Asymmetrical Talk between Physicians and Patients: A Quantitative Discourse Analysis

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Abstract: This study examined the discursive dynamics between physicians and patients in order to understand associations between physicians' communication patterns and patient satisfaction. Fieldwork was conducted in a clinic in northern British Columbia. Thirty-one physician-patient consultations were audio-taped, and follow-up questionnaires on satisfaction were filled out by patients. The Roter Interaction Analysis System was used to examine nine categories of talk. Our study confirmed previous assertions that physicians' and patients' talk patterns are highly asymmetrical. Physicians controlled the medical consultation by asking more questions than patients, and patients did not necessarily appreciate this type of communication. Male physicians tended to make more facilitative remarks when interviewing female than male patients, which was negatively correlated with patient satisfaction.

Keywords: Physician-patient communication; Health communication; Asymmetrical talk; Discourse analysis; Patient satisfaction; Health care in Canada.

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Résumé : Cette étude examine les dynamiques discursives entre médecins et patients afin de comprendre le rapport entre les pratiques de communication des médecins et la satisfaction des patients. On a mené un travail sur le terrain dans une clinique du nord de la Colombie-Britannique. On y a enregistré trente et une consultations entre médecin et patient, après lequel les patients ont rempli des questionnaires sur leur niveau de satisfaction. On a recouru au système Roter (« Roter Interaction Analysis System ») pour examiner neuf catégories de parole. Notre étude a confirmé les résultats de recherches antérieures en reconnaissant une asymétrie entre le discours du médecin et celui du patient. En effet, les médecins ont contrôlé les consultations en posant plus de questions que les patients, et les patients n'ont pas forcément apprécié ce type de communication. Les hommes médecins avaient tendance à faire plus de remarques facilitatrices avec leurs patientes qu'avec leurs patients, ce qui a produit un effet négatif sur la satisfaction des patients en général.

Mots clés : communication médecin-patient; communication santé; conversation asymétrique; analyse du discours; satisfaction des patients; soins de la santé au Canada.

Introduction

A primary feature of the physician-patient interview is asymmetry (e.g., Lieberman, 1996; Waitzkin, 1985). Physicians often exert more control than patients over the process and content of the medical interview. Yet it is also clear that patients' satisfaction is connected to their ability to engage with medical personnel (Ong, DeHaes, Hoos, & Lammes, 1995).

We set out to study the communication patterns of physicians and patients within our own regional community, a northern town in British Columbia. Our purpose was to examine medical consultations between doctors and patients to see how these conversational patterns were associated with patient satisfaction. To analyze our data we used the Roter Interaction Analysis System (RIAS) (Roter, Stewart, Putnam, Lipkin, Stiles, & Inui, 1997), which involved audiotaping medical consultations, administering a follow-up questionnaire on patient satisfaction, and implementing a system of coding to examine nine categories of talk: close-ended questions, open-ended questions, biomedical information, psychosocial exchange, social/personal talk, positive talk, negative talk, facilitation, and orientation.

Our study focused on three primary research questions: Was there a significant difference in mean talk time between physicians and patients in each of the nine talk categories? Was there a significant difference in mean talk time if the two gender combinations (i.e., male-physicians/male-patients vs. male-physicians/female-patients) were taken into account? What specific categories of physician talk were correlated with patient satisfaction? By investigating these three questions, we hoped to learn about the discourse processes between physicians and patients in a small-town Canadian clinic.

Literature review

Three specific areas of research on doctor-patient communication patterns were

relevant to our study: asymmetrical talk, the variables that determine satisfaction, and the dynamics of gender.

Studies of asymmetrical talk have indicated that the most frequent exchange for a physician is information-giving followed by question-asking (Roter & Frankel, 1992). West and Frankel (1991), for example, found that physicians initiate 91% to 99% of the total questions asked in medical interactions. Ong et al. (1995) reported that question-asking by the physician accounts for 23% of the medical interaction. They also found that 40% of all verbal exchange between physicians and patients consists of physician questions and their discussion with patients of the symptoms, treatment, and instructions. Most questions asked by a physician are close-ended. In contrast, patients engage in very little question-asking during the medical visit (Frankel, 1990; Roter & Frankel, 1992). During the entire medical interview, patients typically initiate 3% of direct medical questions (Roter, 1984). This body of research affirms that physicians often exert control in the medical interview by being the first and last speaker in each medical encounter or by talking more in a medical encounter than patients (Barry, Stevenson, Britten, Barber, & Bradley, 2001). When patients are showered with questions, they are less likely to be active participants of the consultation, and they are less likely to volunteer information.

