Teaching with audiovisual recordings of consultations

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SUMMARY. The experience gained from two years' teaching with audiovisual recordings of consultations of both undergraduates and postgraduates is presented. Some basic teaching rules are suggested and further applications of the technique are discussed.

Introduction

THE consultation is central to the practice of medicine because everything else that happens derives from it. Our ability to teach the art and science of the consultation will depend on our willingness to understand what happens when patient and doctor meet (Royal College of General Practitioners, 1972). Equipment is available which is easily portable (Figure 1), to encourage analysis of the consultation, and to understand how information is gathered, how well we understand our patients, our problem-solving pathways, and how we impart information. Recent advances in audiovisual technology, and a considerable cost reduction, have made it practicable for general practitioners to possess their own equipment, to have it available through a postgraduate centre, or to use it as a mobile facility (Cassatta *et al.*, 1976; Taylor, 1977; Verby *et al.*, 1979a). Thus, for the first time, the scene is set for teaching and learning situations to be provided in which both verbal and non-verbal information is available.

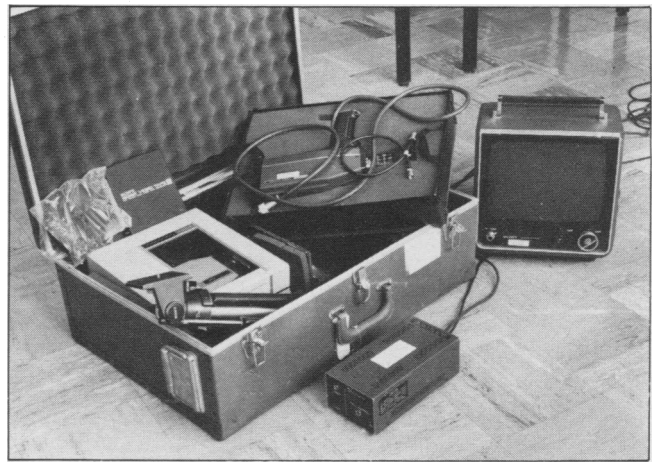
In the past, feedback of information about clinical or administrative activities to medical workers in primary care has been achieved by a variety of indirect methods, some of which we have described elsewhere (Stott and Davis, 1975). We also have results which suggest that audiovisual feedback in experimental groups of trainers in general practice can lead to modification of consulting behaviour, as measured by a specially designed rating scale (Verby *et al.*, 1979b).

Aim

We wished to discover the answers to three important questions which are often asked by doctors involved in videotaping consultations:

1. Is videotaping of the consultation acceptable to patients and their doctors?
2. Is a videotape a fair representation of the doctor's work, and of the particular consultation?
3. What methods are most appropriate for making use of videotaped recordings of consultations in different teaching/learning situations?

Figure 1. *Television apparatus and fitted case for transportation to general practitioners' consulting rooms.*



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Method

We report two years' general experience with videotape consultations of 36 doctors, both undergraduates and postgraduates, taking part in training programmes or peer review exercises. The sources of videotaped material and responses, were as follows:

1. Regular recordings of the consultations of final-year medical students in primary medical care, which were then used as a basis for group discussion.

2. Regular recordings of the consultations of doctors working in the Academic Department of General Practice to provide feedback for weekly peer review sessions.

3. Recordings of registrars (vocational trainees) in the teaching practice, which were normally reviewed on a one-to-one basis with a trainer and sometimes in small groups.

4. Recordings of registrars (vocational trainees) in other practices, who took part in the experiment conducted by Verby and colleagues (1980).

5. Recordings of the consultations of principals in general practice who took part in the experiment conducted by Verby and colleagues (1979b).

6. An edited recording of extracts from a number of consultations used as a basis for seminar teaching of interviewing skills for first-year clinical medical students.

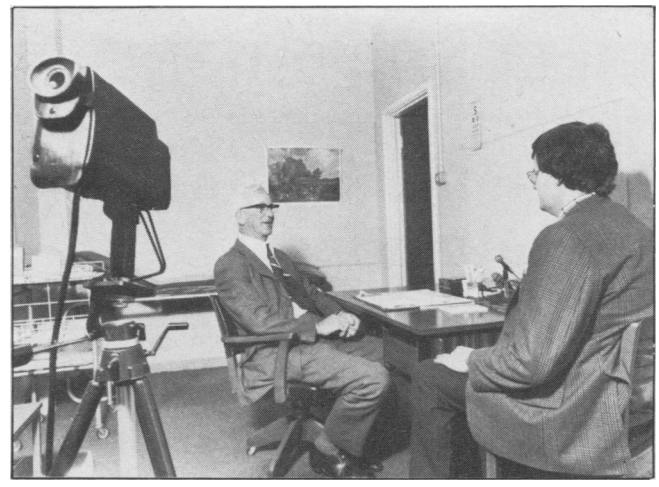


Figure 2. *Television camera arranged in a corner of the consulting room.*

Table 1. The attitude of doctors before and after recording a consultation on videotape.

