

Teaching students of medicine to listen: the missed diagnosis from a hidden agenda

Samuel Menahem MD FRACP *Department of Paediatrics, University of Melbourne, Royal Children's Hospital, Melbourne, Australia*

Keywords: hidden agenda, undergraduate education, listening

Summary

This paper describes the ability of 4 senior students to recognize and deal therapeutically with the hidden agenda of patients – the covert concerns or second diagnosis other than the presenting problem. This naturalistic study was hospital-based and used ambulatory patients with common paediatric problems. The patient encounter was videotaped and subsequently analysed to determine the patient's hidden agenda. The findings indicated that the students had some difficulty in correctly diagnosing the patient's presenting problem or primary diagnosis. They also failed to recognize and deal with their patients'/parents' hidden agendas. The relevance of these findings to patients care is discussed.

Introduction

Engel¹ observed that clinical teachers 'often exemplify ideals of knowledge and performance without giving equal consideration to the understanding of patients as people'. Many authors²⁻⁷ have emphasized the importance of interviewing skills to elicit accurate and relevant information, to empathize with the patient and to facilitate expression of feelings. Helfer⁸ observed that as 'medical students move through their training a certain degree of their innate ability to communicate with mothers of ill children seems to have been altered by their desire to obtain factual knowledge', a finding corroborated by others⁹.

Yudkin¹⁰ drew attention to the 'not so obvious' second diagnosis which asked, 'Why is the patient consulting you now?' He observed that mothers are dissatisfied when the second diagnosis is ignored. He emphasized that 'Even when the ordinary traditional diagnosis is clinically important, it may be necessary to deal with the second diagnosis before a patient can be helped to deal with the clinical problem'. Korsch *et al.*¹¹ reviewed patient satisfaction in a walk-in paediatric clinic. They found that patients were most satisfied if they were listened to, particularly if their expectations or main worry received attention. They found that, 'If the doctor failed repeatedly to heed her [mother's statement of some basic worry], she may cease to try ... [and] becomes completely mute ... things said and done by the doctor after this critical point may not be perceived by the mother'. They encouraged the doctor to pay 'attention to the patient's own ideas about the illness ... and [provide] relief to feelings of self blame'. They observed that 'the longest sessions were consumed largely by failures in communication'. Raimbault *et al.*¹² analysed taped interviews of endocrinologists seeing patients with Turner's syndrome. The case vignettes drew attention to how the doctors interrupted or did not listen to

the patients' concerns. One example was a doctor who 'disregards her mother's unscientific reply that her daughter's Turner's syndrome was due to ketones during the pregnancy and imposes the scientific version that it was a chromosomal abnormality'. I previously described the 'non-presenting symptom' as the problem the physician sees in his patients which differs from what the patient or parent presents with¹³. I argued that 'by not raising issues which are readily apparent in an interview setting and which the child himself may readily manifest, the physician implies acceptance and approval of a sub-optimal state of health or behaviour, reinforcing parental opinion and/or behaviour'. The verbalization of such observations enables the parent to express hidden concerns which might then be dealt with therapeutically.

The present study explored the following questions:

- (1) Do senior students have the ability to recognize the 'hidden agenda', those covert concerns which the patients/parents may or may not be fully aware of but have difficulty in expressing to their physician?
- (2) Can a videotape recording of the student-patient encounter be used to identify the hidden agenda of the patient as verified by objective observations of faculty?
- (3) Can such a videotape be used as an effective feedback teaching tool to improve the student's ability to identify and treat the patient's hidden agenda?

Although recognizing that interviewing skills are particularly relevant to the questions asked, such skills were only assessed insofar as they affected the student's ability to understand his patient.

Methods

Students were recorded on videotape as they interviewed a child and his parents who were presenting for the first time to the Consultant Outpatient Department of a large paediatric teaching hospital. Patients selected were aged over 2 years, and had been referred for common problems such as asthma, enuresis, etc. Informed consent was obtained from each child's parents. The recording was made in a standard consulting room, two cameras being connected to an outside recorder and monitor. Details of the video and sound recordings were excellent¹⁴. Only the student, parents and child were present in the consulting room, allowing free expression between patient/parent and interviewer, who soon became unaware of the cameras.