Another common practice physicians use to exercise control over the medical interview is interruption. West and Frankel (1991) found that physicians interrupted patients much more than patients interrupted physicians. Beckman and Frankel's 1984 study revealed that 69% of these interruptions were intrusive and that patients were interrupted after the first expressed concern and after a mean time of 18 seconds, whereas Marvel, Epstein, Flowers and Beckman (1999) found that patients' initial statements of concern were interrupted in 72% of the interviews and after a mean time of 23.1 seconds. Most important, the latter study revealed that interrupted concerns rarely are readdressed later on in the medical interview; in only a single instance did the patient manage to return to the interrupted agenda. Physicians use interruption to take control of the conversation. Yet the premature interruption of the patients' initial statements may hinder patients in their efforts to express the full spectrum of their concerns (Irish & Hall, 1995). Premature interruptions pose a serious potential problem in the medical encounter. The physician is not only violating the patient's turn to speak, but is also cutting off potentially valuable information that may be necessary to achieve a correct diagnosis (West & Frankel, 1991). Researchers have argued that intrusively interrupted patients are not satisfied with their physicians and are therefore resistant to suggested treatment plans (Hall, Epstein, DeCiantis, & McNeil, 1993; Leiberman, 1996).

Patient satisfaction is positively and consistently associated with physicians' psychosocial approach to medicine and with physician conversational style (Buller & Buller, 1987; Bertakis, Roter, & Putman, 1991). Patients prefer physicians with a consultative communication style to physicians with an authoritative approach (Bertakis et al., 1991; Bradley, Sparks, & Nesdale, 2001). Low satisfaction is associated with physician dominance of the conversation. As well, insufficient, contradictory, or confusing information presented by the physician may lead to patient dissatisfaction (Simpson, Buckman, Stewart, Maguire, Lipkin, Novack, & Till, 1991). Patients are more satisfied with the consultation and treatment if they participate in the decision-making process (Gattelari, Butow, & Tattersall, 2001), if they have a chance to ask questions during the interaction (Li & Lundgren, 2005), and if they receive timely feedback about their illness from physi-

cians (Evans, Stanley, & Burrows, 1992; Stiles, Putnam, Wolf, & James, 1979). Patients want the physician to express warmth, to actively listen, to volunteer information, to provide explanation of their condition, and to convey emotional support and trust.[1] In other words, the existing literature indicates that, generally, patient satisfaction is greater if the physician is professionally competent *and* courteous (Schneider & Tucker, 1992; Li & Browne, 2000).

Several studies of doctor-patient interaction have examined gender as a significant variable. One group of studies examined the gender of the physician. Hall, Irish, Roter, Ehrlich, and Miller's 1994 study asserted that female and male physicians did not differ in the amount of their social talk, technical language, emotional support, or in the amount of information they presented to their patients. However, there is statistical evidence that female physicians hold longer interviews with male as well as female patients (Hall et al., 1994; Weisman & Teitlebaum, 1985). In comparison with male physicians, female physicians often treat patients, male or female, in a more egalitarian [2] and emphatic manner [3]. Female physicians tend to show more concern for their patients than male physicians by asking more questions about psychosocial issues as well as by emitting more back-channel responses, such as smiling and nodding (Hall & Roter, 2002). As a result, the friendly demeanour of female physicians may be reciprocated by their patients, who may, in turn, offer more information about their symptoms. Male physicians tend to talk longer with female patients than with male patients (Meeuwesen, Schaap, & Van Der Staak, 1991). It seems that literature on whether the gender of a physician plays a role in the way he or she communicates with patients is inconclusive.

