USING VIDEO-RECORDED CONSULATIONS AS AN ASSESSMENT TOOL: ADVANTAGES, LIMITATIONS AND LOCAL EXPERIENCE

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ABSTRACT

Direct measurement of the competency of the consultation can be done by videotaping the consultation and scoring it using performance criteria such as that developed by the Royal College of General Practitioners. There is a need to pay attention to the technical aspects of videotaping in order to succeed in recording a consultation of reasonable audio-visual quality. For the choice of consultations to record and the assessment of the recorded consultations locally, factors such as the influence of diverse health systems in Singapore on the patient, the language used by the patient, consultation time and space constraints need to be taken into consideration. As part of the College Professional Development Programme, The College of Family Physicians Singapore (CFPS) has started the use of Videotaping of Consultations as a tool to assess consultation competency for candidates going through the College Membership Course (MCFP). For summative assessment, candidates are required to submit 6 video consultations for assessment within the 2 year training period.

INTRODUCTION

As part of the College Professional Development Programme, The College of Family Physicians Singapore has started the use of Videotaping of Consultations as a tool to assess consultation competency for candidates going through the College Membership Course (MCFP). For summative assessment, candidates are required to submit 6 video consultations for assessment within the 2-year training period.

This paper discusses the objectives of such an assessment exercise, the concepts and measurement of competency in the consultation, the processes, and the practicalities of videotaping the consultation for assessment purposes.

THE CONSULTATION

The cornerstone of medical practice is the consultation "and all else in the practice of medicine derives from it."[1] Being able to provide an effective consultation to patients, within the allotted time, is the central task for the Family Physician in his daily practise. During this process, the doctor must be able to elicit the reason for the patient's encounter, and to explore the patient's ideas, concerns, and expectations. The consultation is therefore a complex process that requires certain skills and competencies in order to achieve a desired outcome.

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The work of Patrick Byrne and Barry Long on the consultation process based on 1000 audiotaped recordings[2] and subsequently additional work by David Pendleton et al[3] have resulted in the consultation model that we use widely today.

MEASURING THE QUALITY OF THE CONSULTATION

Studies into consultations have also tried to measure what is a 'successful consultation' in terms of the processes and outcome. These measurements can be direct or indirect, and are complementary to each other.

Indirect measurements

One can measure consultation outcomes indirectly through patient satisfaction questionnaires, feedback from colleagues, or through routine data collection such as average time spent per consultation. These methods are insensitive and inconsistent.

Direct measurements

Direct measurements of the consultation include methods to observe the consultation process itself. Observation can be overt or covert, live or recorded; using real or simulated patients. Various techniques have therefore been tried, such as audiotaping, videotaping, use of 2 way mirrors, sitting-in on the consultation, and role-play.

No single method will be entirely satisfactory. Audiotapes will miss important non-verbal information and contain long periods of pauses; role play is artificial; and the presence of an observer either sitting in the room or behind a mirror, or as a video camera recording the consultation, may modify the behaviour of both doctor and patient.

Despite these limitations, much information can be obtained by going through these processes. It has been shown to be beneficial not only for assessment, but as a useful feedback and learning tool for the doctor.

VIDEOTAPING

Advantages

Videotaping of consultations provides many advantages.

- The doctor and assessor do not have to be in the same place at the same time.
- The doctor has flexibility to choose his own equipment and to record as many consultations as he wishes,
- The consultations take place in the doctors own clinic and is therefore unique to his type of practice,
- High validity- recorded patients are real and unscripted. What is recorded will be reflective of actual consultations.

Disadvantages

Potential Disadvantages

- Dependant on technical quality- video picture, sound, and lighting.
- Some patients may find it awkward and unacceptable.
- Unable to assess intimate physical examinations.
- Difficult to regulate the range of cases as it is dependant on the clinic setting.

MEASURING COMPETENCY IN THE CONSULTATION

This assessment of consultation skills is based on the concept of *competency*, meaning that combination of knowledge, skills and attitudes which when applied to a particular situation leads to a given outcome.

