Standardised patients: how to measure clinical practice

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Expert Panel Members:
- Sue Blakeman; Peter Charlesworth; Dave Edgar; Ronald Rabbetts;
- Robert Harper; Aachal Kotecha; Sonal Rughani; Paul Spry
- David Austen; David Burghardt; Deacon Harle; Lynne Weddell

Plan

Why?
How?
So what?

Plan

Why?
How?
So what?

Be imaginative in thinking of possible funding bodies
Clinicolegal issues

- Recent example
  - 116 charges
  - Included, at age 4y:
    - you did not record
- Bolam/Bolitho defence
  - Body of reasonable competent optometrists
  - Profession has no evidence-based data on typical standards in optometric practice

Why?

- Clinicolegal issues
- To evaluate the service we provide
- CPD
  - Determine priorities
  - Measure outcome
- Policy decisions
  - Governmental
  - Professional
- Show what we provide to the NHS
- Professional guidelines
- Consumer complaints

Plan

Why?

How?

So what?

Miller’s pyramid

- Unknown
- Pre-registration period
- University clinics
- University lectures

Example

- 45 year old, first eye exam. What proportion of optoms would
  - Test visual fields
  - Measure IOPs
  - Carry out ophthalmoscopy
  - Test motility
  - Record their results

Lessons from other healthcare professions

- Questionnaires
- Clinical vignettes
- Record abstraction
- Standardized patient (SP)
  - Cases selected as clinically relevant
  - Actors trained to:
    - Simulate real patient
    - Give consistent responses
    - Use checklists to provide objective report of exam
  - Used in medical training & to assess clinical activities
  - Evidence based studies demonstrate “gold standard”
  - Invariably find a lower standard of practice than expected
Overview of research

- Study 1: telephone survey of accessibility
- Study 2: standardised patients
- Study 3: record abstraction
- Study 4: clinical vignettes

SP research: clinical scenarios

- 25 year old with suspicious headaches, myopia
- 45 year old at risk of glaucoma
- 55 year old flashes & floaters

SP research: standardized patients

- SPs are actors
  - One for each of 3 scenarios
  - Thoroughly trained & regularly audited
- Expert panel for each scenario who
  - Defined scenario
  - Designed check-list
  - Validated scoring
- Participating optoms selected randomly from GOC register
  - Only included if consented
  - 100 participants, so 300 SP encounters
- Results published in 8 papers in:
  - OPO, OVS, BJO (Shah et al., 2008-2010)

Study 2: avoiding pitfalls

- Encourage high participation rate by offering:
  - Full anonymity OR Feedback for CPD
- Optometrists must be unaware of who is a SP
  - >3 new patients a week
  - Unannounced at any time from 1-24 months
  - SPs convincing actors
- Adverse optometric reaction
  - Full consent & full information
  - Objective research
- Adverse media reaction
  - Publications in scientific literature & magazines
  - Publications carefully phrased

Study 3: clinical vignettes

- Same scenarios as in SP study
- Published on Institute of Optometry website
  - Expert system
  - Gives feedback at end
  - CET points awarded
- Whole profession invited to participate
**Scenario 1: 21 yr-old patient with headaches**

- Is the eye examination appropriate for:
  - the identification of headaches of a suspicious nature?
  - and the appropriate management of these?

**Scenario 1: Results**

- Presence of headache identified in 98% of cases
  - 82% by asking reason for visit
  - 16% by asking about headaches
- Questions appropriate for identifying the significant nature of the headaches
  - Expert panel views
  - Based on evidence based guidelines
  - 8 gold standard questions for primary care headache investigation
  - 22% asked at least four questions

**Scenario 2: 44 yr-old patient at risk of glaucoma**

- Is the eye examination appropriate for:
  - the investigation of Primary Open Angle Glaucoma?
- College of Optometrists guidance recommends at least two of the following three tests:
  - Ophthalmoscopy (Disc Assessment)
  - Tonometry
  - Perimetry

**Scenario 2: Results**

- 35% performed of optometrists all three recommended tests
- 95% performed optic disc assessment and tonometry
- Only 36% performed visual field assessment
- Optometrists performed between 50-88% of the tests recommended by the expert panel
- 6% of optometrists advised SP of increased POAG risk in those of African racial descent
- Duration of eye exam 20 to 30 minutes

