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## Assuring quality in anatomy and physiology teaching for pre-registration nursing students: The SAFE-A&P database

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### ABSTRACT

The University of Sheffield's Division of Nursing and Midwifery offers a diverse portfolio of pre-registration adult nursing programmes, all of which are grounded in the UK's Nursing and Midwifery Council (NMC) Standards Framework and share core learning outcomes and content.

One area of shared content across all our programmes is Biosciences, based on UK NMC requirements and the UK's Quality Assurance Framework for Biosciences Education in Nursing (BiNE). Recently, more detailed recommended Anatomy and Physiology (A&P) learning outcomes have been published to enhance A&P teaching in the UK, and were as a result of collaborations between UK Higher Education institutions and the UK's BiNE special interest group. Our aim was to proactively identify and act on these areas for improvement to ensure the ongoing quality of our A&P education. We conducted a rapid review and gap analysis of our A&P provision across our different programmes. This involved centralising our A&P resources from multiple programmes and mapping our content to the more recent detailed learning outcomes. Our results will showcase our approach and outcomes in undertaking this review, which is intended to continue to ensure high quality and successful preparation of our nursing students for excellent practice in the workplace.

Video and Presentation to this article can be found online at <https://doi.org/10.1016/j.sctalk.2023.100203>.

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Figures and tables

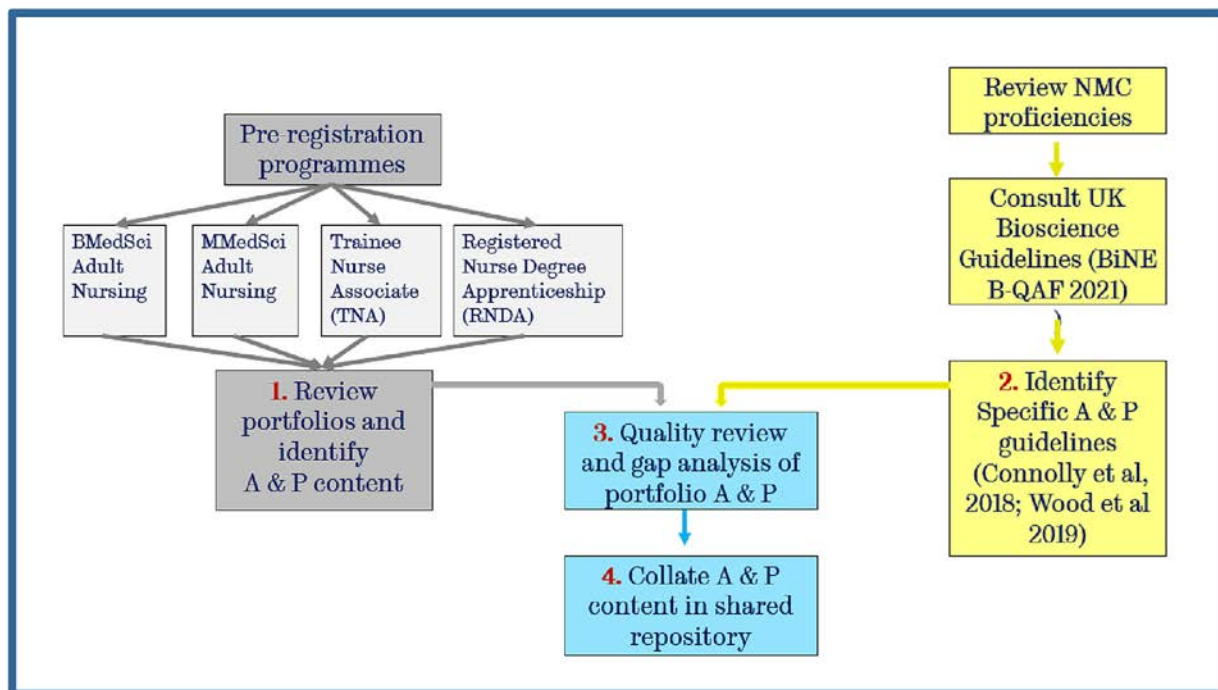


Fig. 1. Flow chart showing the steps taken in reviewing and maintaining quality of our Anatomy and Physiology education. Abbreviations used: NMC, Nursing and Midwifery Council (UK); BiNE, Bioscience for Nurse Education; B-QAF, Bioscience Quality Assurance Framework.