In addition to examining the gender of the physician, the gender of the patient has also received attention. Street and Buller (1988) found that male physicians did not communicate in a more domineering fashion with female patients than with male patients; whereas Roter et al. (1997) reported that patient gender seemed to have little effect on physician communication patterns. Stewart (1984, 1995), however, found that physicians were more likely to ask about the opinions or feelings of female patients than of male patients. Female patients become more involved in interaction than male patients (Li, Krysko, Desroches, & Deagle, 2004) and receive more empathy. In a meta-analysis of six studies carried out in western European countries, Brink-Muinen, Dulmen, Messerlie-Rohrbach, and Bensing (2002) found that female patients were more likely than male patients to receive psychosocial consultations. This literature indicates that female patients tend to report more detailed symptoms (Clark, Potter, & McKinlay, 1991) and receive more information than male patients mainly because they request more information than male patients (Speedling & Rose, 1985).

Researchers also have found that, in comparison with male patients, female patients are treated with less respect and that their concerns are not taken as seriously as the concerns of male patients (Weijts, 1994). The literature indicates that female patients are interrupted more frequently by male physicians than are male patients (West, 1984; Weijts, 1994). We found that when male physicians interrupted female patients, they tended to be more intrusive than when they interrupted male patients (Li et al., 2004).

The aforementioned literature on physician-patient talk, in general, and patient gender, in particular, presents an inconsistent picture. Furthermore, almost all of the studies were conducted in Europe and the United States. We situated our study in the much-debated Canadian health care system in the hope that our findings would be useful for

health policy makers. Specifically, we examined whether physicians and patients talk differently, whether physicians talk with male and female patients differently, and whether the ways physicians talk with patients influence patient satisfaction in four categories: overall satisfaction, communication satisfaction, expertise satisfaction, and affect satisfaction.

Methods

Our study took place at a family practice clinic in a northern British Columbia town. All physician participants were experienced general practitioners. Physicians receive payment for the number of patients they see (up to a maximum of 20 patients per day). No residents were recruited because in British Columbia residents are paid on a salary basis, whereas physicians are paid on a fee-for-service basis. At the time that we conducted our research, all five Caucasian, male general practitioners at the clinic agreed to participate. Of the five physician participants, two were between the ages of 30 and 39 and three were between the ages of 40 and 49. The range of time these individuals had been in practice was 1 to 19 years, with an average of 15.50 years.

To be eligible for this study, patients must have come to the clinic for regular visits, not emergency visits, and they must have seen the same physician at least twice previously. In total, 31 patients, 13 males and 18 females, participated. The patients' ages ranged from 16 to 78 years, with an average of 47.92 years (SD = 18.16). Twenty-six of the 30 patients provided answers to the following demographic questions: education level, employment status, and health status. One-third (34.6%) had college, university, or graduate-level education; 61.5% had up to high school; and 3.8% had up to primary school. Half (50.0%) were employed, 23.1% were unemployed, and 26.9% were retired or in school. Of the employed, 15.4% were professionals or managers, 23.1% were clerical or skilled workers, and 15.4% were unskilled workers (physical labourers). Eighteen of the 31 participants (65.4%) were in "good or excellent" health, while the remainder (34.6%) rated their health as "fair." No patient rated his or her health as "poor." All of the patient participants spoke English as their first language, except one individual who spoke English as a second language but with high fluency.

One of the researchers in this study, also a physician at the clinic, obtained consent from the physician participants. Patients' consent was sought at the entrance of the clinic where one of the researchers greeted them and briefly informed them about the project. Those who agreed to participate filled out a consent form and were given an introduction to our project. Both physician and patient participants were informed that the consultation would be audiotaped. Recordings of the interviews were done in the physician's office using a video recorder with the lens off. Immediately following the consultation, researchers on the project administered a follow-up questionnaire to the patients.

Coding categories of talk

Over the years the Roter Interaction Analysis System (RIAS) has been used as an analytical instrument for studies conducted in the United States and Europe and has shown to be effective in capturing the fundamental elements in physician-patient talk. The RIAS (Roter et al., 1997) has been employed in over 61 pub-

lished studies that micro-analyzed physician-patient conversations (Hall, Roter, & Katz, 1988). In the RIAS method, nine categories of talk are used to determine satisfaction and dissatisfaction: close-ended questions, open-ended questions, biomedical information, psychosocial exchange, social/personal talk, positive talk, negative talk, facilitation, and orientation.

