

# Standardized Patients

Experiences and developments at  
The University of Queensland

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A systematic review of models of clinical  
education for undergraduate physiotherapists  
relevant to Australian settings

Lekkas P et al 2007

Models reviewed:

1:1 (staff: student)

1:2 and > (3-6) \*

2:1

2:2

Non discipline specific Ed (role emerging)

PAL

### Appraisal of clinical education literature:

No level 1 or level 1a evidence

Mostly qualitative – lower hierarchical level

### Findings

No model of clinical education is superior to another

All had advantages and disadvantages

Need for high quality research

### Why an interest in standardised patients?

New initiatives are required in clinical education of health professionals nationally and internationally to meet the challenges of:

- The need for more health professionals
- The insufficient number of traditional hospital based placements
- The changing nature of health care delivery
- To utilise the several advantages of SPs and simulators

## Standardised Patients (SP)



*“a person who has been carefully coached to simulate an actual patient so accurately that the simulation cannot be detected by a skilled clinician.*

*In performing the simulation, the standardised patient presents the “whole” of the patient being simulated; not just the history, but the body language, the physical findings, and the emotional and personality characteristics as well.”*

(Barrows, 1987)

## Simulators

- **high fidelity and low fidelity dummies**
- **used for clinical skills training**
- **simulators for physiotherapy are present predominantly in the cardiorespiratory field**

### Advantages of SPs and simulators

- For developing various skills including interviewing, counseling, physical examination protocols and psychosocial assessment
- To provide the unique experience of receiving feedback from a trained person – an opportunity that rarely occurs in clinical practice
- To promote clinical reasoning in assessment and management with 'time outs' for student reflection and feedback
- To ensure that all students are exposed to a variety and similar conditions in predetermined scenarios - ensures that all students see and experience the same patient presentations

- To present clinical scenarios appropriate to students' level of training – thus building progressively on their acquisition of skills
- Scenarios designed to not only provide a variety of clinical presentations but also the different time frames in the rehabilitation process for management and follow up of a clinical problem
- Safety with inexperienced students, eliminating many of the ethical and safety risks associated with the use of real patients – eg. ICU

**Incorporation  
of  
professional  
issues  
and  
tasks**

**Professional issues**  
**Safety issues**  
**Chart reading and interpretation**  
**Reading x-rays**  
**Clinical reasoning exercises**  
**Treatment recording**  
**Reflective exercises**  
**Letters to doctors and solicitors**  
**Discharge summaries**

## **SP Training Process**

- **Carefully selected variety of *real* cases**
- **Video of patient/physiotherapist interaction**
- **Scripted – modified with challenges**
- **Trained actors (script & physical portrayal)**
- **Actors trained in communication - feedback**

## SP FEEDBACK

- ATTITUDE
- BODY LANGUAGE
- COMMUNICATION
- CARE
- COMFORT
- CONFIDENCE
- CONSENT
- EXPLANATION
- LANGUAGE
- MANNER
- RESPECT
- SUMMARISATION
- QUESTIONS
- UNDERSTANDING



- FUTURE:

*I would be PLEASED / UNLIKELY to see him/her as my PHYSIOTHERAPIST in the FUTURE*

## Use of and research into SPs

### UQ

- Introductory clinical unit (Physiotherapy)
- Specific clinical skills development (SP, OT)

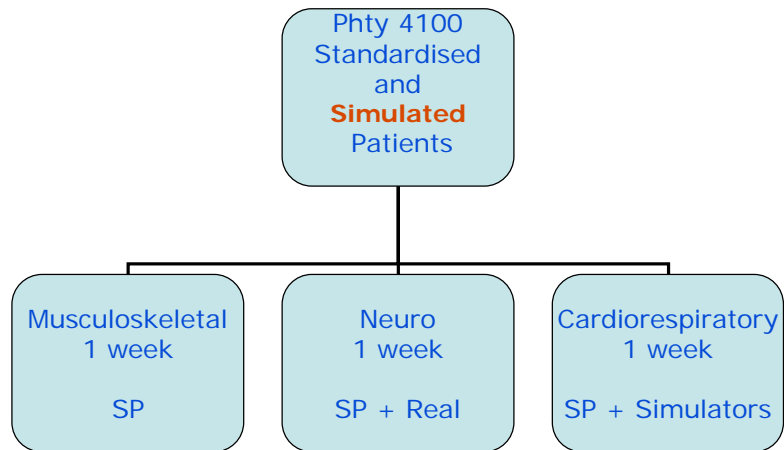
### Research

Collaboration of 7 Australian Universities

- National RCT
- SP + Clin immersion verses traditional Clin immersion
- results of pilot study in a MS unit

