Do New Zealand's nursing students know how to access health promotion services and look after their own health?

Kei te mōhio ngā ākonga tapuhi me pēhea te whakapā atu ki ngā ratonga whakatairanga hauora, ki te tiaki hoki i tō rātou hauora?

Léonie Walker, BSc, MSc, PhD, Adjunct Associate Professor, School of Health Sciences, Massey University, Wellington, NZ

Abstract

The importance of health promotion and self-care to nurses provided the impetus for a project examining nursing students' knowledge about services, their access to facilities and their confidence in signposting sources of help to other students related to health promotion. A web-based survey exploring students' knowledge and confidence in self-accessing or signposting others to sources of help with a wide range of health promotion issues was widely advertised and distributed to nursing students at all 23 nursing schools (including separate entries from multi-campus programmes) providing undergraduate nursing education in New Zealand. Descriptive statistical analysis and comparisons between groups (age group, year of study and ethnicity) using 2-sample t-tests were carried out using statistical software within the Survey Monkey (Pro) platform. Nearly a thousand nursing students responded from across all years and from every nursing school. Respondents reported on service availability and health promoting aspects of each campus. Access to services and a healthy environment differed between schools. While there were differences attributable to age group, independently of age, confidence in giving health promotion advice increased as nurses progressed through the three years of undergraduate nursing education. Many aspects of

Walker, L. (2019). Do New Zealand's nursing students know how to access health promotion services and look after their own health? *Nursing Praxis in New Zealand, 35*(1), 7-17.

Ngā Ariā Matua

Nā te hira o te whakatairanga me te taurima i a rātou anō mā te tapuhi, ka hua ake tēnei kaupapa tātari i te mōhiotanga o ngā ākonga tapuhi mō ngā ratonga, te wātea mai o ngā whare hauora ki a rātou, me tō rātou māia ki te tohutohu i ngā puna āwhina mō te whakatairanga hauora ki ētahi atu ākonga. I pānuitia whānuitia, i tohaina hoki ki ngā ākonga tapuhi i ngā kura tapuhi 23 (tae atu ki ētahi i whakauru mai i ngā kaupapa hōpuni maha) e hora ana i te akoranga tapuhi paetahi i Aotearoa, tētahi uiuinga ā-ipurangi e tūhuratia ai te mōhiotanga me te māia o ngā ākonga ki te tomo ā-kiri, ki te tohutohu rānei ki ētahi atu ākonga ngā puna āwhina mō te huhua o ngā take whakatairanga hauora.I kawea he tātaritanga tatauranga me ngā whakatairitenga i waenga i ētahi rōpū (reanga ā-tau, tau o te akoranga me te momo ā-iwi) mā te whakamahi i ngā 't-test' tātauira 2, me te whakamahi i ngā pūmanawa tatauranga i te pūhara Survey Monkey (Pro). Tata ki te kotahi mano ngā ākonga tapuhi i whakautu mai i ngā tau katoa mai i ia kura tapuhi. I whakahoki kōrero te hunga urupare mō te wātea mai o ngā ratonga me ngā āhuatanga whakatairanga hauora i ia hōpuni. He rerekē te wātea mai o ngā ratonga me te taiao hauora i waenga i ngā kura. Ahakoa i puta he rerekētanga nā te āhua o te reanga ā-tau, i piki anō te māia o te hoatu tohutohu whakatairanga hauora, ahakoa te pakeke, i roto i ngā tau e toru o te akoranga tapuhi paetahi. He maha

nursing school campuses are less than ideal as health promoting institutions. Two key areas for improvement are the provision of affordable healthy food, and reinforcement of smoke-free messages. Additionally, issues such as gender diversity, financial management, shiftwork management and emotional preparedness all emerged as areas about which students needed more information. Given different age and ethnicity profiles in the different schools, a varied range of targeted health promotion education may be required.

tonu ngā āhuatanga o ngā hōpuni kura tapuhi kāore i te tino pai hei whare whakatairanga hauora. E rua ngā wāhi matua hei whakapainga ake, tuatahi ko te kaha hauora, ngāwari te utu, tuarua ko te whakapūmau i ngā pānui whakamutu i te kaipaipa. I tua atu i tērā, arā atu ngā wāhi pēnei i te kanorau momo ira, te whakahaere pūtea, te whakahaere mahi tīpako, me te takatū o te ngakau ki ngā uauatanga o te mahi, ēnei katoa, i noho hei wāhanga me nui ake ngā mōhiotanga mā te ākonga. Ina tirohia ngā kōtaha ā-tau, ā-momo iwi rerekē o ngā kura nei, me mātua hora pea te huhua o ngā momo akoranga whakatairanga hauora.

