

Introducing Standardized Patients (SPs) into the Clinical Teaching at Taif University's College of Medicine Girls Section (A Pilot Study).

Fatima A. M. Rushwan¹, Dalal M. Nemenqani¹, Amal I. Siddig¹, Mutasim O. Ali²

¹College of medicine, Taif University, Taif, KSA.

²Faculty of medicine, University of Medical Sciences & Technology, Khartoum, Sudan.

fatimarushwan@hotmail.com

Abstract: Background: A Standardized Patient (SP) is an individual who is trained to portray an actual patient in order to be used in the teaching and assessment of medical students. The information available on using SPs in Saudi Medical schools is both limited and deficient. **Aims:** To assess the feasibility of using SPs in the clinical teaching at the Taif University College of Medicine (Girls Side) & to assess students' responses to a SP based clinical exercise. **Methods:** The study was conducted over 2 phases: Phase I (Preparatory): case designing was completed, resources and requirements were outlined and made available, and SPs recruitment was conducted. Phase II (SP based exercise): A SP based clinical exercise was implemented on 4th year female students, later the students responded to a survey concerning the exercise. **Results:** Male candidates were excluded from the SPs recruitment process due to gender segregation rules. Female candidates recruitment from the community failed due to cultural concerns expressed by the candidates, other candidates failed to meet the English language requirements. SPs were recruited from college academic staff. 27 out of 36 students responded to the survey. 88.9% of students expressed some degree of satisfaction with the SP based exercise. **Conclusion:** The findings of our study supported the use of SPs, but special cultural considerations must be made when doing so. Further research is required to establish a valid national approach.

[Fatima A. M. Rushwan, Dalal M. Nemenqani, Amal I. Siddig, Mutasim O. Ali. **Introducing Standardized Patients (SPs) into the Clinical Teaching at Taif University's College of Medicine Girls Section (A Pilot Study)**. *J Am Sci* 2013;9(12):369-373]. (ISSN: 1545-1003). <http://www.jofamericanscience.org>. 50

Keywords: Standardized patients, medical education, teaching, assessment.

1 - Introduction:

Standardized Patients in Saudi Arabia

Standardized patients have been used extensively by medical schools all over the world for over 40 years. Although there are currently 31 medical schools in Saudi Arabia (Bin Abdulrahman *et al.*, 2012), the use of standardized patients in their curricula is not well established. Medical education research in Saudi Arabia is still lacking (Bin Abdulrahman 2012), searching PubMed for papers with medical topics in Saudi Arabia yielded over 21,380 results; only 461 (0.02%) were medical education related papers (Bin Abdulrahman 2012, PubMed 2012), this can explain the lack of information on the area of standardized patients' use. When we started working on introducing SPs into the clinical teaching at our college we were mostly looking for information about how to initiate such a program in Saudi Arabia. The work of Al-Shawwa & Hagi (2011) presented a work plan for establishing a SPs program in King Abdul-Aziz university and what they were planning to do, but no information were available on the actual implementation of that work plan in that paper or in any of the other papers we reviewed.

A limited number of papers was retrieved when we conducted our literature search on SPs in

Saudi Arabia, the information obtained came mostly from work conducted in King Saud and King Abdulaziz Universities, which are the oldest and the most highly ranked of all the Saudi Universities. According to their website King Saud's University college of medicine has an established Standardized Patients Program. A similar program was planned to be established at King Abdulaziz University by 2010 (Al-Shawwa & Hagi 2011).

The papers we reviewed predominantly discussed the implementation of SP methodology in teaching or in assessment, but none of them provided information of the initial steps of SPs program establishment addressing issues like SPs recruitment or case designing within the local setting.

2. Materials and Methods

Background Information & Study Setting

The College of Medicine at Taif University is located in the City of Taif in the western region of Saudi Arabia. It was established in 2005, the first batch was made of male students only. The first batch of female students joined the college in 2009. Students study for six years to obtain an MBBS degree. Students complete a preparatory year followed by five years where they take theme based blocks, The college follows an integrated system with

a spiral approach. The University hospital is still work in progress, and students currently train in the hospitals of the Ministry of health and the Military hospitals in the city.

Study Design

This is a descriptive interventional pilot study in which we introduced the use of SPs in the clinical teaching in Taif University, College of Medicine's female section for the first time.

Study Objectives

1. To assess the feasibility of introducing SPs into the clinical teaching at Taif University, college of medicine (Female Section):
 - To test case designing methods.
 - To determine the requirements in materials and resources.
 - To test recruitment methods and conduct recruitment.
 - To test the finalized cases.
2. To assess students' responses to the introduction of SPs into the clinical teaching.

