

# Comparison of video-recorded consultations with those in which patients' consent is withheld

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## SUMMARY

**Background.** Video-recorded consultations are widely used for research in general practice. Recently, video recordings have begun to be used for the purposes of general practitioner (GP) registrar assessment. It is unknown, however, whether consultations in which patients withhold consent for recording differ from those that are recorded.

**Aim.** To compare clinical problems and demographic characteristics of adult patients who consent to the video recording of consultations with those who withhold consent.

**Method.** This was a prospective study of 538 adult patients consulting 42 GPs, based in practices throughout Leicestershire. Each patient attended a surgery session with one of the 42 GPs between April 1995 and March 1996. Clinical presentations and demographic characteristics of patients consenting and withholding consent to the video recording of their consultations were compared. GPs' perceptions of whether patients in these two groups were distressed/upset or embarrassed were also compared.

**Results.** A total of 85.9% (462/538) of adults consented to video recording, and 14.1% (76/538) withheld consent. Multiple logistic regression revealed that patients who presented with a mental health problem were more likely to withhold consent to recording (odds ratio 2.5, 95% confidence interval 1.4–4.6). Younger patients were also more likely to withhold consent to video recording. Additionally, where patients' consent was withheld, GPs perceived patients to be more distressed or embarrassed.

**Conclusion.** Younger patients and those suffering from mental health problems are more likely than others to withhold consent to being video recorded for research purposes in general practice. The implications of this study for the assessment of registrar GPs using video-recorded consultations are discussed.

**Keywords:** videotape recording; consultations; patient consent.

## Introduction

VIDEO recording is well established as a method of recording general practice consultations for research purposes. This technique has been used to explore doctor–patient communication,<sup>1</sup> how general practitioners (GPs) detect depression<sup>2,3</sup> and psychological distress,<sup>4</sup> and to investigate the adequacy of data held on general practice computing systems.<sup>5</sup> Video-recorded consultations have been used in the summative assessment of Scottish GP registrars<sup>6,7</sup> and in the Royal College of General Practitioners' fellowship assessment.<sup>8</sup>

Despite the widespread use of video recording, little is known about the characteristics of patients who withhold consent to being recorded or about the clinical content of their consultations. One study<sup>9</sup> has suggested that patients presenting with anxiety, depression, and gynaecological conditions are more likely to withhold consent to video recording but, unfortunately, no statistical evidence was presented to confirm this assertion. Patients withholding consent to recording did, however, report concerns with confidentiality and having embarrassing problems,<sup>9</sup> so it is possible that qualitative differences exist between recorded and non-recorded consultations.

Given the ways in which video-recorded consultations are used, it is important to determine the nature and extent of any variations between these and consultations in which patients withhold consent. Accordingly, this study compares the clinical presentations and demographic characteristics of adult patients who consented or withheld consent to the video recording of their consultations. GPs' perceptions of whether patients were distressed or embarrassed were also compared.

## Methods

Forty-two GPs each had one surgery session video recorded for a study examining the ways in which smoking is discussed during consultations. GPs were asked to avoid giving patients prior warning that the surgery would be video recorded. One author (TC) asked attending patients to complete a questionnaire about their smoking habits and, afterwards, consent to video recording was requested in accordance with Southgate's guidelines.<sup>10</sup> This usually occurred in a private room. Patients were excluded if they could not give consent (e.g. demented adults with care staff), and those who refused to talk to the researcher were classed as withholding consent to video recording. Patients were told that the focus of the study was doctor–patient communication. Patients who asked why they had been given a questionnaire about their smoking habits were informed that the project was particularly interested in communication about smoking.

After each consultation, GPs completed an encounter sheet derived from the one used by Carney.<sup>11</sup> GPs were asked to list up to five diagnoses or problems dealt with (if any) and record whether they considered each one to be a new or old (previous) presentation. GPs' perceptions of whether a psychological problem had been dealt with and whether the patient was distressed/upset or embarrassed were ascertained by three forced-choice questions. GPs were instructed to endorse the 'no' response if uncertain.

Video-recording equipment was operated by one author (TC), and GPs were not blinded as to whether or not patients had consented to video recording. In the course of their surgery sessions, however, some GPs forgot which patients were being recorded.

