Simulation in psychiatric teaching

Subodh Dave

SUMMARY
The use of simulated patients in medicine offers students a standardised learning experience and a reproducible way of exploring attitudes and teaching communication skills. This would seem to be particularly relevant to psychiatry with its focus on attitudes and interpersonal skills, but doubts have been raised about the utility of simulated patients in teaching skills such as empathy and the generalisability of this learning to the real world. This, tempered with cost implications, may have limited the use of simulated patients to assessment through objective structured clinical examinations rather than to teaching and to learning. This article examines the educational advantages and disadvantages of the use of simulated patients in psychiatric teaching and argues that their judicious use complements undergraduate and postgraduate training in psychiatry. The article offers practical tips on writing simulated patient scenarios to deliver specific learning objectives and discusses the potential use of novel simulation techniques in psychiatric education.

DECLARATION OF INTEREST
None.

Advances in simulation technology have led to the setting up of simulation skills centres in many universities and hospitals. Expensive mannequins and simulated patients are routinely used to teach medical students and trainees and most, if not all, clinicians in the UK are exposed to a simulator mannequin at least during resuscitation training. These advances in simulation technology seem to have had little impact on training in psychiatry where the role of simulated patients has largely been limited to assessment through objective structured clinical examinations (OSCEs). Changes in models of psychiatric delivery (ward closures/specialist teams) have limited the availability of direct patient contact for medical students and trainees (Thomson 2011). Simulated patients, if well embedded in the training programme with clear learning objectives, can prove to be a useful tool in the psychiatric teacher’s armamentarium. Role-plays, which can be considered a form of experiential learning through simulation, are excluded from this review but are covered in the comprehensive review by Eagles & Calder (2011).

The role of films, which can provide experiential learning through vicarious simulation, has been considered in an earlier review in this journal (Dave 2011a).

Historical context
Simulation technology first developed in anaesthesia (Good 2003), but it was the noted medical educator and neurologist Howard Barrows who first used an artist’s model to simulate a patient with multiple sclerosis (Barrows 1993). Barrows soon recognised that the value of simulated patients (or standardised patients – distinctions explained below) lay beyond their overt utility in simulating physical symptoms and accordingly the actors were given characteristics such as ‘hostile patient’, ‘seductive patient’, ‘patient hates physician’ and ‘patient from another culture’. This foray into simulating psychological characteristics of patients was the first attempt at using actors to teach issues relevant to psychiatry. It is indeed, therefore, an anomaly that the formal use of standardised or simulated patients in psychiatric education seems to have been delayed by another two decades (Eagles 2007).

What is a simulated patient?
The term ‘simulated patient’ has been used interchangeably at times with ‘standardised patient’, a term coined by the Canadian psychometrician Geoffrey Norman (Collins 1998). Various other terms have been used, such as patient instructor, programmed patient, patient educator, professional patient, surrogate patient, teaching associate and volunteer patient. All of these terms are sometimes encompassed in the umbrella term ‘standardised patient’, which is defined as a simulated/actual patient trained to present their symptoms in a standardised way to provide a student with an opportunity to learn or to be evaluated. ‘Simulated patient’ is then defined as a person without any real clinical signs or symptoms trained to portray certain physical signs or symptoms or to play a particular role to facilitate teaching or assessment (Ker 2007). This is to be contrasted with role-play patients, where either the learner or the teacher plays the role of a patient to facilitate teaching. With standardised patients, the focus is on consistency of presentation over time and
settings, which conveys a product 'superior to the inconsistencies of the real patient' (Brenner 2009). In this article, the focus is on simulated patients, who are trained to play a role.

**Uses of simulated patients in psychiatry**

**Assessment**

Simulated patients are relatively rare in psychiatric teaching, but they are rapidly becoming the norm in both undergraduate and postgraduate summative examinations (Wallace 2002). Rather less explored, at least in psychiatry, has been the role of simulated patients in formative assessments, despite the acknowledgement that students' studies are often driven not by the curriculum but by assessment (Wass 2001). Here I focus on psychiatric teaching but readers interested in the use of simulated patients in assessment are directed to an informative article by Hodges *et al* (2002).