Four students agreed to participate. They were in their fifth penultimate year, having completed 18 months of clinical teaching in adult medicine, surgery and obstetrics. They were recorded at the commencement and at the end of their paediatric term. An initial

Table 1. Summary of patient observations

Students	Patient/age	Presenting problem	Final diagnosis	Additional diagnoses and family dimension	Investigations sought by subject
<i>Week 2/3</i>					
SA	Mary/33 mth	Pains in stomach	Problems in toilet training●	Single parent family■; frequent temper tantrums■; older encopretic sibling■	IVP, MCU
SB	Naomi/11 yr	Tummy pains	Conversion psychosomatic disorder●	Depressed mother■; autocratic father■	FBE, thyroid function studies
SC	Darren/6 yr	Turns	Epilepsy●	—	—
SD	David/9 yr	Very slow child	Mild mental retardation	Rejecting father; obesity■	—
<i>Week 9/10</i>					
SA	Nellie/7 yr	Asthma	Asthma, eczema	Hay fever■	—
SB	Theresa/22 mth	Big head	Familial large head●	Breath-holding attacks■	Skull X-ray, CAT scan, dye studies scan
SC	Dennis/30 mth	Cough	Asthma●	—	Sweat test, chest X-ray, FBE, immune function
SD	Tom/9 yr	Bed-wetting	Primary enuresis	Family dysfunction■; immature anxious boy■	Urine micro and culture

●Diagnosis not made by student; ■Additional or non-presenting diagnoses not made by student

pilot recording was made of a volunteer student. Each student was allowed to review his tape and was taken through a stimulated recall¹⁵ by the investigator, highlighting those aspects of the patient encounter which might have led to a more complete diagnosis and facilitated a better outcome.

The investigator also interviewed the child and his parents and examined the child after each student had completed his consultation. This information, together with a careful review of each videorecording and the transcripts allowed the investigator to decide on each patient's final diagnosis and on any additional (non-presenting symptoms) diagnoses that needed to be considered. These findings were compared with those recorded by each student. In addition, the investigator reviewed each videorecording and studied the transcripts of the patient encounter to determine what the patient/parent's hidden agenda were as defined above. Relevant excerpts from the transcripts together with the student responses were selected and tabulated. These excerpts were reviewed by an independent observer who together with the investigator made a final decision on what the patient's hidden agenda was. A comparison was made of the student's performance at the start and at the end of his paediatric term. Students were not informed before the patient encounter that they were to be assessed in their ability to recognize and deal therapeutically with the patient's hidden agenda. This decision was taken so as not to change their approach to the patient and to see if this approach altered after the initial feedback session with the investigator.

Results

Table 1 summarizes the patient observations. Despite the children having common problems, only three correct primary diagnoses were made by the students though a further two were close to the correct answer. The initial pilot run with a volunteer student showed that by using the above method the patient's hidden agenda was relatively easy to determine,

albeit retrospectively. The following four brief examples illustrate the findings (full transcripts are available from the author)¹⁶:

'David', a mildly retarded boy, was referred from a country town. The student obtained a good history of David's current functioning and appropriate placement, his past poor developmental history and correctly diagnosed that he was mildly retarded. However, mother kept repeating, 'The point is that my husband won't accept that David is different from other children. My husband is very set that David is the same as other children, but you have got to accept David the way he is and try to work on it.' Later on mother said, 'I was just wondering if there could be anything wrong with his glands? I took him to Adelaide, and they could not find anything wrong with him.' Later, mother returned to her theme. 'What causes these types of things? I mean that this is often what gets me that there is no physical reason why it should be. As I say there are lots of things that happen that shouldn't be. I often wonder what causes these things - are children different?' The student answered, 'That's right, I think it is just a normal range of children and David happens to be just below par.' Mother seemed to accept the answer given. She replied, 'Yes, well that's it, he is. I accept that [meaning his retardation], but my husband will not accept it.' The student failed to recognize mother's own difficulty in accepting David's handicap, born after an unplanned pregnancy and a 16-year gap, mother then aged 41 years. Her own guilt was fostered by the request that she should have a chromosome study done because of her age. She reacted by becoming extremely overprotective of David. She was still hoping that a visit to the Royal Children's Hospital would answer and explain it all, removing her blame and even making David 'the same as other children'. It was her husband, she said, that demanded this: 'He won't accept it.' But what about mother?

