

## Learning needs assessment for registered nurses in two large acute care hospitals in Urban New Zealand

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### SUMMARY

**Background:** Ongoing education for the nursing workforce is necessary to ensure currency of knowledge in order to enable evidence based client care. The cost of education is high to the organisation and the individual, and must therefore be cost-effective, relevant and appropriate. According to research, education for nurses is not always systematically planned and developed and often relies on the interest area and assessment of the nurse educators.

**Aim:** To survey the learning needs of clinically based registered nurses within an acute care setting.

**Design and method:** An anonymous questionnaire was used to collect the data. Two groups completed the questionnaire: all eligible registered nurses in two acute care hospitals located in urban New Zealand and their senior nurses such as clinical nurse managers, specialists and educators.

**Results:** The study found agreement on learning needs and also noted differing opinions between the Registered Nurses (RNs), and their senior RNs, RNs initially registered overseas and between levels of practice, on selection and ranking of learning needs.

**Conclusion:** This survey identified a number of high learning needs for RNs working within acute care settings. Differences in perception of learning needs for RNs, between the nurses themselves and the Senior RNs exist, as well as among sub groups of RNs. As a result, educators and managers are encouraged to collaborate to realise the opportunity which exists for the provision of education across specialty areas and to work with the different groups and the individual to ensure unique learning needs are met.

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### Introduction

All health practitioners, including nurses, need to maintain competency and currency of practice knowledge and skills through continued education. As a knowledge-based profession nurses must keep abreast of evidence based practice, advances in medical and social science knowledge and technology. Hicks and Hennesy (1996) argue that ongoing education is critical to enable nurses to keep their knowledge and practice up to date and to promote safe, effective care. In New Zealand individual practitioners are required under the Health Practitioners Assurance Act (HPCA Act) to complete a minimum number of ongoing education hours to retain their practicing certificate. This is replicated worldwide under different government guidelines.

As nurses comprise the largest sector of the health care workforce health care organisations have a mandate to provide safe, competent care to the public and have a vested interest to ensure there are adequate resources, including ongoing education, to maintain the competency and currency of their nursing workforce. Despite this some would argue that health care management often

pays 'lip service' to ongoing education initiatives and this area is often the first to be cut when financial restraints are necessary (Levett-Jones, 2005; Lindy and Reiter, 2006). In contrast organisations that demonstrate a strong commitment to ongoing education initiatives and opportunities for their staff demonstrate higher levels of staff recruitment, retention and satisfaction according to Kramer and Schmalenberg (2004).

Some authors, and organisations, make distinctions between ongoing education that maintains competency and basic safety of practice and ongoing education that focuses on professional development opportunities for nurses which extend and advance practice and knowledge. Orientation programmes and training programmes that promote staff competency and ensure service delivery, the 'need to know' vocational training, are mandatory requirements of organisations. These programmes invariably take precedence over education options that extend nurses' knowledge and skills and advance professional practice as well as meet service needs (Gould, Berridge & Kelly, 2007). Levett-Jones (2005) argues however that such programmes are critical to staff satisfaction and staff retention.

The cost of ongoing education is high to the organisation and also to individual nurses who may be required to fund their own postgraduate education. Any ongoing education programme must

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be cost-effective, satisfy the nurses and lead to improved health outcomes for clients and communities. Evidence of value for money or time spent in education activities must be underpinned by sound data, information and planning (Pedder, 1998).

### Learning needs assessment

The completion of a robust learning needs assessment is a critical step in planning ongoing education but one that is often missed which leads to an ad hoc development of courses (Grant, 2002). Ongoing education is often based on the planner's hunch, bias or preference according to Clafin (2005) and DeSilets (2006). Bowman (1987) argues a well conducted needs assessment not only identifies staff education needs but also increases participant commitment, management support and provides data for a robust evaluation process.

Learning needs assessment tools, or training needs analysis tools as they are often called, generally elicit subjective data based on wish lists of participants or the untested assumptions of the tool's designer (Hicks and Tyler, 2002). Surveys or questionnaires are commonly used whereby participants complete a report on their perceived learning needs. It is recognised that 'felt' needs are sometimes limited by the level of the individuals self awareness (Kristjanson and Scanlan, 1992). Grant (2002) argues that 'felt needs' may differ from 'expressed needs' or those identifiable in action or practice. Often learning needs assessment tools are based around specialty skills and knowledge, tasks and procedures and tend to be very narrow in focus (Grant, 2002). These tools fail to capture the comprehensive nature and the complexity of nurses' practice and so do not comprehensively assess their learning needs.

