



education & training

Psychiatric Bulletin (2007), 31, 187–190. doi: 10.1192/pb.bp.106.010793

JOHN M. EAGLES, SHEILA A. CALDER, SAM WILSON, JANE M. MURDOCH
AND PAUL D. SCLARE

Simulated patients in undergraduate education in psychiatry

This paper describes the use of simulated patients in medical education and how actors have been deployed with medical students in Aberdeen. The advantages and disadvantages of using actors for student education are summarised and we conclude with some possible future developments. At the outset, it may be helpful to outline some definitions, as in the review by Barrows (1993). A 'standardised patient' is an umbrella term for both an actual patient who is trained to present his or her own illness in a standardised way and also for a simulated patient who is a well person trained to portray an illness in a standardised way. This paper will use these terms but will relate mainly to the use of professional actors (not volunteers from the general public, who are often deployed by medical teachers) as simulated psychiatric patients.

Historical synopsis

Ainsworth *et al* (1991), Barrows (1993) and Wallace (1997) have provided accounts of the development of standardised patient programmes in North America. Howard Barrows is credited with using the first simulated patient in Los Angeles in 1963; this was an artist's model who posed as a patient with multiple sclerosis. Barrows (1993) has described the progressive use of simulated patients in portraying a wider range of neurological and other physical symptoms. However, his innovations were greeted with general scepticism, often being regarded as 'too touchy-feely, too expensive, too Hollywood' (Wallace, 1997). Barrows moved to McMaster University in 1971 and, here and elsewhere, the use of simulated patients gradually evolved. In the 1970s, difficult patients who might be hostile, seductive or hate doctors were used to teach students in Michigan, and the use of simulated patients grew to teaching interview skills in general. 'Unannounced' simulated patients were introduced, and doubts about their realism were reduced when they went undetected during out-patient clinics. Their first use in medical student assessments was probably by Ronald Harden and colleagues in Dundee who used them in objective structured clinical examinations

(OSCEs; Harden *et al*, 1975). The use of simulated patients in both undergraduate and postgraduate assessments of clinical skills, as well as in diverse areas of medical education, has since become progressively widespread.

Contemporary uses of simulated patients

Teaching

Simulated patients are now deployed for teaching purposes in almost all areas of medicine where students and healthcare professionals interact with conscious patients. Some of the more innovative uses, and those more relevant to psychiatric practice, are summarised in Box 1. This shows simulated patient teaching often relates more to attitudinal and interactive areas of medicine, rather than to more specific acquisition of knowledge. As such, it is perhaps surprising that psychiatry has not had a more leading role in its development, but this may relate to the relative complexities involved in training a simulated patient to portray a psychiatric role convincingly.

Assessment

Since the 1970s, the use of standardised patients in OSCEs has steadily evolved and has been reviewed by Adamo (2003). Videotaped OSCEs can also provide a valuable teaching opportunity through feedback from teachers and peers (Rose & Wilkerson, 2001; Brazeau *et al*, 2002). Standardised patients have been used progressively in more wide-ranging types of examinations, this development arising through disenchantment with ineffective and inequitable methods of learner assessment (Kassebaum & Eaglen, 1999); real patients differ greatly from each other and the same real patient may present very differently to each examinee. Standardised patients provide consistency within examination centres and even permit the possibility of national standardisation (Barzansky & Etzel, 2004). Furthermore, trained standardised patients can participate helpfully and



education &
training

Box 1. Some teaching uses of simulated patients

Psychiatry

- Introduction to psychotherapy with emotionally difficult patients (Trudel, 1996)
- Consulting with patients seeking benzodiazepines or opiates (Taverner *et al*, 2000)
- Simulated patients with schizophrenia for whole class teaching of mental state examination (Birndorf & Kaye, 2002)
- Introduction of junior medical students to delirium to aid integration of psychiatric, physical and psychosocial concepts (Chur-Hansen & Koopowitz, 2002)
- International videoconferencing to illustrate transcultural psychiatry (Ekblad *et al*, 2004)

Other areas of medicine

- Presenting and discussing a medical error with a simulated patient (Halbach & Sullivan, 2005)
- Empathic and effective death disclosure (Quest *et al*, 2002)
- Illustration of ethical dilemmas (Tysinger *et al*, 1997)
- Sexual history-taking and HIV counselling (Haist *et al*, 2004)
- Addressing domestic violence (Haist *et al*, 2003)
- A 'standardised family' to aid understanding of family dynamics and community orientation (Clay *et al*, 2000)
- A standardised hospitalisation experience for medical students (Wilkes *et al*, 2002)

reliably in the assessment process (Luck & Peabody, 2002; Van Zanten *et al*, 2005).