	Before first recording	After recording
Happy to agree	15	34
Apprehensive	22	7
Had grave doubts	4	0
Total	41	41

Results

Each of the questions posed reflects some fear in the doctor or student about his or her ability to cope with the teaching/learning situation based on a personal consultation, and also a justifiable anxiety that the method may be a poor reflection of the clinician's 'real ability'. These fears are not wholly unfounded and they were felt by all the doctors involved in our experimental work.

1. Is videotaping of the primary care consultation acceptable to patients and their doctors?

Very few patients objected to the use of audiovisual recording equipment in the consulting room and it was remarkable to see how quickly patients forgot the presence of a camera, which is relatively unobtrusive and can be set up in most doctors' consulting rooms (Figure 2). Doctors understandably found the experience more threatening and most told us that they had remained conscious of the camera throughout the consultation. Nevertheless, doctors seemed to change their attitudes after being recorded on one or two occasions. This is demonstrated by the results of a questionnaire which we applied both before the recordings and after they had been discussed (Table 1). Before the first recording a third of doctors were perfectly happy to be recorded but several of these had had previous experience with simulated patients. More than half the doctors were apprehensive and four were brave enough to express grave doubts about the value of the procedure, or whether it would be representative. After being recorded, no doctors had remaining grave doubts and over 88 per cent had changed to being quite happy about the procedure. We conclude that the doctors' fears were largely of the unknown and quite quickly dispelled by familiarity with the new technique.

The patients all provided written consent before making the recordings and they were told that the recordings might be used for teaching purposes, but would be accorded the degree of confidentiality given to a medical record. They were also told that at any time they might ask for the recording to be stopped, or for it to be erased. No patient took advantage of the latter offer and most of those involved seemed perfectly happy with the technique.

2. Is the recording of a few consultations a fair representation of a doctor's work and of the consultation?

Audiovisual recordings are only one means of providing feedback to clinicians and they cannot be claimed to be representative of the doctor's work any more than any

other single method of review. Nor can a single recording reveal what may have happened before, which may have influenced the conduct of a consultation. Nevertheless, doctors find the recordings fascinating and challenging because a very stimulating teaching and learning situation is created by the objective material presented. We found that the doctors felt that their tapes had been misunderstood only if the teaching, or peer review session, had been allowed to become unduly critical or destructive. There is little doubt that the doctor whose tape is being viewed stands to learn most from the session. Nevertheless, this was not realized unless the seminar leader followed certain ground rules, especially during the first two or three exposures to this new situation. The guidelines we evolved for the seminars are outlined below.

3. What methods are appropriate for making use of videotaped recordings of consultations in different teaching/learning situations?

Initially, some doctors feel apprehensive at the prospect of others reviewing videotaped recordings of their consultations, although medical students appear to feel less threatened by this technique than more senior clinicians. Therefore, our first rule is to encourage newcomers to the technique to view their own tapes alone before being exposed to comment from others. This process of self-review encourages rapid acceptance of the technique and a willingness to be exposed to review by others.

However, in both the one-to-one learning situation and in a group it is only too easy for the inexperienced teacher, or for the group, to concentrate on negative aspects of the consultation rather than re-inforcing positive points. For this reason, our second rule is that any teacher or group leader using the technique must first have the experience of having his own consultations recorded and reviewed by others. Such an experience will inevitably sensitize the teacher, or group leader, to the importance of avoiding a negative approach.

Any videotaped consultation represents a brief excerpt from the continuing relationship between doctor and patient in primary medical care. Hence, what may appear to be an omission from the consulting process may have occurred in a previous consultation. Our third rule is therefore to concentrate on what is present in the recording, rather than what is absent, or perceived to be absent. For example, comments such as "I would have asked . . ." are much less helpful than attempts to clarify the reasons for comments made by the consulting doctor.

The doctor whose tape is being reviewed may often spontaneously identify his own faults, or give further information as to why he adopted a particular course of questioning, and so our fourth rule is to let the consulting doctor initiate the discussion.

The fifth rule concerns the particular problems of groups using videotaped consultation material and is that different seminar groups have different needs. This may be a somewhat trite statement to the educationalist, but our experience is that it is practised more in the breach than in the observance. The procedures we have found useful to adopt (we would not wish to sanctify them by calling them rules) follow from the different behaviour of different kinds of groups. We discuss here two types, the stable group and the 'ad hoc' group.

Stable and ad hoc groups

The ad hoc group meets on very few occasions to examine recordings of their consultations, whereas the stable group will meet on a regular basis over a longer period and thereby begin to pass through four recognizable phases of group development, which have been called 'forming', 'norming', 'storming' and 'performing'. It is unfortunate that many stable groups lose their cohesion and disintegrate after phase two because they have enjoyed the excitement of starting something new ('forming'), start to feel comfortable with one another and interested in the group ('norming') and then begin to encounter some of the difficulties which inevitably occur when a group of individuals starts to dig deeper in their feelings about the consultation events. Michael Balint recognized the dangers of this phase in his own work with family doctors and there seems little doubt that his leadership contributed to holding the early groups together through the 'storming' and into the phase of 'performing', which is an exciting and demanding phase.

