

# What determines competence within a general practice consultation? Assessment of consultation skills using simulated surgeries

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## SUMMARY

*A method for assessing the consultation skills required in general practice using patient simulators within a simulated surgery has been developed in Leicester, aimed at registrars coming to the end of their three-year training programme. This paper addresses the issues of validity, describing the technique as it has evolved over the past three years, and paying particular attention to ways in which the consultation was made to feel 'real' for candidates. As well as testing clinical issues during consultations, simulated surgery incorporates the views of the patient into the assessment process. Feedback from registrars has been positive and the method presents an alternative to video-recording the consultation for the purpose of assessment.*

*Keywords: professional competence; consultation skills; simulated patients; simulated surgery.*

## Introduction

Demands for general practitioners (GPs) to be made more accountable, and for those in training to demonstrate their competence to practise unsupervised, have led to compulsory summative assessment and the introduction of General Medical Council (GMC) performance review procedures.<sup>1,2</sup> In turn, this has necessitated the development of ever more valid and reliable tools for the assessment of doctors, particularly in the medical consultation.<sup>3,4</sup> Performance-based assessments using simulated patients have been extensively researched and reported on;<sup>5-8</sup> despite logistic problems, the use of such patients within a simulated surgery has also been considered.<sup>9</sup>

While the validity of using simulated patients for assessing consultation skills has already been clearly demonstrated,<sup>10</sup> this paper describes the various aspects of validity to be considered relating to the development of a simulated patient surgery. The issue of assessment by case specificity in favour of overall performance is discussed as a new development. The importance of standard setting<sup>11</sup> is discussed using a number of perspectives including those of professional educators (in this case doctors) and lay people (patient simulators).

## Principles of simulated surgeries

The simulated surgery method is now well developed in Leicester and has already been described.<sup>12</sup> Assessment of consultation skills is carried out by asking registrars to participate in

a simulated surgery consisting of eight consultations with patient simulators, each lasting 10 minutes, in a real general practice setting. All participants are offered feedback on their performance, either in a group debriefing, with the simulators facilitated by an assessor, or individually. Those who fail to demonstrate adequate consulting skills after one simulated surgery are required to carry out a further surgery of eight consultations.

Once informed consent has been gained from the patients concerned, simulations are developed from real consultations using video recordings, in accordance with GMC guidelines.<sup>13</sup> Using these recordings, patient simulators are then trained to develop the simulation by the doctor with whom the original patients consulted. Patient simulators also receive training in the application of the marking schedules. At the end of each consultation the simulator completes two marking sheets. The first is set by doctors and covers selected areas of the consultation from the doctor's viewpoint. Such areas might include the comprehensiveness of the history, the presence of health-promoting activity, the explanation to the patient regarding the nature of the problem, and the decision to prescribe or refer. Each consultation is unique in this respect, and pass/fail standards are set for each simulation. The second marking sheet is a subjective evaluation of the consultation by the simulator, and the standard for this is set considering the surgery overall. To demonstrate that their consultation skills are adequate, registrars have to achieve passes in six out of eight clinical mark sheets; they must also achieve the overall pass mark set for the surgery for the simulator evaluation. In this respect the technique differs from others, which rely on single-case specific assessments.<sup>14</sup> These processes are described in more detail later.

## Validity

There are a number of areas of validity that have been considered and addressed during the development of the method described above. These include face validity, content validity, construct validity, consensual validity, and criterion validity.

### Face validity

For a technique to have face validity it should be relevant to the subject being assessed. The face validity of an assessment of complex activity, such as the general practice consultation, is of great importance, and often too little attention is given to this area. In the general practice consultation the skill lies in the performance of the whole process, which is more than a summation of distinct parts. What is important is a synthesis of the skills used, for example, in establishing a relationship, taking an appropriate history, and selecting a relevant examination and management strategy.<sup>15</sup> The method of training simulators from an unedited recording of an entire consultation leaves no doubt that each simulation is based on a real consultation. In the training process the simulator is encouraged to develop responses as the patient, without corrupting the essence of the actual consultation. In this way it differs from scripted simulations, which are invariably artificial and incomplete.<sup>16</sup>

Once developed, the simulations are assembled as a simulated

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surgery of eight patient consultations. The appearance of reality is enhanced by holding the sessions in general practice premises and by having the simulators move round the building to the candidate doctors, who stay in their consulting room. Feedback from those who have consulted in this way has confirmed that it feels like a real evening surgery. Comments include: 'It's very similar to being with patients in a real surgery and is therefore not an uncomfortable experience,' and 'Good mix of patients and challenge — makes you think.'

