Patient-Centredness in the Consultation. 1: A Method for Measurement

RONALD J HENBEST AND MOIRA A STEWART*


This paper presents a method for assessing the doctor–patient interaction in terms of its patient-centredness. Patient-centredness was defined in terms of doctor responses which enabled patients to express all of their reasons for coming, including symptoms, thoughts, feelings and expectations. The method was tested and found to be valid (correlations for criterion validity $r_s = 0.51$ and 0.89), reliable (inter-rater correlation $r_s = 0.91$, intra-rater correlation $r_s = 0.88$), and sensitive, in that it was able to detect differences among doctors ($P < 0.001$) and among doctor responses to different patient offers ($P < 0.001$). The method was also found to be practical in that it was inexpensive and could be used for a variety of purposes such as by tutors to give feedback to their students, by examiners as part of the evaluation of candidates' consultation skills, and by students and clinicians alike, for self-assessment. The finding that the score for the first two minutes of the consultation correlated highly with the score for the entire consultation ($r_s = 0.806$) greatly increases the time effectiveness of the method, suggesting that it would be practical for use on a large scale, including student assessment and future studies of the relationship between patient-centredness and patient outcomes.

The importance of the doctor–patient interaction has received much attention, especially in the past two decades, and one of the key concepts to emerge has been that of patient-centred care.

The term ‘patient-centred medicine’ was introduced into the medical literature by Michael Balint in 1970 in order to give a name to a particular way of thinking. Patient-centred medicine referred to the attempt to understand the complaints offered by the patient and the symptoms and signs found by the doctor, not only in terms of illnesses, but also as expressions of the patient's unique individuality, his tensions, his conflicts, and problems.¹ This was in contrast to the illness or disease-centred way of thinking which considered man to be a complex machine and which attempted to understand the patient's symptoms in terms of pathology.

But the concept of patient-centred care is not a new one. It has its roots in holism that can be traced back to the writing of Hippocrates and beyond.² Rather, the concept of patient-centred care may best be thought of as a rediscovery, one that can be identified in the medical literature of this century as expressed in a number of recurring and inter-related themes, including: the primacy of the person, the significance of the subjective, the importance of the interpersonal relationship, the whole person, the deeper diagnosis, the patient's real reasons for coming, and the personal qualities of the physician.³

Perhaps of equal importance, has been the recognition of the need to evaluate the quality of the process of patient care in terms of outcomes.⁴ A number of instruments have been developed to measure the interpersonal aspects of the process of care, but all of them, including two that were designed specifically to measure patient-centredness, have limitations.⁵

The main aim of this paper is to describe a method for assessing the doctor–patient interaction in terms of its patient-centredness, a method that is simple and practical and that can be performed equipped solely with pencil and paper and an audiotape recorder.

The method to be described in this paper was developed and tested as part of a master's thesis⁶ researching the relationship between patient-centred care and patient outcomes. It is a modification of a...
method piloted by the Department of Family Medicine at the University of Western Ontario, Canada, that was based on a model for the consultation proposed by J Levenstein of the Family Practice Unit of the University of Cape Town, South Africa.6

METHOD
The method can be applied either to an audiotape or to direct observation of the doctor—patient interaction; transcripts are not required. The reviewer uses a score sheet to record the offers made by the patient in the order in which they happen in the consultation (Figure 1). A brief phrase stated in the patient's own words is used to document each patient offer. The doctor's response to each offer is then categorized as to whether the doctor: (0) ignores it altogether, (1) uses a closed response, (2) uses an open-ended response, or (3) specifically facilitates the expression of the patient's expectations, thoughts or feelings. Doctors may initially respond to patients' offers with closed questions and the move to more facilitating responses, or they may ignore patients' offers at first and then return to them later. In any case, all responses to a given offer are recorded by circling the appropriate categories and the highest category marked is used to determine the patient-centred score. The total score for a particular interview is calculated by summing the scores for the doctor's responses to each patient offer and then dividing by the total number of offers to give a score ranging in value from 0 to 3.

This method can be seen as an attempt at a practical application of Balint's thesis that patients 'offer or propose various illneses', and that the main effect of the doctor 'is his response to the patient's offers'. Patient-centredness was defined as a response by the doctor to a patient's offer in a way that allows the patient to express all of his or her reasons for coming to the doctor, including symptoms, thoughts, feelings and expectations. In doing so, the doctor tries to understand the whole meaning of the illness for the patient; that is, attempts to understand the person as well as the disease.