'Mary', aged 33 months, presented with 'pain in her stomach - she starts to dry retch and sometimes her temperature shoots up'. Later on in the interview, mother volunteered, 'My mother, my auntie and most of the females have a lot of kidney problems. My sister lost a baby because she died because she had problems with her kidneys, that's all.' The student responded: 'No hypertension or diabetes?' Thus the opportunity was missed to explore, understand and relieve mother's main concern as to whether Mary also had kidney

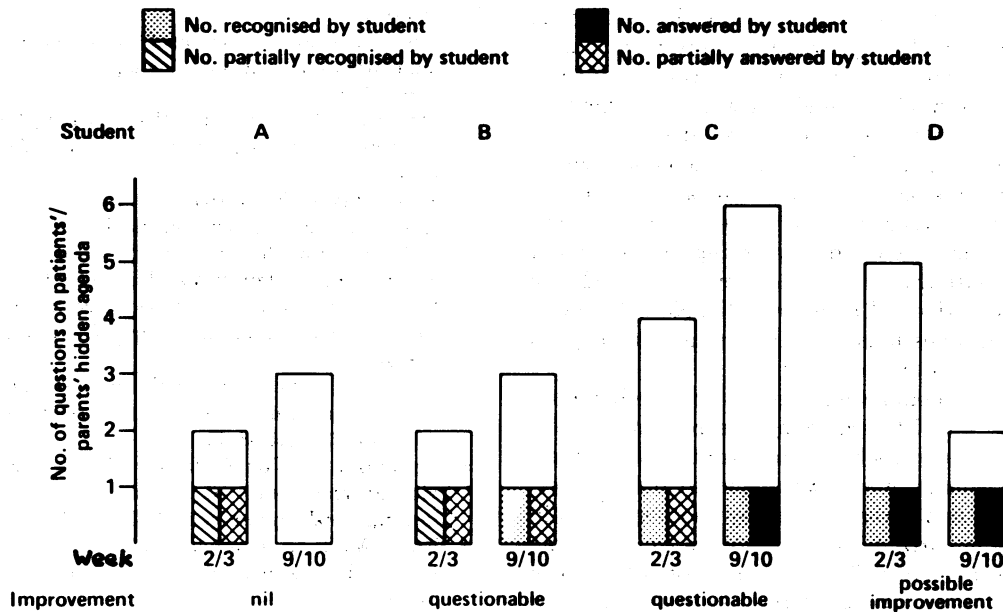


Figure 1. Student's performance in recognizing and responding to parents' hidden agenda at start and end of paediatric term

problems – a concern so great that it led her to bring Mary back to the hospital. She had refused to return there after previously being seen by a psychiatrist who had tried to help her with the care of her grossly disturbed elder son. It was only when this additional information was obtained by the investigator that the difficulties mother was experiencing with Mary became understandable.

'Darren' presented with convulsions associated with a fever. The student diagnosed a febrile convulsion on the basis of the history and the normal examination. But did the student hear mother's additional concerns? She said, 'I came to this hospital because I have had epilepsy myself. Then when I was pregnant with Darren the doctor at the hospital told me that because of their research on women with epilepsy, they would check Darren to see if he is alright. Is he?' Father butted in and said, 'No, it wasn't checking for the epilepsy. That was to check if the pills you were taking for the epilepsy had any effect on him.' Mother replied, 'Oh yes, that's right.' The student correctly took up the cue and asked, 'So you did have epilepsy did you?' Mother replied, 'Yes and I am still on tablets.' 'When did you develop it?' asked the student. 'Well my mother said I was three.' As with other patients, when important questions were not answered initially, they returned repeatedly to the same theme. Mother asked again, 'What do you think happened to Darren?' To which the student replied, 'I don't really know.' Mother continued: 'Do you know that people say that sometimes children have convulsions with temperature and infection.' Mother had already been told by previous doctors and the present student that the child had a febrile convulsion. However, no one had yet answered her questions. Had she given her son epilepsy or was it the tablets she was on during the pregnancy that had caused it? Was he going to be like her and have epilepsy from early childhood to adult life or could it be just 'children have convulsions with temperature and infections'.