**Scenario 3: 59 yr-old patient presenting with recent onset photopsia**

- Is the eye examination appropriate for:
  - the detection of recent onset flashing lights in one eye?
- Presence of photopsia identified in 87% of cases
  - 80% by asking reason for visit
  - 7% by specifically asking about flashing lights
  - 13% of optometrists did not identify the presenting symptoms

**Caveat**

- Don’t judge optometrists harshly!
- These findings are similar to those with other SP research
- Similar conclusions in a variety of healthcare professions
Conclusions of SP study

- SP approach is valuable for measuring clinical care
- Substantial differences exist in duration and depth of clinical investigations
- Not all eye examinations are the same
  - No such thing as ‘standard sight test’
- Further comparative measurements of quality of care using SPs would be valuable

Future CPD could usefully focus on:
- Migraine diagnosis and assessment
- Glaucoma screening
- Risk factors for Primary Open Angle Glaucoma
- History taking, examination techniques and referral guidelines for patients presenting with symptoms of possible:
  - posterior vitreous detachment
  - retinal breaks
  - secondary retinal detachment

Record abstraction

- All participants in SP research invited to return clinical records
- 111 clinical record cards returned for analysis:
  - 37 for SP1
  - 34 for SP2
  - 40 for SP3
- Evaluated agreement between records and SPs

never underestimate the difficulties of recruitment

Record abstraction: Results

- Using data from SPs as gold standard, information gathered from clinical records classified as:
  - True Positive
  - False Positive (over-recording)
  - True Negative
  - False Negative (under-recording)
- Compared to the gold standard:
  - False positives identified in 4.4% of cases
  - False negatives identified in 17.2% of cases

Record abstraction: examples

- 46-65% of optometrists don’t record retinoscopy
- Up to 18% of optometrists under-record motility, but up to 16% can over-record this!
- 3-10% under-record visual fields
- 18-27% under-record biomicroscopy
Record abstraction: conclusions

- Clinical records are an imperfect representation of eye examinations
- Subject to recording bias
  - under-estimation
  - over-estimation
- Record keeping a priority for future CPD

A Comparison of SPs, Record Abstraction and Clinical Vignettes

- A three way comparison shows that compared with the SP “gold standard”:
  - Clinical records under-estimate the actual care provided
  - Vignette scores over-estimate clinical performance

Study 3: Clinical vignettes

- Same three scenarios (SP study)
  - Three clinical vignettes
- Published on IoO website
  - Expert system
  - Individualised feedback upon completion
  - 2 CET points awarded for each vignette
- Widely publicised to profession
  - 233 first vignette
  - 187 second vignette
  - 167 third vignette

A Comparison of SPs, Record Abstraction and Clinical Vignettes

- A three way comparison shows that compared with the SP “gold standard”:
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Outcomes: clinico-legal issues

- A prosecution argument is “if it is not in the notes, then it was not done”
- This contradicts the evidence
- But, if it is in the notes, then it is much easier to defend
- Bolam/Bolitho defence
  - Body of reasonable & competent optometrists
  - Has been redefined by the present research

Outcomes: clinical issues

- Clinical records should be the servant of good patient care
- If a result is likely to be helpful to the future care of the patient, then it should be clearly recorded
  - NB the future is a ‘known unknown’
- Most records…record most results
  - But our research highlights important shortcomings in records
Outcomes: Professional Guidelines

- College of Optometrists Code of Ethics and Guidance for Professional Conduct
- Not a set of instructions
- Practitioners to exercise their professional judgement
- Develop guidelines that differentiate between realistic minimum standards of competence and aspirational goals

Measuring clinical care

- A challenge for all healthcare professions
- Our methods transferable
  - Standardised patients
  - Record abstraction
  - Clinical vignettes

Successful doctoral research

- Thesis finished on time
- 8 publications in refereed journals

Reflections on leadership for doctoral students

- Doctorate students should play a leadership role in their thesis
  - In a 360 degree relationship!
- Doctoral students need to be the driving force
  - Recognising the role of the supervisor in setting the direction
  - Setting goals & achievable targets for supervisor
We find comfort among those who agree with us – growth among those who don’t.

Frank A. Clark

Full handout of slides from www.bruce-evans.co.uk