après la biopsie, d'une réunion portant sur une décision à prendre avant le traitement.

Conception : Comparaison descriptive des perceptions de deux groupes de volontaires — chirurgiens et leurs patientes — au moyen de la technologie de RVI.

Contexte : Cabinet de chirurgiens.

Participants : Vingt-six dyades composées d'un chirurgien et d'une patiente chez laquelle on venait de diagnostiquer un cancer du sein.

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Accepted for publication Mar. 6, 1998

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MESURES DE RÉSULTATS : Concordance déterminée au moyen d'un questionnaire comportant 15 questions destiné aux patientes et d'un questionnaire parallèle comportant 11 questions destiné au chirurgien et portant sur les aspects chirurgicaux et psychosociaux du traitement du cancer du sein.

RÉSULTATS : De 54 à 100 % des 26 dyades ont indiqué une convergence de vues au sujet du traitement préféré, du choix de traitement, de la façon de choisir le traitement, de la préférence quant à la façon de choisir le traitement, du temps de discussion portant sur le traitement et de la discussion portant sur l'ablation de ganglions lymphatiques. De 27 à 50 % seulement des dyades se sont entendues sur la compréhension chez les patientes de l'ablation des ganglions lymphatiques, sur l'exhaustivité des discussions relatives au traitement d'appoint, sur l'exhaustivité de la discussion relative à l'adaptation affective et sur la suffisance du temps consacré à la discussion relative aux préoccupations des patientes. Dans les domaines où il y avait désaccord, les chirurgiens ont souvent sous-estimé la capacité de compréhension de leur patiente et sa perception de l'exhaustivité de la discussion au sujet des aspects psychosociaux de la maladie (préoccupations et adaptation).

CONCLUSION : Les chirurgiens et les patientes ont démontré une convergence de vues quant à leur perception du type de traitement souhaité et nécessaire mais une divergence quant à leur perception du degré de compréhension des patientes au sujet des enjeux consécutifs au traitement et des enjeux psychosociaux.

Concordance (or agreement) about information communicated by a surgeon and his or her patient is clearly a goal in all patient encounters. This is not surprising since it is generally acknowledged that concordance in communication is an important component of the physician–patient relationship and that compliance, health status and patient satisfaction are all compromised by low concordance.[1] Studies have shown that the quality of communication between physicians and patients can influence health outcome. Patients with a diagnosis of cancer who were provided with more information or choices of therapy, have been reported to show improvements in sickness impact, anxiety, physical and psychological problems, and depression.[2] Despite this, research studies have shown that significant numbers of patients with breast cancer have difficulty communicating with the medical team,[3,4] and there appears to be great variability in the encouragement patients with breast cancer are given to make decisions about care.[5,6] There is also variability in how much communication between physician and patient takes place before clinical treatment decisions[7] and how much decision-making patients wish.[8]

At undergraduate and residency levels, although significant resources have been used to teach communication skills, some barriers still exist, including a lack of trained faculty to teach communication skills and lack of scheduled time in the clerkship years.[9] For the physician already in practice, it is difficult to find methods for improving physician–patient communication that are efficient, marketable and effective. One study comparing the results of a 2-day communication workshop with a half-day workshop showed the short program had no effect on physician communication, whereas the longer program produced changes in both content and affect. Although it may be desirable to bring physicians into a medical centre for such training,[10] marketing such programs successfully is often challenging because physicians in practice find it difficult to take time away from patient responsibilities. Other studies have shown that physicians will change their practices when they are given direct feedback about their performance.[11] Direct feedback to the physician may be a useful method of facilitating change.