**Teaching**

Simulated patients have been used in two broad areas of psychiatric teaching: (a) to expose trainees to a wider range of diagnoses and psychopathology; and (b) to teach advanced communication skills relevant to psychiatry (Tysinger 1997; Edinger 1999; Brenner 2009). Medical students have ranked the use of simulated patients enacting psychopathology as one of the most useful learning experiences in their placements (Hall 2004). Simulated patients portraying schizophrenia have been successfully used to teach mental state examination (Birndorf 2002) and those enacting delirium to teach liaison psychiatry skills (Chur-Hansen 2002). They have also been used to teach clinical skills related to the assessment and management of patients misusing benzodiazepines and opiates (Taverner 2000). Students have praised the use of simulated patients to help them understand psychiatric symptoms (Krah 2002) and to teach clinical skills in psychopathology in a round-robin interviewing format (Gay 2002).

Simulated patients are particularly useful in situations where acquisition of attitudes or skills is more pertinent than that of knowledge. It is easy to conceptualise the role of simulated patients in psychiatry, teaching complex diagnostic skills or therapeutic skills such as empathic engagement, but considering this, it is particularly significant that psychiatric education has lagged behind that of other disciplines in using simulated patients. This has been attributed to the difficulties involved in training simulated patients in enacting complex psychiatric illnesses and affect (Eagles 2007). The addition of simulated patient psychiatric examination in the teaching programme has been shown to help improve interviewing and interpersonal skills (Bennett 2006). Simulated patients have also been useful in teaching complex skills such as psychotherapy, where using real patients would be ethically complicated (Trudel 1996). Videotaped encounters with simulated patients have proved to be a useful teaching tool to train residents in basic psychotherapeutic skills (Klamen 2002), and international videoconferencing using simulated patients has been used to teach clinical skills relevant to transcultural psychiatry (Ekblad 2004).

Simulated patients have been used to teach psychosocial matters not directly related to, but relevant to, psychiatry, such as breaking bad news with empathy (Quest 2002), taking a good sexual history and providing HIV counselling (Haist 2004). Haist *et al* also used simulated patients in a workshop to teach residents about the assessment and management of domestic violence (Haist 2003). Similarly, Clay *et al* have used a standardised family to teach clinical skills to medical students (Clay 2000).

Simulated patients have been used to teach clinical governance issues, which are also relevant to psychiatric practice. An example is the use of simulated patients to teach medical students the clinical skills needed in discussing medical errors with patients (Halbach 2005). Similarly, simulated hospital admission has been used to increase empathy among medical students (Wilkes 2002).

Box 1 summarises the role of simulated patients in teaching skills and attitudes relevant to psychiatry.

**Advantages of using simulated patients to teach psychiatry**

**Increasing exposure to a range of diagnoses**

The past 50 years have seen a remarkable shift of care in the community. The bulk of psychiatric disorders present to, and are managed in, primary care but despite this, medical education is focused on in-patient settings rather than on primary care or the community. Current funding arrangements of medical education in the National Health Service make it difficult to transfer teaching *en masse* to primary care (Dave 2010). Simulated patients offer a relatively simple way to teach issues relevant to primary care even in a secondary care setting. Learning in an in-patient environment usually limits the learner’s exposure to patients in crisis and to those with severe mental illness such as schizophrenia, severe depression or mania. The use of simulated patients allows educators to increase the exposure of students to a range of diagnoses with varying degrees of severity.
**BOX 1 What can simulated patients teach?**

