Finnish Nurse Prescriber Students’ Cardiac Clinical Skills

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My declaration of interest:

I have the following interests to declare:

☒ I have nothing to declare

☐ Research contracts ☐ Consulting
☐ Employment in industry ☐ Stockholder of a healthcare company
☐ Owner of a healthcare company ☐ Others

If Others, please specify: [ ]
In Finland the nurse prescriber education (45 ECTS) started in 2011 and at the moment there are 100 graduates.

In the area of cardiac care the nurse prescribers’ can continue medication:
- for high blood pressure ACE inhibitors, diuretics, beta-blockers
- for hypercholesterolemia statins, and
- for atrial fibrillation warfarin.
Background

• The national curriculum requires the universities to assess students’ clinical skills during the education by using the objective structured clinical examination (OSCE).

• Two out of the three patient cases have to be from the area of the students’ prescribing.

• During their studies 50 % of the students’ anticipate that they will prescribe cardiac medications
OSCE - the Objective Structured Clinical Examination

• Widely used to assess health professionals’ clinical competence, typically and originally used to assess medical students’ clinical competence (Harden et al. 1975, Lin et al. 2013) increasingly been utilized in nursing education (Rushford 2007).

• “A circuit of assessment stations, where a range of practical clinical skills are assessed by an examiner using a previously determined, objective marking scheme.” (Selby 1995)

• “An examination where students demonstrate their competence under a variety of simulated conditions.” (Watson et al. 2002)
Developing Cardiac Clinical Skills

- the contents of studies: cardiac patient history taking, patient assessment and clinical examination, evidence based medicine, current cardiac guidelines and pharmacology
- Methods of teaching learning: lectures, practising in pairs, using simulators, listening video recordings in e-learning environment, real patients
- Several studies have shown that clinical auscultation skills are in decline (Alam et al. 2010, Asghar et al. 2010)
Aim:

- The aim of the study was to compare different nurse prescriber student cohorts’ cardiac clinical skills by using OSCE.
Method:

- The OSCE case was designed to assess students’ clinical skills in prescribing in cardiac care.
- Observation against the criteria in five areas (20 points each) of the
  - patient-nurse interaction,
  - the history taking,
  - the clinical assessment,
  - the clinical judgment and
  - the cardiac care were made on a 100 point OSCE.
- The level of passing was set to 60 points out of 100.
Results:

- The same OSCE case was used in three universities of applied sciences and with four student cohorts.
- Out of 44 students (42 women and 2 men), 42 passed the OSCE.
- The highest score was 92 and the lowest 44 (mean 73.7; SD 8.23).
Results:

- The nurses had best skills in
  - the nurse-patient interaction (mean 18.2; SD 2.36),
  - in the history taking (mean 16.0; SD 1.90) and
  - the clinical judgment (mean 16.7; SD 2.93).
Results:

• The areas for to develop were the clinical assessment (mean 10.4; SD 4.41) and the cardiac care (mean 12.4; SD 3.30).

• The auscultation skills of heart and lungs need developing.

• The nurses did not assess systematically the risk factors of cardiac diseases.

• The nurse prescriber students’ cardiac skills were on equal level in all four student groups in different universities.
Conclusions

• More emphasis should be focused in the education on clinical assessment and cardiac care.

• Learning auscultation needs a lot of practicing as well as a good stethoscope.

• We could see that in the beginning the students are practicing technique and it is difficult to tie the cardiac guidelines to the clinical examination situation. This should be enhanced.
Conclusions

- OSCE is an objective way of assessing skills
- OSCE gives valuable feedback to students' about their professional development
- The use of OSCEs' systematically during studies is encouraged.
- The use of same OSCE cases across the country provides a mean for assuring the homogeneity of the education as well as the learning outcomes.
Thank you!

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