What respiratory teaching is currently being delivered to pre-registration nurses in the United Kingdom?

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Introduction

Universities offering pre-registration nursing programmes structure their educational programmes to comply with NMC standards (1). The curriculum is designed around published proficiencies which students are assessed against (i.e. the knowledge, skills and behaviours that nurses need in order to practice proficiently). Nursing programmes are currently being revised to incorporate new NMC standards with many new programmes being rolled out in 2020/2021.

The British Thoracic society recently published a professional development framework for respiratory nursing. This includes core skills and knowledge needed for respiratory roles at bands 5 and 6 which relates to graduate nurses (2).

This descriptive study set out to review the content of respiratory teaching and learning in pre-registration United Kingdom (UK) nursing programmes.

Methods

75 Universities offering pre-registration nursing in the UK were identified. Freedom of information requests were emailed asking:
 (1) How much time was spent on specific areas i.e. respiratory anatomy and physiology, respiratory pharmacology, respiratory health and prevention of respiratory disease and information around pulmonary rehabilitation and other interventions such as smoking cessation.
(2) How the content was examined and knowledge assessed.
(3) How and where (i.e. on placement, in class, in skills lab or independent learning) respiratory specific skills (i.e. respiratory rate, chest examination, peak flow, inhaler technique etc) were taught

Source: Glasgow Caledonian University – Nursing students in skills lab

Main Findings

Very little time is spent on some respiratory topics, including vital interventions such as smoking cessation and pulmonary rehabilitation.

Respiratory Health and prevention of respiratory disease was not a significant part of the curriculum in over half of the universities, despite being a key feature of the NHS (England) Long Term Plan. (3).

Key skills such as spirometry and blood gas analysis were not taught by some universities.

Conclusions

This descriptive study shows that UK universities may not include fundamental elements of respiratory care in their curriculum. Organisations such as ARNS/BTS should lobby for more attention to respiratory care in the nursing curriculum.

Key respiratory skills need to be embedded to ensure nurses are adequately trained to care for respiratory patients on qualification.

Results

Data were entered from 75 UK Universities [57-England, 11-Scotland, 5-Wales, 2-Northern Ireland]. **Table 1** shows that, within the curriculum, universities spent >4 hours on respiratory anatomy and physiology (60.8%), respiratory pathophysiology (75.3%) and long- term respiratory conditions (60.3%). Less than half (44.4%) spent >4 hours on respiratory health and prevention of respiratory disease. Just under a third spent >4 hours on respiratory pharmacology (33.8%), local and national guidelines (33.3%) and information on pulmonary rehabilitation and other interventions (35.2%). Most universities reported that skills labs were used to teach respiratory skills: respiratory rate (91.9%), pulse oximetry (92%), oxygen administration (91%), and peak flow (78%). Fewer universities included blood gas analysis (37%), chest examination (62%), chest drains (30%), NIV (27%) or spirometry (24%). Competence in these respiratory skills was not always assessed. Most respiratory learning could take place during practice placements but this was variable depending on placement.

Table 1

As part of the pre-registration nursing programme, how much time do you spend teaching the following per programme of study	None (n, %)	Under 1 hour – 3hrs (n, %)	$\geq$ 4hours (n, %)
Respiratory anatomy and physiology (n=74)	0 (0.0)	29 (38.6)	45 (60.8)
Respiratory pathophysiology (n=73)	0 (0.0)	18 (24.6)	54 (75.3)
Respiratory Pharmacology (n=71)	2 (2.8)	45 (63.4)	24 (33.8)
Local and national respiratory guidelines (n=72)	3 (4.2)	45 (62.5)	24 (33.3)
Long term conditions (respiratory specific) (n=73)	4 (5.5)	25 (34.2)	44 (60.3)
Respiratory health and prevention of respiratory disease (n=72)	5 (6.9)	35 (48.6)	32 (44.4)
Info around pulmonary rehabilitation and other interventions such as smoking cessation, flu vaccination (n=71)	5 (7.0)	41 (57.7)	25 (35.2)

Additional tables with details of where the specific respiratory skills are taught can be found using the QR Code

Bibliography

1 Nursing and Midwifery Council. Realising professionalism: Standards for education and training Part 3: Standards for pre-registration nursing programmes. 2018.

2 S Prigmore, H Morris, A Armstrong, S Hope, K Heslop-Marshall, J Pollington. A professional development framework for respiratory nursing British Thoracic Society reports Vol 11;1 2020

3 NHS. The NHS long term plan. 2019. https://www.longtermplan.nhs.uk/