In this method, each category of talk encompasses one or more communicative behaviours. For example, positive talk is made up of the following discernable behaviours: giving approval, empathy, encouragement, optimism, and legitimizing the patient's concern. Negative talk conveys disapproval and criticism. Social talk refers to remarks showing concern for the patient as a person. Social talk differs from psychosocial exchange in that the former is not related to the patient's illness. Social talk is used to build rapport between the physician and the patient. Psychosocial exchanges are issues directly or indirectly related to the patient's illness, such as the patient's life style and feelings. Facilitation refers to back-channel responses, such as smiling, nodding, or frowning, or asking for repetition, understanding, or opinion.

The audiotaped consultations were transcribed verbatim. The data were then coded for frequencies of the talk categories using the RAIS coding scheme in which a unit of analysis is an utterance, defined as the smallest string of words with meaning. As such, the unit may vary from a single word to a lengthy sentence. Using the transcripts and the audiotapes, we coded and scored every utterance made by both physician and patient: one unit of analysis was one point. Fifteen percent of the consultations were coded by two independent coders. Disagreements between coders were discussed in light of the scoring standards. In some cases, audiotapes were reviewed in order to reconcile differences.

Measuring patient satisfaction

Patient satisfaction was assessed using a questionnaire which included 31 questions that could be grouped into four basic categories: overall satisfaction, communication satisfaction, expertise satisfaction, and affect satisfaction. Although based on the research of Roter et al. (1997), the four satisfaction categories were similar to those used by Evans et al. (1992), who delineated physicians' communication styles into expressed interest, technical competence, and affection tone.

Overall satisfaction was indicated by two very simple questions: "This was a very satisfying visit for me," and "I am satisfied with the medical care I received." Item analysis showed a reliability coefficient of .81 (standardized alpha), with an item mean of 4.61 ($SD = 0.05$), indicating high satisfaction. Ten questions asking whether the physician interrupted the patient frequently, whether the physician made sure that the patient understood what was being discussed, whether the physician understood what the patient said about his/her health problem, whether the physician used medical jargon, or whether the physician answered all the questions asked were used to determine communication satisfaction. The standardized item alpha was .91 with an item mean of 4.50 ($SD = 0.14$).

Expertise satisfaction was determined by posing nine questions about the patient's perception of whether the physician was well trained, competent, thorough, and aware of the patient's health history. The standardized item alpha was

.91 with an item mean of 4.51 ($SD = 0.13$). Ten questions about the patient's perception of whether the physician was attentive, enthusiastic, friendly, or domineering were used to determine affect satisfaction. Here, the standardized item alpha was .84 with an item mean of 4.50 ($SD = 0.27$).

Correlating the results

The frequencies of the nine talk categories were summed for physicians and patients, respectively. We found that the frequencies of the nine categories did not make meaningful comparisons due to the differences in the number of words spoken by each individual. We thus had to treat the data to create a comparative standard. We converted the frequencies into rates, which are derivations of frequencies divided by the number of utterances of each individual. This approach takes each individual's speech speed into consideration. Following Beaumont and Cheyne (1998), the rates were multiplied by one-half of the grand mean of the number of utterances. For example, for doctor number 1, the frequency of close-ended questions was 16.99, the total number of utterances was 85.00, and one-half of the grand mean of the utterances was 159.05. Therefore, the rate of close-ended questions for doctor number 1 was 31.80. Pearson correlation, a standard statistical formula used to correlate multiple variables, was used to examine the third research question: What categories of physician talk were correlated with patient satisfaction (i.e., overall satisfaction, communication satisfaction, expertise satisfaction, and affect satisfaction)?

Results

Our study yielded the following data on physician patient discourse patterns.

Talking time

On average, male doctors spent longer with female patients. In the male-physician/male-patient (M/M) group, the mean time spent per interview was 7.04 minutes, whereas in the male-physician/female-patient (M/F) group, the mean time for an interview was 9.42 minutes. The difference was statistically significant, $t(30) = 2.16$, $p < .05$ (one-tailed).

Turn exchange

The ways physicians and patients took turns mirrored each other. In a given dyad, the physician and patient took similar number of turns. The correlations between physicians' and patients' turn exchanges were perfect, $r(13) = 1.0$, $p < .0001$ for the M/M combination and $r(18) = .99$, $p < .0001$ for the M/F combination.