Once the video-recorded surgery session was finished, patients' age, sex, and consultation rates in the previous 12 months (consultations with GP) were extracted from the medical record by TC. Where GPs failed to complete encounter forms, information concerning patients' diagnoses/problems dealt with was also extracted from the medical record. GPs also completed a short questionnaire that asked to what extent video recording of

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consultations currently took place within their practice.

One author (TC) gave read codes to clinical data. Read codes divide general practice morbidity data into many diagnostic groups. Clinical data from diagnostic groups that were recorded infrequently (i.e. clinical presentations from those diagnostic groups that were represented in fewer than 10% of patients) were placed in the 'other' category (Table 1). Where problems could not be read coded, they were counted in the 'not codeable' category. Read codes, encounter sheet data, and data collected from the medical record were then entered into one database and verified. Chi-square, Mann-Whitney and *t*-tests were used as appropriate for categorical, ordinal, and continuous data using the Statistical Package for Social Sciences (SPSS). Forward stepwise logistic regression<sup>12</sup> was used to determine patient characteristics associated with refusal to consent to video recording (dependent variable). Variables with a *P* value of <0.1 in the univariate analysis were entered into the model as explanatory variables (i.e. age, smoking status, and the presence of a mental health problem). GPs' perceptions of consultations were not entered into the model because these data represented judgements made once consent had been decided upon by patients.

## Results

A total of 541 adults attended the 42 surgeries, of whom three (0.6%) were excluded because they could not give consent. Of the 538 adults aged 16 or over enrolled in the study, 61.7% (332) were female, with 85.9% (462) of patients agreeing to be video recorded and 14.1% (76) withholding consent. Only 1.5% (8/538) of patients refused to see the researcher. They are included in the group that withheld consent. The mean age of adult patients enrolled in the study was 49.4 years (SD = 19.5 years).

Patients withholding consent to video recording were younger (mean age of 'withholders' = 43.0 years; SD = 17.3) than 'consenters' (mean age = 50.4 years; SD = 19.6; *t* = 3.12, df = 534; 95% confidence interval (CI) for difference between means; 2.5–12.0). Data were missing for two patients (both consenters). Self-reported smokers were more likely to withhold consent to video recording, with 32% (24/76) of 'withholders' being smokers compared with 21% (96/462) of 'consenters' ( $\chi^2 = 4.31$ ; df = 1; *P* = 0.04). There was no difference between consultation rates in the two groups (for 'withholders', median rate was six

attendances in the last year, interquartile range (IQR) = 8; and for 'consenters', the median rate was five attendances, IQR = 7; Mann-Whitney *U*-test, *P* = 0.53). Similarly, there was no significant difference in sex distribution, with 68% (52/72) of those withholding consent being women compared with 60.6% (280/462) of those who consented ( $\chi^2 = 1.69$ ; df = 1; *P* = 0.19).

General practitioners completed 97.2% (523/538) of encounter sheets and, for the remaining 2.8% (15), the diagnosis was obtained from the medical records. Using diagnosis data from the medical record did not alter the final results, so these data were included in the analysis. Altogether, 848 diagnoses/problems were recorded for all attending adult patients, giving a median of one (range 0–5) diagnosis per patient. There was no difference in the number of diagnoses recorded for patients who withheld or gave consent to video recording. The median (range) numbers of new and old diagnoses were one (0–4) and one (0–5) respectively. Again, there were no significant differences in the numbers of 'new' or 'old' problems presented by patients who withheld or gave consent to video recording.

Table 1 summarizes the read-coded data. The main finding is that 24% (18/76) of patients withholding consent to video recording were noted by GPs to have one or more mental health problem(s) compared with only 11% (51/460) of those who consented ( $\chi^2 = 9.33$ , df = 1; *P* = 0.002). Two patients who refused to see the researcher, and who were included in the group that withheld consent, presented with mental health problems. No other significant differences were found between other categories in the clinical data.

Responses to the forced-choice questions, which measured GPs' perceptions of consultations, are summarized in Table 2. When patients' consent to recording was withheld, GPs were more likely to record that a psychological problem had been discussed, that the patient was distressed or upset, or that the patient was embarrassed about a problem.