Keywords / Ngā kupu matua

Nursing students / Ngā ākonga tapuhi; health promotion / whakatairanga hauora; self-care / taurima i a rātou anō; New Zealand / Aotearoa

Introduction

Health promotion, "*the promotion of high level wellness for the individual, the family and the community",* is a key nursing task, and self-care is an important pre-requisite to helping others to better look after their health (Hartweg, 1990, p. 35). While learning about the care of others is the bedrock of nursing education, care of self features less prominently.

Literature review

It has long been recognised internationally that nursing education, like nursing itself, can be a physically and emotionally stressful experience, requiring students to learn how to manage their own physical and mental health and role model self-care (Ashcraft & Gatto, 2015; Loreno & Drick, 1990). Additionally, nursing students who combine work and parenthood with study, experience additional risk of stress (Pryjmachuk & Richards, 2007). Increased pressure and time demands as students progress through their programmes have been reported to be accompanied by a decrease in self-care activities among nursing students (Kim, Kim, & Kim, 2015; Stark, Hoekstra, Hazel, & Barton, 2012).

The pressures of university life, including challenges such as new independence, tempered with loneliness and additional stresses caused by clinical placements, were shown in an Irish study of nursing student lifestyle behaviours to correlate with poor health choices, including increased alcohol, decreased exercise and decreased quality of nutrition and sleep (McSharry & Timmins, 2017). These pressures are particularly acute for first year students, with the importance of access to peer and psychological support during the transition to university life highlighted (Patterson, 2016). Other studies, for example a longitudinal cohort study of Australian nursing students, identified that while study itself was a prime stressor, finance (personal financial strain related to university fees and loss of income while studying), family (especially responsibility for children) and poor personal health were all highly significant stressors (Lo, 2002). A recent review of the international

literature by Turner and McCarthy (2017) described stress and anxiety among nursing students linked to poor educational outcomes and attrition; yet failed to identify adequate evidence of effective interventions, or initiatives to improve self-care.

In New Zealand, many nursing students have responsibility for children and whānau (family), and have financial constraints leading to both further stress and to the necessity to combine paid work with family care and study (Walker, 2015b). While previous surveys of New Zealand nursing schools have reported access to student health and support services (Walker, 2015b), none had contained questions related to health seeking or self-care knowledge and behaviours of nursing students in New Zealand. Thus, a gap in the literature was identified, regarding health promoting self-care knowledge and activity among New Zealand nursing students, which this project sought to investigate.

Methods

A national, anonymous web-based survey of student nurses was undertaken in March-April 2017. The main focus of the survey (health promoting and self-care knowledge and behaviours of nursing students), was chosen by the leadership team of the National Student Unit (NSU) of the New Zealand Nurses Organisation (NZNO). The NSU committee aims to have two student representatives from each school of nursing in Aotearoa New Zealand, one Māori tauira (Te Runanga Tauira, TRT) and one other student. Student representatives to the national committee are enrolled in an undergraduate nursing/midwifery course or a programme leading to an initial New Zealand nursing/midwifery registration. Student representatives may be enrolled nurse students. In addition to the health promotion question set, the survey collected general information about student experiences at their nursing schools, demographic data, and smoking prevalence among student nurses. The project used a partnership approach between the researcher and student delegates from the NSU. Questions related to health promotion and self-care were initially developed by the researcher and a small working-group of Wellington NSU members. The major topics were selected due to their prominence in existing student help service provision and the student support literature. Two additional topics (preparation for shift work and gender diversity issues) were identified from previous research findings with newly qualified New Zealand nurses (Clendon & Walker, 2012). The questions were sequentially revised and tested for both cognition and cultural issues at two following meetings of the NSU. Peer review was provided by a NZNO nurse researcher and two professional nursing advisers. The survey, a mixture of closed and open questions, is available from the researcher. The first part of the survey explained the purpose of the survey, the confidentiality that would be provided in any dissemination of the results, and indicated that completion would take approximately 20 minutes. The survey link was e-mailed directly to *all* (approximately 2000) NZNO nursing student members, was advertised in *Kai Tiaki Nursing New Zealand*, and a link placed on the student page of the NZNO web site. A separate sheet offered the opportunity to go into a draw with a chance of winning a subscription to *Kai Tiaki* for a year, as an incentive to take part. The link was also displayed on posters around nursing schools, and in some schools, a link was placed on the nursing student blackboard or moodle pages.

