University of Alberta

The Learning Needs of Experienced Registered Nurses Working in Acute Care Surgical Areas

by

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CHAPTER 1

Introduction

Nursing, similarly to other health care disciplines, is impacted by the upsurge of information brought on by technology, changes to the workplace, and increasing patient acuity levels resulting in workload issues. To function competently and safely, nurses need to keep pace with the latest information, to ensure their clinical knowledge and skills are current, safe and reflect evidenced-based patient care (Case, 1996; Schraeder, 1987). The acquisition of knowledge is challenging given technical information doubles every five to seven years (Nowicki, 1996; Flagello, 1998). As well, researchers estimate basic education for nursing practice becomes obsolete within ten years (Gilles & Petengill, 1993; McDiarmid, 1998).

Continuing Education

One of the ways nurses keep pace with changes in nursing knowledge in the clinical setting is by participating in continuing education offerings. However, due to limited human and financial resources available for staff nurse participation, this is not always possible (Hewlett & Eichelberger, 1996; McDiarmid, 1998). A major part of the nurse educator's role includes orientation of new staff. Orientation, which often includes orientating new nursing graduates, can be a time consuming and expensive process involving many resources (Connelly, 1998). Nurse educators spend many hours facilitating mandatory hospital programs such as the certification and recertification of staff in cardiopulmonary resuscitation (CPR), which may result in limited time to assess the needs of experienced registered nurses who identify learning needs in other areas (Willis, 1996). Nurse managers may also be directing the educational needs of staff to

fulfill their own educational agenda, however, the learning needs of the Registered Nurses (RNs) might be very different from the nurse manager's educational goals (Demong & Assie-Lussier, 1999).

It is important to maintain and promote a skilled and knowledgeable nursing workforce, but the needs of RNs beyond basic unit orientation may be difficult to meet. In addressing the learning needs of new orientees, the needs of the experienced RNs are overlooked (Benner, 1984). Ongoing continuing education is a problem consistently identified by nurses (Canadian Nursing Advisory Committee (CNAC), 2002). Educational offerings do not meet the needs of experienced RNs as the further away one moves from basic clinical skills and knowledge to more advanced preparation, the learning opportunities grow smaller (Lathrop & Otte, 1993). Barrows (1983) believes educational needs of new graduate nurses differ from the needs of experienced nurses and because of these differences, educational activities need to be conceptualized and delivered differently.

Barrows draws on Malcolm Knowles' principles of adult education. She purports principles of adult education differ from the principles of pedagogy, or the education of children. Barrows suggests that at times the new graduate nurse may benefit from child-learning theories since the new nurse may be unaware of what they need to learn. She contrasts this example with the experienced nurse who may lose interest in the educational activity if they are not treated as an adult learner. Differences between new graduates and experienced nurses are summarized in Table 1.

Table 1: Differences Between New Graduates and Experienced RNs

Topic	New Graduate Nurses (Less than 1 year of experience)	Experienced Nurses (More than 1 year experience)
Learning Theory	Child learning theories may be utilized to direct nurses in what they need to learn	Loses interest in learning activity with child learning theory Adult learning theory: focus on information that addresses immediate concerns or needs
Length of time out of school	More familiar with the theory behind clinical practice May be more comfortable with writing goals and objectives	Perfects basic skills, needs more advanced skills May be fearful of formal learning situations, e.g. tests Less familiar with goal writing
Clinical Expertise	Limited May not be able to distinguish what education is clinically relevant May be more open minded about changes to practice as the clinical practice is less established	Wealth of knowledge May challenge the clinical relevance of educational offerings as a waste of time if not directly related to work situation Often less likely to make changes to practice
Age and related factors	More likely eager to learn Rarely have gained much authority Often fewer family and financial responsibilities	May believe they are too old to learn May view younger nurse as a threat to position or authority Possibly more family and financial responsibilities

Hayes, Morin, Sylvia, and Bashford (1995), define continuing education (CE) as "organized educational experiences beyond basic preparation, designed to maintain and/or to augment the knowledge, skills, and attitudes of nurses" (p. 90). Therefore, CE plays a significant role in staff development. One would think that with the rapid changes in technology alone, nurses would be motivated to participate in CE programs, "however, one quarter of qualified nurses lack further education" (Demong & Aussie-Lussier 1999, p. 20). Nurses have verbalized the desire for more educational activities but limited healthcare resources and allocation of funds directed toward CE programs, have limited nurses access to CE opportunities.