Research

Medical teaching is under-researched; this is partly because such research is often methodologically complex. Some of these complexities can be reduced by the use of standardised patients; for example, real patients, video-taped interviews and simulated patients can be compared to investigate optimal teaching methods (Eagles *et al*, 2001a; Knowles *et al*, 2001). To understand biases in assessments and management plans, patients can be standardised in their presentations but differ in age, race or gender (Wilson *et al*, 2002; Kales *et al*, 2005). Unannounced simulated patients can be deployed to research the skills acquired by practitioners exposed to different teaching strategies (Luck & Peabody, 2002). If medical education techniques are to be further refined, simulated patients are likely to play a major role in researching appropriate developments.

Advantages and disadvantages of simulated patients

At a time of increased attention to confidentiality and patient privacy, which can render participation in teaching less likely, the recent international charter on medical professionalism (Jotkowitz *et al*, 2004) has called for increased use of simulated patients in undergraduate education. The use of simulated patients avoids the potential mistreatment of real patients and protects them

against 'novice practice' (Du Boulay & Medway, 1999), but reassures students, particularly when the teaching relates to an emotionally sensitive area. Indeed, it can permit students access to clinical situations that they would otherwise be unlikely to encounter, for example domestic violence, HIV counselling and emotionally difficult psychotherapy patients (Trudel, 1996; Haist *et al*, 2003; Haist *et al*, 2004).

Developing a bank of simulated patients (as described by Ker *et al*, 2005) is time-consuming but, once established, such patients are 'available at any time and available in any setting' (Barrows, 1993). Moreover, one person can simulate a wide range of different presentations. Teaching techniques can be deployed which would be problematic with real patients. The interview can be frozen, with the tutor calling 'time out', during which the teacher and students can reflect on what has been occurring and debate where the consultation might proceed before 'time in' is called (Barrows, 1993). Experienced simulated patients can step out of role and provide valuable structured feedback to students (Eagles *et al*, 2001a; Rose & Wilkerson, 2001; Wettach, 2003).

Simulated patients can be stressed by the roles they portray (Bokken *et al*, 2004), which is probably a reason for using professional actors in psychiatric teaching, where roles may well be more emotionally demanding than in other areas of medicine. A positive aspect of the simulated patient role is that the simulators become more knowledgeable about their own health (Wallach *et al*, 2001).

Simulated patient programmes have cost implications. Costs diminish once a programme is established, and overall may actually prove to be cheaper given the staff time saved in teaching and assessment (Ainsworth *et al*, 1991; Kelly & Murphy, 2004). Examinees may be justifiably disappointed if the costs of using standardised patients are passed directly to them (Wettach, 2003).

Psychiatric teaching with actors in Aberdeen

We have been using actors in our undergraduate psychiatry teaching with Aberdeen students since 1996, and we started to do so for three principle reasons. First, the new curriculum required in response to the General Medical Council's (1993) publication of *Tomorrow's Doctors* prompted a fundamental review of psychiatric teaching. Second, our shrinking in-patient population had become overexposed to students and less inclined to agree to see them. Third, our in-patients had become progressively unrepresentative of the spectrum of psychiatric disorders that students would be seeing in other areas of medical practice.

Contact was made with Aberdeen Actors, a professional group who had already done some similar role-playing with social workers. Detailed life histories and scripts were prepared for actors. Discussions and rehearsals led into live performances with students, and ongoing feedback and refinement followed continuing exchanges between actors and tutors. Some interviews between actors and psychiatrists have been videotaped



for regular use with more junior students. Psychiatric conditions presented by actors have included depression, anxiety, alcohol misuse/dependence, hypomania, schizophrenia, psychosis with aggression, obsessive-compulsive disorder, overdose in an adolescent and early dementia. In their final year, students have a week of joint teaching from psychiatrists and general practitioners, during which actors portray somatisation, life crisis/depression, the spouse of a dementia sufferer, adolescent crisis and alcohol misuse. Actors play scenes separated in time, while students interview as general practitioners or psychiatrists, emphasising inter-specialty links and demonstrating the longitudinal course of a disorder, for example early alcohol misuse in primary care evolving to hospitalisation with delirium tremens.

Many of the advantages of using actors in our teaching programme are the generic ones outlined above. The costs are not prohibitive; in the academic year 2004–2005, a total of 107 live actor sessions and 6 understudy rehearsals cost under £8000. This constitutes a tiny proportion (less than 0.5%) of the additional cost of teaching monies received by Aberdeen psychiatry. Our actors portray a wide range of presentations with flair and professionalism, and students generally find that they can not distinguish them from 'real' patients.