Implementation

The study was conducted over two phases serving the two objectives consecutively during the period from January to March 2013.

Phase I: The Preparatory Phase

The aim in this phase was to test the feasibility of introducing SPs methodology in our college:

1. Case Designing: The first step taken was to review the 4th year curriculum; the clinical cases were then designed to reflect topics that have already been covered in the curriculum, since we planned to conduct the SP based clinical exercise in a way that would demonstrate the clinical application & relevance of the theoretical knowledge gained in the lectures in hopes of reinforcing the understanding of the theoretical materials.
2. Resources: we used the college clinical skills Lab for conducting the SP based Clinical exercise, the clinical skills Lab is fully equipped with all the material necessary to establish a simulated clinic.
3. SP Recruitment: we attempted to recruit SPs from the local community, students working as research assistants were requested to approach people in their circle including family members, neighbour or friends, the research team also approached college staff members who had no academic or medical background (Administrative staff and college guards).

According to our selection criteria the candidate had to be:

- A Saudi Citizen (local laws prevents non Saudi citizens from practising any type of work without permit).
- Female
- Age > 18 years old
- Educated & English speaking (no specific educational level was set, but a candidate was required to be able to read and memorize the cases in English).

Attempts to recruit SPs from the community were unsuccessful, and so the research team approached faculty members to act as the SPs, the recruitment was successful.

Phase II: The Standardized Patient Exercise

4th year female medical students were the study population. A faculty member played the role of the Standardized Patient. During the clinical encounter students were given time to take a full history and perform relevant physical examination. They were then expected to come up with a list of differential diagnoses and a suitable management plan including ordering the necessary investigations and outlining the suitable treatment options. The post encounter discussion with the faculty member included giving the students feedback about their performance on each of the components of the clinical encounter and creating links with the theoretical knowledge by covering areas like the diagnostic criteria of the case, the pharmacology and therapeutics of the drugs suggested in the treatment plan, if the SP encounter was to be conducted using a community recruited SP the post encounter discussion would have still been conducted by a faculty member.

After the clinical exercise, all students were asked to respond to an electronic survey sent via survey monkey. The survey included 8 questions assessing students' opinions on the standardized patient encounter using a Likert scale. There was also a comment box that was included to allow students to express any additional points or opinions.

3. Observations and Results

Phase I:

The introduction of SPs into the clinical teaching in Taif university college of Medicine (female section) proved great feasibility in terms of case designing methods and materials and resource requirements. The college had previously conducted workshops facilitated by international medical education professionals that included SP case designing and writing, most of the clinical staff members at the college were involved in these workshops and so the case writing process went fairly smoothly. Clinical skills Lab was sufficiently equipped to be used as a simulated clinic. whilst it

was enough for the small scale of our study, a larger study or the establishment of a SPs program would require its own materials and set up.

All the ladies approached inside and outside the college refused to participate as SPs except for academic staff members.

Phase II:

Table (1) summarizes the survey questions and the students responses.

The total number of fourth year medical students' female batch is 50 students. Thirty-six of them participated in the clinical exercise, participation was optional. The electronic survey was sent to all participating students, 27 students (75%) responded. We summed up the responses into positive (Strongly agree, Agree), negative (Disagree, Strongly disagree) and Neutral (Neither agree nor Disagree).

In our preliminary study 100% of our students responded positively on finding the SP encounter similar to a real patient encounter, the same percentage also felt that the clinical encounter improved their understanding of the scientific

materials given in the lecture and finally the whole group of participants also agreed that they have enjoyed the SP based clinical encounter.

96.3 % of the students found the exercise to be as useful as a real patient encounter while one respondent (3.7%) gave a neutral response.

92.6 % of our students confirmed that they would be more confident dealing with real patients if they trained on SPs first, 7.4 % of the participant responding neutrally to this statement.

Most of the study participants (92.6%) expressed that they would like SPs to be included in the medical school curriculum, 3.7% of the participants disagreed with this statement while another 3.7% neither agreed nor disagreed.

Regarding the feedback they received from the standardized patient all of the participating students stated that they found it to be useful.

Overall 96.3% of the study participants expressed a degree of satisfaction with the SP based encounter, while 3.7 % of them expressed a slight degree of dissatisfaction.

Table (1) summarizes the survey questions and the students responses.