Analysis

Descriptive statistical analysis was undertaken to produce frequency tables for responses and demographic characteristics for all answers. Simple comparative statistical tests were performed using embedded Survey Monkey (Pro) program software. A series of two tailed, 2 sample t-tests were undertaken to test for significance of differences between variables (for example between age groups, years of study, or ethnicity of respondents).

Ethics

Key ethical issues for this anonymous survey included reporting aggregated data to ensure that students from minority demographics and particular schools could not be identified. Consent was implied by completion and submission of the survey questionnaire. Due to the concerns from the NSU that answering questions related to health, mental health and stress may distress respondents, students were also signposted at the end of the survey to sources of online support from NZNO for mental health issues and bullying. Formal ethical review was provided by Massey University: #4000017234 dated 15.02.2017.

Table 1: Demographic profiles of respondents
n=917 (note % sum of ethnicities > 100 due to multiple options)

	Response Count	Response Percent
Ethnicity		
NZ Māori	152	16.6
NZ European	614	67.0
Pacific Island	64	7.0
Other European	47	5.1
South East Asian	32	3.5
Chinese	32	3.5
Indian	46	5.0
Other Asian	46	5.0
Other	94	10.3
Age group		
18-21	384	41.9
22-25	152	16.6
26-30	117	12.8
31-40	136	14.8
Over 40	128	14
Year of study		
First	348	38.6
Second	241	26.7
Third	279	30.9
Other	34	3.8
Course		
Bachelor of Nursing	824	91.2
Enrolled Nurse/ Nurse Assistant	27	3.0
Bachelor of Health Science	6	0.7
Midwifery	1	0.1
Return to Nursing	5	0.6
Competency Assessment Programme	18	1.8
Postgraduate study	5	0.6
Other (please specify)	20	2.2

Results

Respondents

Students from all 23 nursing education providers (including, where appropriate, differentiating campuses for multiple-campus providers) responded to the survey, with a very even split in respondents from years one, two and three respectively. Virtually all were enrolled in a Bachelor of Nursing programme. In total, 917 nursing students responded. Assuming an even spread of students across three years, using the latest registration data from the Nursing Council of New Zealand (2017), there are around 6800 undergraduate nursing students nationally at any one time. Nine hundred and seventeen responses therefore represent approximately 13% of all nursing students in New Zealand. Table 1 shows the demographic profile of respondents. Official statistics for the demographic features of New Zealand's total undergraduate student nurse population are not readily available for comparative purposes; however, the demographics of the sample are similar to previous studies of nursing students in New Zealand (Walker, 2015) and Nursing Council of New Zealand data on nursing graduates in 2010 (Nursing Council of New Zealand, 2013). Results are shown below, either in table form, where appropriate, or as in-text reporting of the numbers or percentages.

There were statistically significant differences in the age and ethnicity profiles of respondents from the different schools. Some schools had a preponderance of younger, New Zealand European (NZE) students, and others had older, or more ethnically diverse student rolls.

Relationships and social support

The survey identified that just over a third (34%) of respondents were in settled relationships, while just under a third (32%) had responsibilities for children or whānau/family. For Pacific Island respondents, the proportion with family responsibilities was significantly higher at 46.6%. Both these factors (relationship status and children) were positively correlated with increasing age. Overall, 55.6% of students in settled relationships had responsibility for children or whānau, while 19.7% of single students did. This difference is significant at the 95% confidence interval of p=0.05.