Of the 42 GPs, 57% (24) reported that either themselves or another doctor within their practice had video recorded patients' consultations within the last year. Attending a GP who reported video recording being used in his or her practice was not associated with patients' withholding of consent. Overall, 13.5% (38/281) of patients attending in practices that reported using video recording withheld consent, compared with 14.7% (38/257) in practices where the use of video recording was not

**Table 1.** Comparison of video-recorded and non-video-recorded patients with one or more diagnoses in each read code category.

Read code category	Number (%) of video-recorded patients with one or more diagnoses in read code category <sup>a</sup> (n = 462)	Number (%) of non-recorded patients with one or more diagnoses in read code category (n = 76)	<i>P</i> value (of chi-square test) <sup>b</sup>
Musculoskeletal	97 (20.9)	10 (13.2)	0.113
Cardiovascular	70 (15.2)	14 (18.4)	0.480
Respiratory	61 (13.2)	9 (11.8)	0.740
Mental health	51 (11.0)	18 (23.7)	0.0023
Genitourinary	52 (11.3)	13 (17.1)	0.150
Gastrointestinal	53 (11.5)	5 (6.6)	0.20
Prevention	49 (10.6)	11 (14.5)	0.320
CNS	50 (10.8)	4 (5.3)	0.135
Not codeable	55 (11.9)	7 (9.2)	0.500
Other	146 (31.6)	26 (34.2)	–

<sup>a</sup>Numbers represent the presence or absence of a diagnosis from a read code category in an individual patient. Multiple diagnoses from the same read code category are counted only once, so that a patient recorded as presenting with 'depression' and 'schizophrenia' (i.e. two 'mental health' diagnoses) is counted as one patient 'presenting with one or more mental health diagnoses'. <sup>b</sup>No data missing. The total number of diagnoses is 848, but summing the numbers in this figure produces a lower number (795), as some patients presented two diagnoses from one read code category. Percentages will add up to more than 100% because patients could present with problems in different read code categories.

reported ( $\chi^2 = 0.16$ ;  $df = 1$ ;  $P = 0.687$ ).

Variables included in the final regression equation are shown in Table 3. Patients' smoking status had no significant influence on patients' consent to video recording once age and the presence of a mental health problem were controlled for.

Where variables are categorical, the exponential of the beta-coefficient is an odds ratio, so it can be seen that patients who presented with mental health problems were approximately 2.5 times (95% CI = 1.4–4.6) more likely to withhold consent to video recording. Younger patients were also more likely to withhold consent to recording.

## Discussion

We have demonstrated that younger patients and those presenting with mental health problems were more likely to withhold consent to video recording of their consultations for research purposes. Nine significance tests were performed. However, even when  $P$  values were multiplied by nine (the Bonferroni correction<sup>13</sup>) to prevent false-positive results, the difference in distribution of mental health problems was still significant at the 5% probability level. Additionally, logistic regression confirmed that the presence of a mental health problem was independently associated with withheld consent. This agrees with Martin and Martin's<sup>9</sup> observation that depressive disorders appeared to be more common in patients withholding consent to video recording. It is probable that some patients suffering from mental health problems choose to avoid the added stress of video recording when visiting the GP. It is unclear why younger patients should be more likely to withhold consent to video recording. However, if these patients continue to feel resistant towards video recording as they age, future withheld consent rates will increase, limiting the utility of research using video recordings.

Our rate of withheld consent of 14% needs to be scrutinized to assess the external validity of our findings. Withheld consent rates seem to vary with the amount of information and number of opportunities to 'opt out' that are given to patients. Where GPs have sought patients' consent verbally and immediately before consulting,<sup>14–16</sup> withheld consent rates have been low (2–11%), but GPs using written consent forms<sup>9</sup> have obtained similar rates (12–29%) to ours. Recent authoritative guidelines,<sup>10,17</sup> however,

demand that written consent is sought and that patients are fully informed of the reason(s) for video recording (as in our study), so our withheld consent rate is probably more applicable to the present-day context.

