

# Medical Education

## Consultation skills of young doctors:

### I—Benefits of feedback training in interviewing as students persist

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#### Abstract

Thirty six young doctors who as medical students had been randomly allocated to either video feedback training or conventional teaching in interviewing skills during a psychiatry clerkship were reassessed five years later. Each doctor interviewed one patient with a psychiatric illness and two with a physical illness. Each interview was rated independently. Both groups had improved since the fourth year clerkship, but those given feedback training had maintained their superiority in the skills associated with accurate diagnosis. This superiority was as evident in their interviews with physically ill patients as it was with psychiatric patients. Both groups, however, still used "closed" questions and were more reluctant to cover psychosocial problems in physically ill patients. Those trained conventionally were clinically inadequate in both these aspects and in clarifying their patients' statements.

Given these lasting benefits, all medical students should have feedback training in interviewing skills.

#### Introduction

The traditional apprenticeship method of training medical students to take histories often fails to teach them sufficient interviewing skills to enable them to obtain a full and accurate account of their patients' problems.<sup>1</sup> Most students, however, can acquire these skills through training, which includes four components: handouts dealing with the information to be obtained and the skills to be used; systematic practice with patients; feedback of performance by audio or videotape replay; and discussion with a tutor.<sup>2,3</sup>

Much feedback training has been done in departments of psychiatry, and only immediate benefits have been assessed. It remains to be shown that interviewing skills so acquired are maintained after qualification and used with all types of patients.<sup>4</sup> Special circumstances in the Manchester medical school allowed these two important questions to be studied. Experiments in feedback training had been carried out four to six years previously on a random sample of students during a fourth year psychiatric

clerkship, with some students being given feedback training and others being taught conventionally and serving as controls in the experiments. Both groups of doctors had had their interviewing skills assessed as students by videotape recording before and after their training, so both were equally accustomed to this method.

#### Methods

##### SAMPLES

All 186 doctors who had been given feedback training as students or served as controls and were still practising as house officers, registrars, or trainees in general practice in the Manchester area were contacted. We explained that we wished to reassess their interviewing skills and wanted them to attend the department of psychiatry to interview three patients and record their interviews on videotape. One hundred and forty eight (84%) provisionally agreed to participate, and a stratified sample of 36 doctors was obtained from this group using random numbers so that the 18 doctors who had had feedback training ("trained") and the 18 who had been control subjects ("controls") were closely matched for their interviewing skills before training and the time after training.

Patients suffering from a psychiatric (anxiety or depression), life threatening (angina or breast cancer), or chronic disabling illness (arthritis, asthma, emphysema) were recruited from the wards and outpatient clinics of Withington Hospital. As a further aim of the study was to compare doctors' performances with real and simulated patients, simulators were recruited through local advertisements. Potential simulators were interviewed and a panel selected for further training. All simulators were asked to choose which category of illness they felt most able to portray, and each was shown a relevant but anonymous case summary. They were given a week to think it through. They were then interviewed in a television studio to test the validity of their simulation, and these interviews were replayed and discussed. Further practice and discussion were arranged when needed until the portrayals were authentic.

##### INTERVIEWS

Each doctor was asked to obtain a history of the presenting problems from three patients and instructed that each interview should last 15 minutes or less. Each doctor saw two simulated patients and one real patient and covered each category of illness (psychiatric, life threatening, and chronic disabling illness). To avoid possible order effects the three categories of illness were equally divided among the first, second, and third interviews.