'Naomi', aged 9 years, presented with recurrent abdominal pain and being unwell. Mother said to the student, 'Well I am sort of a bit worried, that is why I came here – I wanted to exhaust all possibilities then I could cope with it, if it is nothing physical.' This was not followed up by the student. Subsequently, when mother was encouraged by the investigator she continued: 'I want to know if she is really sick. I am not being morbid about it and thinking really bad things.' When asked to explain, she replied, 'Oh well, cancer or something like that.' Mother was then able to tearfully reveal the death of her mother three years before. She had died of cancer! Her grief was still acute.

Further similar examples could be given. Suffice to say that in all cases once the interview was explored and the many cues given either by mother or child were noted, the issues that were troubling the parent became clear. Yet these cues were missed by the students, thus substantially decreasing the therapeutic effectiveness of the interview even when the correct diagnosis had been made and the appropriate treatment prescribed.

Figure 1 summarizes the performance of the students at the start and at the end of their 10-week paediatric term. Little improvement was noted in the students' ability to recognize and deal with the hidden agenda of the patient.

Discussion

The study was a naturalistic one where actual patients were seen. Videorecording of interviews have been found to interfere little with the information obtained^{7,17,18}. Previous reports¹⁹ have described students' difficulties with information-gathering skills and their ability to arrive at a primary diagnosis²⁰, the actual time spent with the patient not being a significant factor. These difficulties may have contributed to our students not arriving at a correct primary diagnosis and not carrying out the additional task of determining and dealing with the patient's hidden agenda.

In clinical practice the experienced clinician decides on the hidden agenda as the interview progresses and before its completion. In this study, the hidden agenda was determined by the investigator while monitoring the interview, supplemented subsequently by the various methods described earlier. The study design would of necessity introduce a retrospective bias²¹. A further assumption made was that all patients had a hidden agenda, an assumption which may not necessarily be correct, as evidenced by the patient 'Teresa': it was unclear what her mother's hidden agenda was. Finally, the students were not given prior warning to seek out the patient's hidden agenda, though the importance of this was highlighted after a review of the student's first interview.

The students had difficulty in recognizing the hidden agenda. Previous reports^{10,12,22,23} have

referred to the difficulties encountered in seeking out the hidden agenda even when the interview is conducted by an experienced clinician. Having failed to recognize the hidden agenda, it was not surprising that the students made little or no attempt to deal with these issues (see Figure 1). Little improvement in the student's performance in this area was noted over their 10-week paediatric term, there being apparently no benefit from reviewing the individual videotape with the clinical instructor. The tendency of parents to 'give-up', as described by Korsch *et al.*¹¹, when their questions remained unanswered, was readily observed in this study.

That the students were eager to acquire listening skills was well illustrated by the response of the respective students when taken through their interviews. As each interview was explored and the cues, verbal and non-verbal, given by mother or child noted, the important issues that were troubling the parent became clear. The students began to realize that there were aspects of the interview which at times had a greater bearing on the outcome than simply being able to make a diagnosis and prescribe the appropriate treatment²⁴. It is important, as Yudkin¹⁰ has emphasized, that this second diagnosis be taught early. Once the student acquires adequate listening skills, they will hopefully remain with him throughout his professional life. Where these skills are inadequately learned, the diagnosis may remain incomplete and imperfect, whatever knowledge the clinician may have. It would also appear that, to have a lasting impact, such input is necessary throughout the undergraduate and postgraduate course. Little improvement was observed in the students' performance on their second attempt, even though the issues were fully discussed when reviewing the videotape of the first patient interview.

Most of the patients included in the study were considered to have a hidden agenda which was relatively easily determined. Nevertheless, senior students had great difficulty in recognizing their patients' hidden agendas, let alone dealing with them. It was difficult enough for them to correctly arrive at the diagnosis of the presenting problem and the primary diagnosis. The additional task of looking for and dealing with the patients' and/or their parents' hidden concerns remained beyond their ability. Whilst the objective observation of teaching staff of the videotape recording of the patient encounter was considered to be a valid tool to recognize the hidden agenda of patients, the students' lack of improvement would suggest that a considerable and continued effort is required if there is to be an effective change in students' appreciation of patients' hidden agendas.