Number of words

There were no significant correlations between the average number of words spoken by physicians and patients in either the M/M or the M/F group. In the M/M group, the mean number of words spoken by physicians and patients, respectively, was 646.76 ($SD = 510.94$) and 605.84 ($SD = 329.66$). In the M/F group, the mean number of words spoken by physicians and patients, respectively, was 774.29 ($SD = 339.47$) and 725.58 ($SD = 345.17$). No statistically significant difference between the mean number of words spoken by physicians and by patients was found in either the M/M or the M/F group. When the number of words of physicians and patients within each group were combined, the M/F group spoke

more words ($M = 749.94$, $SD = 338.01$) than the M/M group ($M = 626.30$, $SD = 421.79$), but this difference was not statistically significant.

Percentages of discourse categories

As shown in Table 1, biomedical speech (27%) and positive talk (26%) constituted half of physician talk. Physicians also spent much time facilitating the process and/or content of the conversation (16%) and asking close-ended questions (12%). On the other hand, patients asked few close-ended (1%) and open-ended questions (0.7%). Patients were interested in psychosocial exchange (17%) but physicians were not (3%).

MANOVA (multivariate analysis of variance) was used to examine whether there was a significant difference between the means of physicians and patients in each of the nine categories. It was also used to test whether there was a significant difference between the means of the two gender combinations (male-physicians/male-patients vs. male-physicians/female-patients) for each of the nine categories. To test for the main effect of physician versus patient role, gender combination (M/M vs. M/F), and role by gender combination, a two by two MANOVA was conducted. The analysis showed that there was a significant main effect for role, $F(9, 49) = 55.09$, $p < .0001$, Wilks' Lambda = .09, $h2 = .91$. Tests for between-subject effects showed a significant difference in role between physicians and patients for seven of the nine categories of discourse patterns.

Close-ended questions

As shown in Table 1, physicians engaged in asking significantly more close-ended questions than patients, $F(1, 57) = 63.90$, $p < .0001$, $h2 = .53$.

Open-ended questions

As shown in Table 2, physicians asked five times more open-ended questions than patients, $F(1, 57) = 31.69$, $p < .0001$, $h2 = .36$.

Biomedical information

Patients engaged in giving significantly more biomedical information than physicians, $F(1, 57) = 9.47$, $p < .01$, $h2 = .14$.

Psychosocial exchange

Patients initiated significantly more psychosocial exchange than physicians, $F(1, 57) = 39.07$, $p < .0001$, $h2 = .41$.

Negative talk

Patients engaged in more negative talk than physicians, $F(1, 57) = 3.09$, $p < .05$, $h2 = .051$.

Facilitation

Physicians conveyed significantly more facilitating remarks than patients, $F(1, 57) = 110.43$, $p < .0001$, $h2 = .66$.

Orientation

Physicians expressed significantly more orientation remarks than patients, $F(1, 57) = 50.33$, $p < .0001$, $h2 = .47$.

Our MANOVA analysis indicated that there was no statistically significant differ-

ence between physicians and patients in the categories of positive and social/personal remarks. It also demonstrated no significant difference between the two gender combinations (male-physicians/male-patients vs. male-physicians/female-patients) in the nine discourse categories. However, there was a significant interaction between role and gender combination in the category of facilitation, $F(1, 57) = 3.15$, $p < .05$, $h2 = .052$. The mean rate of facilitation for the physicians in the M/M combination ($M = 21.16$, $SD = 8.76$) was lower than in the M/F combination ($M = 27.33$, $SD = 8.81$). Mean rates of facilitation were not significantly different for the patients in the M/M and M/F combinations. There was no significant interaction between role and gender combination in the other eight categories.

Patient satisfaction and physician discourse patterns

As shown in Table 2, only five significant correlations were found between the satisfaction variables and the nine physician discourse categories. All four satisfaction variables were negatively correlated with the number of close-ended questions by physicians; that is, the more close-ended questions physicians asked, the less satisfied their patients became with them. In addition, overall satisfaction was negatively correlated with the number of facilitating remarks from the physicians; the more facilitating remarks physicians made, the less satisfied the patients were with their physicians.