## Standardised Patients UQ Introductory Clinical Education Unit

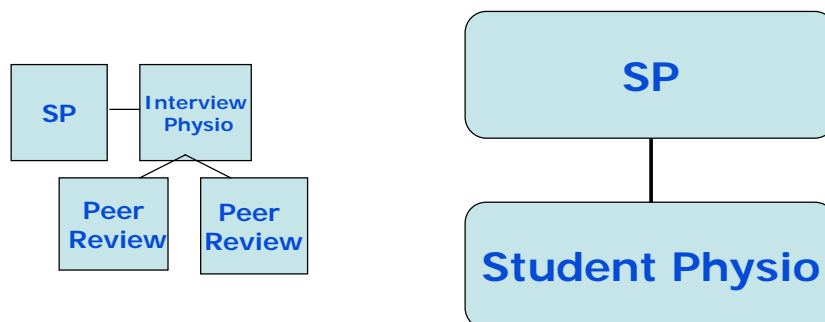
A new initiative in CE



## Format

Patient interviews; physical examination; treatment sessions

Collaborative performance  Individual performance



**Assessment** – OSCE examination with SPs

## Evaluation of Clin Ed experience

R. Isles, N LowChoy, A Chang  
2007 Effective Teaching and Learning Conference

**Significant decrease** in students' perceived level of anxiety in treating patients in real clinical settings

### **Significant increase in their confidence to:**

- Interview patients
- Undertake physical examination
- Identify key clinical information
- Plan and implement physiotherapy intervention
- Explain their role to the patient

## Open Comments

- Assisted students integrate information and transform theory into practice
- Alternative approach to clinical learning enjoyable and useful in preparation for their clinical placements
- Across the three fields, students' opinion was that SPs most useful in cardiorespiratory field

## Research into SPs

- **Predominantly from medicine**
- Simulation provides an environment conducive to effective learning, both in terms of linking theory to practice and in enabling students to gain high level skills without risk to 'real' clients
- Medical skills can be transferred to 'real life' situations and student performance is at least as good as that from conventional experiential learning

**A recent systematic review indicated that outcomes research on the use and effectiveness of SPs and simulation is scattered even in medical education with research of varying methodological rigor and focus**

**Issenberg et al 2005**

**The current research has some firsts:**

- Rigorously evaluate a SP model in a physiotherapy context
- Not limited to training of a particular skill
- Testing the value of substituting Clin Ed with SP for some of the traditional clinical experience
- Test across two fields: MS and CR
- Opportunities to evaluate outcomes of the traditional model of clinical immersion