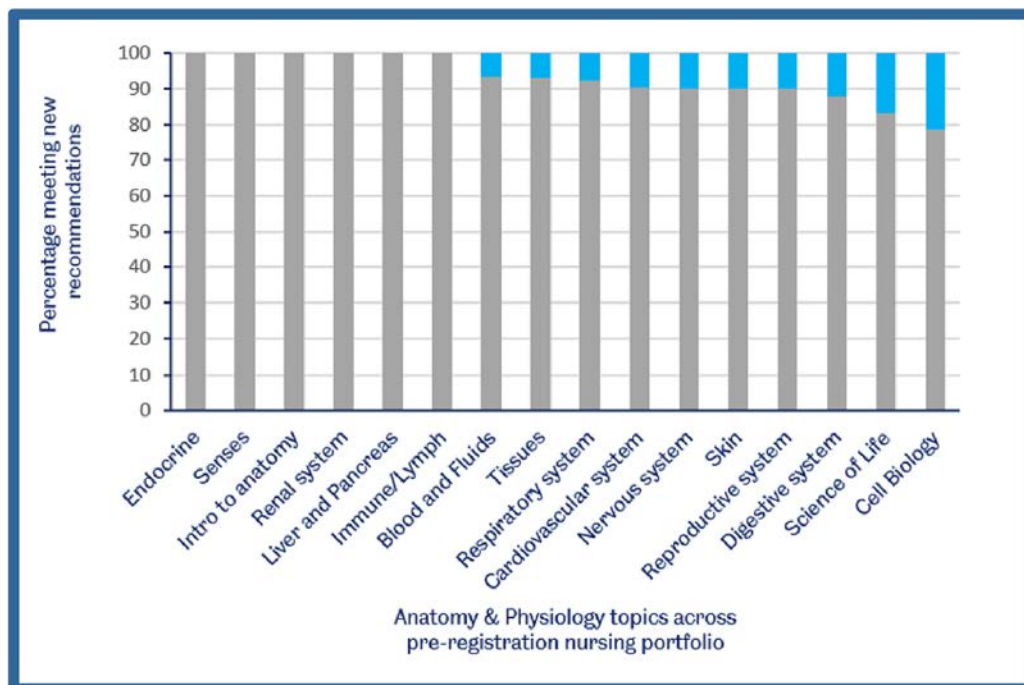


Fig. 2. Gap analysis showing the proportion (%) of our Anatomy and Physiology (A&P) content meeting the latest detailed Biosciences for pre-registration nursing programmes. Data was combined across four different nursing programmes (BMedSci Adult Nursing, MMedSci Adult Nursing, Registered Nurse Degree Apprenticeship and Trainee Nursing Associate).

