

# Singapore nursing in transition: perspectives from the Alice Lee Centre for Nursing Studies, National University of Singapore

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The Alice Lee Centre for Nursing Studies' Bachelor of Science (BSc) (Nursing) is the first local undergraduate nursing degree in Singapore. Situated at the National University of Singapore (NUS) and commenced in August 2006, the programme is well poised to take the lead in nursing education in the region. The degree began in an atmosphere of expanding healthcare and "bench-to-bedside" translational medical and nursing research funding. This establishment has been in an atmosphere of Singapore's desire to become a health hub and a regional leader in healthcare education, research and clinical development; all of which provide exciting challenges to a new school of nursing. University nursing education also produces a continuing leadership challenge not only in the creation and implementation of relevant curricula to health services and their patients but also in the evaluation and future of the school's programmes. In Singapore, the Alice Lee Centre of Nursing Studies is tasked with envisioning different futures and outcomes for nursing in Singapore and the region, as it leads the way in the development of graduate and postgraduate education, research and clinical innovation.

This editorial unpacks and discusses the current nursing education context in Singapore, and raises some critical discussion points about strategic direction and policy development, including the perennial argument over the diploma/degree debate, funding, regulation, continuing education, and the future of nursing in a university environment. Specific attention is drawn to development of the NUS BSc nursing programme since its inception in August 2006. In particular, there was a pressing need to adjust the curriculum, as first implemented, to suit the university timetable, a timetable that previously had not encompassed a clinical modular programme. Subsequently, it was necessary to reposition modules, merge others, reorganise the clinical practicum and manage other aspects of curricula implementation and evaluation, which required attention when starting a new programme in the university sector.

There are a number of local institutions offering higher nursing higher education in Singapore. Nanyang

Polytechnic, since 1992, has had the largest share of the market with a three-year diploma, and a two-year accelerated programme into a diploma of nursing for graduates holding a diploma or a degree, and with or without two years working experience.<sup>(1)</sup> In 2005, the Singapore Nursing Board (SNB) accredited a second diploma course to prepare for the registration of nurses. Ngee Ann Polytechnic offered this course, a three-year diploma in Health Sciences (Nursing), thus paving the way to registration. The Institute Technical Education (ITE) College East now offers the enrolled nursing course in Singapore and this focuses at 'O' level entrants.<sup>(2)</sup> Previously, nursing education in Singapore, like in other developed countries, was offered through the apprenticeship system in the major hospitals.<sup>(3)</sup> The polytechnic diploma courses in Singapore lead to registration as a nurse with the SNB. To gain further post-registration qualifications, a registered nurse (RN) with a diploma may pursue a post-registration programme at an advanced diploma level with one of the polytechnics, or go to one of the Australian conversion degree programmes. Singapore nursing has many supporters, including the Ministry of Health (MOH), who during the SARS crisis, was reminded of just how important nurses were to the healthcare system. There are also some wealthy Singaporeans who have great interest in the growth and educational development of the nursing profession in this small country of 4.5 million people.

## PHILANTHROPIC INNOVATION AND THE FUTURE

One cannot but be impressed by the interest of successful families and foundations in supporting good causes, such as nursing in Singapore. Philanthropy in Singapore is really alive and well, and it seems to be an accepted cultural process to pass on good will to future generations; in this case, future generations of nurses. For example, the Alice Lee Centre for Nursing Studies (ALCNS) is named after Dr Lee Seng Gee – a prominent Singaporean businessman's mother, who donated ten million dollars to kickstart the Nursing

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Department at NUS. On November 21, 2006, the D.S. Lee Foundation inaugurated an award for enrolled nurses (ENs). The Tan Chin Tuan Enrolled Nursing awards, named after a famous banker, who was a close family friend of Dr Lee Seng Gee and Dr Della Lee, will now be held each year in memory of Tan Chin Tuan on his birthday. The latter award draws a 1,000 dollar prize and a gold medallion of equal value.