### *Content validity*

This requires that the assessment method adequately samples the area of performance that it is assessing. There are some limitations inherent in the method. For example, it has not been possible to use children, and all consultations are first encounters for the consulting doctor. In real practice, however, many consultations are about continuing problems, for which GPs often find themselves having to pick up from where another doctor has left off; this has been particularly true for registrars in training practices.<sup>17</sup> A further limitation is that some invasive and personal types of physical examination are not allowed, although simple things such as examination of the throat or chest, or palpation of the abdomen can be included. However, this assessment method has been developed for assessing consultation skills rather than physical examination skills; thus any physical examination will be present only as an integral part of the overall consultation, and there may be none. Although simulators are widely used elsewhere for assessing examination skills,<sup>18</sup> we are not using this assessment method for that purpose, though we do recognize the need for further research in this area before it can be considered for inclusion in the process.<sup>19,20</sup>

*Clinical check list.* The simulated surgery assessment method examines the broad processes of communication and problem management within the context of a general practice consultation. The first marking schedule is set by clinicians — an expert group of GPs, including the doctor who carried out the consultation on which the simulation is based — and explores the areas in which the expert group think an independent GP should be able to demonstrate competence at a minimal level. The use of such expert technical groups and the complexities of standard setting are well described elsewhere;<sup>21,22</sup> these have been taken into consideration in devising a marking schedule, and development work is continuing in this area. This marking schedule is role-specific and is based on the key features of each case, and may include history, appropriate examination, communication, management, and patient education.

As cases are drawn from real life, the overall mix of these features is that of a typical general practice surgery. It is couched in statements that the consulting doctor prompts the simulator to make during the consultation; simulators apply the marking schedule by indicating whether they were able to make the statement during the consultation. Thus, the simulator is acting as a recorder for the expert GP group who construct the marking schedule. As simulators they do, however, respond as patients, and each consultation is a unique interaction; this may give rise to apparent inconsistencies. A simple statement often used in the marking schedule is, 'I know when to return to see the doctor'. In some consultations, patients may be given this information in a way that they cannot comprehend or accept, and will not record a mark, even though the doctor thinks that he or she has given advice on follow-up.

After some experience in the role, simulators can contribute to the development of the simulation<sup>22</sup> by assisting the expert group with comments from the patient's point of view, which they may or may not incorporate into the marking schedule. This type of

information is not available in any other type of consultation assessment method. The standard setting is carried out by the doctors alone. Each consultation will have a pass/fail mark set by the assessors in the expert GP group. Its format may vary; for example, in some consultations it will be based on the total number of statements made, whereas in others certain statements are mandatory and a pass cannot be achieved without them. Some areas may be regarded as of greater importance and be given a greater weight, or conversely a negative weight. A single pass/fail standard is set for each consultation and for the overall surgery of eight consultations; this has proved to be reliable.<sup>23</sup> As this is an assessment of performance in the consultation, it was felt that individual consultation standards and a standard for the whole simulated surgery should all be met. As a reflection of reality the standard setting-group felt that it was not reasonable to expect optimum performance in all eight consultations, but that doctors should pass on a minimum of six clinical sheets.

Once the marking sheet has been agreed it is piloted in a 'dry run', in which the simulation is carried out by a number of doctors. This serves a dual purpose in that the simulator is able to carry out the simulation with a number of different doctors and iron out any practical issues for them. Individual statements from each simulation score sheet are examined to ensure that there are no inconsistencies or ambiguities in their use and that they are discriminating. It also allows the expert group to review the marking schedule in action, and to address any difficulties in its application with a review of the pass/fail threshold, revising it where necessary.

*Patient check list.* As well as the clinical check list, which is a process of recording what happens in a consultation on behalf of the examining doctors, the simulators complete a second marking sheet, which is entirely concerned with their own assessment of the doctor's performance. Its origin is from patient satisfaction questionnaires,<sup>24,25</sup> which have been modified during their development by the assessment team. It explores patient assessment of the doctor in the areas of communication, the relationship established, the perception of competence, and the feeling of trust (whether the patient would wish to consult with that particular doctor again). These are areas of skills in consulting that are extremely important, and in which doctors may be very inaccurate in their perceptions of patient satisfaction with outcome.<sup>26</sup> Cromarty, in his recent paper on patient thoughts on general practice consultations, suggests that we should use consultation models that include patient perspectives; this is the only assessment method in current use that addresses this directly.<sup>27</sup>

The pass mark here is an aggregate of the scores obtained for the whole eight-patient simulated surgery. The reasons for using an overall surgery score is that, unlike the clinical check list, this marking sheet is not tailored to individual consultations but is common to all, and setting the pass mark in this way reflects that difference. It also ensures that the effect of individual doctor-patient personality factors is minimized.