### Study design

#### Aims and objectives

The aim of this study was to identify the learning needs of clinically based registered nurses (RNs). The objectives of the study were to identify:

- Generic learning needs of clinically based RNs from within two urban acute care hospitals.
- Generic learning needs of clinically based RNs as perceived by their senior RNs in management or education roles.

#### Study population

The study population involved two groups of participants. All participants who met the criteria were sent a questionnaire to complete. Group one included clinically based RNs working as permanent staff members in an acute care setting with direct client care responsibilities. Exclusion criteria included RNs allocated to an acute care area as relief or agency staff, second level nurses or unregulated health care assistants.

Group two represented senior RNs employed in nurse manager, specialists or educator positions. Exclusion criteria included senior RNs who had no or infrequent direct contact with the clinically based RNs.

Areas of practice surveyed included acute care, specifically emergency, intensive and cardiac care; ambulatory care; assessment, treatment and rehabilitation services; medical and surgical services. Excluded from the survey were the pediatric and mental health services. This was due mainly to cost containment. All the services identified are provided across two large and busy urban

hospitals, serving the unique needs of a diverse community in New Zealand.

### Method

The study design was descriptive quantitative with data collected using an anonymous questionnaire. A triangulation approach was applied to the development of the questionnaire, as described below and the validity of the findings was increased as the registered nurses and their senior nurses both assessed the registered nurses learning needs. Using a range of stakeholders is useful when surveying 'perceived or felt' needs as this does not limit the perspective to one group only (Hopkins, 2002). The questionnaire was distributed to potential participants via the local nurse educators with return anonymously, within two weeks, to a sealed box within the clinical area.

#### Questionnaire development

An earlier informal survey of stakeholders, across a range of specialty areas of practice which included RNs, Directors of Nurses, Charge Nurses and Nurse Educators, had identified a wide range of learning needs. It was decided, after negotiation with senior nursing staff involved, to identify the generic learning needs of the clinically based nurses within the acute care areas of the two large urban hospitals.

The questionnaire was developed from the synthesis of information from two sources: a literature review and information from the earlier survey of key stakeholders from within the two hospitals. Following ethical approval, the questionnaire was piloted with postgraduate nursing students and then within one department from a single hospital.

The development of the tool was based on two assumptions. Firstly, nurses themselves should be involved in identifying their own learning needs. While the limitations of this assumption were mentioned previously, nurses are major stakeholders in the education process and must be consulted. The second assumption was that other people who have a vested interest in nurses' practice should also be involved in identifying the nurses' learning needs. This is supported by Williams (1998) and Hopkins (2002) who argued multiple viewpoints will promote accuracy in determining a group's learning needs and increase the reliability and validity of the study results.

The questionnaire was divided into two parts. The first part consisted of 71 items grouped into 3 sections: client care (section A); health care team (section B) and professional issues (section C). The second part consisted of demographic data such as ethnicity, work experience and education qualifications. The questionnaire consisted of a range of learning need items against which the participants rated an item using a Likert-type scale. Participants were asked to rate learning need items using the following statement: "in my area of specialty practice I need to increase my knowledge and skill in ..." The Likert scales ranged from strongly agree to strongly disagree and included a neutral and not applicable response choice.

### Ethical considerations

Ethical approval was obtained for the study from the New Zealand Ministry of Health and Disability Ethics Committee.

#### Data analysis

Descriptive and frequency statistics were used to find the mean score for each of the Likert-scale items in the three sections (client

care, health care team and professional issues). The means were then ranked from the highest to the lowest to find which items were identified by the nurses as 'learning needs'. The items with the lowest means were perceived by the participants as the learning needs where skill and knowledge needed to be increased. Conversely items with the highest means were the learning needs that were judged to be less important.

Analysis was carried out using Excel. Initially, for both study groups the learning needs in sections A–C of the questionnaire were ranked and a comparison made between the two groups. Then the groups were combined to determine agreement and ranking of learning need. Comparison was also made between ranked learning needs for levels of practice and between RNs initially registered overseas and within New Zealand.

## Results

### Study population characteristics

Of the 1600 questionnaires distributed to the clinically based RNs, 563 (35%) were returned. One hundred and sixty questionnaires were distributed to the senior RNs, 101 (63%) were returned.

Fig. 1 presents the country of the registered nurse's initial registration. The majority registered initially in New Zealand (60%) followed by Philippines, Fiji, and India, United Kingdom and South Asia with lesser numbers in the remaining countries.