Anybody who enters a stable group to work with consultation material needs to be aware of the four phases of group development. It is, of course, possible that the development of the group will stop at stage two and yet the group may continue to work very constructively and educationally for many months, while avoiding progress to stage three. This should not be seen as failure because even the first two stages can be immensely rewarding and stimulating in their impact on the participant. However, it may well be desirable to decide a mutually acceptable terminating date for the group as soon as it becomes clear that progress to stage three will not be achieved, rather than allow the group slowly to break up. Groups which proceed through all four phases may have progressively lessening needs for leadership because the group is likely to become mutually supportive and creative. It is doubtful, however, whether trainees can successfully be introduced into an existing group which may have progressed to a stage which could inhibit a new entrant.

The ad hoc group meets once, or on very few occasions, and needs an experienced leader to define aims for the group and to maintain really firm control of the discussion. The members are usually less inclined to support one another and tend to become over-critical or, alternatively, over-defensive. In our experience, it is

better not to show a videorecording of a member of the group and at the first meeting it is probably better for the group to see the whole of a consultation without interruption before discussion begins. This enables the ad hoc group to feel that they have a grasp of all that has happened in the consultation before they start looking at its component parts. New patients and new episodes of illness are much more suitable for the ad hoc group, whereas the additional complexities involved in continuing care are more appropriate for stable groups.

Undergraduates frequently remain in the same teaching group for several weeks or months and it is not unusual for them to start to become a stable group. We have found that it is possible to record their consultations and replay them to the group without many of the problems we encountered in the ad hoc postgraduate group.

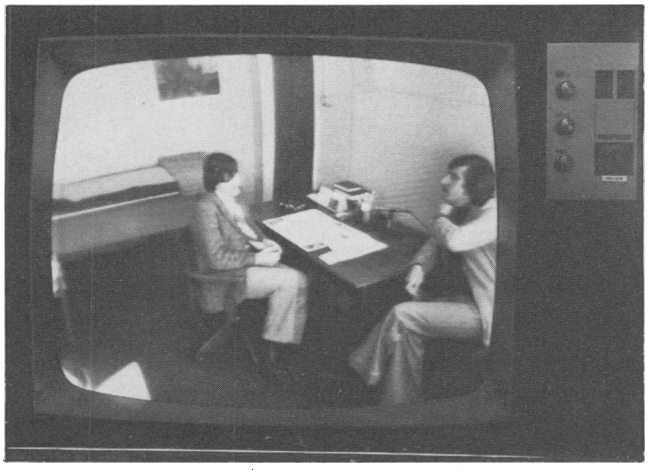
Discussion

We believe that adherence to the simple rules that we have evolved from our experience with this exciting new teaching technology is important to the wider acceptance and use of the method because there are interactions between interview style and a doctor's personality (Marks *et al.*, 1979). Now that we have demonstrated that videotaping consultations is acceptable both to doctors and patients, we have begun to explore some of the applications of this technique in teaching, service, and research. Although the taped consultation may be only a fragment of the continuing doctor/patient relationship, it can generate more discussion than any other review technique. However, apart from its use as a tool for review, as discussed above, there are other important potential uses.

For example, we have begun to use the technique as an aid to the management and assessment of individual patients. We have found that doctors may discover, when they see a recording, that they have completely missed, or failed to appreciate, the significance of part of the history, or even examination, which can usually be observed using a wide angle lens (Figure 3). This tends to happen more often with those patients who consult frequently, or whose name, or bulky notes, makes the doctor's heart sink. Often the peer group may provide invaluable support to the doctor struggling to manage the difficult or 'hateful' patient (Groves, 1978) by suggesting new strategies or encouraging a particular course of action. It is possible, in the future, that we may also be able to use videotape feedback to patients, in an attempt to modify their behaviour (Griffiths, 1974). This may be of use in managing some difficult problems, such as the manipulative patient.

Lastly, in addition to aiding a trainer in the assessment of his trainee, videotape recordings of consultations could be a valuable adjunct in more formal assessments of a doctor's competence. The problem of arranging a suitable clinical examination in primary care has so far defied the efforts of the bodies that have considered it. A videotape recording taken in the candidate's own consulting room could form the basis for an oral examination.

Figure 3. *Reproduction from the television monitor of picture obtained by the camera and wide-angle lens.*



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Addendum

Copies are available on request from Professor R. H. Davis and Dr S. A. Smail of the edited recording of extracts from consultations used for teaching first-year clinical students.

Dr Stott is now Professor of Primary Care at the University of Southampton.