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Enabling Digital Professionalism: Analysis of the Australian and United Kingdom Nursing Education Standards

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Abstract. Growth in use of digital technology for leisure and learning has created challenges for healthcare environments globally. Its rapid evolution in nursing continues to outpace the more sporadic updating of registered nurse standards, guidelines and codes of professional conduct. Revised standards in Australia and the United Kingdom establish the contemporary governance context for the educational preparation of registered nurses. A document analysis of these standards reveals an omit of guidance regarding the expected knowledge, skills, attitudes and behaviour of undergraduate nurses about when and how to access and use of digital technology on campus, and during work integrated learning. Documents governing nursing do not currently foster the development of digital professionalism, an essential component of professional identity formation, which is necessary to acquire prior to graduation as a registered nurse.

Keywords. Digital, framework, nurse, professionalism, standards, student, technology

1. Introduction

Digital technology is rapidly evolving in healthcare globally, and nursing continues to lag in implementation [1-3]. Studies undertaken have highlighted the ad hoc approaches employed to enable nurses to access and use digital technology for administration, clinical, education and research purposes [4-6]. Additionally, there is a blurring of boundaries between leisure and learning which adds confusion [7]. Currently there is no standardised approach for nursing students to develop digital professionalism, as there is no direction provided at an international, national or local level in many nations about how to behave safely, effectively and appropriately when using digital technology [8-10]. The inability to access and use digital technology to augment learning or aid decision-making by students on campus or at the workplace hinders opportunities to develop digital professionalism [11].

There have been policy changes in Australia at a national level, including a strategic priority to support upskilling the health workforce in health technology and health informatics proficiency [12]. Similarly, the United Kingdom (UK) National Health Service developed the Health and Care Digital Capabilities Framework [13] to address building a digital ready workforce. Nursing professional bodies in both nations have developed position statements or frameworks regarding digital technology capability of

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registered nurses (RN) [14,15]. These national government and professional documents indicate an acknowledgement of the digital transformation in healthcare, and the associated need for the health workforce to be proficient in accessing and using digital technology.

Both Australia and the UK nursing regulatory bodies have recently revised the RN standards [16] and released [17] or reviewed accreditation standards [18] and frameworks [19] to guide educational preparation of students. A document analysis of the Australian Nursing and Midwifery Accreditation Council (ANMAC) standards [18] and the Nursing and Midwifery Council (NMC) Education and Training Framework [19] (hereafter 'standards') for UK nurses was undertaken to understand how the regulatory bodies for nursing education were progressing guidance about access and use of digital technology. This analysis highlighted the lack of direction regarding digital technology use creates a parallel issue of continuing the inability of students to develop digital professionalism, which is a necessary contemporary element of professional identity formation, that can be fostered on campus or during work integrated learning.

2. Methods

Document analysis [20,21] of both the Australian [18] and UK [19] standards was undertaken to examine change or development of guidance about developing digital technology capability of students enrolled in undergraduate RN programs. Iterative reading of the documents to identify pertinent information and enable objective selection was undertaken. Relevant text and phrases were identified and tabled. Direct and indirect references to information communication technology within each of the standards were compared. Key words within the standards that could be affiliated with accessing or using digital technology were identified. These words were: 'communication', 'data', 'digital', 'information', 'searching', 'seeking' and 'technology'. The word 'learning' was omitted from the key terms as the overall standards framework aims to provide guidance about educational preparation to become an RN. Although the standards articulate with and support the RN standards of both nations [18,19], any reference to these standards in the requirements were not included in the analysis. The rationale for this omission was the lack of specificity of phrases in the requirements to support access and use of digital technology or development of digital professionalism.

3. Results

Nursing education regulatory bodies developed five standards each to describe the requirements for educational preparation as an RN in Australia and the UK. Within each standard there are listed requirements that provide further detail about how education of students is to be achieved within the scope of the standard. While each nation uses different headings there is high level of similarity of content (Table 1). However, the arrangement of the requirements is different from Standard 3 onwards (Table 1). The Australian standards focus on educational preparation of students by describing expected experience (Standard 4) and assessment (Standard 5) requirements. The UK approach to the standards highlights the role and function of students (Standard 3) and educators and assessors (Standard 4). The Australian Standard 3 and UK Standard 5 contain similar information related to the content of the programs of preparation.

The major difference in the presentation of the standards is that the UK version provides more detailed requirements than the Australian standards (Table 1). Both documents only provide very limited guidance regarding expectations of access and use of digital technology (Table 2).

Table 1. Number of standards and requirements within the Australian [18] and UK standards [19].