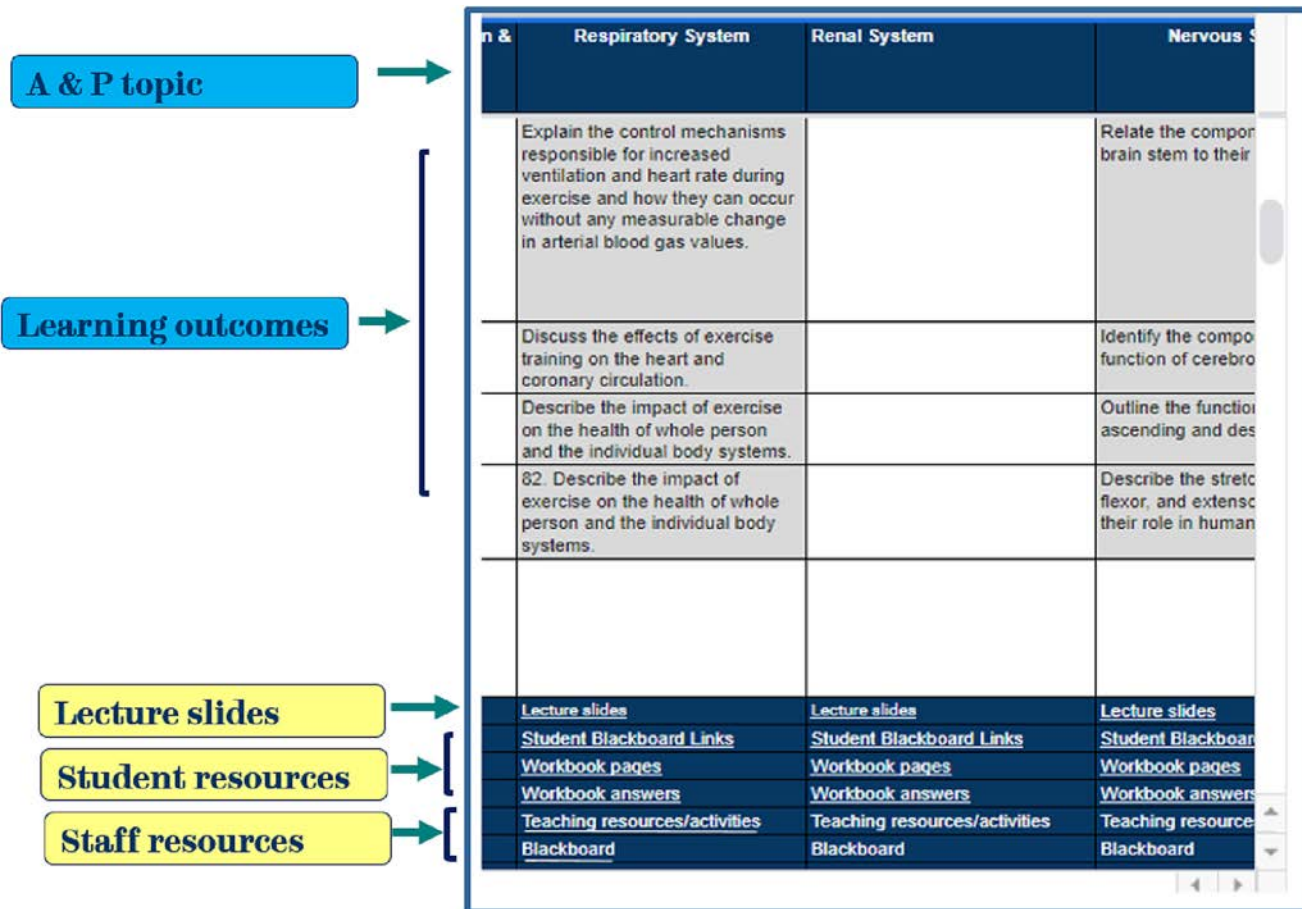


Fig. 3. The SAFE-A&P database: a quality-assured repository of Standardised, Accessible, Flexible Education in Anatomy & Physiology.

**CRedit authorship contribution statement**

**Rosalyn Ferguson:** Conceptualization, Methodology, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Project administration, Funding acquisition.

**Data availability**

The data that has been used is confidential.

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**Declaration of interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**Further reading**

- [1] S.A. Connolly, T.H. Gillingwater, C. Chandler, A.W. Grant, J. Greig, M. Meskill, M.T. Ross, C.F. Smith, A.F. Wood, G.M. Finn, The anatomical Society's core anatomy syllabus for undergraduate nursing, *J. Anat.* 232 (5) (2018 May) 721–728, <https://doi.org/10.1111/joa.12782>.
- [2] Biosciences for Nursing Education (BiNE), Quality Assurance Framework for Biosciences Education in Nursing, Accessed 12th March 2023, Available at: [https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/hea/private/bine\\_biosciences\\_qa\\_framework\\_b-qaf\\_july\\_16\\_1568037218.pdf](https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/hea/private/bine_biosciences_qa_framework_b-qaf_july_16_1568037218.pdf), 2016.
- [3] Nursing and Midwifery Council, Programme standards: Standards for pre-registration nursing programmes, Accessed 12th March 2023, Available at: <https://www.nmc.org.uk/standards/standards-for-nurses/>, 2018.
- [4] A.F. Wood, C. Chandler, S. Connolly, G. Finn, C. Redmond, J. Jolly, A.D. Powell, C. Davies, A. Grant, Designing and developing core physiology learning outcomes for pre-registration nursing education curriculum, *Adv. Physiol. Educ.* 44 (3) (2020 Sep 1) 464–474, <https://doi.org/10.1152/advan.00139.2019>.



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