A very significant advantage is that actors can be trained to portray patients who would, in real life, decline to see students but are common and typical (Eagles et al, 2001b). An example would comprise a person with an alcohol problem who gives information about his drinking in a guarded and defensive manner. We have also been impressed by the constructive feedback provided to students by actors when they come out of role at the end of an interview. It was this component of the teaching session that seemed to give rise to our students rating actors as superior to other methods of teaching about alcohol misuse in the specific area of improvement in interview skills (Eagles et al, 2001a).

Perhaps partly because the majority of the literature on simulated patients is published by enthusiasts, less has been written about their disadvantages. Although our experiences have also been very predominantly positive, we have observed a few problems locally. Once actors have been trained, it is sometimes tempting not to tinker with their script or performance, so that teaching sessions may become outdated or repetitive. Actors may draw, inappropriately, on their own experiences and embellish their roles outside the scope intended by the scriptwriter. Occasionally, overacting may occur; for example, simulated patients may be just too depressed or too hopeless. Actors are often encouraged to present challenging scenarios to students and they may not always appreciate the point at which their presentation becomes a little too difficult and challenging.

Future developments

In psychiatry, and in other areas of medicine, it seems highly probable that the use of simulated patients will continue to increase both for teaching and for assess-

ments. This may be coupled with an increasing national uniformity in curricula and in assessments. There could be more collaborative use of actors and videotaped simulated patients between teaching centres. It is to be hoped that research into medical education will receive the attention it merits and will be facilitated by the use of simulated patients.

Declaration of interest

None.

Acknowledgements

The Royal College of Psychiatrists Scottish Division Undergraduate Student Teaching And Recruitment Group (S-DUSTARG) coordinated the writing of this paper and the others in this series on undergraduate education in psychiatry. Bill Dick of Aberdeen Actors has been a very constructive, innovative and helpful collaborator. The secretarial work for this paper was done by Lana Hadden and Lindsay Thomson gave helpful comments on the first draft.

References

- ADAMO, G. (2003) Simulated and standardised patients in OSCEs: achievements and challenges 1992–2003. *Medical Teacher*, **25**, 262–270.
- AINSWORTH, M. A., ROGERS, L. P., MARKUS, J. F., et al (1991) Standardised patient encounters: a method for teaching and evaluation. *JAMA*, **266**, 1390–1396.
- BARROWS, H. S. (1993) An overview of the uses of standardized patients for teaching and evaluating clinical skills. *Academic Medicine*, **68**, 443–451.
- BARZANSKY, B. & ETZEL, S. I. (2004) Educational programs in US medical schools, 2003–2004. *JAMA*, **292**, 1025–1031.
- BIRNDORF, C. A. & KAYE, M. E. (2002) Teaching the mental status examination to medical students by using a standardized patient in a large group setting. *Academic Psychiatry*, **26**, 180–183.
- BOKKEN, L., VAN DALEN, J. & RETHANS, J.-J. (2004) Performance-related stress symptoms in simulated patients. *Medical Education*, **38**, 1089–1094.
- BRAZEAU, C., BOYD, L. & CROSSON, J. (2002) Changing an existing OSCE to a teaching tool: the making of a teaching OSCE. *Academic Medicine*, **77**, 932.
- CHUR-HANSEN, A. & KOPOWITZ, L. (2002) Introducing psychosocial and psychiatric concepts to first year medical students using an integrated, biopsychosocial framework. *Education for Health*, **15**, 305–314.
- CLAY, M. C., LANE, H., WILLIS, S. E., et al (2000) Using a standardized family to teach clinical skills to medical students. *Teaching and Learning in Medicine*, **12**, 145–149.
- DU BOULAY, C. & MEDWAY, C. (1999) The clinical skills resource: a review of current practice. *Medical Education*, **33**, 185–191.
- EAGLES, J. M., CALDER, S. A., NICOLL, K. S., et al (2001a) A comparison of real patients, simulated patients and videotaped interview in teaching medical students about alcohol misuse. *Medical Teacher*, **23**, 490–493.
- EAGLES, J. M., CALDER, S. A., NICOLL, K. S., et al (2001b) Using simulated patients in education about alcohol misuse. *Academic Medicine*, **76**, 395.
- EKBLAD, S., MANICAVASAGAR, V., SILOVE, D., et al (2004) The use of international videoconferencing as a strategy for teaching medical students about transcultural psychiatry. *Transcultural Psychiatry*, **41**, 120–129.
- GENERAL MEDICAL COUNCIL (1993) *Tomorrow's Doctors*. GMC.
- HAIST, S. A., WILSON, J. F. & PURSLEY, H. G. (2003) Domestic violence: increasing knowledge and improving skills with a four-hour workshop using standardized patients. *Academic Medicine*, **78**, S24–S26.
- HAIST, S. A., GRIFFITH III, C. H., HOELLEIN, A. R., et al (2004) Improving students' sexual history inquiry and HIV counselling with an interactive workshop using standardized patients. *Journal of General Internal Medicine*, **19**, 549–553.



