

Interrogation and interview: strategies for obtaining clinical data

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SUMMARY. During assessment of 55 outpatients, we recorded the numbers and kind of health problems noted during an open-ended interview and during an 'interrogation' based on a structured questionnaire. The combined strategies (interviews and questionnaires) identified a total of 269 problems which were clinically important (i.e. needed medical attention). One hundred and ninety-eight of these problems (74 per cent) were identified by the open-ended interview. Thirty-eight (14 per cent) were identified only by the interview, 71 (26 per cent) only by the questionnaire. We observed that few of the problems detected only by questionnaire were acted upon and that they were therefore only marginally important; most of the problems noted only during interview did lead to further medical action and so were unequivocally of clinical importance. Our data suggest that an open-ended interview, undertaken with the intention of identifying all the patient's health problems, detects those problems well. The routine addition of a lengthy interrogation adds little and is therefore unnecessary.

Introduction

DOCTORS talk to patients for two reasons: to identify their health problems and to establish an effective care relationship. Two types of interview, not mutually exclusive, are used to achieve these goals. One type uses open-ended questions, silence, confrontation, reassurance and support to encourage the patient to tell his or her own story.¹⁻¹² A second model, the interrogative, uses a closed, diagnostic type of question to which the patient supplies an answer and then passively awaits another question.³ Elements of both styles can be used during the same interview.

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Each style is said to have advantages and disadvantages. The open-ended style is thought to be better for establishing a relationship between doctor and patient, a relationship which is often very helpful in dealing with medical problems encountered in an outpatient clinic.⁴ One possible disadvantage of the open-ended style is the uncertainty as to whether it identifies all the problems which may be present. Interrogative interviewing is thought to be more comprehensive, but less effective in developing a positive relationship. We tested these assumptions about problem identification by tabulating how many and what kind of patient health problems were noted during interview and during interrogation.

Methods

Three Board Certified internists and 13 medical residents at Duke University Medical Center interviewed 55 unselected outpatients (36 female and 19 male) who had come for comprehensive medical assessment. The doctor who was to be responsible for the care of the patient conducted an open-ended interview, as far as possible using non-directive interview techniques.^{1,2} Direct questions were used to quantify and qualify patients' statements, but detailed screening questions (past medical history, review of systems, social history and family history) were specifically omitted. Someone else (usually one of the internists, but occasionally a nurse or care assistant) administered separately a detailed questionnaire devised by a group of specialists and internists. It included 116 questions designed to detect prevalent abnormalities in all organ systems and to define social, occupational, family and personal history and health habits. (A copy of the questionnaire is available from the authors on request.) All questions were read from a printed form and were designed to elicit 'yes' or 'no' answers. The questioner was instructed to follow up positive answers by asking further specific questions until the response was defined as clearly as possible. Half of the patients were questioned after the interview and half before.

The interviewers prepared a problem list for their patients using only the information gathered in the interview. The authors prepared a separate list, using only information from the questionnaire and without knowing what was on the problem list based on the interview. After the separate problem lists had been prepared, the information from the questionnaire was given to the doctors for use in caring for their patients. We analyzed the data by comparing entries on the paired problem lists for each patient. Each problem list included all specific medical diagnoses, social stresses, health risks, undiagnosed symptoms and abnormal physical findings.¹³ The authors decided whether different wordings on each list represented the same or different problems, using a technique similar to that of Freidin and colleagues.¹⁴ Eight to 10 months after the initial interview, the medical record of each patient was reviewed and the clinical importance of each problem was classified on the basis of whether or not it had led to some action by the doctor (advice to the patient, further diagnostic testing or referral, treatment or making a diagnosis). Clinically unimportant problems were those which did not lead to any action by the doctor; these were omitted from the analysis. The sum of all the problems included in the analysis was considered to be all the patient problems that were detectable.

Results

The combined strategies (interviews and questionnaires) identified a total of 269 problems considered important enough to need further medical action. One hundred and ninety-eight (74 per cent) of these were identified by open-ended interview and 231 (86 per cent) by the interrogative interview (see Figure 1). Thirty-eight problems (14 per cent of the total) were identified only by the interview; 71 (26 per cent) were noted only by the questionnaire.

Review of the 71 problems (Table 1) found only by questionnaire showed that many of them were of marginal importance. Thirteen were items of remote medical history, not important present health problems; they generated only a laboratory test or procedures to determine present activity or any sequelae which might need treatment. Ten were present problems, but of controversial nature, such as not knowing how to examine the breast or failure to use car seat belts. Forty-six were present health problems but felt by both doctor and patient to be of minor importance; these usually generated only a laboratory test or educational advice. Two patients responded positively to nearly all items on the questionnaire. In both cases, these multiple symptoms were caused by anxious depression; no problems apart from the depression were considered to be of major significance. In addition to the 231 clinically important problems, the questionnaire elicited a further 275 responses which led to no medical action and were clinically unimportant.

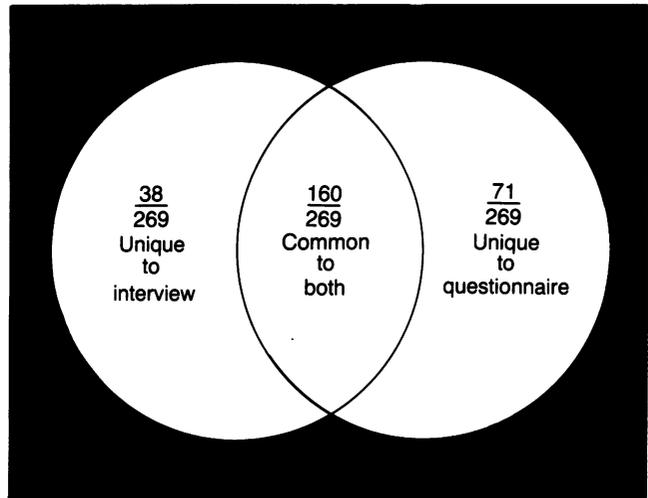


Figure 1. Proportion of clinically important problems identified by open-ended interview and questionnaire.