The standard was set by the expert group and validated by drawing on discussions with registrars and patient simulators during pilot simulated surgeries, and on background information provided by trainers of the candidates. The standard then was repeatedly reviewed in pilot surgeries.

### *Consensual validity*

This is said to be present when a number of experts agree that a measure is valid.<sup>21</sup> After each simulation is developed, its performance as an assessment tool is evaluated by the expert group. This is done both in the 'dry run' process, in which members of the expert group consult with the simulators while being observed by their colleagues, and in pilot schemes using different

groups of registrars at differing stages of training. The performance of each simulation is assessed in terms of differentiating doctors whose consultations are performed competently from those who have not demonstrated competence, using the standard set by the working GPs in the expert group. A similar process is used to set the aggregate pass mark for the patient check list. In order to obtain an overall pass, a candidate doctor has to reach the required standard in both the clinical and the patient check lists for that simulated surgery.

### Construct validity

A number of fundamental concepts of the consultation in general practice have underpinned the development of this type of assessment method. First, in assessing a general practice consultation, the assessment should concentrate on a synthesis of the many skills that are used during a consultation rather than on individual skills seen in isolation — a holistic rather than reductionist view of the consultation. It is in the general practice consultation that this synthesis is at its most obvious, and any method of assessing consulting skills must address this issue. The acquisition of this skill in synthesizing is a vital outcome of successful general practice training. Our experience has been that GP registrars early in their training do not perform as well in this assessment as those towards the end of their training.

Secondly, each general practice consultation is a unique event between two people, the doctor and the patient. The assessment of such complex transactions is difficult, but if the material being assessed as well as the individual being assessed are variables then this difficulty is increased. Simulated patients allow a standardized challenge to be made in the assessment of groups of doctors.<sup>23</sup>

Thirdly, patients do have a part to play in the assessment of the doctors who consult with them. All other current methods of assessment of consultation skills involve direct or indirect observation by observers who are non-participants in the transaction. Working with simulators has confirmed that there are areas that can only be assessed by a participant in the consultation. Our experience is that observers are often wrong when they attempt to judge from outside whether the patient's anxieties have been addressed. For example, a consulting doctor may feel that he has reassured a patient, when in fact he has addressed the wrong issue. The patient appears reassured to an observer, but this feeling is quite erroneous.

In this part of the assessment we are looking to distinguish consistent poor performance from satisfactory performance, so the surgery is evaluated as a whole. There have been anxieties expressed about allowing patients to have a role in the assessment of doctors in this way. We feel it is entirely appropriate that if a large proportion of the patients consulting with a doctor feel that the doctor does not listen to them, for example, or does not explain what is going on, then such a doctor should be declared unready for independent practice. In this assessment method, before such a decision is reached the doctor concerned will have been evaluated by sixteen patients!

### Criterion validity

The results of this assessment method have been compared with other assessments of candidates. It must be remembered, however, that some variation might be expected as different methods of assessment may be testing different domains of competence. The crucial test in this instance is therefore whether a doctor has reached a level of minimum competence in consulting skills. In examining this, the results of simulated surgery assessment have been compared with the informed opinions of experts (the candidate's trainer or course organizer). The performance of candidates was in line with the expectations of their teachers.<sup>23</sup>

### Surgery case mix

The simulated surgeries each contain a variety of general practice consultations. Some of the consultations are obviously more challenging than others. However, each consultation has its own minimum standard set by the examiners; at a basic competence level, less is expected from a challenging consultation than from a more straightforward one. So that the consultations are realistic, some selection is performed to ensure that not all eight of the simulated consultations have the same clinical content, for example depression. Simulated surgeries are arranged by the expert group to ensure a spread of clinical challenges, varying both in complexity and in content, always bearing in mind that the simulations are derived from real general practice consultations.

### Conclusion

The simulated surgery method described for the assessment of consulting skills has a number of practical advantages over other assessment methods. The method of construction of the assessment ensures both face and content validity. Setting medical standards by using an expert group of working GPs gives consensual validity. Patient involvement gives this method a dimension that is lacking in other methods of assessing consulting skills. This simulated surgery method has been demonstrated to be an acceptable method of testing consultation skills in general practice and is logistically feasible. Further research is continuing to refine the methodology with respect to standard setting.

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