It is possible that patients are less likely to consent to video recording for research than for other purposes, but the small number of patients refusing to see the researcher did not indicate great resistance towards participation in research. Also, patients who perceive themselves as 'under scrutiny' by researchers (in this study smokers) could be more reluctant to consent to video recording. This does not seem to have happened in our study, as the subject of research (smoking) was not associated with withheld consent once patients' age and presentation of a mental health problem were controlled for. Finally, patients' previous experiences of being video recorded may influence consent rates but, as reported current use of video recording in study practices was not associated with patients' withheld consent, this does not appear to have been influential in our study. It therefore seems likely that our findings are generalizable to situations in which patients' consent to video recording of consultations for research purposes is requested by a researcher in accordance with the latest guidelines.<sup>10,17</sup>

A criticism of the study is that GPs were not blinded to video recording. However, Pringle and Stewart-Evans<sup>18</sup> found that awareness of video recording did not influence GPs' consulting behaviour, consultation length, or the numbers of problems they dealt with at each consultation. GPs' lack of blindness to video recording is unlikely to have altered their recording of mental health problems significantly, as GPs had been told that the researcher was interested in recording how they practised preventive medicine. General practitioners' perceptions of the consultations need to be treated with greater caution: as these judgements were made after patients' consent decisions had been taken they could have been influenced by GPs' awareness of whether or not recording occurred. However, patients in previous studies have reported embarrassment as a reason for withholding consent to video recording,<sup>9</sup> and non-significantly higher stress levels have been measured in patients' who withheld consent.<sup>14</sup> This suggests concordance between GPs' perceptions of consultations in this project and previous research findings.

Researchers planning projects using video-recorded consultations will need to consider how the differences that we have

**Table 2.** General practitioners' perceptions of video-recorded and non-recorded consultations.

	Number (%) in recorded consultations (total = 462)	Number (%) in non-recorded consultations (total = 76)	$P$ value
Psychological problem was discussed <sup>a</sup>	99 (21)	29 (38)	0.0016
Patient appeared distressed or upset <sup>b</sup>	34 (7)	14 (18)	0.0016
Patient appeared embarrassed <sup>c</sup>	46 (10)	22 (29)	0.0000

<sup>a</sup>Data missing for three refusers and 22 consenters; <sup>b</sup>data missing for two refusers and 25 consenters; <sup>c</sup>data missing for two refusers and 24 consenters.

**Table 3.** Results of multiple logistic regression analysis with withheld consent to video-recording as the dependent variable.

Variable	Beta-coefficient (standard error)	$P$ value <sup>a</sup>	Exponential of beta-coefficient (95% CI)
Mental health problem presented	0.9098 (0.3128)	0.0036	2.48 (1.35–4.59)
Age	-0.219 (0.0068)	0.0012	0.98 (0.97–0.99)

<sup>a</sup>Calculated by chi-square test.

highlighted could influence their study findings. The greatest caution is required where video recordings are used to study consultations with younger patients or those suffering from mental health problems. Researchers should also state explicitly how consent was obtained. Additionally, as patients' consent to video recording should now be obtained as recommended by recent guidelines,<sup>10,17</sup> our conclusions may have implications for the use of video recordings in the assessment of GP registrars.

Video recordings of GP registrars' consultations are used as one component of the West of Scotland region registrar GP package.<sup>6,7,19</sup> The content validity<sup>20</sup> of assessment using video recordings has never been demonstrated. To do this, assessors would need to show that consultations video recorded for assessment purposes were not vastly different from others. Adequate content validity is important, because this ensures that judgements about registrars' fitness to practise are based on an appropriate range of clinical challenges. This is particularly relevant because the video component of this assessment package has been shown to detect more registrars of doubtful competence than any other.<sup>7</sup> Clearly, if our findings are replicated when video recording occurs for assessment purposes, the content validity of this exercise could be compromised.

As video recording of consultations is a valuable research technique, further research should be directed at discovering why younger patients and those suffering from mental health problems are more likely to avoid participating in research that involves video recording their consultations. It would be valuable to discover ways in which recording could be made more acceptable to these patients and so minimize rates of withholding consent. Finally, as the recently introduced summative assessment of registrar GPs includes assessment of video-recorded consultations,<sup>21</sup> further work is required to determine whether consultations video recorded for assessment purposes also differ from others.

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