Mobilising the nursing student workforce in COVID-19: The value proposition

Nothing in the course of our professional careers has brought the clinical readiness of nursing students into sharper focus than the coronavirus pandemic. The impact of COVID-19 on health system capacity is limited by both the availability of ICU beds and ventilators, but also the availability and capability of skilled health workers. Nurses have the capacity to improve individual patient experiences and outcomes but the effect of good nursing care can also significantly influence national mortality outcomes in this pandemic. It is notable that among the nine countries with the highest number of COVID-19 cases as at 25th March 2020, Germany has the highest nurse ratio with 13.2 nurses per 1000 population; it also has the lowest death rate from the disease (Sepkowitz, 2020). Two factors are offered by way of explanation - firstly, that nurses are central to patient care in hospitals and in ICUs and secondly, countries that value nurses may also have made numerous other quality improvements to health care (Sepkowitz, 2020).

Increasing the number of nursing staff available during this crisis is of critical importance, but how should that be achieved? The Australian Health Practitioner Regulation Agency (AHPRA) has urged more than 32,000 former nurses who have stopped working in the past three years to re-join the surge workforce via a pandemic register, identifying that even a 5-10% uptake would be valuable (Scott, Lloyd, & Florance, 2020). However, potentially mobilising the over 92,000 nursing students registered in Australia (Australian Health Practitioner Regulatory Authority, 2017) could make an even greater increase to the surge workforce.

Prior to the transfer of nursing education to the tertiary sector in Australia, nursing students were part of the workforce, understood the hospital environment, policies, procedures and the culture, were supervised by experienced clinicians and functioned within a defined scope of practice. In a crisis, nursing students could simply be called on to work extra shifts and take on increasing responsibility as the situation demanded and as their seniority and level of competence dictated. This point is made not to overly romanticise the 'good old days', but rather highlight the workforce mobility inherent in the apprenticeship model.

While a landmark study has documented the effect of degree level nurse education on lowered patient mortality (Aitken et al., 2012), contemporary models of nursing education

have 'dis-integrated' nursing students from the workforce, creating new challenges for workforce mobility in response to the pandemic. The predominant clinical placement models which offer block placement experiences are usually fragmented across numerous clinical settings resulting in a potential student workforce that is less mobile and responsive. Conversely, integrated / distributed placement models provide students with early and frequent clinical exposure, over an extended period of time, often in a single hospital setting or in dedicated education units. This results in enhanced preparedness for practice, improved work—life balance, and students' perceptions that they were part of a team (Boardman, Lawrence, & Polacsek, 2018). Regardless of the model, the supernumerary nature of clinical placement offers students the opportunity to focus on learning in the clinical setting, but also potentially creates industrial barriers to nursing student workforce mobility in a crisis.

As the number of COVID-19 cases continues to increase, we must rapidly consider the value proposition of a number of options to respond to the crisis and ensure the future of the nursing workforce.

1) Full retention of the current student workforce on clinical placement

The future of the workforce, beyond the pandemic, relies on students graduating as the workforce pipeline. Retaining the number of students placed in clinical settings is important to maintaining the supply of graduates. However, these students will have varying levels of experience and capability, and require appropriate levels of support from clinical facilitators and mentors.

Although most education providers in Australia pay for student placements, in past weeks there have been anecdotal reports of withdrawal of clinical placements by health organisations, a situation that is not unique to Australia. In the United States, "the COVID-19 outbreak is causing practice facilities to limit or refuse clinical experiences, [and] just when we need more nurses in the pipeline, many nursing programs are struggling to find ways to meet students' clinical experiences" (National Council of State Boards of Nursing, 2020). The uncertainty of the magnitude of impact of COVID-19 on the health system, resultant surge workforce requirements, perceived risk that nursing students pose and the oft-cited perceived burden on clinical staff who support students on placement, may be contributing to this response. Additionally, cancellation of elective surgery and non-urgent procedures may

also reduce meaningful engagement of students in learning experiences while on clinical placement.

2) Full cessation of the current student workforce on clinical placement

Nursing is a practice-based profession that involves helping others; these practical aspects of nursing programs are highly valued by students. Cessation of clinical placements for all students may contribute to attrition from programs and run counter to wider workforce strategic intent "which models improved retention of nursing students within education, improved employment rates following graduation, and increased early career retention" (Health Workforce Australia, 2014).

Additionally, cancellation of clinical placements for all nursing students and front-loading theory with the intention of providing clinical experiences at a later time (National Council of State Boards of Nursing, 2020), may result in downstream pressure on clinical placement availability, with students struggling to complete the minimum number of 800 hours clinical placement required (Australian Nursing & Midwifery Council, 2009) and consequent delay in course progression or graduation. Long term, the cancellation of all clinical placements may result in an equivalent duration hiatus in workforce supply at a later stage.

3) Modified retention of the current student workforce in clinical placements

An alternative to full retention of clinical placements is to examine strategies to modify the current student workforce, but how should this be done? A clear priority should be to offer placement experiences by seniority. Moreover, there is evidence from the discipline of dietetics suggesting that a student needs to be over 80% as time efficient as a new graduate to offset the costs of direct student supervision (Hughes & Desbrow, 2010). Final year nursing students need to be prioritised as they are not only closest to graduation, but their contribution to a health organisation is likely to be greater and cost effective.