Table 1. Frequency of problems noted by questionnaire but not by interview.

| Problem | Frequency | Problem | Frequency |
|---|-----------|-----------------------------|-----------|
| Ignorance of technique of self-examination of breasts | 2/36 | Leg cramps | 2/55 |
| Failure to use car seat belt | 8/55 | Urinary tract infection | 1/55* |
| Allergies | 4/55 | Multiple somatic complaints | 2/55 |
| Tobacco use | 10/55 | Nocturia | 4/55 |
| Venereal disease | 5/55* | Hepatitis | 1/55* |
| Dyspnoea on exertion | 1/55 | Use of oral contraceptive | 1/55 |
| Haemorrhoids | 1/55* | Glaucoma | 1/55* |
| Chest pain | 1/55 | Sexual problem | 1/55 |
| Weight Loss | 1/55 | Non-prescription drug use | 1/55 |
| Perineal chafing | 1/55 | Hysterectomy | 1/36 |
| Syncope | 1/55* | Hair falling out | 1/55 |
| Family history of diabetes | 3/66 | Palpitations | 1/55 |
| Incomplete immunization | 2/55 | Decreased vision | 1/55 |
| Bruising | 1/55 | Fatigue, insomnia | 1/55 |
| Bursitis | 1/55* | Irregular periods | 2/36 |
| Epigastric pain | 1/55 | Rectal bleeding | 1/55* |
| Rash of face | 1/55 | Constipation | 1/55 |
| | | Dysmenorrhoea | 1/36 |
| | | Back pain | 1/55 |

*Remote history.

On the other hand, 18 of the 38 problems (Table 2) noted only during the open-ended interview were items of concern to the patient, and were often the chief complaint. They were not detected by the questionnaire, despite the presence of specific and seemingly appropriate questions. A further 14 problems noted only during interview were felt to be of unequivocal clinical importance; these included depression, mental retardation, drug abuse/addiction, alcoholism, social conflicts, divorce, anxiety and a request for medical dis-

Table 2. Frequency of problems noted by interview but not by questionnaire.

| Problem | Frequency | Problem | Frequency |
|----------------------------|-----------|--------------------------------------|-----------|
| Depression | 2/55 | Upper respiratory infection | 1/55 |
| Weakness, weight loss | 1/55 | Bruising | 1/55 |
| Cerebrovascular accident | 1/55* | Iron deficiency anaemia | 1/55* |
| Degenerative joint disease | 1/55 | Vaginitis | 1/55* |
| Left side pain | 1/55 | Anxiety | 3/55 |
| Heartburn | 1/55 | Divorce | 1/55 |
| Mental retardation | 1/55 | Hyperglycaemia | 1/55* |
| Drug abuse/addiction | 2/55 | Hypertension | 1/55* |
| Muscle weakness | 1/55 | Hyperthyroidism | 1/55* |
| Post-menopausal bleeding | 1/55 | Abdominal pain | 2/55 |
| Cold intolerance | 1/55 | Chest lumps | 1/55 |
| Alcoholism | 2/55 | Request for disability determination | 1/55 |
| Social conflicts | 2/55 | Vaginal spotting | 1/55 |
| Urinary tract infection | 1/55 | Back pain | 2/55 |
| Dizziness | 1/55 | Right flank pain | 1/55 |

*Remote history.

ability. The remaining six problems were items of remote medical history.

Whether the questionnaire was administered before or after the interview did not change the distribution of problems identified by each technique. Similarly, we detected no difference between the number of problems identified by interviews conducted by house officers and those conducted by staff internists.

Discussion

Since encounters with patients are limited by time, the doctor must decide what kind of interview strategy to use. The tendency in most medical interviews is to use a directed, question-and-answer approach,¹ possibly for fear that substantial numbers of health problems may be missed if the available time is devoted to an open-ended style. Our data show that open-ended interviews identified 74 per cent of clinically important health problems (Figure 1). The questionnaire also did well, identifying 86 per cent of problems. However, the additional 26 per cent detected only by the questionnaire were of minor importance or even controversial. Another drawback to the questionnaire is that a large fraction (over half) of responses to it were of no importance, since they led to no further action by the doctor; the questionnaire thus retains a great deal of chaff with the wheat, a point also made by Blois.¹⁵ On the other hand, problems detected only by open-ended interview were often quite important to the immediate care of the patient. In fact, several problems emerged only during the open-ended interview, despite the fact that the questionnaire included items specifically designed to detect such problems (answered negatively by the patient).

Our data suggest that an open-ended interview undertaken with the intention of identifying the patient's health problems¹³ detects those problems well. We suggest that doctors who want to take advantage of open-ended interviews may safely omit a lengthy series of routine questions regarding past medical history, social history and review of systems, perhaps incorporating a brief questionnaire during physical examination. We have shown that doctors can identify important health problems by using open-ended techniques; we further believe (although have not proven) that through this approach they can also understand the patient's own perception of his or her problems, reach what Balint calls the "deeper diagnosis"¹⁰ and forge the therapeutic bond which is the cornerstone of caring for the patient.¹²

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