##### ASSESSMENT

All 108 videotapes were assessed by a trained psychologist (SF), who did not know which doctors had been given feedback training. She used an interview rating scale to assess how well doctors began and ended their interviews, used the main interviewing skills, and performed overall.<sup>2</sup>

In the section on beginning the interview 24 items of behaviour (contained

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in three subsections—namely, greeting and seating, self introduction, and orienting the patient) were assessed on a two point scale (0-1) according to whether each one (such as a doctor introducing himself) was present. In the section on ending the interview 10 items (in three subsections—namely summarising, checking accuracy, and concluding) were similarly assessed. The 11 main interviewing skills (see table I) were each assessed on a five point (0-4) scale—for example, a score of 0 on “responding to verbal clues to

videotapes were independently assessed by two of us (SF and PM) and the kappa coefficient used to determine variation between assessors.<sup>5</sup> Significant agreement ( $p < 0.01$ ) was obtained on all items in the main skills section and on the overall ratings. Complete agreement was obtained on the items in the sections on beginning and ending the interview. (Details of kappa coefficients, significance, and variation may be obtained from us. Generally, agreement was 90%.)

TABLE I—Comparison of main interview skills in trained and control doctors

Skills	Trained doctors		Control doctors		Ratio of trained to control scores	F value (df 1,34)	Significance
	Mean (SD) score	% Of maximum score	Mean (SD) score	% Of maximum score			
Clarification of patients' statements	2.78 (0.72)	70	1.63 (0.86)	41	1.71	50.60	$p < 0.001$
Using open questions	2.30 (0.86)	58	1.67 (0.64)	42	1.38	12.73	$p < 0.001$
Noticing verbal clues to patients' problems	2.83 (0.84)	71	2.11 (0.66)	53	1.34	12.73	$p < 0.001$
Inquiring about patients' psychosocial problems	2.32 (0.75)	58	1.81 (0.58)	45	1.28	13.90	$p < 0.001$
Preventing needless repetition	2.85 (0.49)	71	2.24 (0.64)	56	1.27	20.50	$p < 0.001$
Keeping patients to the point	2.96 (0.55)	74	2.35 (0.62)	59	1.26	29.62	$p < 0.001$
Verbal and visual encouragement	2.96 (0.47)	74	2.37 (0.62)	59	1.25	18.8	$p < 0.001$
Getting precise information	2.61 (0.63)	65	2.10 (0.70)	53	1.24	14.3	$p < 0.001$
Using brief questions	2.59 (0.58)	65	2.14 (0.51)	54	1.21	8.8	$p < 0.006$
Reducing use of jargon	2.80 (0.49)	70	2.33 (0.58)	58	1.20	13.9	$p < 0.001$
Avoiding use of jargon	2.61 (0.60)	65	2.40 (0.53)	60	1.09	3.40	$p = 0.74$
Total score	29.61	67	23.15	53	1.28		$p < 0.001$

patients' problems” given by the patients (such as, “I feel upset”) meant that the doctor failed to respond to any and 4 that he had responded to all of them. Overall ratings were also assessed on five point scales to indicate the degree of self assurance, warmth, empathy, and competence shown throughout each interview. When the assessor was uncertain which of two points on the scale was appropriate she tended to choose the lower one. A score of less than 50% of the possible maximum indicates clinical inadequacy in these skills; 70% is an acceptable score. Experienced teachers of interviewing in the department of psychiatry score 80-90% of the maximum.

#### RELIABILITY OF ASSESSMENT

Fifteen interviews were drawn at random from the 108 recorded during the study so that category of illness, trained and control groups, and stage of the study (early, middle, and late) were represented equally. These

#### STATISTICAL ANALYSIS

The effects of training and the category of illness on the scores for beginning and ending the interview were determined by analysis of variance, using the assessments of main skills and overall performance.

