Assessment of allied and health sciences student competency in evidence-based practice

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Background

- Assessment *for* learning, assessment *of* learning
- Tools include:
  - Berlin
  - Fresno
  - Assessing Competency in Evidence-based medicine (ACE)
- Limitation
  - All in medicine initially in medicine, some adapted
Aims

- To adapt the ACE tool in the allied health and health sciences
- To incorporate a reflective component
- To psychometrically validate the Assessing Competency in Evidence-based practice + Reflection (ACER) tool
Methods

- All undergraduate students 1-4\textsuperscript{th} years of allied health & health sciences invited to participate in online questionnaire
  - Physiotherapy
  - Occupational therapy
  - Radiation science
  - Radiation therapy
  - Radiography
  - Paramedicine
  - Biomedical science
  - Nutrition & dietetics
The ACER tool

- Different scenario for each discipline
- ACER tool consists of 16 MCQs, with questions on:
  - Type of question
  - PICO
  - Search strategy
  - Critical appraisal
  - Interpretation of results
  - Applicability of the study + appraisal to the scenario (discipline)
Reflective component

- Self-efficacy rated as 0 (weak) to 100 (strong)
  - Asking an answerable question
  - Acquiring evidence
  - Appraising evidence
  - Applying evidence
Results

- 2685 eligible student invited to participate
- 167 enrolled in the study
- 55 participants completing the questionnaire in total
- Cronbach’s alpha – 0.44
Results
## Results – item performance

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Results – reflective component
Limitations...

- Sample size!!!
- Wording of the questions
- Timing

And a strength…
- Multidisciplinary
Conclusion

- ACER tool has moderate validity and internal reliability as instrument in assessing EBP competency in the allied health and health sciences
- Quick to implement and assess
- Reflective component questionable
Thank you

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