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### Article

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Learning beyond a single field of nursing through a virtual case-based approach to pre-registration nurse education.

## Abstract

Ensuring pre-registration student nurses gain the richness of clinical practice to allow them to feel confident and knowledgeable to care for patients of the 21st century is often a challenge. Clinical practice challenges often mean that students will be strategic learners. This article discusses the development of a virtual case-based learning site to provide a rich experience for students to learn.

## Keywords

Pre-registration nursing, learning, interprofessional learning, interprofessional education, case-based learning, preparation for practice

## Introduction

This paper discusses the development of a virtual case-based learning (CBL) tool which was developed at a United Kingdom (UK) Higher Education Institution (HEI) prior to the start of the Covid-19 pandemic. This was implemented to support the students learning and enhance the knowledge gained in clinical practice. During the Covid-19 pandemic clinical placement opportunities were reduced for students and the CBL tool proved to be an invaluable tool for students to learn from.

## Nursing Education

Currently nurse education within the UK, consists of four distinct separate fields of practice; adult, child, mental health and learning disabilities. Over a programme of study, a student nurse will follow a placement circuit and fulfil the required practical and theoretical components of the programme for their chosen field of study. Upon meeting the required standard as set out by the Nursing and Midwifery Council (NMC, 2018) a student nurse can proceed onto the NMC register. Student nurses should receive the breadth of experience through undertaking multiple practice placements, caring for patients of different age ranges, illnesses and working and learning with different members of the multidisciplinary team.

Ideally, student nurses would be able to have a wide variety of practice placements to gain these exposures, yet since the first wave of the Covid-19 pandemic, access to practice placements across the UK have been challenging. Additionally, Covid-19 has forced a shift to a different way of learning through practice and theory. During the initial Covid-19 period, first year student nurses were not able to go into practice (Leigh et al, 2020), and second- and third-year students had their programmes amended. Clearly, ensuring that clinical staff and patients were protected was a key priority for placement areas, due to the transient nature of student placement circuits, but students still needed to learn, and this was a challenge for nurse educators.

## Preparation to care effectively

The preparation of nurses through pre-registration nursing education is critical to ensure that the needs of the population are adequately cared for both now and in the future. The International Council of Nurses (ICN) defines nursing as: "Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes the promotion of health, the prevention of illness, and the care of ill, disabled and dying people." (ICN, 2016).

Yet being adequately prepared to care for patients is not simply about being able to undertake clinical tasks, such as venepuncture or catheterisation for example, it is about having a good understanding and knowledge of the care that patients within the 21st century require and the different disciplines that contribute to the healthcare team. The NMC stipulates that student nurses should demonstrate they have proficiencies to care across the life span. This is made up of 7 key areas: older adults, mental health, children and young people, physical health, long term conditions, learning disabilities and pregnant and postnatal women. Students are required to evidence at least one care episode of each area before reaching RN status. It is recognised that placements or exposure to these key populations are often brief and not assessed, therefore, it is difficult to establish what meaningful learning has taken place. Whilst the exposure to the lifespan that nurses should have experienced includes older people, mental health, children, and young people, along with physical health conditions, and the perinatal period, it is recognised that these placements or exposures are often brief and not assessed. Therefore, it is difficult to establish what level of meaningful learning takes place.

It has been suggested that globally, new registrants feel that their pre-registration education has not prepared them adequately for their new working life, and that this could have been rectified by developing critical thinking skills and clinical skills (Pennbrant et al, 2013; Pike and O'Donnell, 2010; Kelly and Courts, 2007). Nurses of the 21st century need to be able to have the relevant knowledge and skills to be able to care for a diverse array of patients safely and competently (Nielsen et al, 2013). Yet, it is also suggested that student nurses demonstrate a deep approach to learning, in subjects that would have a direct correlation to their academic or practice success (Snellgrove, 2004). Therefore, this indicates that student nurses are strategic learners. If students attend a placement to observe the different fields of nursing but do not perceive it to be beneficial to their future role, then it is questionable how much learning will have taken place. It was our aim to ensure that the students had an appreciation for the other fields of nursing and understand how working alongside other teams, professions and/or agencies can support patient's which would allow for a good level of knowledge to support their future professional practice. We set out to develop a learning platform which would enhance the students' learning experiences, provide confidence, and one that would fulfil the NMC requirements.

### Interprofessional Learning

Interprofessional learning (IPL) and Interprofessional education (IPE) are terms often used interchangeably within the literature as key terms to explain the same thing. The World Health Organization (2010) has highlighted that when students from different specialisms learn together patient experience is improved. Yet, it has been noted that there is an under-appreciation of Interprofessional education (IPE) by students (Homeyer et al 2018). Government strategies such as "No health Without mental health" (DH, 2011), increasingly highlight the need for interprofessional working between health and social care to minimize risks and optimise effective care. Poor interprofessional working and communication within health and social care, and education providers can have a catastrophic effect, as seen with the cases of Victoria Climbié (Laming, 2003) and Peter Connelly, known as Baby P (CQC, 2009). It is critical that nurses learn from these illustrative examples of gaps within care, to avoid similar happening again.

