

Institution: Anglia Ruskin University
Unit of Assessment: 25 Education
Title of case study: Resources for educating healthcare professionals and nurses that enhance the safe care of patients
<p>1. Summary of the impact</p> <p>We have developed resources that have been widely used, nationally and internationally, to support the education of healthcare professionals and nurses. Our aim is to enhance the safe care of patients.</p>
<p>2. Underpinning research</p> <p>Our research focuses on the education of healthcare professionals and nurses to enhance the safe care of patients. In recognising the diverse educational backgrounds of our students, the unit's research informs and supports curricula content and clinical practice for national and international communities.</p> <p>Promotion of the safe care of patients through the identification and development of supportive learning and teaching strategies for students with diverse teaching and learning needs</p> <p>Studies researching the effects of dyslexia on the clinical practice of nurses were almost non-existent. In 2003 Morris and Turnbull identified students with dyslexia as one group of students, where without strategies to support them, a potential for error impacting on delivery of safe patient care exists [1]. Supported by a small grant from the leading UK nursing organisation, the Royal College of Nursing, they interviewed student nurses who had a formal diagnosis of dyslexia. Findings identified the coping mechanisms these students employed and the negative impact dyslexia had on their education and working practices. In particular, the research described how choice of preferred work setting and working practices were influenced by a dyslexia diagnosis. Morris and Turnbull's national survey found the negative impact continued after registration, slowing career progression, and identified how nurses used a variety of resources and strategies to ensure the safe care of patients [2]. This research continues to have impact nationally and internationally in shaping nursing and disability reports and clinical support for students to promote safe care.</p> <p>Development of educational resources to support the education of nurses and healthcare professionals</p> <p>Bioscience knowledge underpins much nursing practice and is crucial for delivering safe patient care. It is internationally recognised that learning bioscience is a significant challenge for many nursing students. Homeostasis is a fundamental bioscience concept that can be related to much of the human body's physiological wellbeing. McVicar conducted research around homeostasis and stress. Developing and using a unique approach, McVicar has developed homeostasis as a framework to aid learning of bioscience. The aim is to integrate biological science within the principles of holistic safe care. The approach was published as a major textbook (1995 1st edition; 3rd edition 2009), applied to specialist perioperative practice (2002, ISBN 034076239X) and used in clinical research. Reinforcement of learning in practice may help students learn bioscience, but is contingent on adequate support from staff nurses. Experience was considered most important to learning bioscience, but most nurses self-rated their bioscience knowledge as weak [3].</p> <p>Making a case for better educational support when students are in clinical practice, and to further inform development of pre-registration nursing curricula for bioscience teaching to enhance patient safety, an exploratory mixed methods research study was conducted by McVicar, with colleagues from the University of East Anglia and two NHS Trusts [3]. This was funded by the Nuffield Foundation. McVicar and Andrew have also examined published educational interventions used in science teaching and learning to inform nursing curricula [4]. They concluded that published</p>

Impact case study (REF3b)

studies of educational interventions, including on-line support, have focused too heavily on the perceived benefit to student experience rather than objective measures of impact on actual learning.

Focussing also on safe patient care, Mansour conducted research linked to an international World Health Organization (WHO) project 'Evaluation of the Multi-professional Patient Safety Curriculum Guide'. The WHO has recently advocated eleven patient safety themes that need to be addressed in any health care educational curriculum. It is not known at this stage how far pre-registration adult nursing curricula addresses these patient safety themes. Mansour, in conducting research to inform knowledge and understanding about nursing education for patient safety, interviewed academics and students [5]. Mansour highlighted the important role of the mentor for students in the clinical setting, in particular the influence of the power imbalance in the student-mentor relationship on challenging patient safety issues. Andrew and Mansour noted that it is not clear how students contextualise teaching related to patient safety, risk recognition and management in the clinical setting [6]. They examined students' response to peer reporting issues around medication administration. The findings will inform leadership and curricula development in educating healthcare professionals for optimal safe patient care. This has implications for nurse managers who must be familiar with the national patient safety recording organisations and encourage their institutions/organisations to become involved in reporting errors.