## **NURSING AND NURSING EDUCATION IN SINGAPORE**

According to the Singapore MOH website, as of June 2006, there were approximately 20,167 nurses (minus the 3,884 not in active practice [n = 16,283]) and midwives working in Singapore in the public and private sectors. The ministry, however, does not distinguish between RNs, ENs or personal care assistants (PCAs).<sup>(4)</sup> There is some minor discrepancy between the MOH figures and the SNB figures on just how many RNs there are in Singapore, but as the SNB manages the register, one would consider their figures to be more accurate. The demographics in their annual reports are not comprehensive, and the latest update is found in the SNB 2005 annual report, in which they published the workforce survey findings: there are a total of 14,831 registered nurses and 347 midwives, of these 11,277 are in full-time work, and the majority are female. The ethnic proportion of Singapore nursing comprises 67.6% Chinese (10,028), 10.4% Malay (1,537), 9.7% Indian (1,441), and 12.3% others (1,825). The report also describes the following demographical characteristics: marital status, age, work status, citizenship and sector of employment (public/private). There is, however, no information on educational qualifications, specialty area of practice, or length of time from which the nurses have been registered.<sup>(5)</sup>

Unfortunately, for what at first glance seems like a large nursing workforce, and a popular profession in a small country like Singapore, nursing is not identified for many school leavers in Singapore as a first preference career choice. Perhaps, this is partly because nursing is undervalued when studied at the diploma level. Nevertheless, the level of interest in the ALCNS BSc nursing programme was encouraging, with interest expressed by over 2,432 students during its induction in 2006. For the inaugural year, applications to this programme included 328 first preferences and 253 second preferences. In the end, our first 49 students (the first batch) were selected from 150 'A' level students who were interviewed for placement in the undergraduate degree. The selection process included administering three outcome measures as part of a longitudinal study to explore psychological characteristics, such as the ability to manage stress,

caring attributes and self concept. The results were then correlated with the individual university admission scores (to be reported in another paper). For these students, and future prospective nurses, NUS has provided a higher education pathway, and they no longer have to travel overseas to obtain postgraduate nursing qualifications. Singapore has yet to develop a critical mass of bachelor and postgraduate honours, masters and doctoral-qualified nurses. Indeed, many of the existing bachelor degree holders in Singapore have received their degrees through transition programmes offered by Australian universities. The following institutions have obtained accreditation with the SNB to market conversion courses to Singapore diploma holders: Griffith University and Human Capital Educational Group, University of Sydney and the Singapore Institute of Management; La Trobe University and Singapore Nurses Association; and Curtin University of Technology and Customer Support Management Academy.

## **THE POST-REGISTRATION BANDWAGON**

There is obviously a big market for diploma conversion to a degree, as the majority of the registered nursing workforce hold diplomas. There are a few select Singapore groups that are benefiting from the off-shore collaborations mentioned above. In terms of continuing nursing education (CNE), there are a host of players in Singapore. Some of the courses offered are certified (presumably by the SNB) and some are not. There also appears to be no independent provider of post-registration CNE courses in Singapore that works directly with the SNB and the other tertiary institutions, especially in terms of accreditation and credit transfer for CNE points earned towards shortening a nursing course at any particular level. The board's role appears to be to accredit nursing courses in Singapore for the purposes of registration, and to support courses in Singapore that provide qualifications in nursing or midwifery, in addition to those required for registration and enrolment, and to accredit the institutions in Singapore offering these courses. However, there is no direction, at least on the SNB website, as to how one is accredited as a continuing education provider of nursing courses. The board also seeks to undertake the regulation of standards for the training and education of RNs, ENs, registered midwives and advanced practice nurses (APNs).<sup>(6)</sup>

There appears to be considerable room for growth and development of career structures, pay rates (the recent small pay hike notwithstanding),<sup>(7)</sup> and nursing research development. It really is an exciting time for nursing education in Singapore. The establishment of the undergraduate degree, strangely enough, follows

the inception of a master of nursing programme in 2003 by the MOH in the Yong Loo Lin School of Medicine, Division of Graduate Medicine Studies (DGMS). This degree consists mainly of course work and clinical practice aimed at preparing a select group of fully-funded RNs as APNs in adult care and mental health. The programme requires an 18-month full-time commitment. However, the degree will eventually be restructured to provide nurses more time flexibility, with part-time, online learning and full time modes. More specialty options and a dissertation stream are also in the pipeline. The Masters degree is planned to be situated in a school of nursing and managed by nurses employed by the university.