As might also be expected, those in settled relationships were significantly more likely to access social support and friendships at home and in their community (44.2%) whereas single students accessed friendship and support at the school (63%). This difference is also significant at the 95% confidence interval of p=0.05.

Accessing sources of support

Of those who indicated they needed support in each of the domains featured in the survey question (spiritual, social, cultural/ethnic) described below, there were clear differences between groups in the sources of their support. Of those who needed specific cultural or ethnic support, 65.8% had access to this at their school. This compared to 59% of those who needed social support and friendships who found this at school, and 34% of those requiring spiritual support who found this at school. When comparing the support needs of Māori students with NZE students, there were differences significant at the p=0.05 level for both cultural/ethnic support at school and in the community, and for spiritual support in the community. For both cultural and spiritual support, twice as many Māori felt able to access adequate support, while nearly a third of NZE students reported not needing these supports. There were no statistically significant differences between these two ethnic groupings in the reported access to social support and friendships. Six percent of students indicated that they did not have their specific spiritual, cultural or ethnic support needs met at school or in their community, and 2.6% did not have the social support and friendship they needed either at school or in the community. Numbers reporting this were too small to statistically compare these answers by ethnicity. There

were no significant differences between the support needs of those whose learning was primarily delivered on campus compared with those with large online learning components. This is likely to be due to the confounding effect between those who chose online study options, who were more likely to be partnered, parents, older, and living as part of a community, compared to those who chose campus-based options.

There were no significant differences in the proportions of first, second and third year nursing students and their needs for support, or their knowledge of student health services. Overall, only 86% of students across all years felt they had access to student health services. Māori nursing students were statistically less sure than NZE students about the access to health services. Seventy three percent of third years, 68% of second years and 59% of first years had accessed student health services. Again, this did not differ between campus-based students and the majority of online learners.

Of those who had used student health services, the overwhelming majority were very positive about their experience; reporting good or excellent available information about the services, appointment times and quality of care. However, affordability was frequently cited as a barrier, even at those schools for whom subsidised care was available. Costs of immunisations required for clinical placement were also frequently identified as an issue. The lack of suitable campus-based appointments in order to avoid clashes with placements or lectures was also identified as posing a barrier to access.

Smoking status

Twelve percent of nursing students smoke. However only 6.1% smoke every day. This differed by ethnicity, with 24.3% of Māori nursing students and 11.9% of non-Māori students reporting that they smoke. Ex-smokers made up 17.4% of all respondents. Smoking incidence is virtually identical to that reported in 2013, and the data are reported in more depth elsewhere (Walker & Willis, 2017). This study shows a lower smoking prevalence among nursing students than New Zealand adults (17 %) or young adults (24% for 18-24-year olds) and compares with 8.5% of registered nurses. It also shows lower rates than for Māori women in the general population (42%), or qualified Māori nurses (19.3%). There is a confounding effect due to the older age of Māori nursing students and a clear reduction in smoking among younger respondents generally. Knowledge of the smoke free status of nursing schools (and in particular the policies around use of electronic cigarettes) was very patchy, while knowledge of smoking cessation services was high, with 92% reporting knowing how to access cessation services.

Accessing health promoting activities and services

Knowledge of opportunities for exercise (gyms and organised sports or dance) was high across all years, although it appeared that the time constraints and financial concerns led to a drop in the ability to take part in exercise as studies progressed through the years. Facility opening times, cost and clashes with placements were the main barriers to organised exercise. The findings related to the availability of healthy food options were more mixed. Some schools had healthy food options on campus or close by, however, frequent choice of unhealthy options (whether solely for choice or cost reasons) were reported. For many students, access to a wider range of food outlets within easy walking distance of their campus resulted in a wider choice and price range of food options. Free text comments were related to the time pressures that impeded students' ability to buy and organise bringing cheaper nutritious food for lunch. The percentage of students reporting the sale of sugary drinks available on campus varied widely, from 54% of students reporting availability on one campus, to up to 88% of respondents from other campuses. On all campuses, students reported having access to buy

Table 2: Health promotion confidence to advise others by year of undergraduate study (% of number in each year, rounded)

Respondents to this question set, n=618. Not every student answered every question.