Key researchers

Professor of Nursing, Dr Andrew, S. (2010-present)

Dr Mansour, M. Senior Lecturer (2010-present)

Dr McVicar, A. Senior Lecturer (1994-1999), Reader in Physiology of Health Care (1999-present)

Turnbull, P. Senior Lecturer (1996-present)

3. References to the research

- [1] Morris D, **Turnbull P**, 2007. The disclosure of dyslexia in clinical practice: experiences of student nurses in the United Kingdom, *Nurse Education Today*, 27: 35-42. DOI: 10.1016/j.nedt.2006.01.017
- [2] Morris D, **Turnbull, P**, 2007. A survey based exploration of the impact of dyslexia on the career progression of registered nurses in the UK. *Journal of Nursing Management*, 15: 97-106. DOI: 10.1111/j.1365-2934.2006.00649.x
- [3] **McVicar A**, Clancy J, Hayes N, 2010. An exploratory study of the application of biosciences in practice, the implications for pre-qualifying education. *Nurse Education Today*, 30: 615-622. DOI: 10.1016/j.nedt.2009.12.010
- [4] **McVicar A, Andrew S**, Kemble R, 2013. Biosciences within the pre-registration (pre-requisite) curriculum: an integrative literature review of curriculum interventions. 1990-2012. *Nurse Education Today*. DOI: 10.1016/j.nedt.2013.08.012
- [5] **Mansour M**, 2013. Examining patient safety education in pre-registration nursing curriculum: Qualitative study. *Journal of Nursing Education and Practice*, 3: 157-167. DOI: 10.5430/jnep.v3n12p157
- [6] **Andrew S, Mansour M**, 2013. Safeguarding in medication administration: understanding pre-registration nursing students' survey response to patient safety and peer reporting issues. *Journal of Nursing Management*. DOI:10.1111/jonm.12134

Quality of the research

All the research findings are published in peer reviewed journals. McVicar is categorised as highly accessed and has a paper in the top 10 most cited papers for the *Journal of Advanced Nursing* (2012) (DOI: /10.1111/j.1365-2648.2011.05931.x) a key international nursing journal. Turnbull has been no.1 in the top 20 citations in the subject of dyslexia since 2007 on BioMed Lib.

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4. Details of the impact

Promotion of the safe care of patients through the identification and development of supportive learning and teaching strategies for students with diverse teaching and learning needs:

Morris and Turnbull's research led to the development of a toolkit, initially to support learning for student nurses with dyslexia. In developing this toolkit, Morris and Turnbull provided evidence-based data for clinical practitioners, in particular mentors, so that they can support students and staff with dyslexia in the clinical setting [1]. The toolkit has been very successful. We have received requests from within the UK and also from the USA and Ireland to use the toolkit. Morris and Turnbull's research about nursing students with dyslexia and how they negotiate learning in the academic and clinical setting, has informed professional nursing reports about dyslexia in nursing [A] and reports for the Disability Rights Commission [B].

Development of educational resources to support the education of nurses and healthcare professionals

In underpinning pre-registration nurse bioscience knowledge, McVicar's innovative use of homeostasis as a concept for the delivery of safe care is the explicit theme that runs through his successful co-authored text book (Clancy & McVicar 2009 Physiology and Anatomy for Nurses and Healthcare Practitioners: A Homeostatic Approach 3rd edition, ISBN 9780340897237967591). When the book was first published, it was the only one available which made the concept of homeostasis an explicit central theme. Many well-known texts have since adopted this approach. The 2009 edition of the book has sold over 4,000 copies and been adopted nationally and internationally for use in nursing/health care curricula [2]. UK examples of this adoption include Birmingham City University; De Montford University; Liverpool John Moores University; Queens University Belfast; the University of Hull and the Academy for Homotoxicology (UK), part of the Biomedic Foundation. An international example is Curtin University, Australia [C].

Furthermore, in training nursing and healthcare clinicians, nationally and internationally, McVicar was commissioned (details available from HEI on request), by the British Journal of Perioperative Nursing and the British Journal of Nursing to write 21 educational papers that are available online [D]. This concept was applied to other healthcare discipline areas such as perioperative care. McVicar's book 'Perioperative Practice: Fundamentals of Homeostasis' (Clancy, McVicar and Baird 2002) is still on reading lists for this specialty area (eg. Kings College, London 2013, Glasgow Caledonian University 2012) and is now available on Kindle, indicating its impact.