The two hospitals surveyed have Professional Development and Recognition Programmes for RNs where levels of practice, as per Benner (2001), are linked to remuneration and responsibilities. The RNs self reported their level of practice as a new graduate (Level 1) (8%), competent (Level 2) (48%), proficient (Level 3) (31%), and expert (Level 4) (10%).

A Bachelors degree was held by 47% with 16% registering before an undergraduate degree became the required qualification for registration. Post graduate qualification was held by 7% of respondents. The majority of RNs 80% were not currently engaged in post graduate education.

Characteristics of the New Zealand nursing workforce reflected in this study include ethnicity, level of practice, highest qualification and country of initial registration.

Of interest are the increasing numbers of RNs initially registered overseas, who currently represent 40% of the workforce and 40% of the RNs who completed this survey.

At the time of the survey, 20% of the RN respondents were engaged in post graduate study. In more recent years post graduate study has been encouraged and supported at a national and local

level hence anecdotal evidence suggests this percentage currently under represents this subset of RNs.

The response rate to this survey was 35%, an acceptable response for this study design and method (Lavelle et al., 2008). However, this is also a somewhat disappointing rate given the survey provided an opportunity for RNs to have significant input and influence on future education opportunities. The survey was conducted during winter which, universally, represents a busy time for RNs and many may have 'overlooked' the opportunity to participate in preference to providing more urgent client care. The questionnaire was five pages which may have acted as a disincentive for some.

### Highest learning needs

#### Registered nurses perceptions

The top ten learning needs ranked by the RNs related to the section on client care (Fig. 2), with the highest need 'Interpreting information from diagnostic tests' (81%), and then 'Coordinating an emergency situation' (78%). The highest learning needs in the health care team and professional issues sections are shown in Fig. 3a and b as 'Managing conflict within the nursing team' (70%) and the 'Health Practitioners Competency Assurance Act' (66%).

#### Senior registered nurses perceptions

Senior RNs perceived highest learning needs for the RNs are identified in Fig. 4 and show the top ranked learning need as 'Using evidence to support their practice' (91%); and then 'Discussing evidence for practice with colleagues' (91%). Worthy of note is the inclusion of five items relating to the health care team and two on professional issues in contrast to the RNs, who only identified two health care team items and no professional issues in their top twelve learning needs.

Combining the rankings to identify the top twelve learning needs identified by the RNs and the Senior RNs perception of the RNs need, are identified in Fig. 5 as 'Interpreting information from diagnostic tests' (81%); and then 'Coordinating and emergency situation' (77%).

#### Subsets of registered nurses

Whilst it is advantageous to consider the learning needs of the RNs as a homogenous group, there are other variables which affect learning needs. For this reason the RN group was separated into

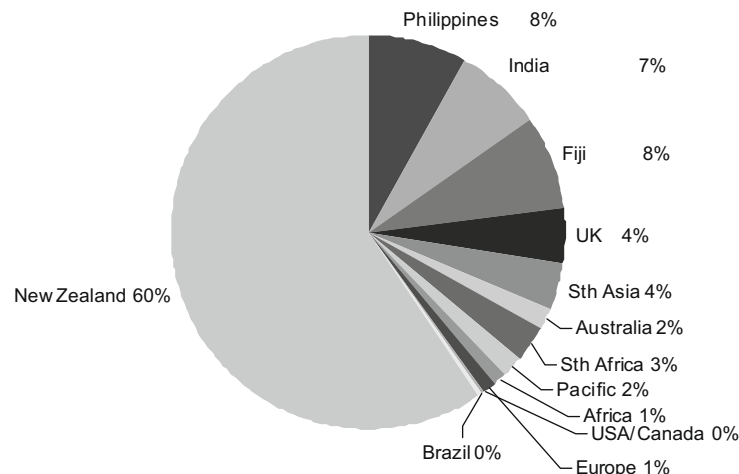


Fig. 1. Overseas staff nurses: countries of initial nursing registration.