Finally, it is helpful to record one student's reflections after completing the study: 'I was trying to make a diagnosis but not concentrating on the *whole* problem before me. This uncovered a few other difficulties (that I have not been aware of before), for example, *not* really listening, asking or trying to ask the correct questions - but *not* listening to the answers - *not* concentrating on the significance thereof... and sometimes just *not* listening at all!'

Acknowledgment: Emeritus Professor Wallace Ironside, former Chairman of the Department of Psychological Medicine, Monash University, critically commented on the study design and reviewed the transcript excerpts.

References

- Engel GL. Care and feeding of the medical student: the foundation for professional competence. *JAMA* 1971; 215:1135-41
- Maguire GP, Rutter DR. History-taking for medical students. I-Deficiencies and performance. *Lancet* 1976; ii:556-8
- Sanson-Fisher R, Fairbairn S, Maguire P. Teaching skills in communication to medical students - A critical review of the methodology. *Med Educ* 1981;15:33-7
- Stillman PL, Fulginiti VA, Rousseau E, Sabers DL. Results of a survey of paediatric clerkship programs in American medical schools. *Am J Dis Child* 1981;135: 348-51
- Kent GG, Clarke P, Dalrymple-Smith D. The patient is the expert: a technique for teaching interviewing skills. *Med Educ* 1981;15:38-42
- Hopkinson K, Cox A, Rutter M. Psychiatric interviewing techniques. III Naturalistic study: eliciting feelings. *Br J Psychiatry* 1981;138:405-15
- Rutter M, Cox A. Psychiatric interviewing techniques: I methods and measures. *Br J Psychiatry* 1981;138: 273-82
- Helfer RE. An objective comparison of the paediatric interviewing skills of freshman and senior medical students. *Paediatrics* 1970;45:623-7
- Sanson-Fisher R, Maguire P. Should skills in communicating with patients be taught in medical schools? *Lancet* 1980;ii:523-6
- Yudkin S. Six children with coughs. The second diagnosis. *Lancet* 1961;ii:561-3
- Korsch BM, Ethel K, Gozzi PHN, Francis V. Gaps in doctor-patient communication. I Doctor-patient interaction and patient satisfaction. *Paediatrics* 1968;42: 855-71
- Raimbault G, Cachin O, Limal JM, Eliacheff C, Rappaport R. Aspects of communication between patients and doctors: an analysis of the discourse in medical interviews. *Paediatrics* 1975;55:401-5
- Menahem S. Therapeutic concern for the 'non-presenting' symptom in paediatric practice. *Child Psychiatry Hum Dev* 1983;14:87-96
- Menahem S, Julian JC, Skoroplak A, Driver SC. Video recording in paediatric medicine - technique and educational benefits. *J Audiovis Media Med* 1984;7:124-6
- Elstein AS, Shulman LS, Sprafka SA. *Medical problem solving: an analysis of clinical reasoning*. Cambridge, Mass: Harvard University Press, 1978
- Menahem S. The missed diagnosis - an analysis of the student's recognition of the hidden agenda in paediatric medicine. Master's Thesis in Psychological Medicine, Monash University, 1984 (unpublished)
- Meadows R, Hewitt C. Teaching communication skills with the help of actresses and video tape stimulation. *Br J Med Educ* 1972;6:317-22
- Barrows HS, Tamblyn TM. *Problem based learning: an approach to medical education*. New York: Springer, 1980
- Menahem S. Interviewing and examination skills in paediatric medicine: videotape analysis of student and consultant performance. *J R Soc Med* 1987;80: 138-42
- Menahem S, Driver SC, Julian J. Problem solving in paediatric medicine. *AMZAME Bull* 1983; July: 29-32
- Kassirer JP, Kuipers BJ, Gorry GA. Toward a theory of clinical expertise. *Am J Med* 1982;73:251-9
- Bouvier R. Handling patient's problems. The second diagnosis. *Patient Management* 1981;5:51-3
- Apley J, MacKeith R, Meadow R. *The child and his symptoms: a comprehensive approach*. 3rd ed. Oxford: Blackwell, 1978
- Farsad P, Galliguez P, Chamberlin R, Rochmann KJ. Teaching interviewing skills to paediatric house officers. *Paediatrics* 1978;61:384-8

(Accepted 22 July 1986)