Combining qualitative interviews with video-recorded consultations: gaining insight into GPs’ decision-making

Tim Coleman and Elizabeth Murphy


**Background.** Studies of GPs’ decision-making are important for facilitating our understanding of GPs’ consulting behaviours. We have used a novel combination of semi-structured interviews and video-recorded consultations to research the influences on decisions made by GPs during their consultations.

**Objective.** We describe the use of GPs’ video-recorded consultations as a stimulus for focused, semi-structured interviews and to discuss how this research method compares with other approaches for studying GPs’ decision-making during consultations.

**Methods.** GPs’ surgery sessions were video-recorded and later they were shown video recordings of themselves consulting with smokers before participating in semi-structured interviews about these consultations. Interviews aimed to describe the factors which GPs perceived to influence their decisions to discuss or not discuss smoking with patients.

**Discussion.** This technique can be used to research decisions, which are made frequently by GPs. It is probably most appropriate for gaining insight into decision-making during mundane consultations, to which GPs would otherwise give little thought.

**Keywords.** Decision-making, GPs, qualitative techniques, research methodology, videotape recordings.

Introduction

Much clinical audit and research activity aims to change GPs’ clinical behaviour. Only a small number of studies, however, have researched the decision-making which underpins GPs’ clinical behaviours in their everyday clinical practice. This is surprising, as strategies which aim to improve specific GP behaviours are probably more likely to be successful if the factors which explain the behaviour in question are understood. Quantitative research approaches have measured some of the factors involved in GPs’ decisions to prescribe for UTIs\(^1\) and acute bronchitis.\(^2\) Qualitative research methods, however, are more appropriate for studying GPs’ decision-making in context.

Qualitative studies of GPs’ decision-making have often involved GPs’ recalling details of consultations and being interviewed about these.\(^3\)–\(^5\) The Critical Incident Method (CIM) requires GPs to record details of unusual events (consultations) for discussion at a later date.\(^6\) Jones and Morrell used a slightly different method: GPs were interviewed about a series of 10 consecutive consultations from a recent surgery.\(^5\) Additionally, some researchers have interviewed GPs about their consulting behaviour in the abstract, without making any reference at all to actual consultations.\(^7\) Clearly, qualitative interviews that seek to explain GPs’ decision-making, but rely on GPs’ memories of consultations, are limited by the adequacy of interviewees’ recall. Additionally, using these methods, researchers can never be certain that GPs discuss their actual clinical behaviour rather than that which they consider to be the optimum.

Using video-recordings of consultations to stimulate doctors’ recall of their consulting behaviour is one technique which could minimize the problems, described above, which are associated with qualitative research methods. In the 1970s, Elstein\(^8\) used video-stimulated recall to research doctors’ problem-solving skills.
Elstein video-recorded physicians’ consultations with simulated patients. Doctors were then questioned about their clinical behaviour while watching themselves on film. These interview data enhanced the researchers’ understanding of the video-recorded doctors’ thought processes. Elstein’s methodology has potential for use in the study of GPs’ decision-making, but to our knowledge it has not been used for this purpose.

We researched one aspect of GPs’ clinical decision-making, by combining qualitative interviews with video-stimulated recall of consulting behaviour. This paper describes our research methodology, assesses its utility and compares it with other approaches that have been used to research GPs’ clinical decision-making. We also assess the feasibility of using this technique to study decision-making in routine consultations.

Methods

To discuss our research method adequately, outline details of the study in which it was used are needed. In brief, we showed GPs video-recordings of consultations between themselves and smokers prior to their participation in audiotaped, semi-structured interviews. Interviewers asked about the factors which GPs perceived influenced their decisions to discuss or not discuss smoking with patients in the consultations they had just viewed.

Data collection at GPs’ surgeries

All 42 participating GPs had one surgery session video-recorded. Table 1 gives details of data collection during these sessions. Patients were considered to be smokers if they had smoked one or more cigarettes in the previous year. Patients were informed that the study was “interested in the ways doctors talk with patients” and those refusing to complete the questionnaire or withholding consent to video-recording were noted and excluded from further involvement in the study.

Purposive selection of GPs

A survey measured Leicestershire GPs’ attitudes towards discussing smoking with patients.9 Subsequently, a random sample of GPs stratified by these attitudes was chosen.10,11 This selection process and the recruitment of GPs have been described in detail elsewhere.10,11 The 42 participating GPs were told that the study researchers wished to learn how they practise “preventive medicine”. Smoking was not specifically mentioned.