Issue	Year 1 confident	Year 2 confident	Year 3 confident	Difference between years 1 and 3 (significant p=0.05; NS = not significant)
Contraception and sexual health	35	47	52	P=0.05
Gender identity	19	21	30	P=0.05
Cultural and ethnic identity	34	39	46	P=0.05
Smoking cessation	34	53	67	P=0.05
Anxiety or stress	29	37	46	P=0.05
Other mental health problems	22	33	48	P=0.05
Other general health issues	23	42	51	P=0.05
Financial difficulties	19	21	15	NS
Drug or alcohol concerns	27	36	48	P=0.05
Domestic violence	26	26	39	P=0.05
Bullying	33	35	38	NS
Managing fatigue and shift work	19	19	19	NS
Managing own emotional responses to patient's/relative's distress	21	25	27	NS
Managing conflict or anger	23	24	29	NS
Managing team work and inter-personal dynamics	26	30	31	NS

Table 3: Health promotion confidence to advise others by age (% of those in each age group, rounded)

Respondents to this question set n=618. Not every student answered every question. (Significance at the 95% confidence level: For example, P=0.05 (A:D) means there was a significant difference between responses in columns A and D only, while P=0.05 (A:BCD) indicates there was a significant difference between responses in column A and each of the other columns.)

Issue	Age 18-21 A	Age 22-25 B	Age 26-30 C	Aged > 40 D	Difference between years significant
Contraception and sexual health	43	43	47	46	NS
Gender identity	24	23	26	24	NS
Cultural and ethnic identity	37	46	36	38	P=0.05(B:ACD)
Smoking cessation	44	50	51	65	P=0.05(A:BCD)
Anxiety or stress	34	37	38	45	P=0.05(A:D)
Other mental health problems	33	37	35	36	NS
Other general health issues	35	43	37	41	P=0.05(AC:BD)
Financial difficulties	17	18	17	20	NS
Drug or alcohol concerns	36	39	38	38	NS
Domestic violence	27	35	35	36	P=0.05(A:BCD)
Bullying	37	34	39	32	NS
Managing fatigue and shift work	19	16	25	19	NS
Managing own emotional responses to patient's/relative's distress	23	25	23	26	NS
Managing conflict or anger	27	23	25	28	NS
Managing team work and inter-personal dynamics	31	29	29	30	NS

drinking water in addition to sugary drinks, and at ten of the schools, all respondents from that school reported free access to water.

Confidence in knowledge of health promotion issues

There was clear evidence that students had gained knowledge and confidence of health promotion issues for their own needs and to be able to advise others. This increase in confidence improved progressively as they moved through the three years. Some issues were more confidently rated than others. These results are summarised in Table 2.

The results show that most confidence was expressed giving smoking cessation and contraception advice, while the least confidence was shown in aspects of managing emotions or issues in the workplace, even among third year students. Of concern was that nearly half of all respondents – even third years – lacked the knowledge or confidence to be able to provide health promotion advice to others across a wide range of topics. Particular needs for knowledge and advice about financial difficulties, addressing gender identity and about managing fatigue and shift work were identified across students from all three years. Eighteen respondents doing Competency Assessment Programmes (i.e. registered nurses returning to the workforce or transitioning from other countries) were much more confident than the undergraduate nurses, especially about the emotional components such as managing emotions, conflict, shift work and team / interpersonal dynamics. These students in the Competency Assessment Programmes were significantly older, having a mean age of around 30, and 16 out of the 18 had immigrated from other countries, an action in itself requiring considerable resourcefulness. When it came to describing their confidence to be able to advise others about these same health promotion issues, the results are summarised in Table 3.

Differences between age groups in confidence to advise others of health promotion issues were less pronounced than the differences seen across the different years of nursing study, with fewer of the categories reaching a statistically significant level. This may however be a statistical effect reflecting that there were nearly four times as many students in the younger age group (aged under 22) than the oldest age group (aged over 40). The same topics students struggled with for themselves (understanding implications of gender diversity, financial stress and shift work management on placement) emerged as the topics students felt least equipped to give advice to others.