Presuming that final year students are more likely to be time efficient and thus have the capacity to make a valuable workforce contribution in the Australian COVID-19 context, their selection may need to be tempered with other factors. Many programs leave the bulk of their clinical placement hours until the final year, which may mean these 'final year' students are initially less effective than anticipated. Furthermore, individual student performance

across the program and duration of time they have taken to progress through the program may also influence their capacity to make a positive workforce contribution.

On balance, first year students are likely to have developed competency in fewer skills and would require much closer supervision and greater support than senior students. Despite the ANMAC requirement that professional experience placements be undertaken "as soon as practicably possible in the first year of study to facilitate early engagement with the professional context of nursing" (Australian Nursing and Midwifery Council, 2019), in many programs first year students do not undertake any clinical practice until their second semester. At this point in time, the risk of allowing first year students (who may not have demonstrated competence in the use of Personal Protective Equipment (PPE) and infection control) to be potentially exposed to COVID-19, seemingly outweighs any benefit to be gained from them as an additional pair of hands in the clinical setting. In the United Kingdom, the Royal College of Nursing has stated that "first year nursing students will continue with their degree programme, with clinical placements paused for the duration for the emergency" (Royal College of Nursing, 2020).

Regardless of their seniority, nursing students may feel uncomfortable with, or even fearful of, the prospect of being exposed to an uncertain clinical environment where provision of PPE may not be guaranteed. Understandably, families of nursing students may also be concerned about students' potential exposure and transmission to other members of the family, particularly given the extensive media attention and emerging knowledge about this novel virus, which is unlike other communicable diseases they might normally encounter during clinical placements. Furthermore, should students be exposed to or contract the virus when they are not part of the workforce and entitled to paid leave, they may not have a source of income during periods of isolation or illness. Providing students with the opportunity to exit current clinical placement and/or to opt out of further clinical placements is important and these students should not "be disadvantaged if they decide that they're not able to work in clinical practice, for whatever reason" (Royal College of Nursing, 2020).

4) Fast tracking nursing student registration and entry to the workforce

One option that might be considered is fast tracking of students to enter the workforce, although this seems to be taking various forms in other jurisdictions. For example, in Idaho, USA, Senior Nursing Students who are in good academic standing are eligible to apply for

the New Graduate Temporary License early (National Council of State Boards of Nursing, 2020). In the UK, the Nursing and Midwifery Council has sanctioned nursing students in their final six months to be placed on an emergency register with conditions of practice relating to supervision and scope of practice (Nursing and Midwifery Council, 2020).

The question of fast tracking or providing early registration to Australian final year nursing students should be considered cautiously in Australia. As outlined previously, there is considerable variation in the structure of programs offered by Australian universities (Blay, Duffield, & Roche, 2020). More significant perhaps, is the fact that Australian nursing students complete some of the lowest minimum clinical placement hours when compared globally. For example, an Australian nursing graduate completes 800 hours while UK counterparts complete at least 2,300 clinical hours (Nursing and Midwifery Council, 2018): a relative difference of 1500 hours. Although some Australian programs include more than 800 hours of clinical placement, it is likely that with clinical placement pressure the luxury of additional hours will need to be sacrificed.

5) Continuing to provide clinical education of nursing students in alternate clinical environments

Australian universities' response to COVID-19 has been to rapidly move to off-campus, remote, technologically-enabled teaching methods, and nursing schools are being challenged to develop means of teaching and assessment of both theoretical and practical components of programs remotely. There is no doubt that this first wave of change has placed enormous pressure on the human and technological resources of nursing schools and there has been little time to seek approval from ANMAC for sweeping program delivery changes or to develop evidence to inform these changes.

There is, however, evidence for the use of simulation. Across the health professions it has been demonstrated that simulation can provide equivalent learning outcomes to clinical placement (Bogossian et al., 2019). In a national survey of Australian nursing schools there was agreement that simulation could be used to enhance (96%) and achieve (92%) clinical competence (Bogossian et al., 2018). In the US, a number of state accreditation bodies have been flexible in their positions on the use of simulation in programs, permitting, for example, the use of more than 50% simulation and 1:2 ratios of clinical practice to simulation hours

(National Council of State Boards of Nursing, 2020). This position is confirmed by evidence from our previous systematic review (Bogossian et al., 2019).

Many Australian nursing education programs have access to simulation and clinical laboratory spaces that could provide opportunities for students to develop the skills required for practice in the context of reduced clinical placement opportunities. However, some Australian universities have included these clinical learning environments in blanket closures of teaching spaces. Access to controlled clinical teaching spaces and carefully planned clinical teaching and learning activities, in which recommendations for physical distancing can be maintained, should be carefully reconsidered alongside remote learning opportunities.

Although much of the evidence and education experience relates to face-to-face simulation, virtual simulation may also provide an interactive educational opportunity where real people operate screen-based simulated systems that portray people or training equipment and devices (Cant, Cooper, Sussex, & Bogossian, 2019). Development of bespoke, high-quality, virtual simulation resources requires a five-stage approach (Cooper & Bogossian, 2018) which may not be feasible given time and resource constraints; however, there are a number of commercial resources available, many of which are reasonably priced.

Conclusion

We face a challenge in balancing the nursing workforce response to the COVID-19 crisis and maintaining the professional experiences and clinical learning of nursing students to ensure the future of the nursing workforce. By necessity, this dilemma is likely to result in many innovations in clinical education. Development of the body of evidence around the efficacy of such innovations and the changes we are forced to make should follow. One certainty in all of this, is that the landscape of tertiary nursing education will be profoundly changed.

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