### **GETTING INTO THE NUS UNDERGRADUATE NURSING DEGREE PROGRAMME**

Students are attracted to nursing programmes for a variety of reasons; the cost of the course is usually not a major concern as school fees are usually competitive between the universities. Important reasons include geographical location; family support availability; style, format and quality of the programme; lifestyle; learning resources, such as online learning and flexible participation (being able to study part-time and from home); the programme's satisfaction rating against competing universities, as well as the standing of the institution internationally. NUS has global stature as an educational institute, and the nursing course has been gaining ground, due to its commitment to high quality education and more recently, research. NUS is currently listed in the world's top 20, and Asia's top three, universities in the QS World University Rankings 2006, conducted by the Times Higher Education Supplement. However, the entry requirements for a dual educational system in Singapore are different. To get into NUS, a student requires 12 years of education and to enter a polytechnic, the requirement is ten years. Thus, to allow general entry for polytechnic graduates into NUS, with the same credit provided by Australian universities, undermines the hard work achieved by the 'A' level entrants; at least, this is the current opinion. Currently, a polytechnic graduate wanting a NUS degree would receive 39 (one-third) modular credits of the 120 credit points required for the NUS BSc (Nursing). Even so, if one has a diploma and wants to graduate with an NUS degree, instead of an Australian degree, the local course is cheaper than those offered by the Australian universities. Interestingly, even though it could take a diploma student up to five years to obtain a degree in Singapore if they had graduated from a polytechnic, NUS had over 2,400 diploma holders interested in the first 2006 intake.

Relaxing entry criteria, especially on the emphasis on 'A' level examination scores and the requisite 12 years of education, and developing an educational climate that is open to aspiring nurses, regardless of age and previous professions, could open the market to a wider pool of students. However, in order for such an open climate to flourish, the issue between diploma conversion and direct entry 'A' level students has to be resolved. The main point of contention remains the differing amount of time, and presumably effort, invested by the 'A' level entrants and diploma holders in attaining the same nursing BSc. NUS currently only accepts "A" level students from junior colleges and a select few high-performing 'O' level students with a Diploma of Nursing from a recognised polytechnic. Indeed, with these teething issues, to allow for an exemption of more than 39 (one-third) modular credits (MCs) out of the total 120 MCs for the NUS degree, will require a very convincing argument.

In situations where there is no credit transfer or RPL policy, or where university admission policy locks out students because the entry/acceptance bar is too high, and where there are limited credit inducements, such a review of entry criteria could be said to be long overdue. Another point of note is that when an educational system has two pathways to becoming a registered nurse, the nurse with a diploma qualification is always going to have to upgrade to a bachelor level in order for them to access the higher education benefits already available to students at the university level. In the light of the difficulties they face, it can be argued that despite their apparent shorter duration of study, it will always be a longer road for the diploma-qualified student, regardless of credit transfer. Another argument for the relaxing of the entry criteria would be that without a viable tertiary conversion programme, this market will be tapped and captured by overseas interests instead, through the offering of tailor-made courses with short durations.

While it can be argued that a strict entry requirement and the emphasis of an 'A' level qualification may assist in creating a corps of nurses equipped with academic expertise, as such a corps is in short supply in Asia, this restriction is potentially discriminating to diploma holders and mature-aged students. The nursing corps will be bereft of the expertise of these potential candidates should these pools of prospective students be overlooked. With regard to facilitating credit transfer and diploma conversion, a possible reference guide for nurses may be mooted. This can be achieved by conducting a regional research project to compile the various institution policies on nursing programmes into one publication. We want nurses to stay in Asia, and one

way to assist retention could be to encourage potential students to avail themselves to the credit transfer arrangements of regional institutions, and not to jump the fence because other overseas universities offer more attractive short-term completion arrangements.