Patient Offers
Patients may present to a doctor for any of a number of different reasons. McWhinney6 has proposed a taxonomy of patient behaviour consisting of five mutually exclusive categories: 'limit of tolerance', 'limit of anxiety', 'problems of living presenting as symptoms', 'administrative', and 'no illness' (or prevention). Others have used similar taxonomies to study different aspects of the consultation such as problem differentiation,9 and doctor–patient agreement about the primary purpose of the visit.10 Another approach has been to classify the patients' reasons for coming to the doctor in terms of expectations, feelings, and fears.8,11

Balint's term 'patient offers' was chosen as a general heading for patients' verbal communications because of its inclusiveness; it was meant to refer to all that is potentially significant that a patient brings to the doctor. Other terms considered for this purpose, such as symptoms, expectations and cues, were found to be too narrow, referring to only a portion of the patient's offers. Therefore, patient offers were defined as any verbal expression of patients which signal or hint at their expectations, thoughts, or feelings. The following categories of patient offers were defined: 'symptoms', 'expectations', 'thoughts', 'feelings', 'prompts', and 'non-specific cues'.

Symptoms were defined as the verbal descriptions by the patient of internal experiences or sensations presented as, 'subjective evidence of disease or physical disturbance'.12 The definition of symptom was limited in this way, in order to differentiate it from the other categories described below, all of which could be considered symptoms in a broader sense of the term.

Expectations referred to 'things looked forward to or anticipated'.12 Although many expectations may be implied in a consultation, only those that were referred to in words by the patient were classified as expectations. For example, a patient presenting with a sore throat may have been expecting penicillin. If he

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### Figure 1 Patient-centred score sheet

<table>
<thead>
<tr>
<th>Patient's offers</th>
<th>Doctor's response(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignore</td>
<td>Closed</td>
</tr>
<tr>
<td>Symptoms</td>
<td></td>
</tr>
<tr>
<td>Thoughts</td>
<td></td>
</tr>
<tr>
<td>Feelings</td>
<td></td>
</tr>
<tr>
<td>Prompts</td>
<td></td>
</tr>
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a sore throat may have been expecting penicillin. If he
presented only the sore throat, his offer was classified as a symptom; if he stated aloud that he wondered if he needed penicillin, his offer of penicillin was classified as an expectation. Expectations solely of the diagnosis were not classified separately from the presented symptoms. Common expectations included check-ups of different kinds, investigations and various forms of treatment.

Thoughts were the patient’s ideas, opinion, beliefs, or concepts. A patient’s thoughts were defined specifically as his ideas about his illness including its cause and its implications.

Feelings represented the "emotional state or reaction" that almost universally accompanies a patient’s symptoms, expectations or thoughts. Fear is an example of a common feeling that patients experience in response to health problems. To be classified as a feeling, the patient’s offer had to have been stated directly by using words such as, ‘I feel . . .’, or, ‘I am worried, concerned, afraid, or terrified . . .’. Patient offers were also classified as feelings if the patient responded positively to the physician’s asking directly about a feeling.

Prompts were cues that were ‘intended to move to action’. This term was used to label cues from the patient that indicated that a previous offer required further discussion. The definition of prompts was restricted to include only spontaneous statements of problems that had already been mentioned and excluded responses to facilitating behaviour made by the doctor.

Non-specific cues referred to all cues that could not be classified in any of the other categories. This category was used particularly for statements or questions by the patient which seemed potentially significant to the rater, but which could not be understood without further exploration. Often statements classified in this category hinted at underlying problems of living. For example, a patient with a swollen red nose owing to cellulitis, made the statement: ‘People will think I drink too much’. This statement was classified as a non-specific cue because the rater was unsure as to whether it was just a passing remark or whether in fact, the patient had wanted to talk about alcohol consumption. Problems of living directly referred to by the patient were also classified here unless they fit one of the other categories. This was because they most often seemed to refer to yet deeper underlying problems or issues.

Doctor Responses

Four categories of doctor responses were defined to represent a continuum from least to most patient-centred. This approach to understanding the doctor’s responses reflected Balint’s point of view that if the doctor asks questions in the manner of medical history-taking, he will always get answers — but hardly anything more. Both of these sources affirm that before doctors can come to any real understanding of a patient, they must allow the patient to speak freely and easily, and must listen fully to what is said.