<table>
<thead>
<tr>
<th>Psychiatric skills</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recognise and elicit the psychopathology of common psychiatric disorders</td>
<td>• Explain the aetiology, biopsychosocial management plan and prognosis for common psychiatric disorders to a patient, carer or colleague</td>
<td>• Carry out a clinical risk assessment on a patient with a common psychiatric disorder</td>
</tr>
<tr>
<td>• Physical examination, for example to assess extrapyramidal side-effects</td>
<td>• Employ a professional approach in communicating with distressed patients and carers</td>
<td>• Physical examination, for example to assess extrapyramidal side-effects</td>
</tr>
<tr>
<td>• Reflect on the impact of a patient’s, carer’s or colleague’s actions on one’s own emotional reactions</td>
<td>• Recognise and explain the interaction between physical conditions and psychiatric symptoms (simulated patients presenting with physical symptoms such as tremor or headache)</td>
<td>• Reflect on the impact of a patient’s, carer’s or colleague’s actions on one’s own emotional reactions</td>
</tr>
<tr>
<td>• Interview a patient in a professional manner and instil therapeutic optimism</td>
<td>• Interview a patient taking into account their unique sociocultural background (skill at obtaining a personal narrative as opposed to a checklist)</td>
<td>• Interview a patient taking into account their unique sociocultural background (skill at obtaining a personal narrative as opposed to a checklist)</td>
</tr>
<tr>
<td>• Recognise and explain the interaction between physical conditions and psychiatric symptoms (simulated patients presenting with physical symptoms such as tremor or headache)</td>
<td>• Recognise and explain the interaction between physical conditions and psychiatric symptoms (simulated patients presenting with physical symptoms such as tremor or headache)</td>
<td>• Reflect on the impact of a patient’s, carer’s or colleague’s actions on one’s own emotional reactions</td>
</tr>
<tr>
<td>• Employ a professional approach in communicating with distressed patients and carers</td>
<td>• Recognise and elicit the psychopathology of common psychiatric disorders</td>
<td>• Interview a patient in a professional manner and instil therapeutic optimism</td>
</tr>
</tbody>
</table>

**Transferable skills**

- Interview a patient in a professional manner and instil therapeutic optimism
- Interview a patient taking into account their unique sociocultural background (skill at obtaining a personal narrative as opposed to a checklist)
- Recognise and explain the interaction between physical conditions and psychiatric symptoms (simulated patients presenting with physical symptoms such as tremor or headache)
- Reflect on the impact of a patient’s, carer’s or colleague’s actions on one’s own emotional and behavioural response (simulated patient vignette to trigger specific emotions followed by exploration of transference/countertransference issues post-interview)
- Employ a professional approach in communicating with distressed patients and carers

**Attitudes and behaviour**

- Act respectfully towards patients, carers and colleagues at all times
- Show a non-judgemental approach to psychiatric disorders

**Reduced variability in clinical placements**

The use of simulated patients allows a degree of standardisation in the range of patients seen by students. Students not placed with busy inner-city teams are less likely to see patients from diverse cultures with more comorbid conditions, including drug and alcohol misuse. Students placed with such teams are more likely to have a wider choice of clinical cases with which to work than those placed with teams in less busy sectors.

**Ethical issues**

There is a growing recognition that values are an integral component of good clinical care. In their discussion of the physicians’ charter developed by the Medical Professionalism Project (2002), which stresses the importance of patient welfare and confidentiality, Jotkowitz et al (2004) recommended the use of simulated patients in medical education. This has particular relevance in psychiatry, where patients have sensitive narratives and are often reluctant to share them, resulting in the common experience of medical students sitting out for long periods in out-patient clinics’ waiting rooms.

**Risk management and patient safety**

The past decade has seen a considerable effort to improve clinical governance with an increased focus on accountability and patient safety (Scally 1998). High-profile incidents in the UK, such as the Bristol inquiry and the Shipman murders, have had a significant impact (Mohammed 2001) and this is evident in the efforts of the General Medical Council in standardising the education curriculum for learners in medicine (General Medical Council 2009). Medical students often feel intimidated by mentally ill patients and worry about saying the ‘wrong thing’. Most patients do not mind talking to students, but for some it is distressing to deal with novice trainees (Du Boulay 1999). For postgraduate students in psychiatry, acquiring competencies such as psychotherapeutic skills can involve the risk of harming patients. Equally, certifying bodies such as universities or Royal Colleges could be held accountable if they are shown to be negligent in imparting the relevant competencies. Simulated patients offer a safer alternative of training learners to a set standard.