### **EVALUATING THE PROGRAMME**

The ALCNS began an evaluation of the programme five weeks after its inception using the Dundee Ready Education Environment Measure (DREEM),<sup>(8)</sup> which has been previously used to measure the educational climate in medical schools and other health institutes. The tool is sensitive to continuous quality improvement and provides global readings and diagnostic analyses of undergraduate educational environments. The tool allows quality assurance comparisons between courses, and within the various components of these courses, and is therefore very well suited to analysing our modular BSc (Nursing) degree programme. There are 50 items in the questionnaire and the ALCNS has added three others, which address specific aspects of the nursing course. The aim of the project is to continuously evaluate the new nursing degree from its initial implementation until the first detailed review in 2010. Students are asked for meaningful and constructive feedback, so that they can assist us in improving our teaching methods and modular development for future student intake and degree progression. The DREEM tool provides data on the students' perceptions of their learning; impressions of the course organisers; academic inclinations; perceptions of the learning environment, and the social self perceptions related to their ability to enjoy the educational experience while maintaining a healthy social life.<sup>(8)</sup>

These measures and the longitudinal correlational study will enable us to challenge the way we school our students, and how we design curricula to promote learning, critical thinking and scholarly behaviour.<sup>(9)</sup>

### **INNOVATION IN PROGRAMME DELIVERY: IS THIS POSSIBLE?**

Innovation in programme development must be justified by effective content delivery. Apart from this overriding concern, there may also be other constraints that limit innovation in curriculum planning. Regulatory board approval, adherence to university policies and the need to match market expectations with performance delivery are some of the considerations that may be taken into account when changing the status quo. Societal regulation and the culture of decision making in the government also influence issues regarding innovation, and the MOH provides clear directions. But someone has to undertake the gatekeeper role in

practice regulation, curricula development and quality control, especially in a country where nursing is taking on a new role in healthcare delivery. The university programmes need the support of regulatory boards, the government and the healthcare system, especially where innovation or curricula reform is required. To be innovative in the delivery of a nursing programme in Singapore, one has to work within system constraints, paying particular attention to the university rules and regulations for approval in the context of on-site delivery (including timetable scheduling), and the quality of the educational programme(s) expected. The faculty must also be mindful to meet the parameters of the regulatory authority for programme accreditation, scope of practice and competency requirements, including achieving the (regulation) minimum requirement for clinical practice hours, within the duration of the programme. Benchmarking against other programmes also provides a platform from which programme success and any potential need for reforms in relation to the progress of leading regional institutes can be measured.

### **CONCLUSION**


The primary focus of any nursing programme must be to produce a first level RN who can work safely in any number of clinical environments, and who can take a holistic approach to the care of the patient, regardless of diagnosis and treatment. Foremost among the desired graduate attributes, we need nurses who can critically and efficiently translate clinical evidence into practice, as well as communicate effectively within multiple human contexts and in large health organisations. Apart from the performance of local graduates, another possible indication of the efficacy of regional nursing programmes, as well as a measure of regional leadership and international impact, would be the attraction of nursing degree candidates from traditional nursing education stalwarts, such as the United Kingdom, Australia, Canada and the United States of America.

From our early observations of Singapore and Indonesia, the setup of new nursing initiatives offers plenty of opportunities for innovation in clinical practice, educational delivery, teaching and the changing of attitudes towards the acceptance of nursing as a profession of equal standing to its healthcare contemporaries. Nursing is, after all, the backbone of the healthcare system!

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**SMA PRESENTS**

**11<sup>TH</sup> SMA ETHICS & PROFESSIONALISM CONVENTION**

**SATURDAY, 20 OCT 2007**  
11<sup>TH</sup> SMA ETHICS & PROFESSIONALISM CONVENTION  
"MANAGING RISKS IN MEDICAL TOURISM & AESTHETIC PRACTICES"  
12 NOON to 4 PM  
VENUE: DIAMOND ROOM, SAFRA MT FABER, 2 TELOK BLANGAH WAY

**WEDNESDAY, 24 OCT 2007**  
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5 PM to 7.15 PM  
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