One way to remain competitive in the job market is to actively pursue one's own development, including educational development which may depend on the individual's own sense of accountability (Yoder-Wise, 1998, p. 244). Organizations that have

typically offered and been responsible for educational offerings of staff nurses are increasingly reluctant to fund CE programs because of financial constraints. The findings from a three-year study in England showed nurse managers believed nurses should pursue educational needs on their own time and be self-funded (Stephens, 1999). Stephens surveyed 617 managers and 1,500 nurses and reported there was a "discrepancy between perceptions and expectations about who should pay for continuing professional education" (p.8). Managers, who felt restrained by tight budgets, indicated nurses should be responsible for their own continuing professional education, while nurses reported funding and other educational assistance such as staff replacement, and work schedule, should not be their sole responsibility.

Available funding is more likely to be allocated for use by organizations rather than RNs' perceived educational needs (Willis, 1996). For example, yearly updates on topics such as back care, fire lectures, and CPR are considered mandatory, but attending can be difficult due to lack of replacement staff. Some institutions provide self-learning packages so staff have the option of completing modules at home (Barone-Ameduri, 1992). As well, Demong and Assie-Lussier (1999) reported nurse managers viewed the educational needs of their staff nurses as being connected to the requirements of their own position, responsibilities, and educational background. For example, if the nurse manager's educational priority is fire safety training, then that may be the educational activity offered to staff regardless of staff interest. Training sessions that teach a skill with no perceived value for staff nurses does little to promote their ability to learn (Unsworth-Webb, 1990).

Beach (1982) found support from nursing management was important because staff nurses, who indicated an educational need congruent with management goals, were more likely to receive support to pursue CE. Nurses surveyed by Beach identified learning needs that related to clinical topics directly applicable to patient care, while managers identified an educational direction associated with their management position. However, studies that document the assessment of perceived needs of nurses are relatively rare (Thurston, 1992). To minimize the differences between management goals and the learning needs of RNs, a need assessment carried out with both groups would be instrumental in highlighting common goals or interests. An educational plan could then be implemented to address both groups' needs.

Competency

Clinical competence has been defined in the literature as possessing both knowledge and skill to adequately perform in the clinical area (Morgan & Irby, 1978; Trautman, 1995). But as technology changes and patient acuity increases, clinical competence and skills also need to be upgraded. McGregor (1990) believes that the term 'competent' has an expanded meaning. The expectation that the nurse only manages safe patient outcomes is an outdated and narrow view. McGregor asserts the term competent encompasses "a comprehensive understanding of patients' illnesses, the ability to function independently, anticipate problems, and implement interventions beyond the level previously accepted" (McGregor, 1990, p. 287).

Although Canada does not currently have a formal mandatory CE program, the province of Alberta is moving toward the implementation of a method to document competency. For example, the Alberta Association of Registered Nurses (AARN) under

the Health Professions Act (HPA) is required to have in place a continuing competence program. The program will apply to all registered nurses in all work settings. It means "the program must provide a method for nurses to use to maintain their competence and to demonstrate that they have done so" (Graham, 1999, p.17).