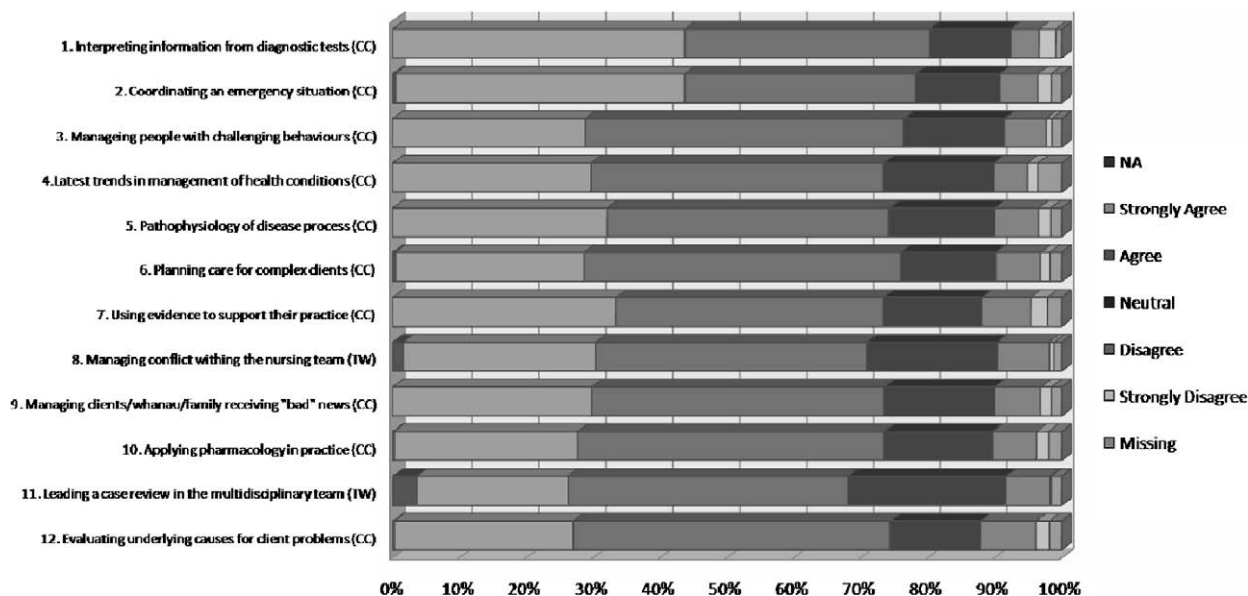


Fig. 2. Highest learning needs ranked by registered nurses combining client care (CC), team work (TW) and professional issues (PI).

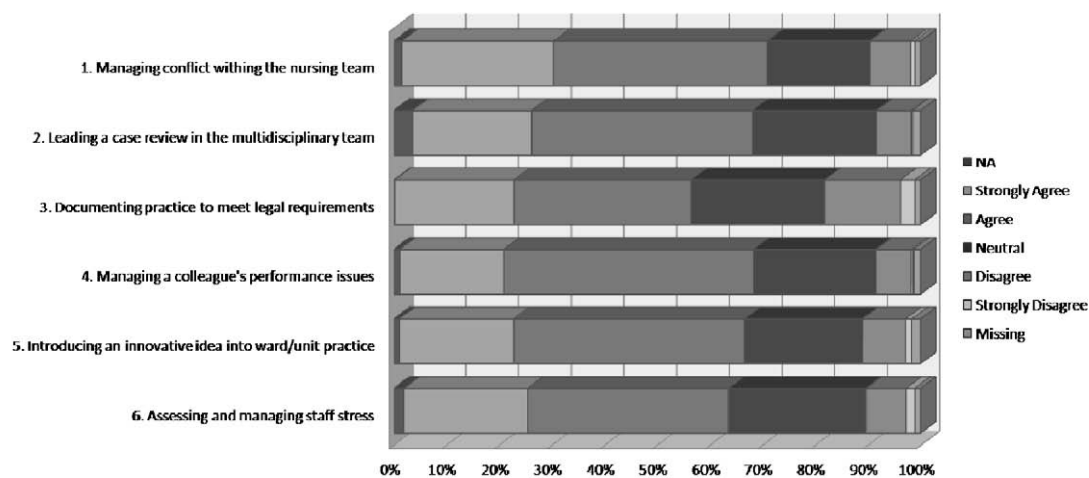


Fig. 3a. Highest learning needs ranked by registered nurses for team work.