Ignored. The doctors were said to ignore the patient’s cue when they either did not respond at all (giving no verbal indication that they heard the patient) or responded only with a ‘yes’ or ‘mm mm’, but continued with what they were saying, thereby preventing (even if unintentionally) any further exploration of the offer by the patient.

Closed response. This category was used when the doctor’s response was to use only closed questions, or direct answers to a patient’s question, such that further exploration of the topic by the patient was prevented.

Open-ended response. This category was used to refer to responses made by the doctor that would have allowed the patient further expression about symptoms, thoughts, feelings or expectations. Open-ended statements or questions such as, ‘Tell me more about that’, were the main facilitations classified in this category. Also included were such expressions as ‘mm mm’ or ‘yes’ when they specifically gave the patient the opportunity to speak further. ‘Mm mm’ or ‘yes’ were not classified as responses if they were merely repeated by the doctor as a matter of course while the patient was talking. In practice, this response most often resulted in further descriptions of symptoms by the patient rather than an expression of his expectations, thoughts or feelings.

Facilitates specifically expectations, thoughts and feelings. This category was used when the doctor actively helped (as distinct from allowed) the patient to express expectations, thoughts and feelings. This may have been done by confrontation, reflective statements, interpretation or questions. Examples would include such statements as, ‘You look very upset’, and questions such as, ‘How are you feeling about that?’, or ‘What were you expecting to have done about that?’. Evaluation of the Method

In developing the method, attention was paid to the four important measurement qualities of validity, reliability, sensitivity and practicality.

The instrument was designed specifically for the purpose of measuring patient-centred care and was based on the doctor’s response to the patient’s offer which allowed assessment of the response in the context of the preceding statements by the patient. It also incorporated the concepts of the open-ended interviewing style, and utilized categories for classifying both patient and doctor behaviour thought to be relevant for the medical consultation. The categories for patient offers attempted to include the patient’s entire agenda — all of his or her reasons for coming expressed in terms of symptoms, thoughts, feelings and expectations; the categories for doctor
responses were chosen to cover the full range of responses. Criterion validity was tested by comparing this method with that described by Brown and colleagues and with the empathy scale developed by the client-centred therapists.

Measures taken to enhance reliability were the use of clearly defined doctor response categories, and the use of specific guidelines for the patient offers to be recorded. Two aspects of the method were tested for both intra- and inter-rater reliability. The first aspect examined was to assess the extent to which a given consultation was recorded the same way twice, either by two raters independently, or by a single rater at two different times. The second aspect examined was the extent to which the patient offers were scored the same way.

Measurement sensitivity concerns the ‘responsiveness of the measured value of a variable to a change or difference in the underlying construct of interest.’ Two indicators of the sensitivity of the instrument were assessed: whether the instrument could demonstrate a significant difference in patient-centredness among doctors, and whether it could detect differences in the patient-centredness of the doctors’ responses to the different types of patient offers.

Practicality was considered in terms of personnel and equipment required and in terms of time. In particular the first two minutes of each consultation was scored (the two minute score) for comparison with the patient-centred score for the entire consultation.

RESULTS

Criterion validity was tested by comparing this method with that of Brown and colleagues. Analysis of 12 tapes with two raters resulted in moderate to high correlations between the two methods ($r_s = 0.51, P<0.05$ and $rs = 0.89, P<0.001$), and with the empathy scale on six tapes resulting in a high correlation ($rs = 0.89, P<0.01$).

Table 1 shows that the results of the reliability tests on two aspects of this method were favourable. Most of the small difference in the listing of patient offers was due to the varying extent to which the offers (especially symptoms) were grouped together as one offer. Of note, the patients’ main symptoms were listed by the raters 100% of the time.

The patient-centred score was found to vary significantly among six practitioners (Kruskal-Wallis one way analysis of variance $H = 23.6, df = 5, P<0.001$). It also varied significantly for responses to different categories of patient offers; symptoms received the most patient-centred response followed by thoughts and expectations, with expressed feelings being treated with the least patient-centredness ($n=474$ offers, $H = 24.5, df = 3, P<0.001$).

The scoring of consultations from audiotapes took, on average, twice the length of the consultation (for example, 12 minutes to score a six minute tape). The score for the first two minutes showed a high positive correlation with the score for the entire consultation ($n=73$ tapes, $rs=0.806, P=0.001$).