Factors influencing purposive selection of consultations for study

In order to maximize relevance of data obtained from interviews, consideration was given to identifying the types of consultations, which were likely to be important to the research question posed. GPs prefer to discuss smoking in the presence of smoking-related medical problems,12–14 and this fact was taken into account. Also it was considered vital to interview GPs about consultations where smoking had and had not been discussed, to allow comparison of decision-making processes in both of these circumstances. Consequently, we thought it important to select consultations from the four types shown in Figure 1 before interviewing GPs. We considered that this would help ensure that all factors that GPs perceived as influencing their behaviour were described adequately.

Purposive selection of consultations

One author (TC) viewed videotapes of smokers’ consultations after surgery sessions had finished. TC categorized each consultation according to whether smoking was mentioned by the doctor or patient and also whether he considered that patients had any smoking-related problems. For each GP, the aim was to select one consultation where smoking had been discussed and one where it had not and also to ensure that the four consultation types (Fig. 1) were used as equally as possible during the whole study. Consultations were, therefore, selected purposively,15 and the choice of consultations was influenced by factors which we considered important to GPs’ decisions to discuss smoking.

Semi-structured interviews with GPs: administration

Where possible, GPs were interviewed on the day of video-recording, or, at the latest, within 1 week of this. GPs were told that the specific focus of investigation was to “understand GPs’ reasons for discussing or not discussing smoking with patients who smoke”. Before interviews began, GPs were shown one of the selected consultations to serve as an aide-mémoire. This aimed to focus GPs’ thoughts on their actual consulting behaviour, and to prompt them to talk about their reasons for

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Data collection at video-recorded surgery sessions</th>
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</thead>
<tbody>
<tr>
<td>All data collection done by TC.</td>
<td></td>
</tr>
<tr>
<td>All patients who check in at practice reception were informed that a researcher (TC) wished to see them before consulting.</td>
<td></td>
</tr>
<tr>
<td>Information on smoking status collected by pre-consultation questionnaire.</td>
<td></td>
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<tr>
<td>All patients’ consent to video-recording sought.</td>
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<tr>
<td>Patients’ consultations video-recorded. GPs not blinded to whether video-recording occurs.</td>
<td></td>
</tr>
<tr>
<td>After surgery session completed, TC views smokers’ consultations and selects one or more to show GP prior to interviewing.</td>
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</tr>
<tr>
<td>GPs interviewed as soon as possible after being video-recorded.</td>
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</tbody>
</table>
discussing or not discussing smoking. Interviews started once the video-recording had finished and all discussion was audiotaped. If time allowed, interviewees were shown another consultation and interviewed about it. TC (a GP) conducted all interviews.

Content of interviews
Initially TC asked GPs whether they perceived patients’ presenting problem(s) to be smoking related. Four slightly different interview guides had been designed and the GPs’ perceptions of whether the presenting problems were smoking-related determined the choice of interview guide. TC continued by asking GPs to give their views on the consultation. Where GPs were aware of patients’ smoking status, TC sought their opinion of why smoking had or had not been discussed. Where GPs reported themselves unaware of the patient’s smoking status, however, TC focused on why they perceived that the topic of smoking had not been raised. TC also questioned GPs about the factors that they perceived influenced their discussing (or not discussing) smoking and how they prefer to broach the topic of smoking in consultations. Although TC focused on one aspect of clinical behaviour, interviews were semi-structured and aimed to give GPs an opportunity to give their own accounts of this.

Acceptability of method
One hundred and ninety-one smokers attended the 42 GPs’ surgeries and 162 (84.8%) were video-recorded. Of the 162 video-recorded consultations with smokers, 99 (61%) were shown to GPs prior to their participation in interviews. In 13 of these consultations, GPs were unaware of the patient’s smoking status. Table 2 details how many times each of the four types of consultation (Fig. 1) was used.

Of the 42 video-recorded GPs, one could not be contacted to arrange an interview, despite repeated attempts. Another two GPs were not interviewed because no smokers presented to their video-recorded surgeries. This left a total of 39 GPs who were interviewed after watching recordings of their consultations. Of these 39, 23 GPs were interviewed on the day of video-recording, 14 were interviewed within 1 week and the remaining two were interviewed within 18 days of this. Interviews were transcribed verbatim and analysed on a line-by-line basis using Ethnograph software.16 Excerpts from these transcriptions are used for illustrative purposes in the Discussion.