**Initial study → Pilot Study**

**An innovative model of  
Physiotherapy Clinical Education**

G Jull, V O'Connor, N Morris, A Jones, T Haines

**Funded by:** Physiotherapists Registration Board of Qld

**Standardised Patients  
Simulators  
Clinical immersion**

tested against

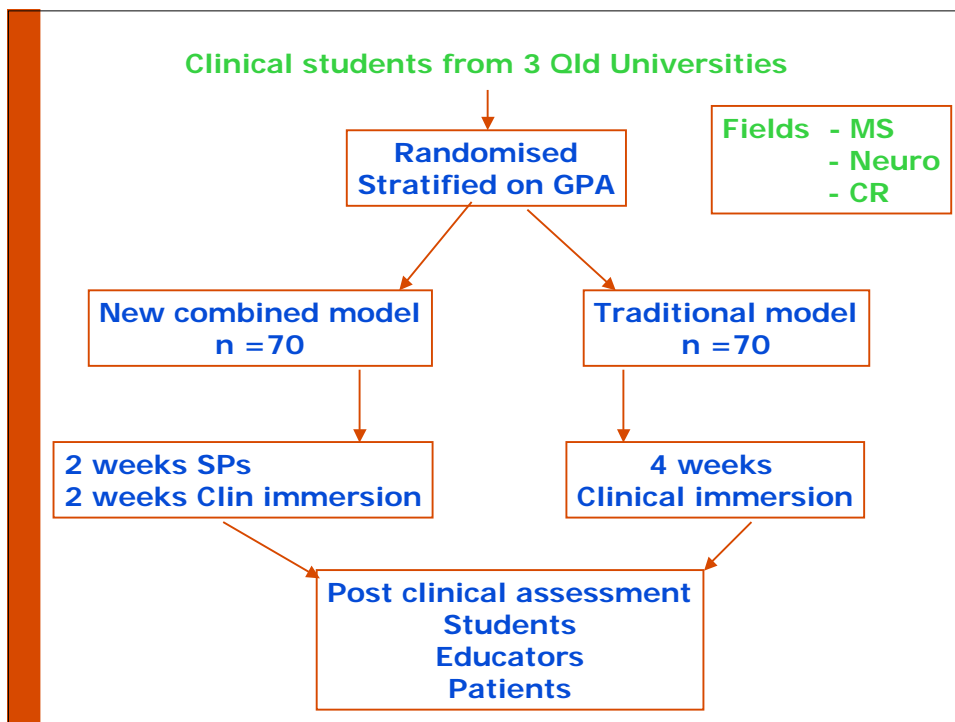
**Conventional clinical immersion**

### Aim of research:

To develop and evaluate a new model of physiotherapy clinical education that combines SPs, simulators and clinical immersion against a traditional clinical immersion model

### Hypothesis:

There will be no significant difference in the grades of student clinical competence, when evaluated with a standardised assessment tool, between the new and traditional models



## 2 week SP program for Musculoskeletal Unit

Patient condition	Management
Knee - PFPS	Initial assessment; 2 Follow-up treatments
Shoulder Impingement	Initial assessment; 2 Follow-up treatments
LBP-instability	Initial assessment; 2 Follow-up treatments
Neck headache	Initial assessment; 2 Follow-up treatments
LBP Nerve root	Initial assessment; 2 Follow-up treatments
Knee ACL	Initial assessment; 2 Follow-up treatments
Ankle sprain	Initial assessment;
Wrist fracture	Initial assessment;
Hip OA	Initial assessment;
Achilles tendonitis	Initial assessment; 1 Follow-up treatments
Neck degeneration	Initial assessment; 1 Follow-up treatments
Thoracic pain	Initial assessment; 1 Follow-up treatments
Whiplash	Initial assessment; 2 Follow-up treatments
Lateral epicondylalgia	Initial assessment; 1 Follow-up treatments

## Outcome measures

### Primary Outcome

#### 1. Student clinical competence

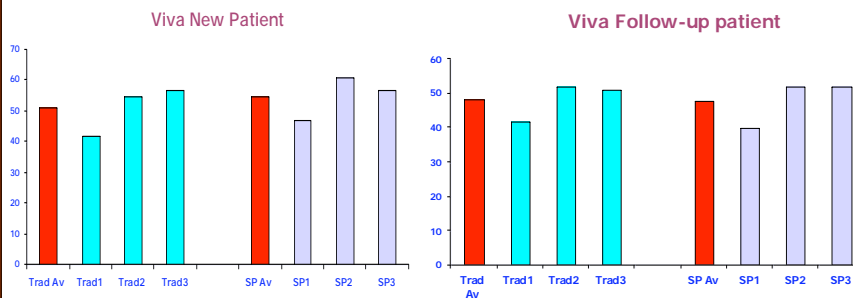
Summative assessment (clinical vivas) over two patients by a *blinded examiner* on the final day(s) of the clinical education experience using a newly validated (national) assessment tool

Formative assessment of clinical competence was undertaken at week 2 of the clinical placement

## Pilot study was undertaken for one MS clinical unit

6 student volunteers randomised: Sp + Clin  
Trad Clin

Stratified on GPA



## Evaluations from students and Clin Educators

- focus groups

**Student responses:** No remarkable differences between groups on responses

### Additional SP student comments

- Felt like I could have used an extra week in traditional clinic immersion
- Include more complicated cases
- Include some cases where patients do not improve

### Clinical educators

	Mid Unit	End Unit
Interviewing Skills	3	2
Physical examination Skills	3	3
Clinical Reasoning Skills	3	3
Development Mx Program	4	3
Applying Mx Program	3	3
Progressing Mx Program	-	2
Chart Interpret	3	3
Records	3	3
Manual Handling	3	3
Staff Interaction	3	3
Time Management	4	3
Workload Management	-	3
Professionalism	3	3
Safety	3	3
Independence	-	4

Compared to your experiences with students undertaking usual clinical placements, rate the level of the SP students