Discussion

Physician-patient talk asymmetry

The asymmetrical pattern of physician-patient talk found in this study is consistent with previous research in other parts of the world, including reports by Makul, Arnston, and Schofield (1995), who found that patients were extremely passive, rarely asking questions or offering their opinions in the medical consultation, and Beisecker and Beisecker (1990), who observed that patients made few attempts to make their concerns explicit, and that they were hesitant to be assertive and/or intrusive when expressing their viewpoints.

Patient satisfaction and physician close-ended questions

All four variables measuring patient satisfaction (i.e., overall satisfaction, satisfaction with physician affective skill, satisfaction with physician expertise, and satisfaction with physician communication skills) were negatively correlated with the number of close-ended questions physicians asked. By asking close-ended questions, the physician intends for the patient to provide simple yes or no answers, with no room for elaboration or explanation. From the perspective of the physician, asking close-ended questions is an efficient way to control a conversation in that the physician obtains the type and amount of information he or she wants. This finding is not surprising. Researchers in the United States also reported negative relationships between patient satisfaction variables and physician close-ended questions (Bertakis et al., 1991).

Interestingly, facilitative statements by the physician, including back-channel responses, transition words, paraphrasing, checking for understanding, bid for repetition, asking for understanding, and asking for the patients' opinion, resulted in low overall satisfaction for patients: *The more physicians engaged in facilita-*

tive statements, the less the patients were satisfied. This finding is contrary to common sense since one would expect that facilitative statements would assist patients in the communication process, thus increasing patients' satisfaction.

An alternative interpretation is that excessive facilitative statements by physicians may be perceived as controlling, interruptive, or even condescending. It is possible that physicians' excessive use of facilitative statements is frustrating for the patients because they limit the patients' opportunities to ask questions. In other words, contrary to the work of Buller and Buller (1987) and Bertakis et al. (1991), we did not find a positive correlation between physicians' psychosocial or personal/social talk and patient satisfaction.

Did male physicians talk differently to male versus female patients?

We found that male physicians did not talk differently with male and female patients in eight of the nine discourse categories. However, in one category, facilitation, male physicians had a higher frequency with female patients than with male patients. It is unknown whether this was done out of concern for these patients or as a gesture of patronizing female patients. What is important is that these facilitative statements were negatively correlated with patient satisfaction. This finding seems to be in line with results from previous research, including the work of Meeuwesen et al. (1991), which revealed that male physicians were more presumptuous with female patients than with male patients, male physicians assumed more knowledge with female patients than with male patients, and male physicians were less attentive to female patients than to male patients.

Length of talk

In our sample the average medical interview lasted about 7 minutes for a male physician and a male patient and approximately 9 minutes for a male physician and a female patient. This duration, according to Deveugele, Derese, Brink-Muinen, Bensing, and Maeseneer (2002), is about the same length as medical interviews in Germany (7.6 minutes), Spain (7.8 minutes), United Kingdom (9.4 minutes), and the Netherlands (10.2 minutes), but is shorter than medical interviews in Belgium (15 minutes) and Switzerland (15.6 minutes). These results are different from those previously found at the same clinic (Pahal and Li, 2006) where resident-patient interviews averaged 19 minutes.

Contrary to Roter's (1984) findings that physicians contribute 60% of the talk and patients only 40%, our sample indicates that in this context, physicians and patients spoke a similar number of words. In the present study, the male - physician/female-patient group conversed more than the male-physician/male-patient group, both in duration and number of words. These data support previous reports that male physicians talk longer with female patients than with male patients (Meeuwesen et al., 1991).

Limitations

This study sampled 31 medical consultations in a teaching clinic. All five physician participants were Caucasian males. No female physicians were available at the time of data collection. Given the small sample size, generalization of the results to physician-patient communication in general should be done with caution. Nevertheless, this detailed empirical examination of the way physicians and

patients communicate provides insight into the probable patterns of Canadian medical consultations that can be used as the basis for further studies. In addition to providing numbers and a method for comparison, such studies could take into account variables other than gender. Does the relative age of the patient or physician make a difference? Are patients with different levels of education or social class treated differently? Is the ethnicity or race of the physician or patient significant? Future research may also examine the systemic or structural reasons that motivate physicians to hurry patients along. For example, previous research indicates that residents, who are paid on a salary basis, spend longer on consultations than physicians, who are paid on a fee-for-service basis.