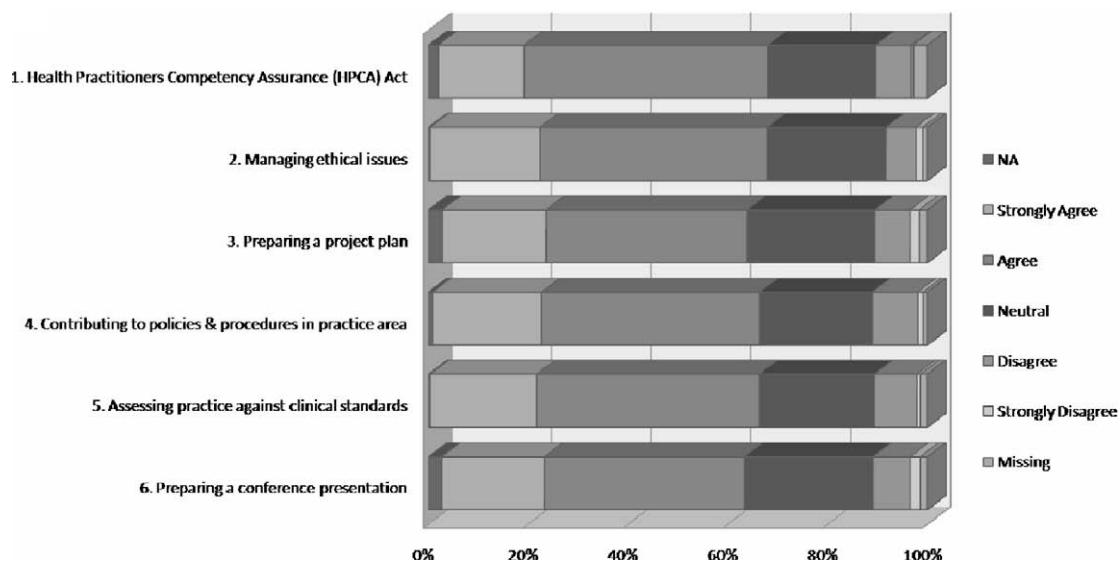


Fig. 3b. Highest learning needs ranked by registered nurses for professional issues.

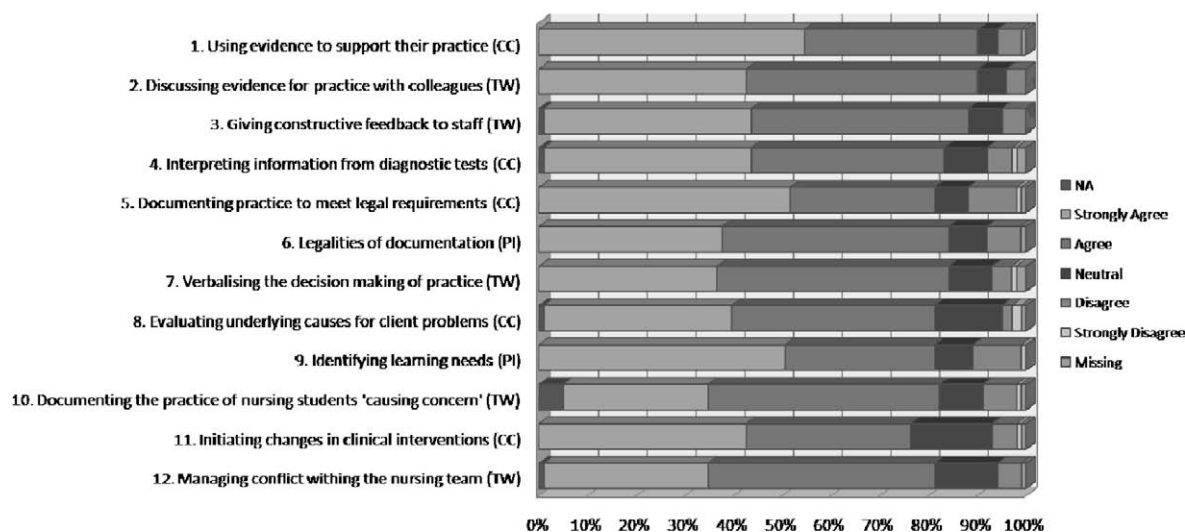


Fig. 4. Highest learning needs ranked by Senior Registered nurses for Registered nurses combining client care (CC), team work (TW) and professional issues (PI).