New technology, the interactive voice response (IVR) system, is available to anonymously record both numeric and verbal information. These automated computer systems allow a series of pre-recorded questions to be answered using telephone key pads. IVR has been successfully used in cancer studies to monitor the physical needs (transportation to hospital and assistance at home) of patients receiving chemotherapy[12] and to assess the helpfulness of a toll-free telephone-based cancer information service.[13] Although we could not identify any literature that showed the IVR system had been used with dyads of physicians and their patients, we believed it could be used to assess concordance in communication between a surgeon and his or her breast cancer patient. It should be possible to determine what surgeons believed they told their individual patients and what the patients recalled of the information. Used in this way, the IVR system could provide surgeons with efficient feedback about their communications skills and possibly serve as an inducement for improvement, if warranted. Alternately, the IVR data could provide a form of needs assessment to guide the development of educational programs.

The purpose of this study was to assess the concordance of information transmitted by a surgeon and recalled by his or her patient with breast cancer immediately after a post-biopsy consultation.

Method

All 73 surgeons practising in a specified regional health care area were invited by a senior surgical oncologist and the associate dean of continuing medical education to participate in the study. Surgeons who provided more than 2 patients to the study were given results of their data and an opportunity to discuss the results with the principal investigators.

The surgeons who consented to participate were instructed to invite into the study all patients who had breast cancer and who presented for consultation about their treatment over the period of the study and were capable of participating. It was recognized that the emotional or mental state of some patients would preclude participation. The surgeon discussed the study with the patient and provided study information. Patients who consented to participate were asked to call into the IVR system within 24 hours. A designated staff person in the surgeon's office made sure the surgeon reported his or her data.

Both patients and surgeons were provided with a script of questions that they would be asked by the IVR system. Close-ended questions were primarily used (e.g., "We would like to know which treatment you and your surgeon chose. If you selected mastectomy, press 1; if you selected lumpectomy, press 2.") There was one open-ended question, "We would like to know what other concerns you discussed with your surgeon." The telephone keypad enabled the collection of quantitative data, and recording devices captured qualitative data. We used a parallel construction format for both surgeon and patient questions to determine the content of the physician–patient discussion; whether the 2 parties perceived the discussion the same way; and whether they perceived that they had had sufficient discussion about key aspects of the management plan. The patients were also asked whether they thought that IVR technology was an effective, efficient method of obtaining data. All questions were pre-tested using 3 patients in a telephone live interview. This format allowed us to ensure that the questions were understood by the patients and the responses were usable.

Descriptive statistics were run to determine the frequency of responses for both MD and patient. Responses of MD and patient dyads were compared to determine the percentage of agreement or disagreement on each question. Because of the small sizes, no further statistical analyses were conducted.

Results

Of the 73 surgeons invited to participate in the study, 20 (27%) consented to participate. Of these 20 surgeons, 8 provided a total of 29 patients over a 9 months. Fifty-five calls were made to the IVR system by surgeons and patients. A total of 26 dyads were available for data analysis. Responses from 3 of the patients were not used since there were no accompanying surgeon responses and reminder phone calls were unsuccessful.

The 26 surgeon-patient dyads agreed on a number of salient aspects of the care that was provided but disagreed on some aspects (Table I).

Which treatment would you prefer?

When asked what treatment was preferred, there was agreement in 18 (69%) dyads. There was disagreement in 2 (8%) dyads in which the patient reported preferring a mastectomy whereas the surgeon reported

Table I

Concordance Among 26 Surgeon and Breast Cancer Patient Dyads Asked to Recall Salient Details About Treatment and Decision-Making

Question	Dyads agreeing, %	Dyads disagreeing, %
Which treatment would you prefer? — mastectomy/lumpectomy/no preference	69	31
Which treatment was chosen? — mastectomy/lumpectomy	88	12
How did you make the choice? — physician/shared/patient	54	46
How would you have preferred this decision be made? — physician/shared/patient	73	27
Did you have adequate time for discussion? — enough/needed more	96	4
Was removal of lymph nodes discussed? — yes/no	100	0
How well was the reason for lymph-node removal understood? — completely/somewhat/not at all	50	50
How thorough was the discussion about adjuvant treatment? — thorough/limited	27	73
How thorough was the discussion about emotional coping? — thorough/limited	38	62
Did you have enough time to discuss concerns? — sufficient/not enough/did not discuss	27	73

preferring a lumpectomy. In 3 (12%) dyads the patient preferred a lumpectomy whereas the surgeon preferred a mastectomy and in 3 (12%) dyads patients preferred a lumpectomy but the surgeons reported no preference.