#### Results

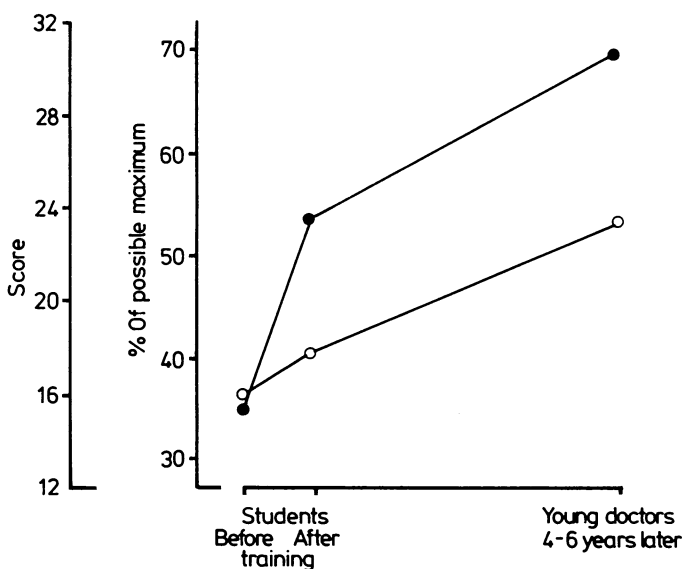
**Comparability of groups**—Before feedback training the trained and control groups obtained similarly low scores (means 15.6 and 15.8 respectively out of a possible maximum of 44) on the main interviewing skills. After feedback training the trained group achieved significantly better mean scores (23.6 (SD 5.5)) than the control group (17.8 (4.9)). The ratio of scores of the trained group to the control group rose from 0.99 to 1.32. The groups that were reassessed after a median of five years (range 4-6) had similar age and sex distributions.

**Main interviewing skills**—Both trained and control doctors had improved their scores considerably on the main interviewing skills (by 25% and 35% respectively) after feedback and conventional training (figure), but the trained group had maintained their advantage in the subsequent four to six years (Table I). The ratio of total scores of trained to untrained doctors was now only slightly less (1.28) than it had been immediately after training. The effect of training was most evident in clarifying patients' statements, using open questions (for example, “Do you have any digestive problems?” is an open question; “You don't have indigestion, do you?” is a closed question), and responding to verbal clues about patients' problems. The control group did as well as the trained group on only one skill—namely, avoiding the use of jargon. They failed to achieve reasonable scores (50% or more of maximum) on clarification, use of open questions, and covering psychosocial problems.

**Beginning and ending interviews**—Neither group scored well on the section on beginning interviews, which assessed how well they introduced themselves and explained the task in hand (trained group mean 9.7 (3.64) (40% of maximum), control group 7.4 (2.65) (31%)). Few doctors summarised what they had learnt from their patients, checked its accuracy, or made concluding statements—for example, “I'm sorry, but our time is up.” Consequently, they obtained only 9% of the maximum (trained 0.93 (1.48), control 0.93 (1.72)) on the section on ending interviews.

**Overall ratings of performances**—The trained group were considered to be more competent and empathic than the control doctors (table II). They were also perceived as somewhat warmer and more self assured.

**Category of illness**—Greater use of the main interviewing skills by trained doctors was as evident with patients presenting with physical illness as it was with psychiatric patients (table III). The benefits of training with psychiatric patients had therefore extended to other types of patient. These scores,



Comparison of mean scores for main interviewing skills obtained by medical students before and after training and while working as doctors four to six years later.

● = Doctors taught by video feedback. ○ = Doctors taught conventionally.

however, obscured an important finding: both trained and control groups covered psychosocial problems more fully with psychiatric patients (table IV) than in those with a physical illness.

*Type of patient*—When asked informally after their last interview the doctors all thought that they had been talking to real patients. When told that some were simulators they could not tell which these were: it was not surprising, therefore, to find no difference between the mean scores obtained with these two types of patients.

## Discussion

It might be argued that though we have shown that medical students given feedback training acquire and retain certain interviewing skills, these have no impact on diagnosis and management.