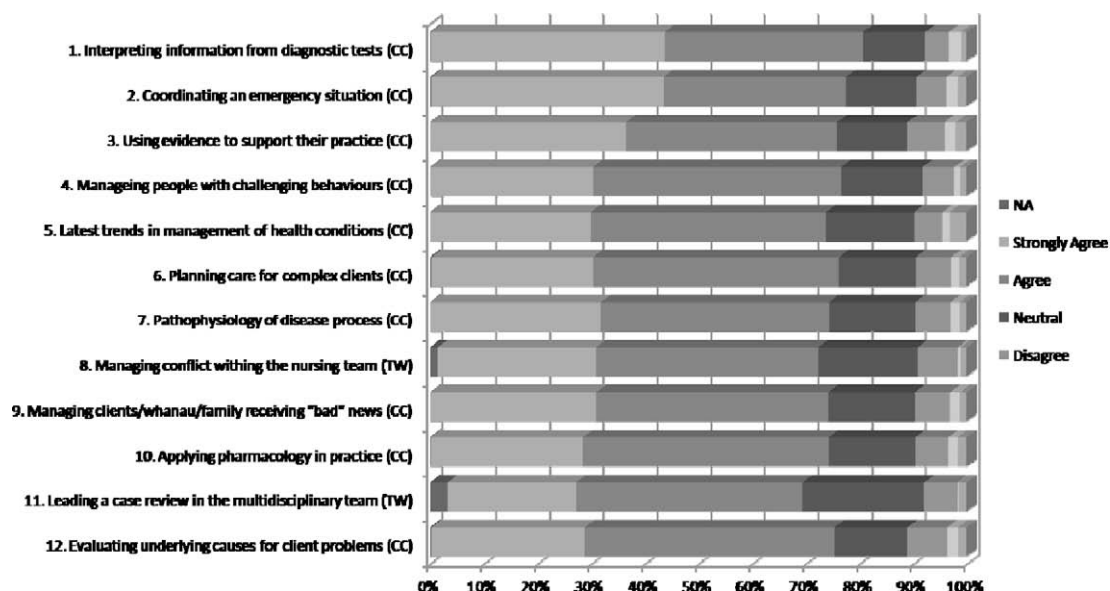


Fig. 5. Highest learning needs ranked by Registered nurses and Senior Registered nurses combining client care (CC), team work (TW) and professional issues (PI).

subsets for further analysis revealing some interesting differences. When the learning needs were reviewed by country of initial registration, RNs whose registration was initially overseas had two unique learning needs (Table 1) which were not captured in the top twelve combined learning needs for New Zealand RNs or the top learning needs for all RNs (Fig. 2). These were 'Making decisions about clinical problems' (70%), and 'Knowing the values and beliefs of other cultures' (74%).

The combined learning needs were also reviewed by self reported levels of practice and revealed differences in learning need between the levels (Table 2). Specifically, Level One and Two RNs identified the need to learn more about client care relating to 'Evaluating underlying causes for client problems' (79%); 'Applying pharmacology in practice' (78%); and 'Making decisions about clinical problems' (72%) with one item relating to the health care team; 'Leading a case review in the multidisciplinary team' (66%). Levels Three and Four RNs identified two items relating to team work; 'Managing conflict within the nursing team' (71%), 'Managing a col-

league's performance issues' (67%), and one each for client care and professional issues respectively; 'Advanced assessment skills related to mental health' (66%) and 'Preparing a project plan' (72%).

#### Lowest learning needs

The lowest learning needs ranked by the RNs and the Senior RNs are presented in Table 3.

#### Discussion

The aim of this study was to identify the generic learning needs of clinically based RNs from the perspective of the RNs themselves and their Senior Nurses. The findings from this survey highlight a number of areas that warrant discussion to assist those involved in the planning and delivery of ongoing education for registered nurses in clinical settings similar to the study context.



**Table 1**Highest learning needs ranked in descending order by New Zealand Registered Nurses ( $n = 335$ ) and Overseas Registered Nurses ( $n = 228$ ).

NZ RN's	Overseas RN's
1. Interpreting information from diagnostic tests	1. Interpreting information from diagnostic tests
2. Coordinating an emergency situation	2. Coordinating an emergency situation
3. Managing people with challenging behaviours	3. Latest trends in management of health conditions
4. Applying pharmacology in practice	4. Planning care for complex clients
5. Pathophysiology of disease process	5. Using evidence to support their practice
6. Managing clients/whanau/family receiving "bad" news	6. Managing people with challenging behaviours
7. Using evidence to support their practice	7. Pathophysiology of disease process
8. Planning care for complex clients	8. Managing conflict within the nursing team
9. Managing conflict within the nursing team	9. Managing clients/whanau/family receiving "bad" news
10. Evaluating underlying causes for client problems	10. Leading a case review in the multidisciplinary team
11. Latest trends in management of health conditions	11. Making decisions about clinical problems
12. Leading a case review in the multidisciplinary team	12. Knowing the values and beliefs of other cultures (different to my own)

**Table 2**Highest learning needs ranked in descending order by the Level 1 + 2 Registered Nurses ( $n = 331$ ) and Level 3 + 4 Registered Nurses ( $n = 232$ ).