What treatment was chosen?

When asked what treatment was chosen, there was concordance in 23 (88%) dyads. Discordance in 2 (8%) dyads was related to the patients reporting that a mastectomy and the surgeons reporting that a lumpectomy was chosen. In the last dyad the patient reported that lumpectomy and the surgeon reported that mastectomy had been chosen.

How did you make the choice?

When asked how the decision was made, 14 (54%) of the dyads reported similar perceptions in how treatment choices were made. In 2 (17%) of the 12 dyads for which disagreement was found, the patient reported that she made the decision whereas the surgeon reported the decision as shared; in 6 (50%) dyads the patient perceived the decision as shared but the surgeon reported that the decision was the patient's; in 3 (25%) dyads the patient reported the surgeon as having made the decision, but the surgeon reported the decision as shared; in only 1 (8%) dyad did the patient report the decision as having been shared whereas the surgeon reported the decision as having been his or her's.

How would you have preferred this decision to be made?

Most of the respondents (73%) reported that they would have preferred the choice of treatment to have been shared between patient and surgeon, although in 7 (27%) dyads there were differences in how decision-making was preferred. In 4 (57%) of these 7 dyads the patient preferred the decision-making to have been shared whereas the surgeon preferred the decision to have been made by the patient; in 2 (28%) dyads the patient would have preferred the surgeon to make the decision whereas the surgeons would have preferred either the patient to make the decision or the decision to have been shared; in 1 (14%) dyad the patient would have preferred the decision to be her own whereas the surgeon would have preferred that the decision was shared.

Did you have adequate time for discussion?

Adequate time for discussion was reported by all but 1 (4%) dyad in which the patient reported needing more time but the surgeon reported having had adequate time. Similarly, when asked whether the removal of lymph nodes was discussed, the patient and surgeon responses were concordant.

Was removal of lymph nodes discussed?

All dyads agreed that this was covered.

How well was the reason for lymph-node removal understood?

The underlying rationale for lymph-node removal was less well understood; 13 (50%) dyads reported differences. In 5 (19%) dyads the surgeon overestimated the patients' understanding: in 4 of these, the patient reported understanding the reasons somewhat and the surgeon perceived the patient to have understood the reasons completely; in 1 dyad the patient reported that she did not understand the reasons and the surgeon reported the patient as having understood somewhat. In 8 (31%) dyads the surgeon underestimated the patient's perception of understanding; in these 8 dyads the patient reported completely understanding the reasons and the surgeon reported the patient understanding somewhat.

How thorough was the discussion about adjuvant therapy?

Only 7 (27%) dyads reported concordance about the thoroughness of their discussion concerning adjuvant treatment. In 15 (58%) dyads the patients reported having had a thorough discussion, but the surgeons perceived they had had a limited discussion. Patients in 4 (15%) dyads perceived their discussion as limited whereas their surgeons perceived the discussion as thorough.

How thorough was the discussion about emotional coping?

Concordance was found for 10 (38%) dyads when asked whether their discussion about emotional coping was thorough. In 10 (38%) dyads the patient reported having had a thorough discussion whereas each surgeon reported having had a limited discussion. In 3 (12%) dyads the patient reported that she did not have a discussion about coping, but the surgeon reported having had a limited discussion. In 2 (8%) dyads the patient reported having had a limited discussion whereas the surgeons reported that he or she did not have such a discussion. In 1 (4%) dyad the patient reported having had a limited discussion but the surgeon reported having had a thorough discussion.

Did you have enough time to discuss concerns?

Concordance was found for 7 (27%) dyads asked whether there was sufficient time for discussion of concerns. For 17 (65%) dyads the patient reported sufficient time but the surgeon reported not enough time. For 1 (4%) dyad the patient reported not enough time whereas the surgeon reported did not discuss. For 1 (4%) dyad the patient reported "did not discuss," but the surgeon reported not enough time.