Survey Questions	Strongly Agree	Agree	Neither Agree nor Disagree		Disagree	Strongly Disagree	
1. The standardized patient encounter was similar to a real patient encounter	70.4%	29.6%	0.0%		0.0%	0.0%	
2. I found the standardized patient encounter to be as useful as a real patient encounter.	70.4%	25.9%	3.7%		0.0%	0.0%	
3. I would feel more confident if I was trained on standardized patients first, before training on real patients in the hospital or clinic.	81.5%	11.1%	7.4%		0.0%	0.0%	
4. The Standardized Patient exercise improved my understanding of the scientific material given in the lectures.	77.8%	22.2%	0.0%		0.0%	0.0%	
5. I enjoyed the Standardized Patient encounter.	88.9%	11.1%	0.0%		0.0%	0.0%	
6. I would like for Standardized Patients to be included in our medical school curriculum.	74.1%	18.5%	3.7%		3.7%	0.0%	
7. How helpful was the feedback you received from the standardized patient?	Extremely helpful	Very helpful	Moderately helpful		Slightly helpful	Not at all helpful	
	74.1%	25.9%	0.0%		0.0%	0.0%	
8. Overall, are you satisfied with the standardized patient encounter, neither satisfied nor dissatisfied with it, or dissatisfied with it?	Extremely satisfied	Moderately satisfied	Slightly satisfied	Neither satisfied nor dissatisfied	Slightly dissatisfied	Moderately dissatisfied	Extremely dissatisfied
	77.8%	11.1%	7.4%	0.0%	3.7%	0.0%	0.0%

4. Discussion

Standardized Patients Recruitment Challenges

1. Cultural Issues

Over the last 5 years medical schools in Saudi Arabia have increased by 200% (Al-Shehri & Al-Alwan 2013), generous funds are made available to these medical schools to implement and research new teaching and assessment methodologies, but it is important to recognize that Saudi is a country with special characteristics, that's why when introducing new methodologies that involve human subjects like in the case of initiating a SPs program, the effects of the local culture on the implementation have to be considered.

Because of the strict gender segregation in academic institutions in Saudi Arabia, male & female students have separate campuses. Female students are taught by a staff made mostly of female professors. Male professors are only allowed to teach female students by videoconferencing (a method that allows instruction without the teacher and the students ever meeting face-to-face). Male and female students train at different hospitals at alternating days to maintain the segregation rules during clinical training too. Since we were testing the standardized patients on female students only, we were obliged to recruit only females for the role of SPs since men were not allowed to enter the female campus, and this narrowed down the recruitment pool greatly.

In many parts of the world medical schools approach actors when trying to recruit standardized patients. This option is not valid in Saudi Arabia, where acting is a profession chosen by a limited number of nationals and usually practiced outside the kingdom.

The search was becoming increasingly difficult as the concept of a standardized patient itself was new to the community and not well understood. Many women when approached expressed discomfort regarding exposing parts of their bodies and allowing students to perform physical examination on them. Videotaping the encounters was also another vital reason the majority of women declined when approached for the role, putting in mind that most of Saudi women wear a hijab that involves covering their bodies and their faces, their concerns about videotaping were understandable.

2. Native Language Vs. Language of Instruction

Although medical school education in Saudi Arabia is implemented in English, Arabic is the official language of the country and is the language spoken by most of the residents. It is common practice that lectures and practical sessions are carried out in English, whereas clinical rounds and patient encounters take place in Arabic. This language shuffle affects medical students greatly.

It is anticipated that at least one third of our students will be seeking post graduate training abroad. Most training programs require a licensing exam to be passed first (eg. USMLE, PLAB, etc). All licensing exams convey a clinical component that requires students to show competence in performing clinical skills. Candidates in such exams are expected to take history in English, demonstrate good communication skills and counseling abilities. When performing physical examination, candidates should be able to verbally communicate with the patient. At certain times they would even need to give complex commands to patients to perform certain physical exam maneuvers.

We had stressed on finding Standardized Patients with fluent English since all cases prepared for SP implementation were designed in English. The language factor was greatly emphasized upon as we wanted to provide the full clinical training and assessment experience to our students. English is a major challenge to our students, so we intended to build up their English language foundation to prepare them to perform well in any local or international exam or practice setting, but finding a fluent bilingual person to fill the role of a Standardized Patient proved to be most difficult. Although there are many non nationals who are fluent in English and who would be more willing to participate as SPs since they come from less restricted backgrounds, the local laws prohibit non Saudi citizens from working without permits or working in areas other than the ones stated on their permits.

Students' Perceptions

Due to the aforementioned recruitment difficulties we used a faculty SP to carry out the clinical exercise. An important limitation to consider at this point is the small sample size in our study, the sample size could have been higher if we were able to involve the male students and to collect their responses but as it has been previously mentioned the gender segregated institution makes this somewhat difficult.