The only skills for which the trained doctors scored less than 60% of the maximum were the use of open questions and coverage of psychosocial problems. The control group also had lower scores on these skills, and their mean scores of less than 50% are too low for adequate history taking. The reluctance of these young doctors to ask patients with physical illness if it had led to anxiety and depression or adversely affected their job, personal relationships, or sex life mirrors that of interns and residents in the United States.<sup>13</sup> There are probably several causes.<sup>14</sup> If patients are asked how they feel about their illnesses they may express strong emotions like sorrow or resentment, which the doctor may find difficult to handle. Patients might also be prompted to ask about the nature and prognosis of their illnesses or complications of treatment. Few doctors have been trained to handle such reasonable but difficult

TABLE II—Comparison of overall performance of trained and control doctors

Skills	Trained doctors		Control doctors		Ratio of trained to control scores	F value (df 1,34)	Significance
	Mean (SD) score	% Of maximum score	Mean (SD) score	% Of maximum score			
Self assurance	2.9 (0.58)	72	2.5 (0.54)	63	1.16	6.9	p<0.013
Warmth	2.6 (0.65)	65	2.2 (0.64)	55	1.18	8.2	p<0.007
Empathy	2.8 (0.66)	70	2.0 (0.61)	50	1.40	27.2	p<0.001
Competence	2.8 (0.50)	70	1.9 (0.47)	48	1.50	68.9	p<0.001

TABLE III—Comparison of main interview skills according to category of illness

Category of illness	Trained doctors		Control doctors		Ratio of trained to control scores
	Mean (SD) score	% Of maximum score	Mean (SD) score	% Of maximum score	
Life threatening	29.55 (2.85)	67	23.00 (4.27)	52	1.28
Chronic disabling	29.49 (2.81)	67	22.77 (3.43)	52	1.30
Psychiatric	29.77 (5.42)	68	23.68 (3.10)	54	1.26

For effect of category of illness on main skills  $F=0.25$ ,  $p=0.78$ . For trained *v* untrained  $F=45.60$ ,  $p=0.001$ .

TABLE IV—Comparison of mean scores for inquiring about psychosocial problems

Type of illness	Trained doctors		Control doctors		Ratio of trained to control scores
	Mean (SD) score	% Of maximum score	Mean (SD) score	% Of maximum score	
Life threatening	2.17 (0.79)	54	1.56 (0.70)	39	1.39
Chronic disabling	2.17 (0.52)	54	1.78 (0.55)	45	1.22
Psychiatric	2.61 (0.85)	65	2.11 (0.32)	53	1.24

For nature of patient's problem  $F=6.45$ ,  $p=0.003$ ,  $df 1,34$ . For trained *v* control doctors  $F=13.94$ ,  $p=0.001$ ,  $df 1,34$ .

General practitioners, specialists, and ward nurses who use these skills, however, are much more likely to detect psychiatric morbidity than are those trained conventionally.<sup>6-8</sup> Although there is no direct evidence that accuracy of physical diagnosis is improved by using these skills, they do considerably increase the amount of accurate and relevant information obtained about patients' presenting problems, their aetiology, and their impact on patients and their families.<sup>9</sup> Thus applying them to patients who have organic disease must lead to more effective management. Moreover, surgical patients have been found to rate students who have acquired these skills as more empathic and understanding than those who lack them.<sup>10</sup>

Byrne and Long found no relation between age and interviewing skills among general practitioners and concluded that doctors become fixed in their style of interviewing soon after qualifying.<sup>11</sup> The benefits of feedback training should, therefore, persist throughout a doctor's professional life. While there has been one report that the effect of feedback training did not persist, this concerned pre-clinical rather than clinical students.<sup>12</sup>

questions. Some doctors are interested only in their patients' physical illnesses and do not want to become embroiled in emotional and social matters. This reluctance to explore how patients perceive their illnesses and have been affected by them has also been found among consultants and surgeons, who often overlook psychiatric morbidity in their patients.<sup>7, 14-17</sup>

The tendency of young doctors to use closed or leading questions may have been due to their reliance on completing routine checklists of symptoms that they had been instructed to cover when medical students. It may also reflect a false assumption that closed questions save time. Control doctors performed best on avoiding jargon and keeping patients to the point, both of which require mental toughness. These are of obvious relevance to doctors working under pressure and may have improved by necessity.

The poor performance of both trained and control groups in beginning and ending interviews is disappointing. Few doctors explained the purpose of the interview or the time available. They had questioned the value of this mode of beginning as students and still rejected it. Their failure to check that the information they had

obtained from patients was accurate and reflected key problems may have been due to their hurrying to complete their interviews within the allotted time.