education &
training

- HALBACH, J. L. & SULLIVAN, L. L. (2005) Teaching medical students about medical errors and patient safety: evaluation of a required curriculum. *Academic Medicine*, **80**, 600–606.
- HARDEN, R. M., STEVENSON, M., DOWNIE, W. W., et al (1975) Assessment of clinical competence using objective structured examination. *BMJ*, *i*, 447–451.
- JOTKOWITZ, A. B., GLICK, S. & PORATH, A. (2004) A physician charter on medical professionalism: a challenge for medical education. *European Journal of Internal Medicine*, **15**, 5–9.
- KALES, H. C., NEIGHBORS, H. W., BLOW, F. C., et al (2005) Race, gender, and psychiatrists' diagnosis and treatment of major depression among elderly patients. *Psychiatric Services*, **56**, 721–728.
- KASSEBAUM, D. G. & EAGLEN, R. H. (1999) Shortcomings in the evaluation of students' clinical skills and behaviors in medical school. *Academic Medicine*, **74**, 842–849.
- KELLY, M. & MURPHY, A. (2004) An evaluation of the cost designing, delivering and assessing an undergraduate communication skills module. *Medical Teacher*, **26**, 610–614.
- KER, J. S., DOWIE, A., DOWELL, J., et al (2005) Twelve tips for developing and maintaining a simulated patient bank. *Medical Teacher*, **27**, 4–9.
- KNOWLES, C., KINCHINGTON, F., ERWIN, J., et al (2001) A randomised controlled trial of the effectiveness of combining video role play with traditional methods of delivering undergraduate medical education. *Sexually Transmitted Infections*, **77**, 376–380.
- LUCK, J. & PEABODY, J. W. (2002) Using standardised patients to measure physicians' practice: validation study using audio recordings. *BMJ*, **325**, 679–683.
- QUEST, T. E., OTSUKI, J. A., BANJA, J., et al (2002) The use of standardized patients within a procedural competency model to teach death disclosure. *Academic Emergency Medicine*, **9**, 1326–1333.
- ROSE, M. & WILKERSON, L. (2001) Widening the lens on standardized patient assessment: what the encounter can reveal about the development of clinical competence. *Academic Medicine*, **76**, 856–859.
- TAVERNER, D., DODDING, C. J. & WHITE, J. M. (2000) Comparison of methods for teaching clinical skills in assessing and managing drug-seeking patients. *Medical Education*, **34**, 285–291.
- TRUDEL, J. F. (1996) Simulated patients for the teaching of basic psychotherapeutic techniques: a practical guide. *Annales de Psychiatrie*, **11**, 14–18.
- TYSINGER, J. W., KLONIS, L. K., SADLER, J. Z., et al (1997) Teaching ethics using small-group, problem-based learning. *Journal of Medical Ethics*, **23**, 315–318.
- VAN ZANTEN, M., BOULET, J. R., NORCINI, J. J., et al (2005) Using a standardised patient assessment to measure professional attributes. *Medical Education*, **39**, 20–29.
- WALLACE, P. (1997) Following the threads of an innovation: the history of standardized patients in medical education. *Caduceus*, **13**, 5–28.
- WALLACH, P. M., ELNICK, M., BOGNAR, B., et al (2001) Standardised patients' perceptions about their own health care. *Teaching and Learning in Medicine*, **13**, 227–231.
- WETTACH, G. R. (2003) A standardized patient enrolled in medical school considers the national clinical skills examination. *Academic Medicine*, **78**, 1240–1242.
- WILKES, M., MILGROM, E. & HOFFMAN, J. R. (2002) Towards more empathic medical students: a medical student hospitalization experience. *Medical Education*, **36**, 528–533.
- WILSON, L., KAHAN, M., LIU, E., et al (2002) Physician behavior towards male and female problem drinkers: a controlled study using simulated patients. *Journal of Addictive Diseases*, **21**, 87–99.

***John M. Eagles** Consultant Psychiatrist, Royal Cornhill Hospital, Cornhill Road, Aberdeen AB25 2ZH, email: john.eagles@gpct.grampian.scot.nhs.uk,
Sheila A. Calder Consultant Psychiatrist, Royal Cornhill Hospital, Aberdeen,
Sam Wilson Clinical Teaching Fellow, Medical Education Unit, University of Aberdeen,
Jane M. Murdoch Lecturer in Old Age Psychiatry, University of Aberdeen,
Paul D. Sclare Consultant Psychiatrist, Royal Cornhill Hospital, Aberdeen