Discussion of method
As far as we are aware, we are the first researchers to use video-recorded consultations in conjunction with semi-structured interviews that are focused on one aspect

<table>
<thead>
<tr>
<th>Type of Consultation</th>
<th>No. of times used</th>
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<tbody>
<tr>
<td>Smoking discussed and smoking-related complaint</td>
<td>25</td>
</tr>
<tr>
<td>Smoking not discussed, but smoking-related complaint</td>
<td>21</td>
</tr>
<tr>
<td>Smoking not discussed and no smoking-related complaint</td>
<td>32</td>
</tr>
<tr>
<td>Smoking discussed and no smoking-related complaint</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>86*</td>
</tr>
</tbody>
</table>

* This is where GPs were aware of patients’ smoking status. In 13 consultations, GPs were unaware of this.
of GPs’ clinical decision-making. Although video-stimulated recall is an established research method, it has not yet been used to study GPs’ decision-making in real consultations. Arborelius17 refined a technique described by Frankel18 which combined video-recorded consultations with a much less focused interview approach to obtain information about quite different aspects of consultations. Using her method, GPs and patients are shown video-recorded consultations (of themselves) and are allowed to stop the videotape whenever they wish to comment. These spontaneous remarks then form the starting point for an interview. Arborelius’ technique has been used to research patients’ thoughts during consultations19 and doctors’ and patients’ perceptions of ‘good’ and ‘bad’ consultations.17 This approach has also been employed to categorize consultations which GPs find ‘difficult’.20 Arborelius’ technique allows the interviewee to define the areas of interest in the consultation, whereas with our approach this is done by the interviewer.

Benefits of approach

As most of our interviews were conducted on the same day as the video-recorded surgery and interviewees were encouraged to talk about consultations that they had just observed, their recall should have been maximized. This may have allowed GPs to discuss decisions made in mundane consultations and contrasts with the Critical Incident Method (CIM).6 which encourages interviewees to talk about their most striking consultations. In particular, our method enabled GPs to watch consultations where smoking had not been discussed and talk about the possible reasons for this. It is unlikely that GPs’ recall of consultations would have been adequate enough to explore this type of issue without using video-recordings as an aide-mémoire. In contrast, the CIM is probably more appropriate for research into more memorable decisions or events and has, for example, been used to study situations in which GPs feel uncomfortable prescribing.4

One striking occurrence during our study was the extent to which interviewees expressed surprise at their consulting behaviour. Confronting GPs with video-recordings of consultations encourages them to analyse their own consulting behaviours. Table 3 contains quotes from GPs that suggest that they have learnt about the way they discuss smoking with patients after watching themselves on video. It is apparent, therefore, that researchers will probably obtain a different understanding of GPs’ decision-making using interviews that rely on GPs’ recall of their behaviour, as the interviewees themselves may be unaware of some aspects of the consulting behaviour which is under scrutiny. The use of video-recordings, however, may facilitate discussion of issues that would not be raised using other research methods.

We have demonstrated that our research method is feasible within the constraints of UK general practice. Careful negotiation with GPs about the time for data collection ensured that most were interviewed on the same day as their video-recorded surgery. Additionally, the majority of patients consented to video-recording. Our purposive sampling of consultations may have resulted in more efficient data gathering than other sampling methods. Although each GP was usually only interviewed about one or two consultations, the selection of these consultations was guided by factors that were important in answering the research question. Other researchers who consider using this research method should also give careful thought to the optimum methods for selecting consultations for scrutiny.

Disadvantages of approach

The time-consuming process of video-recording GPs’ surgeries is a disincentive for using this method. Recruiting GPs to participate, data collection and analysis of videotapes were all laborious. Video-recordings made for our study were put to a number of other uses and this helps to justify the effort involved in obtaining them. Unfortunately, the use of video-recording for research purposes is likely to create selection bias among research participants. GPs who agreed to take part were more likely to work in teaching and training practices or be members of the Royal College of General Practitioners than others.11 Additionally, patients who consented to video-recording for the study differed from others. Those who consented to recording were older and less likely to present with overt psychological problems than those who refused consent.21 Before using the research method described here, therefore, researchers

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**Table 3**

**Interviewees’ comments demonstrating that they have learnt about their clinical behaviour after watching recordings**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Comment</th>
</tr>
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<tbody>
<tr>
<td>DR403</td>
<td>“I think I disliked the fact that I perhaps treated this as one of several occasions when I have talked about smoking which isn’t what it should be … I shouldn’t have come across that way.”</td>
</tr>
<tr>
<td>DR265</td>
<td>“… the way I spoke to her. Really I addressed the computer … which I thought was pretty inappropriate … I check the [health promotion] data [on the computer] … smoking or anything else … but it does tend to interfere with the consultation.”</td>
</tr>
<tr>
<td>DR050</td>
<td>“I tended to ignore her concerns about her weight … I didn’t respond when she said she was worried about it.”</td>
</tr>
<tr>
<td>(DR050 stated she was unhappy at having ignored the patient’s concern whilst she had spent time talking about smoking.)</td>
<td></td>
</tr>
<tr>
<td>DR235</td>
<td>“Something else, I now realise is I’ve not talked about … is the fact he smokes to control his nerves.”</td>
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need to consider how this recruitment bias in research participants may be relevant to the research questions which they hope to answer.