**More effective learning**

In real-life clinical situations, teaching can only be delivered at the end of the clinical encounter. With simulated patients, it is possible to stop/start the scenario and deliver teaching at critical points during the interview. Providing space and time for reflective thinking allows students to formulate hypotheses and concepts about the clinical scenario. These new concepts or hypotheses can be tested by rewinding the scenario. Pausing the scenario allows students to discuss alternative strategies for conducting the interview.

Simulation also offers the opportunity for team-based learning, which is particularly relevant in psychiatry, where multidisciplinary teamworking has become the norm.

Feedback from experienced simulated patients can enhance the learning experience for students. This feedback can be qualitative or structured, in-role or out of role (Eagles 2001).

**Increasing trust in medical education**

Anti-psychiatry movements have criticised the reliance of psychiatry on the medical model (Shah 2007). Psychiatry educationalists can counter this by using simulated patients to teach psychosocial and communication skills, which are seen to be more relevant to patients’ experiences of illness and its treatment. Universities and institutes such as the Royal College of Psychiatrists have the opportunity to demonstrate in a measurable, auditable way the delivery of humanistic rather than mechanistic teaching, which should increase trust in a profession dogged by stigma and negative media attention.
Ease of administration

Anyone who has been involved in teaching knows the difficulties in organising the availability of willing patients for the benefit of student learners. Developing a bank of simulated patients is initially time-consuming and expensive (Ker 2005) but once they are trained, they are a ready resource that can be used at short notice in a range of clinical settings (Barrows 1993). Moreover, the use of simulated patients is accepted and liked by trainers and students, who prefer working with simulated patients compared with role-playing with colleagues (Lane 2007).

Disadvantages of using simulated patients to teach psychiatry

Expense

Setting up a bank of simulated patients is not only time-consuming but also involves significant costs. There are initial setting-up costs in training actors and developing clinical scenarios, followed by recurring costs of the actors’ sessions and the cost of managing this human resource. The average cost of one simulated patient session (3 hours) is £40–£75, whereas the initial set-up costs charged by simulation skills centres are £150–£250 for each scenario, depending on clinical complexity. However, these costs pale in comparison with the overall funding available for medical student teaching (Dave 2011b).

Clinical limitations

There remains doubt about the ability of simulated patients to portray the complex clinical features seen in mentally ill patients (McNaughton 2008). There is a risk that simulated patients may bring to the clinical session their own prejudices and end up portraying a stereotyped view of mental illness. Actors may also add to the roles written by the scriptwriter and there may be overacting (Eagles 2007). However, the most important criticism of using simulated patients is that students may react to what they feel the simulated patient ought to feel in the scenario rather than reacting to what the actor is actually portraying. This can lead to a situation best described by the oxymoron of ‘enacted empathy’, whereby students perform what they think is empathic behaviour, for example periodically nodding or muttering ‘I understand’. This is often seen in objective structured clinical examinations (OSCEs), when students deliver to the examination checklist rather than actually empathising with the patient (Talente 2007). This may be improved by better training of simulated patients, although some authors believe that the problem of simulated patients teaching empathy is not one that can be resolved by more training (Brenner 2009). Simulated patients, of course, remain an adjunct to, rather than a replacement for, real clinical experience with real patients.

Transferability of learning

Learning a particular skill in a simulated world is not an end in itself and the real test of teaching and learning using simulated patients is the ability to utilise the learned skills in the real world (Kneebone 2004). There is a risk that trainees, when faced with the real challenges of clinical practice, may approach the clinical encounter in a mechanical manner, which defeats the core purpose of teaching patient-centred clinical skills (Ker 2007).

Stress for simulated patients

Performance-related stress has been reported in simulated patients (Bokken 2004). Portraying mental illness can be emotionally draining and even physically exhausting, for example if the role involves playing a patient with mania. The risk may be more pronounced in vulnerable populations such as adolescent simulators. However, more recent literature offers some reassurance that portrayal of mental illness can actually have a positive stigma-reducing effect in the actor (Hanson 2008). Moreover, the stress associated with the portrayal of the role can be mitigated with appropriate preparation and post-session debriefing.