Discussion

Nurses in all settings have key roles in primary prevention and health promotion (Peterson-Graziose, Bryer, & Nikolaidou, 2013). In particular, broad ranging and socially orientated health promotion and health education are crucial to nursing practice (Whitehead, 2004). While this survey did not explore students' actual knowledge, practice, or even their understanding of health promotion, having the knowledge to protect one's own health and accessing self-care services when appropriate is a necessary starting point (Mantesso, 2005). While there appeared to be good knowledge of services and support for many issues (notably smoking cessation and contraception), confidence to be able to signpost to support for other important sources of stress — gender diversity (Roth & Coleman, 2008) and financial difficulties (Rowbotham & Julian, 2006) — was lower. Nursing students are subject to the same determinants of health that affect the general population, and more specifically, the general tertiary student population. Health behaviours of first year students (particularly students relatively fresh from school and living away from home for the first time) have been documented in many countries. Such students have been shown to engage in high levels of unhealthy behaviours including

excessive alcohol use, smoking, poor diet, risky sexual activity and physical inactivity (Al-Kandari & Vidal, 2007). Distinctions have been reported between younger, school-leaver nursing students, and older students who are more likely to be parents, and to have financial and other family responsibilities, and more constraints on their time (Peterson-Graziose, Bryer, & Nikolaidou, 2013). A central tenet of effective health promotion is that knowledge alone is not sufficient, and that structural efforts to address the wider determinants of health are highly important. Health promoting behaviours are influenced by personal factors such as finance, time pressures, stress and self-esteem. They can also be influenced positively or negatively by other contextual factors such as ease of access, price and availability of the different options, family and peer pressure, and the wider social context of their lives. Particularly for campus-based study, the price of food and availability of affordable yet healthy food was frequently cited as a barrier to healthy eating. The degree to which institutions have a responsibility to provide a health-promoting environment, or the evidence base for this as an effective health promotion strategy in pre-tertiary schools at least, is under debate. Universities have a statutory and ethical duty to support student health and well-being. The New Zealand Qualification Authority's Code of Practice includes a requirement for tertiary education institutions to provide, or signpost to students, sources of support such as counselling, nursing, and cross-cultural support (New Zealand Qualification Authority, 2016). There are, however, no formal requirements to provide healthy environments outside the standard health and safety legislation related to food and building safety, sanitation, noise, and control of injuries and hazardous substances. National legislation relating to drug use, including smoking and alcohol, also applies to the tertiary education institutions (Health and Safety at Work Act (Hazardous Substances) Regulations, 2017; Work Safe New Zealand, 2013).

Implications and recommendations

One of the areas students were least sure about accessing support for themselves or others was gender diversity. There has been increased awareness of the issue in New Zealand, with publication of the New Zealand Health Survey detailing considerable, and serious health inequalities reported by gender diverse (especially transgender) youth (Clark et al., 2014). Another area that causes considerable difficulty for some students relates to the financial pressures of studying. Students report managing budgets, fear of debt accumulation, juggling working and studying due to financial pressure, and considerable additional costs specific to nursing, such as paying for required immunisations and purchasing equipment (Walker, 2015b). The low level of confidence about managing shift work is of particular concern. Negative nurse health and patient safety impacts of shift work have long been known (Berger & Hobbs, 2006; Walker, 2015a). Increasingly, self-management of shift work related fatigue is not only seen as a professional responsibility (due to the patient safety concerns), but also a highly recommended health promoting strategy (Canadian Nurses Association, 2010; Gander et al., 2011). Additionally, as management of the impact of shift work has been shown to contribute to attrition from the workforce among both younger and older nurses in New Zealand, better preparation for this aspect of nursing appears necessary (Clendon & Walker, 2012; Clendon & Walker, 2013). The final area that emerged as one needing specific input was that of dealing with emotions resulting from distress experienced among patients or their families, mental health problems of self or peers, and managing own and others emotions, including conflict. Previous research has highlighted the need to develop the emotional intelligence of nursing students (Benson, Ploeg, & Brown, 2010). The use of stress-coping strategies, and the quality and quantity of social support have all been shown to be important in maintaining mental health, yet there is evidence in

New Zealand that younger nurses may be emotionally under-prepared for practice (Clendon & Walker, 2012), and that this might be contributing to early attrition from the workforce (Walker & Clendon, 2018).