Level 1 + 2 RN's	Level 3 + 4 RN's
1. Interpreting information from diagnostic tests	1. Interpreting information from diagnostic tests
2. Coordinating an emergency situation	2. Managing people with challenging behaviours
3. Planning care for complex clients	3. Latest trends in management of health conditions
4. Using evidence to support their practice	4. Coordinating an emergency situation
5. Pathophysiology of disease process	5. Managing conflict within the nursing team
6. Managing clients/whanau/family receiving "bad" news	6. Pathophysiology of disease process
7. Evaluating underlying causes for client problems	7. Managing a colleague's performance issues
8. Applying pharmacology in practice	8. Using evidence to support their practice
9. Leading a case review in the multidisciplinary team	9. Planning care for complex clients
10. Latest trends in management of health conditions	10. Managing clients/whanau/family receiving "bad" news
11. Managing people with challenging behaviours	11. Preparing a project plan
12. Making decisions about clinical problems	12. Advanced assessment skills related to Mental Health

**Table 3**Lowest learning needs ranked in ascending order by the Registered Nurses ( $n=563$ ) and Senior Registered Nurses ( $n=101$ )

Registered Nurses	Senior Registered Nurses
Prioritizing own work load	Establishing relationships with clients/whanau/families of different cultures
Establishing relationships with clients/whanau/families of different cultures	Presenting a powerpoint presentation
Initiating discharge and referrals of clients	Preparing a project plan
Advanced assessment skills related to Socio-economic situation	Advanced assessment skills related to Socio-economic situation
Advanced assessment skills related to Lifestyle Factors	Advanced assessment skills related to Family Health
Advanced assessment skills related to Family Health	Knowing the values and beliefs of other cultures (different to my own)
Advanced assessment skills related to Emotional/spiritual health	Preparing a conference presentation
Addressing cultural differences in client/whanau/family learning	Performing technical procedures

The findings highlighted that the highest learning needs of RNs focussed on direct client care activities rather than team work or professional issues according to the RNs and their senior nurses. It could be argued this finding was hardly surprising as the primary role of the clinically based RNs in this study was direct client care. What was important however was the RN learning needs that were agreed upon by both participant groups. Despite there being minimal research in the area it is generally known that selection of content for ongoing education is rarely rational but rather it is based on the assumptions of educators or organisational wish lists (DeSilets, 2006; Hicks & Hennesy, 1996). This study included the views of not just the RNs themselves but also the senior nurses who worked with the RNs on a regular basis and were, therefore, in a good position to observe the strengths and weaknesses of their practice. Both groups are key stakeholders in planning ongoing education offerings for nurses (Gould, Kelly, White & Chidgey, 2004). This more rational approach is also cost effective in a time of limited education budgets as the nurses are more likely to become involved in learning a topic that has clinical relevance to them according to a systematic review undertaken by Kristjanson and Scanlan (1992) and the senior nurses are more likely to teach,

support and allocate resources to a topic they perceive as necessary.

Of the twelve top ranked learning needs agreed by both RNs and their senior nurses many related to the constant advance in scientific knowledge and the impact on treatments and health care (interpretation of diagnostic tests, use of evidence, treatment trends, care of complex clients, pathophysiology and pharmacology and causes for client problems). This finding was a timely reminder that nurses are most concerned about their knowledge in these areas and this should be of major concern to educators as these areas are fundamental to safe, effective practice. The findings suggest that either the topics are not being addressed in ongoing education offerings or the teaching and learning methods are less than effective.

An interesting finding was that activities such as 'co-ordinating an emergency situation' and 'managing people with challenging behaviours' were high learning needs. The high ranking may be explained by the very nature of these situations as they are unpredictable, challenging and stressful for staff and may not occur regularly enough for staff to feel comfortable and proficient. The same may be said for 'managing clients receiving bad news' which

is a perennial practice issue for many nurses and will always be stressful. Perhaps the issue is the way these topics are taught and educators may need to consider alternative teaching methods and ways to expose nurses to more frequent contact in these areas such as on line case studies and clinical rounds.

When the results of the two groups (RNs and senior nurses) were considered separately some similarities and differences in ranking were apparent. The focus on client care was less evident when the perceptions of the senior nurses were examined separately. The senior nurses were of the opinion that RNs had high learning needs in several team work and professional activities as well as client care activities. In recent years NZ has moved toward a team based model of nursing care and this finding may reflect the scope of practice of the senior nurses who have management and operational responsibilities in their work brief and observe the outcome of team functioning on a daily basis. It is interesting to note that the more competent RNs (Levels 3 and 4) also ranked some team work activities as high learning needs which may be due to their increasing team responsibilities.