Continuing Education and Competency

The effectiveness of CE on competence or whether there is any relationship between the two has been disputed in the literature. The relationship between CE and clinical outcomes or proficiency is either poorly understood (Yoder-Wise, 1996), or there are no conclusions about the effectiveness of CE clearly presented in the literature (Rath, Boblin-Cummings, Baumann, Parrott, & Parsons 1996). Yoder-Wise (1996) and Willis (1996) found nurses' attendance or presence at CE sessions does not mean they will use the newly acquired knowledge in practice. On the other hand, Ross (2001) citing a meta-analysis of 34 studies carried out by Waddell (1991), reported 75% of participants who completed CE programs delivered better patient care and reported an increase in professional growth.

Even though the relationship between CE and competencies may be poorly understood, some believe CE plays a role in pushing clinical knowledge forward resulting in the establishment of nursing specialties such as, intensive care, coronary care, and oncology (Yoder-Wise, 1996; Thurston, 1992). Beatty (2001) notes that despite this dispute there are currently no other options that will ensure competency. The scope of this study does not include adding to the discussion regarding the relationship between CE and competency. Instead the focus is on building a case for CE based on what RNs are currently verbalizing and to determine their learning needs. According to adult

learning theory RNs need to have input into proposed educational activities (Barrows, 1983; Bell, 1986; Jarvis, 1987). Jarvis, citing Benedict et al., purports adults learn best when there is a felt need to learn, the learning goals are self-motivated and they participate in the learning process by sharing in the planning of educational activities.

Purpose of the Study

The purpose of this study was to identify the learning needs of experienced RNs working in surgical patient care units at an acute care hospital; identify factors nurses perceive as influencing their learning needs; and explore the interaction between learning needs and job satisfaction. The research questions guiding this study are as follows:

1. What are the perceived learning needs of experienced RNs working on surgical units?
2. Which factors do RNs report as influential to meet their learning needs?
3. What is the relationship between learning needs and job satisfaction?

Definition of Terms

Learning needs

Learning needs are defined as "felt needs which are regarded as necessary by the person (s) concerned" (Kristjanson & Scanlan, 1992, p.157). These "felt needs" refer to nurses' perception of their learning needs related to maintaining or enhancing clinical skills and knowledge to deliver safe and competent patient care.

Experienced nurses

Benner (2001) estimated proficient performance could be found somewhere between three and five years of working with similar types of patients. In Benner's (2001) *Novice to Expert*, her sample population was selected from experienced nurses

who were engaged in direct patient care with at least five years of clinical experience. For the purpose of my study experienced RNs are defined as those RNs currently involved in direct patient care with a minimum of five years of clinical experience since graduating from a basic nursing program.

Job Satisfaction

Krueger et al., (2002) examined predictors of job satisfaction with a sample of 5,486 nonphysician staff. They found job satisfaction is a multidimensional construct with some commonalties across organizations. In their literature review, Krueger, et al. (2002) noted job satisfaction was associated with, "reduced work stress, organizational commitment, communication with supervisors, autonomy, employee recognition, fairness, locus of control, years of experience, education and professionalism" (p. 3). Kuokkanen, Leino-Kilpi, and Katajisto (2003) suggested work environment, professional factors and factors involved in patient care are associated with job satisfaction. Boblin-Cummings, Baumann, and Rath (1994) included factors such as working conditions, employer support for CE activities, and satisfaction in providing nursing care.

Murray (1999), based on Spector's (1997) work identifies nine factors influencing job satisfaction:

Pay - amount and fairness of salary
Promotion - opportunities
Supervision - competence of supervisors
Benefits - insurance and vacation
Contingent rewards - sense of respect, recognition and appreciation
Operating procedures - policies, procedures, and rules
Coworkers - perceived competency, and pleasantness
Nature of work - enjoyment of tasks
Communication - sharing of information with the organization.

Murray (1999) found these factors have a profound effect on how employees view their quality of work life and although there is not a commonly held definition of job satisfaction, he found Spector's definition useful. For the purpose of this study job satisfaction is defined as "a cluster of evaluative feelings about the job" (Murray, 1999, p. 14).