Competency in consultations has 3 attributes that determine the way it is assessed:

- *Competence is pre-defined*. Candidates are given details (performance criteria) of what the examiners are looking for.
- *Competence is about outcomes not behaviours*. There are many ways in which a doctor can arrive at the successful completion of a consultation. There is no one acceptable way of achieving an outcome since this is highly dependant of the individual style of the doctor.
- *Competence is either present or absent*. The candidates have only to show a competence is demonstrated in a particular situation. There is no measure of how well the candidate performs these specific competencies.

A good analogy is that of the driving test. The competencies required to be able to drive safely are specified, e.g. ability to do a three point turn, parallel and reverse park, manoeuvre S course, stop and drive off on a slope, etc. The manner which one performs these is not specified, as long as they are done safely without endangering other road users, or striking obstacles. Obviously one does not encounter each situation during every drive trip, nonetheless all the competencies are tested, and must be demonstrated during an assessment or it cannot be assumed that the candidate possesses it.

Similarly, in videotaping consultations, the onus is on the candidate to submit recorded consultations that demonstrate as many of the required competencies as possible. Selection of the right consultation is therefore of key importance, and this can be done only if the doctor has made sufficient recordings to be able to select the best few.

Since consultation competence is such a complex skill, how does one go about measuring it? The Royal College of General Practitioners has come up with a set of performance criterion for its video assessment component for candidates sitting for the Membership examinations. They consist of five broad areas:

- Discover the reason for the patient's attendance
- Define the clinical problem(s)
- Explain the problem(s) to the patient
- Address the patient's problem(s)
- Make effective use of the consultation.

Each has several elements, broken down into a number of specific performance criteria (PCs). (Table 1)

Table 1. The MRCGP video marking schedule

The competences to be demonstrated

Results in the video component are issued in the form Fail, Pass or Pass with Merit. Twelve of the performance criteria are preceded by (P). These are the criteria which examiners consider to be essential for a result of Pass in consulting skills.

A further three performance criteria are preceded by (M). These are the criteria which examiners feel must be demonstrated for a result of Pass with Merit in consulting skills. Examiners mark five consultations (each consultation marked by a different examiner), giving the candidate a 'tick' for each competency demonstrated.

1. Discover the reasons for a patient's attendance

(P) the doctor encourages the patient's contribution at appropriate points in the consultation
(P) the doctor responds to cues
(P) the doctor elicits appropriate details to place the complaint(s) in a social and psychological context
(M) the doctor takes the patient's health understanding into account

2. Define the clinical problem(s)

(P) the doctor obtains sufficient information for no serious condition to be missed
(P) the doctor chooses an examination which is likely to confirm or disprove hypotheses which could reasonably have been formed OR to address a patient's concern
(P) the doctor appears to make a clinically appropriated working diagnosis

3. Explain the problem(s) to the patient

(P) the doctor explains the diagnosis, management and effects of treatment
(P) the doctor explains in language appropriate to the patient
(M) the doctor's explanation takes account of some or all of the patient's elicited beliefs
(M) the doctor seeks to confirm the patient's understanding

4. Address the patient's problem(s)

(P) the doctor's management plan is appropriate for the working diagnosis, reflecting a good understanding of modern accepted medical practice
(P) the doctor shares management options with the patient

5. Make effective use of the consultation

(P) the doctor's prescribing behaviour is appropriate
(P) the patient and doctor appear to have established a rapport

Looking at the Performance Criteria in detail, one can see that it is a comprehensive list encompassing established the model of consultation in daily use, popularly known as Pendleton's Seven Tasks[3].

CODE OF PRACTICE IN VIDEOTAPING

Information

Patients should be informed at the time of registration that videotaping is planned for that session. The receptionists will explain the procedure to the patient, including the fact that

should the patient be unwilling to be videotaped this will not affect their consultation with the doctor. The receptionist should ensure that the patient understands why the recording is being made, how it will be used, and who will see it.

Consent Form

The consent form should be signed by the patient before being taken to the doctor. The consultation can only be video recorded, if the consent form is signed by the patient. In the case of children and young people who lack the understanding to consent on their own behalf, the consent of an adult with parental responsibility must be obtained.

If unsigned, the video camera should be switched off.

Storage and Erasure

The videotape should be stored with the same security and confidentiality as patient medical records. Consent forms should be kept with the medical records of the patient.

The responsibility for security, confidentiality, storage and erasure falls to the general practitioner in the practice.