Impacting on the development of education curricula, McVicar's study (2010) recognised that the bioscience knowledge of staff nurses can enhance the support given by nurses to students in clinical settings. His recommendation is that by addressing the bioscience knowledge of clinical practitioners, through inclusion of bioscience in post-qualifying curricula and training, students are enabled to have access to a supportive 'bioscience' clinical learning environment [E]. An American e-book that highlights contemporary, 'authoritative, and comprehensive information' about international issues in nursing research, training and practice wrote and published a synopsis of the research for their 2011 edition [F]. Recognising the impact of this educational approach, McVicar and Andrew were invited by AD Instruments to present to healthcare professionals at the Biosciences in Nursing Education Forum, June 2013 (<http://bioscience-nursing-2013.eventbrite.co.uk/>).

Supporting the national priority of patient safety and its inclusion in education of nursing students for the Nursing and Midwifery Council UK and international educational and healthcare organisations, Mansour led researchers in securing our faculty as a WHO complementary site [G]. Following his contribution to the 'Evaluation of the Multi-professional Patient Safety Curriculum Guide', Mansour has been asked to contribute to the next phase of the WHO project. He was also invited to be a keynote speaker, to talk about the UK perspective of the project at the 'WHO Patient Safety Curriculum Guide' session for the 29th International Society for Quality in Healthcare Conference 2012. The session included the participation of experts from Greece, Portugal, Saudi Arabia and the UK, indicating the reach of this work [3].

5. Sources to corroborate the impact

[A] *Evidence of a professional report citing the work of Turnbull:*

Cowen M, 2010. *Dyslexia, dyspraxia and dyscalculia: A toolkit for nursing staff*. Royal College of Nursing (RCN), London. Link:

http://www.rcn.org.uk/_data/assets/pdf_file/0003/333534/003835.pdf

[B] *Evidence of a report of Turnbull's work used by the Disability Commission:*

Riddell S, et al., 2010. Disability, skills and employment: a review of recent statistics and literature on policy and initiatives (Research report 59):

http://www.equalityhumanrights.com/uploaded_files/research/disability_skills_and_employment.pdf

[C] *Evidence of McVicar's book (Clancy & McVicar 2009 Physiology and Anatomy for Nurses and Healthcare Practitioners: A Homeostatic Approach 3rd edition) as a recommended text for Curtin University, Australia: 313399 Integrated Systems Anatomy and Physiology 100 Semester One, 2012:*

http://biomedapps.curtin.edu.au/intranet/documents/ISAP_UO_S1_12_FINAL160212.pdf

[D] *One of the papers commissioned by the British Journal of Nursing:*

Clancy J, McVicar A, 2011. Homeostasis 5: Nurses as external agents of homeostatic control in caring for patients with breast cancer. *British Journal of Nursing*, 20(7): 426-437. ISSN 0966-0461 PMID 21537260 Available from: EBSCOhost CINAHL Plus with Full Text; and available from HEI on request.

[E] *Evidence of McVicar's 2010 publication being cited:*

Mostyn A, Jenkinson CM, McCormick D, Meade O, Lymn JS, 2013. An exploration of student experiences of using biology podcasts in nursing training. *BMC Medical Education (Open Access)*, 13: 12. <http://www.biomedcentral.com/content/pdf/1472-6920-13-12.pdf>

[F] *Evidence of a synopsis of McVicar's 2010 publication being promoted as a contemporary international issue in nursing: Issues in Nursing Research and Training and Practice 2011 Edition, 2012. ScholarlyEditions™ eBook: Atlanta, Georgia. ISBN 978-1-464-96526-5:*

<http://books.google.co.uk/books?id=MYTGcDpyehEC&q=mcvicar#v=snippet&q=mcvicar&f=false>

[G] *Evidence of the Faculty as a Complementary Site in the WHO project:*

http://www.who.int/patientsafety/education/curriculum/EN_PSP_Curriculum_Evaluation/en/index.html

Testimonial Evidence

[1] *Evidence of the impact of Turnbull's research on mentors and students in the clinical setting:*

Testimonial from NHS Practice Education Facilitator (available from HEI on request).

[2] *Evidence of the sales and reach of McVicar's book:*

Evidence from publisher (available from HEI on request).

[3] *Evidence of Mansour's keynote speaker role - letter of thanks:*

Principal Investigator and Lead Patient Safety Curriculum Guide Patient Safety Programme, World Health Organization Geneva Switzerland (available from HEI on request).