The potential and limitations of the Roter Interaction Analysis System were also revealed in our study. In analyzing the conversations, the category *facilitation* was shown to be too wide because it includes seven types of utterances: redirect conversation, changing the subject, back-channel responses, checking for understanding, bids for repetition, asking for understanding, and asking for opinions. We found that five types of utterances should be included, and only if their function is to redirect conversation and change the subject. Finally, this type of quantitative study shows patterns of discourse and makes correlations between types of speech and levels of satisfaction; it does not answer why these exist. To do this, in-depth follow-up interviews with both physicians and patients would be necessary.

Conclusion

John O'Neill (1989) pointed out that human communication is not an isolated linguistic phenomena; rather, it is embodied in the social relationships of the communicators. How communicators use language is dictated by their awareness of who they are and to whom they are talking. The choice of words in a conversation is a conscious decision—"words as incarnation of thoughts" (O'Neill, 1989, p. 76). O'Neill's analysis of the communicative body is germane to our own research. When physicians and patients talk, they are both aware of this social relationship: physicians are experts and patients are uninformed. Therefore, both parties may believe that physicians should be in control of the process and content of the medial consultation. Physicians offer their opinions and decisions and patients accept these decisions. This pattern of communication enhances physicians' power over patients. Such is the accepted status quo of physician-patient talk. The problem with too hasty an acceptance of the status quo is that it may impede the process of imparting medical advice; important information on symptoms may be missed, resulting in misdiagnosis (Roter & Frankel, 1992). A wrong diagnosis could at best lead to repeated outpatient visits, unneeded hospitalization, and unnecessary expense, and at worst, undesirable health outcomes (Makul et al., 1995). The end result may be an ineffective utilization of the health care system, not to mention poor health for individual Canadians (Guendelman & Witt, 1992-1993).

Our study indicates, alongside the work being done elsewhere, that physician-patient interactions are highly asymmetrical. First, we found that physicians maintain firm control over the direction and content of the conversation. Physicians ask more questions than do patients (89% vs. 11%). Patients do not

have a chance to talk; rather, their task is to answer questions. Second, we found that physician close-ended questions are negatively correlated with all four patient satisfaction variables, a strong indication that patients do not necessarily appreciate this type of communication. Third, we found that male physicians tend to make more facilitative remarks when interviewing female than male patients, which seems problematic if one considers that facilitative remarks are negatively correlated with patient satisfaction.

To increase communication effectiveness and patient satisfaction, it would be necessary for physicians to exercise less control over the consultation, leaving opportunities for patients to explain their symptoms and ask questions. Considering that physicians are paid on a fee-for-service basis in British Columbia, it may be difficult for them to refrain from directing the flow of the conversation given the time frame of a medical visit. However, when facing the choice of listening or talking to a patient, an experienced physician may choose to listen more than talk.

Within this context, patients, particularly female patients, may need information on their right to ask questions when they want to and on their right to not letting physicians facilitate them to a level of discomfort. These recommendations may be difficult to implement and may not be the only measures needed to rectify the current discursive asymmetry. Given the stakes for individual and public health, it is essential that we at least begin to acknowledge the existence of this issue. Statistically documenting the correlation between types of discourse and patient satisfaction, as we do in this study, is but a first step towards generating greater public awareness of this pattern of communicative imbalance. It is our hope that this statistical revelation will instigate further discussion on how to create the conditions for a more productive and healthy exchange between physician and patient.

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Notes

1. Research on this subject includes studies by Ben-Sira, 1980; Bensing, 1991; Comstock, Hooper, Goodwin, and Goodwin, 1982; Hall, Roter, and Katz, 1988; Rowland-Morin and Carroll, 1990.

2. On this point, research has been conducted by Day, Norcini, Shea, and Benson, 1989; Hall, Epstein, DeCiantis, and McNeil, 1993; Hall, Irish, Roter, Ehrlich, and Miller, 1994.

3. See studies by Brink-Muinen, Dulmen, Messerlie-Rohrbach, and Bensing, 2002; Hooper, Comstock, Goodwin, and Goodwin, 1982; Meeuwesen, Schaap, and Van Der Staak, 1991.

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