Finally, when using video-recorded consultations one must consider whether patients’ or doctors’ behaviours are changed by the presence of the video camera. Pringle\textsuperscript{22} explored whether awareness of video-recording influences GPs’ consulting behaviour and found that this had no effect on a wide range of GPs’ behaviours, including the amount of time they devote to preventive medicine. It would be unethical to study whether patients’ awareness of video-recording influences their behaviour during consultations. The vast majority of patients, however, report forgetting about the presence of the video camera during recorded consultations.\textsuperscript{23} In our study, smoking was discussed no more frequently than expected,\textsuperscript{24} so GPs’ decisions to discuss smoking do not appear to have been unduly affected by the research method.

**Conclusion**

The interview technique that we have described appears appropriate for attempting to understand the GP perspective of decisions that are made frequently during surgery sessions (here GPs’ decisions to discuss or avoid discussing smoking). The difficulty involved in collecting data makes this method less practical for researching decisions, which GPs make infrequently. Potential strengths of this method include the ability to use it for research into unremarkable events or mundane consultations and the generation of discussion about aspects of decision-making about which GPs were previously unaware. Accordingly, the decisions most appropriately studied using this method are probably those which GPs usually give little thought to or take for granted.

**Acknowledgement**

We are grateful to Hilda Parker for her very constructive comments on this paper and also to Mrs Margaret Whatley for secretarial assistance. The study described was funded by grants from the Scientific Foundation Board of the Royal College of General Practitioners and Trent NHS Executive.

**TABLE 4**  
Comparisons of methods for researching GPs’ decision-making

<table>
<thead>
<tr>
<th>Research method</th>
<th>Information obtained</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
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<tbody>
<tr>
<td>Quantitative: questionnaires given to patients and GPs. Notes reviewed after each consultation.\textsuperscript{1}</td>
<td>Measurement/quantification of factors thought to influence decision-making.</td>
<td>Cheap. Can produce generalizable information.</td>
<td>Does not enhance understanding of decision-making. Cannot identify influences on decision making which are unknown.</td>
</tr>
<tr>
<td>Qualitative: interviews with GPs. No reference made to consultations.\textsuperscript{2}</td>
<td>General information on GPs’ perceptions of what influences their decision-making/clinical behaviour.</td>
<td>Less expensive than interview techniques that require video-recording. Can be used to study the GP perspective on similar types of consultations (e.g. how depression is diagnosed).</td>
<td>Requires GP to be aware of influences on their decision-making, and to have good recall of their clinical behaviour.</td>
</tr>
<tr>
<td>Qualitative: interviews with GPs about a consecutive series of recent consultations.\textsuperscript{3}</td>
<td>Information on factors which influence almost all consultations (e.g. how GPs utilize knowledge of patients in decision-making).</td>
<td>Relatively inexpensive. Can generate information on factors common to most consultations from unselected, ‘normal’ consultations.</td>
<td>Relies on GPs’ recall of the role of specific factors within consultations.</td>
</tr>
<tr>
<td>Qualitative: Critical Incident Method. Interviews with GPs about memorable consultations on which they have taken notes.\textsuperscript{4}</td>
<td>Information on decisions made during consultations, which GPs perceive as ‘unusual’ or ‘different’.</td>
<td>Relatively inexpensive. Can generate explanations for GPs’ difficulties with some areas of decision-making.</td>
<td>Relies on GPs’ recall of consultations. Interviewees’ selection of consultations for discussion may limit the comprehensiveness of explanations generated.</td>
</tr>
<tr>
<td>Qualitative: described in this paper.</td>
<td>GPs’ perceptions of the influences on very specific events/decisions made during consultations.</td>
<td>Can produce explanations for decisions, which GPs usually give little thought to. Is appropriate for the study of mundane, unremarkable consultations. Minimizes need for GP recall.</td>
<td>Expensive. Use of video may restrict the nature of consultations that can be researched. Video may alter behaviour of doctor or patient.</td>
</tr>
</tbody>
</table>
References


21 Coleman T, Manku-Scott TMS. Comparison of video-recorded consultations with those in which patients’ consent is withheld. *Br J Gen Pract* 1998; 48:971–974.