Degree of satisfaction with IVR system

The telephone survey was received well by 79.2% of patients who reported they were very satisfied or satisfied; another 16.7% reported feeling neutral and 4.2% were dissatisfied. There was no response in 8.4%.

Discussion and conclusions

Recruitment of surgeon-patient dyads was difficult. Despite numerous invitations throughout the region and many reminders to surgeons who agreed to participate, only 8 surgeons contributed to the 26 dyads that were part of the study. It is estimated that during this 9-month period, breast cancer was diagnosed in 170 patients in this health care region. A follow-up faxed questionnaire to the surgeons indicated that some patients were reluctant to participate for reasons that included inability to understand the study (i.e., dementia), patient distress and language barriers. Some surgeons suggested that the study could have been conducted during a less sensitive time for the patient, "when a women has just been informed she has breast cancer, it is inappropriate to ask her to participate in a study when she is in shock or devastated. The patients have enough to worry about with their disease." Countering that was the statement by a senior surgeon, "unless we can study ourselves in emotionally charged and difficult situations, it will be difficult to improve our communication skills in those settings."

The data from the 26 dyads indicate that there are certain patterns of interest. For 6 questions 14 (54%) or more dyads agreed and for 4 questions 13 (50%) or more dyads disagreed. For questions in which 14 (54%) or more of the dyads showed concordance there seems to be good to very good communication about the choice of surgical intervention and how those choices were made. Surgeon and patient understanding about "shared" decision-making (concordance for 14 [54 %] dyads) was of interest. Much focus has been placed on patients' rights and responsibility for shared decision-making in their health care. The question is whether dyads with discordance for this item really reflected how individualized the definition of the term "shared decisions" is.

With respect to the 4 questions for which a discrepancy was indicated for 13 (50%) to 19 (73%) dyads, there seems to be a discordance in the surgeons' and patients' perception and understanding about adjuvant treatment and emotional coping. Although both surgeon and patient noted that the removal of lymph nodes was discussed, the surgeons could not accurately determine the patient's perception of understanding in this area. Interestingly, when one looks at the surgeons' perceptions about the thoroughness of their discussions related to adjuvant treatment, emotional coping and patient concerns, it appeared that the surgeons were unduly hard on themselves, more often stating they had had a limited discussion when the patient perceived the discussion as thorough. At least 1 other study has noted how much variability there is between patients in their quest for information and decision-making.[8]

The study provided a number of insights about using an IVR system. It appears that it is a useful technique for assessing the concordance between physicians and patients and can be used effectively in communication studies. The data generated provided excellent information for physician feedback and may be an incentive to physicians unaware that advanced training in communication could be helpful to them and their patients. We found that most of the surgeons and patients had no difficulty using the system. One surgeon reported that, with some experience, he could respond to the questions faster than expected and faster than by the paper and pencil method, in part because the respondent had the questions on paper as he or she answered them.

This study has its limitations. A very small group of surgeons and their patients participated. Assessment of communication patterns might be better studied retrospectively when the patient is further along in treatment, although accuracy of recall is likely to be compromised. Nonetheless, as previously noted, communication with this group of patients has been identified as a very real problem, and IVR does have the potential to provide surgeons with data about the information they provide to patients who have to make decisions in a very short period of time.

However, the study appeared helpful as an educational intervention. Both surgeon and patient received the list of questions they were expected to respond to in advance. This list provided a concurrent reminder to the surgeons of the important aspects they

should be covering as a routine part of their discussion with patients. One surgeon noted that it encouraged him to reflect on his discussion with the patient and the importance of bringing a patient back for a second visit to be sure that she understood the salient aspects of treatment. Further study is needed to determine how surgeons and other physicians might use feedback information from an IVR system to alter their practices or to guide their continuing education.

Funding for the study was provided by the Disease Prevention Branch, Health Canada, Ottawa, Ont..

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