DISCUSSION

There are a number of reasons why this instrument is a valid tool in assessing the doctor–patient interaction. First it is grounded in Balint’s remarkable work on the doctor–patient relationship because it is based on the scoring of the doctor’s response to the patient which Balint proposed as being the major effect of the doctor. Second, it takes into account the interaction sequence, that is, it considers the doctor’s response in the light of the patient’s preceding behaviour. This is important, for as Wasserman and Inui have pointed out, ‘a dialogue between two individuals is not the sum of the two monologues’. This method for scoring patient-centredness does not award points for simply saying nice things or even saying ‘patient-centred’ things inappropriately. Third, the categories used for identifying patient offers and those used for scoring doctor responses were both chosen specifically for the context of the consultation and were found to allow all verbal behaviour to be classified. The results of tests for criterion validity were good and in particular indicated that the method took good account of empathy, one of the crucial aspects of patient-centredness.

One further validity issue concerns the decision to score only the verbal communications of the doctor (rather than including the non-verbal behaviour). This decision was made primarily on the basis of practical considerations, that is, cost and the general unavailability of equipment of sufficient quality to make the necessary observations. In addition, although non-verbal behaviour is recognized to be an important aspect of communication much further work would be necessary in order to be able to assess it in terms of patient-centredness.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Reliability of the patient-centred score</th>
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<tr>
<td>Aspect of reliability</td>
<td>Inter-rater</td>
</tr>
<tr>
<td>Similarity in listing patient offers (%)</td>
<td>85.0</td>
</tr>
<tr>
<td>Correlation of scoring of physician responses</td>
<td>0.91**</td>
</tr>
</tbody>
</table>

*$P<0.05$, **$P<0.01$

$n$=total number of tapes analysed
The reliability of the method was good both with respect to the listing of patient offers and the scoring of these offers. The reliability of the recording of the offers would seem especially important to guarantee that raters were actually scoring the same consultation. Clearly defining the patient offers to be listed was essential. The reliability of this method would allow the scoring of interactions without requiring transcripts and thus has the advantages of being able to be used for scoring interactions viewed directly as well as tapes of interactions, and of saving both the time and the costs involved with transcripts. In addition, the more direct scoring of consultations may prevent some of the loss of meaning of some verbal behaviours that may occur through transcription. The reliability of the patient-centred scores demonstrated that the doctor response categories were adequately defined. In addition, it would seem that identical recording of the consultation by independent raters was not necessary to produce reliable scores — a reasonable sample sufficed. The finding of a decrease in intra-rater reliability after six weeks (the rater involved not having scored any tapes for over four weeks) is worth noting and would suggest that periodic retraining would be necessary for long term studies.

Measurement sensitivity is important to minimize the risk of concluding that there is no relationship between two variables when in fact one exists. This is becoming especially important for instruments designed to evaluate the process of care, now that increasing efforts are made to demonstrate relationships between process and patient outcomes. The sensitivity of this method also gives interesting information about the doctor–patient interaction. That doctors responded in a less patient-centred manner to patients' feelings than to their symptoms was a surprising finding at first, but a valid one — the expressed feelings of patients were to a great extent completely ignored.

The method was found to be practical in that it was cheap and could be used in a variety of situations. The scoring of the patient-centredness of a consultation by direct observation requires only pencil and paper and could be used by tutors to give feedback to their students and by examiners as part of the evaluation of candidates' consultation skills. With the addition of an audiotape recorder and tapes, the method could be used for self-assessment. As with any method, the time required by the scorer is an important factor. The finding that the score for the first two minutes of the consultation was highly correlated with the patient-centred score for the entire consultation greatly increases the time effectiveness of the method and suggests that the method would be practical for large scale purposes such as the scoring of large numbers of student tapes (as part of the assessment of their interpersonal skills) and for future large scale studies of patient-centredness.

Further research work on the method will consider ways to help improve the validity and reliability of the coding of individual patient offers. Additional studies are needed to determine the validity, reliability and practicality of the method for different cultures and for consultations involving the use of interpreters. Ultimately, the real test of the method, perhaps especially for those who are skeptical of this conceptualization of patient care, will be the studies determining the relationship between patient-centredness and patient outcomes.

REFERENCES