How to use simulated patients in psychiatric teaching

Simulated patient scenarios need to be tailor-made to deliver the curricular learning outcomes but they also need to be realistic. Simulated patients need not be professional actors but ought to be credible and consistent in their role and available when required. It is also important that they do not have a hostile attitude to psychiatry or to medical education (Cleland 2010). Faculty members, therefore, need to be actively involved in the design, delivery and quality assurance of the scenarios, even when an agency is used for recruitment.

Ideally, each student should have a one-to-one session with a simulated patient in a simulated environment such as an out-patient clinic. Limited budgets, however, can be stretched by using small groups with rotating hot seats and active observation (see examples of student and observer tasks in Box 2). The small group (8–10 students) can then benefit from peer, teacher and simulated...
Dave

MCQ answers

1 d 2 e 3 a 4 c 5 e

patient feedback. When interspersing simulated patient scenarios with didactic teaching, it is preferable to start with didactic teaching and the simulated patient interaction can then follow (Eagles 2011). Box 2 provides an example of a simulated patient scenario. Further examples are available from the author. Box 3 lists educational and practical issues that need consideration in using simulated patients.

Novel uses of simulation

Covert simulated patients in out-patient clinics often go unidentified (Hoppe 1990) and this offers a way to enhance experiential learning for trainees. Technology for telepsychiatry can easily incorporate simulated patients operating remotely (Kennedy 2003). Gaming technology, as is available on videogame consoles, offers the possibility of virtual clinical scenarios whereby user choice will result in varying clinical outcomes. Such simulation has been trialled in internal medicine (Issenberg 2003) and virtual psychiatric scenarios are now commercially available (e.g. VirtualCaseCreator; http://vccweb.health.bcu.ac.uk). Simulated high-fidelity mannequins are now routinely used in medical education but have had limited use in psychiatric education. Incorporating psychiatric content into the scenarios for, for example, an unresponsive patient (mannequin) following tricyclic antidepressant overdose can be used to teach not only resuscitation skills but also the acute management of a suicidal patient. Well-equipped simulation skills centres with video feedback and one-way screens can optimise learning from the recreation of a difficult ward review or a multidisciplinary team meeting (Srinivasan 2006).

Conclusions

The use of simulated patients has risen dramatically, as evidenced by the 20-fold increase in published literature in this field between 1994 and 2003 (Issenberg 2005). Psychiatry has been slow to adopt this new tool, which is an important adjunct to other teaching methods, but with pressures to improve standardisation and quality of teaching along with the ethical issues raised by patient movements, it is likely that its use will become widespread in psychiatry as well. Within psychiatry, simulated patients will be particularly useful in improving exposure to psychopathology seen in primary care psychiatry and to teach the advanced communication skills needed to develop therapeutic engagement. As more centres across the country become familiar with the use of simulated patients, more evidence is likely to accrue, allowing their use more productively and cost-effectively.

Box 2

Simulated patient case scenario to teach learning outcomes in depression

Background

Sam, 35, medical secretary, divorced 3 years ago. Living with daughter Tanya, 4.

History and presenting problem (simulated patient’s brief)

You are here to see your general practitioner because your family forced you to. Your boss has spoken to you sharply on a couple of occasions in the past few weeks and since then you have lost your confidence. Your sleep is disturbed and you wake early. You are able to enjoy yourself briefly if you go out with friends but this happens rarely and usually you cannot afford it anyway. You do not feel like cooking or eating, but force yourself to cook for Tanya. You don’t sleep well but you’ve ‘always been a light sleeper’. You have lost your energy and feel that you are neglecting the housework and Tanya. Indeed, you are beginning to wonder whether you were responsible for the divorce and you are this. You are now beginning to wonder whether to feel that you must be a bad mother because of Tanya. You have lost your confidence. Your sleep is disturbed and in the past few weeks and since then you have

Attitude to treatment

You know that the doctor or the counsellor can’t change the realities of your troubles (financial, relationships etc) so they can’t help you. ‘I can’t imagine how medicines or talking to someone would help, as ultimately these are my problems and I need to sort out the mess I’ve created’ (referring to marriage breakdown).