Limitations

This was a small, pragmatic study run within the context of a NSU-led national survey of nursing students. The sampling method through the wide broadcast of adverts, posters and links, in addition to direct mail invites, had the advantage of ensuring non-NZNO student nurses could participate, but the disadvantage was that precise response rates could not be calculated. As with all surveys, selective response bias cannot be excluded.

Conclusions

Self-care is an important aspect of nursing student's health and learning to do this, and to model self-care, has the potential to contribute to effective health promotion (Ashcraft & Gatto, 2015). While there is evidence that knowledge of, or confidence in, a range of health behaviour related issues increases as nursing students progress through the three years of a Bachelor of Nursing programme (irrespective of age), it also appears that there are age/life-experience related differences in the confidence of those nursing students. The specific issues of gender diversity, financial management, shiftwork management and emotional preparedness emerged as areas for development within the curriculum. Given the very different age profiles of students at the individual nursing schools, with the attendant differences in available partner, cultural and family support, and financial and parenting-related pressures, some individual nursing schools may benefit from age and life-stage specific targeting of their health promotion and self-care curriculae.

References

Al-Kandari, F., & Vidal, V. L. (2007). Correlation of the health-promoting lifestyle, enrolment level, and academic performance of College of Nursing students in Kuwait. *Nursing & Health Sciences*, *9*(2), 112-119. doi: 10.1111/j.1442-2018.2007.00311.x

Ashcraft, P. F., & Gatto, S. L. (2015). Care-of-self in undergraduate nursing students: A pilot study. *Nursing Education Perspectives, 36*(4), 255-256. doi: 10.5480/13-1241

Benson, G., Ploeg, J., & Brown, B. (2010). A cross-sectional study of emotional intelligence in baccalaureate nursing students. *Nurse Education Today*, *30*(1), 49-53. doi: 10.1016/j.nedt.2009.06.006

Berger, A.M., & Hobbs, B.B. (2006). Impact of shiftwork on the health and safety of nurses and patients. *Clinical Journal of Oncology Nursing, 10*(4), 465-471. doi: 10.1188/06.CJON.465-471

Canadian Nurses Association. (2010). *Nurse fatigue and patient safety: Research report.* Retreived from https://www.cna-aiic.ca/~/media/cna/page-content/pdf-en/fatigue_safety_2010_report_e.pdf

Clark, T. M., Lucassen, M. F., Bullen, P., Denny, S. J., Fleming, T. M., Robinson, E. M., & Rossen, F. V. (2014). The health and well-being of transgender high school students: Results from the New Zealand adolescent health survey (Youth'12). *Journal of Adolescent Health*, *55*(1), 93-99. doi: 10.1016/j.jadohealth.2013.11.008

Clendon, J., & Walker, L. (2012). 'Being young': A qualitative study of younger nurses' experiences in the workplace. *International Nursing Review 59*(4), 555-561. doi: 10.1111/j.1466-7657.2012.01005.x

Clendon, J., & Walker, L. (2013). Nurses aged over 50 years and their experiences of shiftwork. *Journal of Nursing Management, 21*(7), 903-913. doi: 10.1111/jonm.12157

Gander, P., Hartley, L., Powell, D., Cabon, P., Hitchcock, E., Mills, A., & Popkin, S. (2011). Fatigue risk management: Organizational factors at the regulatory and industry/company level. *Accident Analysis & Prevention*, *43*(2), 573-590. doi: 10.1016/j.aap.2009.11.007

Hartweg, D. L. (1990). Health promotion self-care within Orem's general theory of nursing. *Journal of Advanced Nursing*, *15*(1), 35-41. doi: 10.1111/j.1365-2648.1990.tb01670.x

Kim, M. A., Kim, J., & Kim, E. J. (2015). Effects of rational emotive behavior therapy for senior nursing students on coping strategies and self-efficacy. *Nurse Education Today, 35*(3), 456-460. doi: 10.1016/j.nedt.2014.11.013

Lo, R. (2002). A longitudinal study of perceived level of stress, coping and self-esteem of undergraduate nursing students: An Australian case study. *Journal of Advanced Nursing*, *39*(2), 119-126. doi: 10.1046/j.1365-2648.2000.02251.x

Loreno, P., & Drick, C. A. (1990). Self-care identity formation: A nursing education perspective. *Holistic Nursing Practice, 4*(2), 79-86.