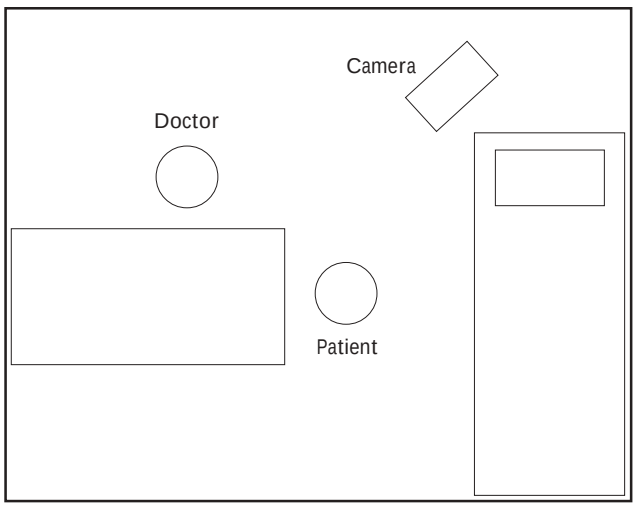
TECHNICAL ISSUES

For the MCFP assessment in Singapore, the tapes submitted should consist of 6 consultations in standard VHS format. For standardisation, a camera which uses any other format must be transcribed onto a standard VHS tape. The average time for a consultation should not be more than 15 minutes.

Positioning the camera

Site the camera so that both doctor's and patient's face, head and shoulders can be seen. The viewer should be able to determine when eye contact is made between doctor and patient. The examination couch should not be in view and examinations should not be recorded, however the tape must be kept running for sound while examination takes place since the consultation usually continues during the examination. Mounting the recorder on a camera tripod will provide flexibility and stability.

Figure 1. Positioning the camera



There are many types of mounting tripods, from small desktop mounts, to floor standing ones. The amount of clinic space available will determine which are the suitable mounts to use.

Figure 1 shows the video camera ideally positioned at the corner of the room between patient and doctor. At this angle, both the doctor and patient can be clearly seen and any facial expressions and non-verbal cues can be recorded. Sound capture will also be good. The camera is placed in the corner so as to cause the least obstruction; it is also slightly placed away from the patient's line of sight during the consultation to reduce distraction. Any physical examination done on the couch will not be visible.

Lighting

Use daylight as much as possible but try to avoid having a window in the camera view because this will darken the subjects (silhouetting). Close the curtains or blinds. For the same reason, take care that no bright lights appear in the shot. The general rule is to have lamps illuminating the scene but not in it. X-ray boxes that are within the camera picture may therefore cause glare and should be immediately switched off after use.

Focus

Ensure that the camera is focused on the doctor and patient. If possible, override the auto-focus and operate manually, so that the camera will not attempt to focus on the wall when subjects move about.

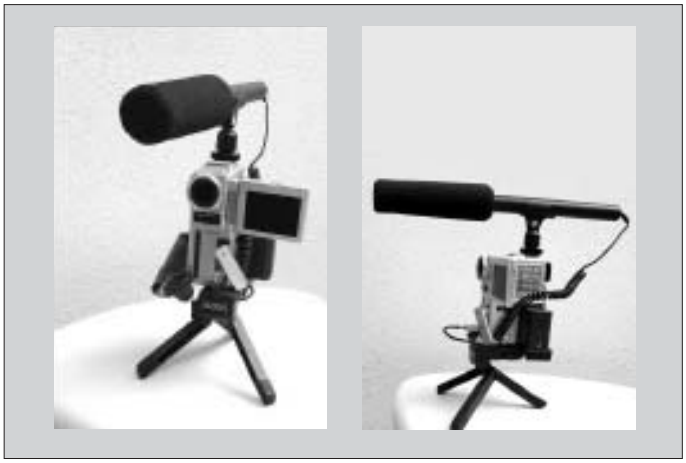
Recording date and time

If possible, switch the camera to automatically record the date and time on the tape. Ensure that there is a clock in view of the camera will be useful. Keeping a video log after each taping will enable each consultation to be catalogued for easy reference later.