If asked more

You and your husband were basically incompatible – he liked golf and expensive holidays, you enjoyed theatre and a more sedate lifestyle. After Tanya, you also lost interest in sex and you drifted apart pretty rapidly after that. You often wonder whether you should have just put up with his absences abroad and his gregarious lifestyle.

Approach to interview

You interact logically with the interviewer and are willing to be convinced of the benefits of medication or therapy, although you are pretty sceptical and need to understand how your mood can change if your stresses continue.

Student doctor’s tasks

1 Elicit history of depression
2 Explain referral to the Improving Access to Psychological Therapies (IAPT) programme
3 Carry out risk assessment

Student observers’ tasks

1 Use ICD–10 criteria to establish diagnosis (e.g. mild/moderate depression)
2 Comment on specific examples of statements or non-verbal behaviour that enabled or hindered therapeutic engagement
3 Use your hospital’s risk assessment form to assess risk, and present risk to plenary
BOX 3  Tips on using simulated patients

Educational issues
1 Do not design the curriculum around simulated patients. Instead, review the curriculum to identify key skills and attitudes that can best be taught using simulated patients. For example, eliciting delusions/hallucinations, explaining cognitive–behavioural therapy, empathising with distressed patients.
2 Prepare a detailed brief but use gender/age/ethnicity identifiers only if crucial to the scenario. Regular observation of standardised patient–trainee interaction and feedback from simulated patients helps to iron out any problems with the scenario.
3 When using multiple simulated patients to play the same scenario, each simulated patient will have their own ‘character’, which is unique, but it is important to ensure that the core message does not differ so that students do not get conflicting messages.
4 Decide beforehand whether simulated patients will provide feedback in or out of role and whether the feedback will be unstructured or structured.

Practical issues
1 Identify available funding from the service increment for teaching (SIFT) or similar national government schemes (undergraduates), the deanery (postgraduates) or the trust (clinical staff). Remember, the cost of simulated patients pales in comparison with the costs of buying, running and maintaining simulator mannequins. Factor in costs for travel and food/drinks.
2 Developing your own simulated patients training programme using amateur drama students may seem cheaper but bear in mind the hidden costs of props, training, debriefing, increased turnover and managing sickness absence. Simulation skills centres provide a reliable source for well-trained simulated patients. A list of such centres in the UK is available at www.abdn.ac.uk/-med234/links.htm
3 Identify an administrator who will deal with bookings and invoices.

References
General Medical Council (2009) Tomorrow’s Doctors. GMC.
Ker J, Bradley P (2007) Simulation in Medical Education: Understanding Medical Education. Association for the Study of Medical Education.

MCQs
Select the single best option for each question stem

1 A person without any real clinical signs or symptoms trained to portray certain physical signs or symptoms or to play a particular role to facilitate teaching or assessment is most accurately defined as a:
   a role-player
   b standardised patient
   c expert patient
   d simulated patient
   e patient instructor.

2 It is inappropriate to use simulated patients to teach the following learning outcome:
   a demonstrating respect and empathy towards patients
   b taking a psychosexual history
   c explaining side-effects of depot medication to patients and carers
   d conducting a motivational interview for a non-engaging patient
   e listing diagnostic criteria for depression.

3 The advantages of using simulated patients in teaching psychiatric trainees do not include:
   a quality assurance or kite-marking of empathic skills
   b increased exposure to a range of clinical diagnoses
   c reduced ethical concerns
   d more consistent learning experience
   e improving patient safety.

4 Novel uses of simulation in psychiatry do not include:
   a virtual ward reviews to teach interprofessional skills
   b simulated remote tele- and video-consultations
   c decision-tree in managing a psychiatric crisis
   d virtual interactive case scenarios
   e computerised feedback from simulated patients.

5 The effectiveness of simulated patients in teaching can be explained on account of the following, except:
   a experiential learning
   b formative feedback from experienced standardized patients
   c opportunities for collaborative learning
   d trialling different ways of approaching a clinical scenario
   e learning effective role-play.