The use of faculty SPs was documented by multiple previous studies (Mavis *et al.*, 2006, Gallimore *et al.*, 2008 & Abdelkhalek *et al.*, 2009). While Mavis *et al.* (2006) and Gallimore *et al.* (2008) compared students responses to different types of SPs including community volunteers, College administrative staff, course instructors, and student peers (Gallimore *et al.*, 2008) & between faculty members, students and actors (Mavis *et al.*, 2006) the work of Abdelkhalek *et al.* (2009) assessed students responses to one type of SPs only, namely Faculty SPs.

Highlighting the similarities between our work and the findings of Gallimore *et al.* (2008) one

can see that 75 % of students in their study agreed that course instructors were as believable as actual patients, the findings of our study were similar with 100% agreement with this statement. 88% of Gallimore *et al.* (2008) students expressed that working with a course instructor SP prepared them for working with actual patients, in our study the percentage was 92.6%, the feedback given by the faculty SP was appreciated by the students in both studies. In the work of Abdelkhalek *et al.* (2009) 55% of the students confirmed that they were able to think of the FSP as a real patient, once again supporting our findings.

In the study of Gallimore *et al.* (2008) the sample size was 155 students, the respondents to the survey were 107 (69%), while in the study of Abdelkhalek *et al.* (2009) the sample size was larger, 420 students were involved and 412 responded to the survey (98%). The positive finding we are stressing on at this point is that in spite of our small sample size, our findings agreed with other larger scale study findings that involved using Faculty SPs, in more than one aspect.

Conclusion

The findings of this study support the introduction of SPs methodology in our medical schools. The extent of using SPs in other Saudi Medical schools and the context in which they are used is still unclear, one cannot be sure whether SPs are not widely used or if their use is just not documented and made public. Conducting more research on the subject, and publishing the existing findings and experiences would provide valuable information and guidelines, especially for medical schools implementing the methodology for the first time. Conducting a national survey similar to that of Stillman *et al.* (1990), would be the correct next step. Dr. Stillman and her team conducted a survey on all American and Canadian medical schools, gathering information on their use of SPs in teaching and evaluation of clinical skills, the results of this study were later used in the establishment of a network to share resources, protocols, and training material which in turn were used to enhance the development of using SPs. Such a survey can be expanded further and moulded in a way that would answer questions specific to the Saudi setting.

Recommendations

- Conducting more research and publishing the existing findings & experiences.
- Conducting a national survey on all Saudi medical schools on their use of SPs.

- A common SPs pool should be established and shared by neighboring medical schools.
- New recruitment strategies need to be adopted.
- Substituting community recruited SPs with faculty and student SPs, if community recruitment is unsuccessful.

Declaration of interest

The authors report no conflicts of Interest.

References

1. Abdelkhalek NM, Hussein AM, Sulaiman N, Hamdy H. 2009. Faculty as simulated patients (FSPs) in assessing medical students' clinical reasoning skills. *Education for Health*, Volume 22, Issue 3, 2009 retrieved January 2013 available from http://old.educationforhealth.net/publishedarticles/article_print_323.pdf
2. Al-Shawwa Lana A. and Hagi Sara K. 2011. Design and Work Plan for Establishing a Standardized Patient (SP) Program at King Abdul-Aziz University: A "How to" Guide. *Med. J. Cairo Univ.*, Vol. 79, No. 1, June: 227-232 retrieved January 2013 available from <http://medicaljournalofcairouniversity.net/index/images/pdf/2011/june/09.pdf>
3. Al-Shehri Ali M. & Al-Alwan Ibrahim. 2013 Accreditation and culture of quality in medical schools in Saudi Arabia, *Med Teach*, 35: S8-S14
4. Bin Abdulrahman KA, Harden R, Patricio M. 2012. Medical education in Saudi Arabia: An exciting journey. *Med Teach* 34:S4-S5.
5. Bin Abdulrahman KA. 2012. The value of medical education research in Saudi Arabia. *Med Teach* 34:S1-S3.
6. Gallimore C, George AK, Brown MC. 2008. Pharmacy students' preferences for various types of simulated patients. *Am J Pharm Educ*. 2008;72(1):Article 4. Retrieved January 2013 available from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2254229/>
7. Mavis B, Turner J, Lovell K, Wagner D. 2006. Faculty, students, and actors as standardized patients: expanding opportunities for performance assessment. *Teach Learn Med*. 2006 Spring;18(2):130-6.
8. PubMed. 2012. [Accessed 19 January 2012]. Available from <http://www.ncbi.nlm.nih.gov/pubmed/>
9. Stillman PL, Regan MB, Philbin M, Haley HL. 1990. Results of a survey on the use of standardized patients to teach and evaluate clinical skills. *Acad Med*. 1990 May;65(5):288-92.