#### *Overseas trained nurses*

Nursing belongs to a global workforce economy and there is a constant ebb and flow of nurses coming in and out of New Zealand. Increasingly however, as with many industrialised countries, New Zealand is reliant upon overseas trained nurses to maintain an adequate nursing workforce (North, 2007). Overseas nurses are now actively recruited to meet nursing shortages and nursing was listed on the priority occupation list in 2002–2004 by the NZ Immigration Service. For the year ending March 2006 the nursing regulatory body, Nursing Council of New Zealand, registered 1560 registered nurses from overseas; 147 more than those educated in NZ (Nursing Council of New Zealand, 2006). There is a conservative estimate that approximately 40% of New Zealand's nursing workforce is now overseas trained. The proportion of overseas trained nurses included in the sample in this study reflected that estimate.

The results showed that overseas trained nurses had higher learning needs than their NZ trained colleagues around 'Knowing the values and beliefs of other cultures'. This is particularly relevant as RNs integrate into the New Zealand nursing culture and provide culturally appropriate care to all, and in particular to Maori, New Zealand's indigenous population, who currently have the greatest burden of chronic disease (Ministry of Health, 2006). Again, this may be an obvious result but it raises questions around how this is being addressed in ongoing education and whether there is a culturally appropriate and safe learning environment. There must be differences in work expectations in nursing between countries and this is an area that requires further research.

#### *Expertise in practice*

Benner's hallmark study (2001) identified that nurses' skill and knowledge level increases over time with clinical experience and expertise. The findings of this study support that premise and demonstrated that there are some differences between the perceived learning needs of nurses on different levels of a professional development programme that is based on Benner's framework. Overall it was found that the learning needs of the less competent nurses (Levels 1 and 2) were more focussed on direct client care whereas the learning needs of the more competent nurses (Levels 3 and 4) were widening to include team and professional issues. The last decade in New Zealand has seen nursing move from the individualistic primary nursing model to a more team based approach. Leading and managing a team is an expectation of the more senior nurses such as Levels 3 and 4 and this role includes activities such

as conflict management and performance management which were identified as learning needs by this group of nurses. These skills though are rarely taught at an undergraduate level in New Zealand nursing programmes and therefore must be included in ongoing education offerings.

#### *Generic or silo teaching*

In the hospitals surveyed many of the topics reflecting the highest ranked learning needs were taught within the clinical specialties, a silo approach to teaching. This approach is becoming increasingly difficult with the huge diversity in nursing roles and clinical specialties (Cheek & Jones, 2003, as cited in Gould et al., 2007). This approach also carries a danger of ongoing education meeting the short term needs of a clinical specialty only (Gould et al., 2007). Clinically based nurses are often unable to see the benefits of education unless it pertains directly to their practice (Cheek & Jones, 2003; Pelletier, Donahue, Duffield, 2004; as cited in Gould et al., 2007) and need assistance to see evolving work practices and new directions for health care. It may be timely to use a more centralised approach to ongoing education and look at ways that education offerings can meet both the short term service needs and evolving health care practices. Gould et al. (2007) argue that closer collaboration between clinical agencies and higher education providers such as universities is critical to ensure there is a clear division of roles and labour around providing ongoing education for nurses that meets clinical and professional needs.

#### **Limitations**

When considering the findings of this study, two issues needed to be kept in mind. Firstly, learning needs assessment tools are inherently limited by their subjectivity influencing both design and response (Hicks and Tyler, 2002). Secondly, reliability of the findings maybe challenged by the low response rate as discussed earlier. The perennial issue of when to survey a busy workforce remains challenging, as does engaging the same workforce to participate in research. Generalization of these findings to areas beyond acute care in New Zealand is not appropriate. However, lessons learnt locally may apply elsewhere, particularly in a world where economic imperatives and workforce pressures are common to all nurses. For future studies, a triangulation approach to the development of the learning needs assessment tool and data collection is recommended to increase validity. To improve reliability, the development of online questionnaires, in addition to hard copies, are recommended.

#### **Conclusion**

Ongoing education is a necessary and costly exercise for employers and nurses. A generic learning needs assessment which is based on current work role activities is a useful step in planning a relevant, cost effective ongoing education to help build a well prepared, knowledgeable workforce.

The findings of this study have provided a timely reminder for those involved in ongoing education to ask some searching questions such as: who decides the content of ongoing education? Are the needs of different subsets of nurses being met? Is there content that could be taught centrally? What teaching methods will encourage learning in specialty areas?

Further research needs to be undertaken in some areas raised by this study. Exploring the specific learning needs of overseas trained nurses is crucial with the current global mobility of the workforce. Other areas of interest would be to look more closely at the differences in learning needs between different subsets of

nurses such as nurses in primary health care and mental health to ensure ongoing education is appropriate to meet immediate and future needs.

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