Standard number	Australia	No of requirements	Standard number	United Kingdom	No of requirements
1	Safety of the public	7	1	Learning culture	14
2	Governance	5	2	Educational governance and quality	20
3	Program of study	14	4	Educators and assessors	11
4	Student experience	6	3	Student empowerment	18
5	Student assessment	6	5	Curricula and assessment	16
Total		**38**			**79**

Table 2. Type of direction regarding access and use of digital technology in the Australian [18] and UK standards [19].

Standard requirement number	Type of direction	Requirement description
		Australia
3.4	Direct	Teaching and learning reflects contemporary practices in health and education, and responds to emerging trends based on research, **technology** and other forms of evidence…
3.8	Indirect	Program content and subject learning outcomes supports the development of research skills that include **searching** and reviewing research and other evidence for translation into practice.
		United Kingdom
2.5	Indirect	Adopt a partnership approach with shared responsibility for theory and practice supervision, learning and assessment, including clear lines of **communication** and accountability for the development, delivery, quality assurance and evaluation of their programs.
2.9	Indirect	Provide students with the **information** and support they require in all learning environments to enable them to understand and comply with relevant local and national governance processes and policies.
2.12	Indirect	Provide all **information** and evidence required by regulators.
2.16	Direct	Improve quality, manage risk and disseminate effective practice through the proactive **seeking** and appropriate sharing of **information and data**.
3.4	Direct	Are enabled to learn and are assessed using a range of methods, including **technology** enhanced and simulation-based learning…
3.9	Indirect	Have the necessary support and **information** to manage any interruptions to the study of programs for any reason.
3.10	Indirect	Are provided with timely and accurate **information** regarding entry to NMC registration or annotation of their award.

Table 2 shows how few direct references there are to access and use of digital technology in the Australian standards. The only direct reference to technology can be found in the program of study standard (3.4) describing the approach to the content of

the program. An indirect reference can also be found in this standard as part of the requirement to include research in the program content (3.8).

The UK standards framework provides a direct reference to the use of information and data in the educational governance and quality standard (2.16). This standard provides three further indirect references in the requirements to ensure safety and quality are maintained within the governance structures of education and the profession. There is one direct reference (3.4) and three further indirect references to information in the student empowerment standard (3.9, 3.10, 3.13). These requirements relate to student progression in the program rather than access and use of digital technology.

4. Discussion

The main finding of this study is neither the Australian [18] or UK [19] standards overtly support the development of digitally professional work-ready graduates. To progress learning digital professionalism as part of the educational preparation of student RNs requires direct explanation in the requirements of the standards. The lack of direct reference to digital technology or any description of the expected knowledge, skills, attitudes and behaviour required hinders the advancement of nursing practice. Conversely, expectations for maintaining safety and quality while learning to be an RN are clearly explained within the requirements of the standards [18, 9] of both nations.

Clear guidance about the access and use of digital technology on campus and during work integrated learning will provide a way forward for students to develop and become proficient in digital professionalism, which is imperative for safe, effective and appropriate healthcare delivery. The Australian standards [18] did refer to the inclusion of technology in the program of study standard. However, there was no follow-up on how this practice could be achieved. The UK standards [19] focus on information as part of governance and regulation of student progression within the program of study. The UK standards [19] recognise that safety and quality is inextricably linked with information which may include using digital technology.

The main limitation of this study relates to insufficient detail provided by the documents that could hinder accurate interpretation. Similarly, while every effort was made to be objective during the analysis, the author acknowledges an emic view that could create selection bias.

The lack of description in the requirements has implications for the future acceptance of digital technology in healthcare environments by RNs. It seems nursing students will continue to be inadequately prepared for the digital transformation that is occurring. At graduation nurses already need to have an understanding of security and privacy issues, the importance of accurate data entry in electronic medical records and how aggregated data can be used in health service or disease management decision making to improve patient outcomes [22]. Additionally, digital technology can be harnessed to promote and support participatory health and enable empowerment of patients [23]. Robotics, artificial intelligence, virtual and augmented reality applications are becoming mainstream and it is essential that nurses have the capability to be involved in any planning, development or implementation of these emerging technologies [12,24]. Similarly, nurses need to have developed the requisite digitally professional behaviour to ensure safe, effective and appropriate access and use of health technology and informatics is maintained.

5. Conclusion

While the Australian accreditation and UK standards provide guidance on the knowledge and skills required to become an RN, they do not overtly address the parallel issue of ensuring nurses understand the attitudes and behaviours that are mandatory for ensuring safe, effective and appropriate healthcare delivery when using digital technology. There is a need for more direct descriptions provided in the requirements of the standards to enable embedding of digital technology within programs. Registered nurses will then have the opportunity to model digitally professional behaviour to the next generation of digital technology enabled students.

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