The fact that the benefit of interview training with psychiatric patients extended to interviews with physically ill patients is encouraging and justifies the continuation of this training. It might be even more effective with both undergraduates and postgraduates if it were also given in other clinical departments, focused more on the weaker areas of performance, included practice with physically ill patients, and promoted discussion of the reasons for the reluctance to cover psychosocial problems and how to handle strong emotions and difficult questions.<sup>6 17 18</sup>

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## II—Most young doctors are bad at giving information

### Abstract

Forty young doctors, half of whom had had feedback training in interviewing as students, were assessed five years later. Each interviewed three patients and after being given results of examination, investigations, and diagnosis and prognosis returned to discuss them with each patient for 10 minutes. These discussions were filmed on videotape and evaluated. There was no difference between the scores of interview trained and control doctors. Though most gave simple information on diagnosis and treatment, few mentioned investigations, aetiology, or prognosis. Very few obtained and took any account of patients' views or expectations of these matters. Some young doctors do discover for themselves how best to give patients information and advice, but most remain extremely incompetent. This is presumably because they get no training as students in this important aspect of clinical practice. This deficiency should be corrected, and competence tested before qualification to practise.

### Introduction

Teaching students in British medical schools about doctor-patient communication was until recently limited to history taking. Then interest broadened to teaching interviewing skills, emphasising the value of listening and responding as well as asking the right questions.<sup>1</sup> Despite the effectiveness of this teaching, it has seldom extended to teaching students how to handle the second part of a consultation, when a doctor explains and discusses his findings and his plans for investigation and treatment. Sir Ronald Bodley Scott commented on this omission 20 years ago when he stated that "this transaction is the doctor's quintessential function for it is a necessary preliminary to any treatment," and he observed, "We seldom discuss it with our students and never instruct them in its management."<sup>2</sup>

A study of the interviewing skills of recently qualified doctors gave us an opportunity to determine how skilled they had become in discussing their conclusions with patients, despite their lack of appropriate, formal training when they were students at Manchester Medical School.

### Methods

We have already described how we obtained our sample of doctors and real and simulated patients. As we no longer needed to balance the design by type of problem, order of interview, and type of patient, we included four more doctors to increase the sample to 40, comprising 20 who had been given feedback training in interviewing as medical students and 20 who acted as controls.

Each doctor conducted three 15 minute interviews. A patient with a different illness (psychiatric, life threatening, or chronic disability) was seen on each occasion, and the doctor's first task was to determine the presenting problems. When this had been done the doctor was called out and given details of the results of physical examination and relevant investigations and was told the diagnosis. He was also given a treatment plan and a prognosis and asked to assimilate this information for five minutes. He then returned to the patient for 10 minutes to explain and discuss his findings, the diagnosis, and the proposed treatment. He was also told to mention the prognosis in appropriate terms. These discussions were recorded on videotape for later rating.

### ASSESSMENT

Besides rating how well information was given to the patient the assessment was also based on the concept advanced by Tuckett *et al* and Pendleton *et al* that the doctor should tailor what he says about his findings and intentions according to the patient's own view of what is wrong and what treatment he expects and should also check that his diagnosis and advice have been accepted by the patient and understood.<sup>3 4</sup>

A rating scale was designed (see appendix) in which the handling of the main topics listed in table I was scored on a series of three point scales (where 0=no attempt, 1=moderate attempt, 2=good attempt) to indicate how well the doctor had handled and explained the topic. Moreover, two further three point scales assessed exploration of the patient's views and negotiation on an agreed conclusion in the light of these views. The first topic that the doctor mentioned was noted, and interviews were also rated on the extent to which the doctor used the methods thought by Ley to improve recollection of and compliance with advice and medication.<sup>5</sup>

### Results

*First topic mentioned*—Over half the discussions (64, 54%) began with an explanation of the test results. Some began with an explanation of the