Sound

Poor sound quality is the most common technical problem. Built-in microphones are designed to record sounds from all directions and will capture unwanted noise such as air-conditioner hum and external street noise. Attached external

Figure 2. A simple set up for the video camera



microphones can be extended and brought close to subject, improving sound quality remarkably. However external microphones need battery power which may fail halfway through recording. Checking sound before every session or before starting a recording is very important.

Figure 2 illustrates a simple set-up for the video camera. Digital recorders are very small in size and can be mounted on a small tripod. An external directional microphone is attached to maximize sound capture. The LCD panel can be flipped forwards to face the doctor. This serves as a video monitor and enables the doctor to quickly check his angle and positioning. Some digital cameras come with wireless remote to start or stop the recording. The whole setup shown here can be placed on any shelf or ledge in the consultation room.

Video consultation log

A log entry for each consultation should be submitted with the tape. Comments on each consultation are required to give more background and information. The candidate's understanding of the strengths and weaknesses of each consultation is something that the assessors will be looking at.

LOCAL EXPERIENCE

The requirements and techniques discussed so far were developed by Colleges and Family Medicine Departments overseas. CFPS is now beginning to use these tools as a formal assessment method and adapt it for use in Singapore. This requires knowledge of the local setting, and due consideration must be given to the differences in local practice.

Influence of diverse healthcare systems in Singapore

On a macro level, national healthcare systems differ between countries. GPs in Singapore provide a wide range of services and see patients from all sectors of the community. Because of the multiracial background, GPs see patients of many races with different cultures and languages. Expectations may be different for each group. The understanding of medical conditions and belief systems will also colour the consultation. Use of words such as 'sinus', 'flu', and 'arthritis' may carry very different meanings in the local context. Use of terms such as 'heaty throat', 'cooling cough' etc, reflect a mixed belief in traditional Chinese medicine and western medicine. Such differences will be challenging to the assessor when it comes to interpreting the consultation process.

Patients' discomfort

Since the use of video recording in the consultation room is still a novel process in Singapore, conservative patients may feel uncomfortable with signing a consent form. More time will be needed to explain and reassure the patients about the purpose of the video recording. The receptionists will need to be trained about the process in order to help the doctor give advice. In a multiracial context, the consent forms should ideally be in various languages, regardless of the language used during the actual video consultation. This translates to more administrative work.

Language

Language is also an important factor, as English may not be used as a spoken language in the routine consultation. A mixture of different languages such as mandarin and Malay, plus a generous dose of dialect and local slang is not uncommon during a normal conversation. Even for English speaking patients, we expect the conversation to be mixed with some local terms or dialect. These terms are often plentiful and varied, which makes interpretation & assessment of the video consultation very challenging. It is therefore not easy for candidates to be able to select a purely English-speaking patient for the videotape consultation.

Consultation time

The average consultation time in Singapore is shorter than western countries. Few GPs have an appointment system, as most see patients on a walk-in basis. GPs who run a busy clinic may see 6 to 8 patients an hour. The time allotted may therefore be inadequate to produce a video consultation that will cover all the competencies to be demonstrated. We have sought to overcome this by doing the videotaping during midweek afternoons, which are less busy; pre-selecting patients to identify potentially good English-speaking cases; and setting aside special sessions with longer consultation times allotted.

Space constraints

Due to space constraints, most clinic consultation rooms are small. This will present problems with the proper setting up of the video recorder. The best position for placing the video recorder allows the viewer to be able to see both the doctor and the patient's facial expressions. The recorder can be positioned slightly to the side of the patient so that it is not directly in the patient's line of sight. This will prevent it from being a distraction. There will be problems if the consultation room is very small; with the examination couch and washbasin in close proximity. Now that video recorders are getting smaller in size, and given the large amounts of accessories available to enable the camera to be perched on a windowsill or bookshelf, much of these problems can be overcome.

CONCLUSIONS

Direct measurement of the competency of the consultation can be done by videotaping the consultation and scoring it using performance criteria such as that developed by the

Royal College of General Practitioners. There is a need to pay attention to the technical aspects of videotaping in order to succeed in recording a consultation of reasonable audio-visual quality. For the choice of consultations to record and the assessment of the recorded consultations locally, factors such as the influence of diverse health systems in Singapore on the patient, the language used by the patient, consultation time and space constraints need to be taken into consideration.

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