Mantesso, J. (2005). Caring for self: A prerequisite of caring for others. *International Journal for Human Caring*, *9*(3), 73-75. doi: 10.20467/1091-5710.9.3.73

McSharry, P., & Timmins, F. (2017). Promoting healthy lifestyle behaviours and well-being among nursing students. *Nursing Standard*, *31*(24), 51-63. doi: 10.7748/ns.2017.e10588

Health and Safety at Work Act (Hazardous Substances) Regulations 2017. Retreived from http://www.legislation.govt.nz/regulation/public/2017/0131/25.0/whole.html#DLM7309401

New Zealand Qualification Authority. (2016). *Guidelines for the Education (Pastoral Care of International Students) Code of Practice 2016 - Tertiary.* Retreived from http://www.legislation.govt.nz/regulation/public/2017/0131/25.0/DLM7309401.html

Nursing Council of New Zealand. (2013). *The future nursing workforce: Supply projections 2010-2035.* Retreived from http://www.nursingcouncil.org.nz/News/The-Future-Nursing-Workforce

Nursing Council of New Zealand. (2017). Annual Report 2017. Retreived from http://www.nursingcouncil.org.nz/Publications/Reports-and-workforce-statistics

Patterson, S. L. (2016). The effect of emotional freedom technique on stress and anxiety in nursing students: A pilot study. *Nurse Education Today*, *40*, 104-110. doi: 10.1016/j.nedt.2016.02.003

Peterson-Graziose, B., Bryer, J., & Nikolaidou, M. (2013). Self-esteem and self-efficacy as predictors of attrition in associate degree nursing students. *Journal of Nursing Education*, *52*(6), 351-354. doi: 10.3928/01484834-20130520-01

Pryjmachuk, S., & Richards, D. A. (2007). Predicting stress in pre-registration nursing students. British *Journal of Health Psychology, 12*(1), 125-144. doi: 10.1348/135910706X98524

Robotham, D., & Julian, C. (2006). Stress and the higher education student: A critical review of the literature. *Journal of Further and Higher Education*, (*30*)2, 107-117. doi: 10.1080/03098770600617513

Stark. M. A., Hoekstra, T., Hazel, D. L., & Barton, B. (2012) Caring for self and others: Increasing health care students' health behaviours. *Work, 42*(3), 393-401. doi: 10.3233/WOR-2012-1428

Roth, J. E., & Coleman, C. L. (2008). Perceived and real barriers for men entering nursing: Implications for gender diversity. *Journal of Cultural Diversity*, *15*(3), 148-152.

Turner, K., & McCarthy, V. L. (2017). Stress and anxiety among nursing students: A review of intervention strategies in literature between 2009 and 2015. *Nurse Education in Practice, 22,* 21-29. doi: 10.1016/j.nepr.2016.11.002

Walker, L. (2015a). Is nursing making you sick? (health and safety). *Kai Tiaki: Nursing New Zealand, 21*(10), 24-25.

Walker, L. (2015b). *New Zealand Nurses Organisation: National Student Unit Survey 2015: National Nursing student Survey.* Retrieved from https://www.nzno.org.nz/Portals/0/Files/Documents/Groups/NSU/2015%20National%20nursing%20student%20survey%20report.pdf

Walker, L., & Clendon, J. (2018). Early nurse attrition in New Zealand and associated policy implications. *International Nursing Review*, *65(1),* 33-40. doi: 10.1111/inr.12411

Walker, L., & Willis, J. (2017). Prevalence of smoking among New Zealand nursing students 2017. *Kai Tiaki Nursing Research*, *8(1)*, 4-9. Retrieved from https://search.informit.com.au/documentSummary;dn=221184759841555;res=IELHEA

Whitehead, D. (2004). Health promotion and health education: Advancing the concepts. *Journal of Advanced Nursing*, *47*(3), 311-320. doi: 10.1111/j.1365-2648.2004.03095.x

Worksafe New Zealand. (2013). Guidance for managing drug and alcohol-related risks in adventure activities. Ministry of Business, Innovation and Employment. Retrieved from https://worksafe.govt.nz/topic-and-industry/adventure-activities/guidance-for-pcbus/