1 Poor  
2 Weaker  
3 Comparable  
4 Better  
5 Superior

Current project

ARC Linkage Grant

### Innovations in Clinical Education for Physiotherapy Students

A national multicentre randomised trial comparing the equivalency of two models of clinical education using SPs in the fields of MS and CR Physiotherapy to the traditional immersion model of clinical education

### Investigators

Jull GA	The University of Queensland
Peterson RF	The University of Queensland
O'Connor VM	The University of Queensland
McMeeken JM	The University of Melbourne
Blackstock FC	La Trobe University
Morris N	Griffith University
Wright A	Curtin University of Technology
Jones AL	James Cook University
Rivett D	The University of Newcastle
Haines TP	The University of Queensland

### Partner Organisations:

Qld and NSW Physiotherapists' Registration Boards  
APC, APA, Laerdal Pty Ltd  
All State Health Departments, Clinical Skills Centres

This research tests two new clinical education models across two areas of physiotherapy practice (CR and MS) in a series of randomised trials

**Question 1:** Can an education model of SPs (MS) and combined SPs, simulators (CR) plus clinical immersion provide equivalent outcomes of student competence compared to a traditional clinical immersion model?

**Question 2:** Is there a preferred model of combined SP and experiential training within a clinical education unit to provide equivalent outcomes of student competence?

Two SP models will be tested against traditional clinical immersion in the fields of MS and CR physiotherapy

**Model 1:** A 25:75 model of SP and traditional clinical immersion

**Model 2:** An integrated (mixed) model of SP and traditional training.

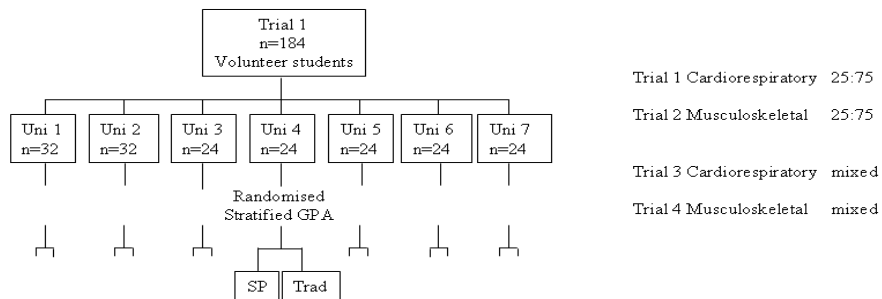
**Question 3:** Can the use of SPs and simulators provide similar learning outcomes in the two areas of physiotherapy practice (MS, CR)?

The outcomes of the two novel models of SPs and simulators will be compared between the sub-disciplines of musculoskeletal and cardiorespiratory physiotherapy

**Volunteer students: n = 720**

**Students undertaking MS or CR clinical rotations in the 7 participating universities**

**Involve 3 cohorts of students (4 semesters)**



### **Primary outcome**

**The primary outcome is an evaluation of clinical competency (Assessment of Physiotherapy Practice Tool - APP)**

**Student clinical competence will be measured at two time points in all trials**

**(i) After the SP experience for a 'midway comparison' of student clinical competence**

**OSCE with two patients an SP and a 'real patient'**

**(ii) A final summative assessment over two patients at the conclusion of the clinical education unit**

**-Blinded examiners**

**-Training of assessors with the APP**

**-Reliability study between assessors – video**

## Secondary outcomes

1. Student perceptions and learning experiences
2. Clinical educator perceptions and satisfaction
3. Consumer (patients) perceptions and satisfaction of student performance
4. Costs: Costs will be classified as direct and indirect (productivity) costs:
  - (i) Direct costs – University perspective: This will include salaries of educators in the SP component, casual salaries of SPs (preparation and performance hours) and attributable costs of simulator use in clinical skills centres
  - (ii) Direct costs – Hospital perspective: Hospital staff (educator) salaries and any education loading will be documented for each hospital clinical education unit

### (iii) Indirect (productivity) costs – Hospital perspective:

A concern is whether the presence of students affects productivity in service delivery

Occasions of clinical service (where one patient treatment session equals one occasion of service) will be used as a measure of treatment-related productivity

Most clinical educators have a clinical caseload, which must be covered with or without the presence of students. The occasions of service by the hospital staff member will be collected for four weeks, without students present, for baseline data

Occasions of service per week by the students and educators will be compared between new and traditional models

**Preparation for the research program has begun**

**Aim to run first clinical trials in Sem 2 2008**

**Results 2010/11**