### Case-based Learning

The concept of CBL can be applied to a variety of teaching modalities to offer widened learning experience. CBL is a tool that is used to enhance clinical knowledge, bridge gaps, improve clinical decision-making and therefore improve patient outcomes (McLean, 2016). Within nursing education,

the clinical context is widely recognised as the most significant area for students to learn about practice within the 'real' world (Egan and Jaye, 2009). Clinical practice may be perceived as the most important part of the pre-registration curriculum to learn from (Henderson et al, 2011; Clarke et al, 2003; Papp et al, 2003). Student nurses have been noted to perceive theory and practice as separate entities, rather than understanding that both inherently link to one another. It is hard to monitor and evaluate how meaningful short placements are for students, particularly as many of them are observational. Therefore, for students who are strategic learners who wish to simply go to fulfil their short-term objectives, a different approach is needed. The system developed aimed to offer some level of standardisation to all students, rather than the differing experiences students gain within clinical practice, which is unpredictable.

This virtual CBL approach that was developed, started with the NMC exposure across the life span requirements, this meant that 7 cases were initially developed, with an additional case created for long term conditions, meaning 8 cases were available to students. These were then aligned against the NMC (2018) standards, the differing fields of practice, and against the student's academic levels, for instance year 1 was aligned to academic level 4 and so on. This allowed for students to move up to the next academic level at the appropriate time and introduced new levels of complexity and challenges that may not have previously been considered. Students were provided with common issues from other fields of practice that they could learn from, for example, there was an aspect of psychological wellbeing in each scenario that needed to be considered which supported the development of NMC proficiency (1.1) mental health and wellbeing status. There were subjects which were unique and taboo which were potentially more of a rarity within clinical practice, yet which were still important for a future nurse to have an awareness of. Diabetes was used as a case looking at the NMC exposure for managing long term conditions. Whilst it is expected that most students during their education will come across a patient with Diabetes in a clinical placement, the case being written from the perspective of a practicing Muslim provided a unique perspective. The case was written with a diabetic nurse who shared experiences of cases that she felt were unusual and often not fitting the typical demographical representation of the located HEI. The patient in this case wished to fast during Ramadan but still manage their diabetes and as such, allowed the students to develop their cultural awareness in addition to clinical decision making. Furthermore, the taboo subject of older abuse and more specifically sexual assault was used to enhance knowledge around working with older patients. Whilst a lot of typical clinical experience of older patients may be shaped by dementia settings, later life and memory services, stroke services or care homes, we wanted students to consider risks faced by older patients that are often not considered as primary presenting problems. This case not only explored the issue of abuse but also built-in issues of confidentiality and safeguarding in relation to family involvement. All cases aimed to enhance not only the student's knowledge of the area but provide a meaningful learning opportunity. The aim of the cases were to encourage a meaningful learning experience that had a focussed educational experience. Through CBL the students were required to complete tasks usually set out in practice, such as care plans, correctly recording patient information, how to write referral documentation and awareness into safeguarding reporting systems and scenarios to consider when to report. Each case ended with the NMC reflective account, this was chosen to familiarise the students with the process of clinical reflection and further preparing them for RN status. Once tasks were completed the system provided automated feedback to highlight the key learning points from the task set, this enabled the students to get instant guidance before moving onto the next section but also reduced the requirement of the work to be marked. Students would then discuss the case and learning with their personal tutor.

Co-Creation

The creation of the site including the cases utilised consisted of a team approach. Students tested the site and gave feedback at various points of the project development about the case, the tasks set and the visual aspects of the site. Clinical and academic colleagues who were subject specialist within the various areas guided the cases and the learning tasks to make sure they were fitting to placement experiences and clinically applicable. Whilst service users and carers provided their input from their perspectives, this also included their own stories which they shared and incorporated into the case. The site took a significant amount of resource for the development and testing to proof check the content and testing functionality but utilising a team approach has allowed a meaningful learning experience allowing students to gain insights and exposures into the different fields of practice within nursing, other healthcare services and agencies. This has ensured a standardised rich experience of learning which they arguably would not have gained from short clinical placements.

### Evaluation

All students who completed a case on the site was asked to evaluate it for its clinical relevance, enhancing knowledge and understating of the topic, informing future practice, should it be recommended to other students and the ease of the site for use. To date 79 students have completed at least on case. As expected, due to the limited placement movement since Covid-19 the most utilised case is that covering care of a pregnant patient, followed by child and adolescent. Of the 22 students who have completed the pregnancy scenario 100% found it clinically relevant whilst 96% found it enhanced their learning and will inform future practice. In relation to the scenario that considered elder abuse 8 students have completed this and again 100% found it to be clinically relevant and enhanced their knowledge of the topic. 88% said it would inform future practice with the remainder proving a neutral response.

### Implications for future practice

Ensuring that students gain meaningful learning experiences is a challenge. The CBL approach that was developed has allowed for a broadening of the students learning and has helped to scaffold any learning that may take place within practice learning areas, whilst also has assisted with allowing students to fulfil the exposures that they are required to during a time when clinical placements have been limited due to Covid-19. Providing students with learning that they may not experience during clinical practice can surely only be of benefit to the learners and has allowed for IPL which can only be of benefit to patients.

### Conclusion

This paper demonstrates the development of an innovative method of CBL within a pre-registration Nursing programme of study at a UK university, which was developed prior to the Covid-19 pandemic, and assisted with students being able to fulfil their NMC requirements when the pandemic changes hit. It importantly also allowed the enrichment of the learning experience of pre-registration nursing students, adherence to the NMC standards, and enhancement of learning for student nurses.

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