CHAPTER 2

Literature Review

The Adult Learner

Adult learning theory is extensively detailed in the literature. Knowles (1980) introduced the term andragogy, "the art and science of helping adults to learn" (p.43) and provided a philosophy that remains the cornerstone of adult learning theory. Knowles (1975, p. 31) using Lindeman's work suggested five key assumptions that can be attributed to the adult learner and is indeed the foundation upon which modern adult learning theory is built: "adults are motivated to learn as they experience needs and interests that learning will satisfy"; "adults' orientation to learning is life-centered"; "experience is the richest resource for adult learning"; "individual differences among people increase with age"; "adults have a deep need to be self-directing".

To many adult learners the term andragogy may be an unfamiliar one. However the assumptions underlying the principles are easily identifiable and understood. That is, adults will pursue knowledge to solve immediate problems of personal interest that in turn stimulate a readiness to learn about the problem. Self-directed adults will then use their experience as a resource to guide their learning needs (Merriam, 1996).

In nursing these principles are present in many day-to-day situations. For example, the nurse caring for a patient newly diagnosed with diabetes will need to teach the patient how to administer insulin. Based on past experience with similar patient care situations, the nurse identifies resources helpful to assist the patient. Taking a self-directed approach the nurse is motivated to identify knowledge and skills needed to carry out patient teaching.

The need to be self-directed is what Popiel (1977) refers to as being psychologically an adult. With self-direction the learner identifies his/her learning needs and sets out to meet them. Further, adults focus on immediate problems and are motivated to engage in learning activities that can be readily applied to the situation (Brundage & MacKeracher, 1980). Assisting learners to become self-directed is essential in today's rapidly changing health care system. Assuming responsibility for one's own learning and identifying what information is meaningful is clearly articulated in the literature (Brundage & MacKeracher, 1980; Knowles, 1974; Lowenstein & Bradshaw, 2001; Popeil, 1977).

However, Shanley (2004) cautions educators from placing too much emphasis on the individual learner. The author suggests that, although a learner may identify his or her learning needs, attend a meaningful education program it does not necessarily follow the learner will have the ability to implement the learning in the organizational setting. Table 2 summarizes potential barriers to implementing new learning within an organization.

Table 2: Barriers to Implementing New Learning

- New learning not supported by managers, supervisors, peers
- Existing procedure/protocols are inconsistent or oppose the new learning
- Work practices which "have always been done that way" may be inconsistent with new learning
- Insufficient time and resources available to implement new learning
- Learner is given no feedback and there is no expectation that the learner will disseminate new learning
- No opportunity to educate other staff
- Underlying conflict or lack of direction within the organization

(Shanley, 2004, p. 84).

Shanley firmly believes the realities of the workplace dramatically affect the learner's ability to implement new learning and to promote change in their environment.

According to CNAC (2002), nurses have identified current nursing knowledge and competent clinical skills as a priority. Nurse employers may attract and retain nursing staff to a greater extent if the organization is supportive of CE as identified by RNs Kramer, & Schmalenberg, 1988; Pierce, Freund, Luikart, & Fondren, 1991). Patients would also benefit by RNs pursuing further education to maintain clinical competency.

Learning Needs

Nurse educators, managers, and staff nurses have voiced concerns regarding the lack of CE in nursing (Boblin-Cummings, Baumann & Rath 1994; CNAC, 2002; Hicks, 2001). Rapid advances in technology and increased patient acuity have made knowledge and skill development even more imperative. Nurses need to keep abreast of the new technology and keep clinical skills and knowledge current. However, the literature does not describe what knowledge or skills nurses need to acquire to stay current. Topics about nursing education in the literature often refer to orientation for new staff, self-directed learning, and clinical competence. The literature relevant to specific learning needs of nurses, especially about experienced nurses, is relatively rare.

Boyd and Conrad (1981) studied newly employed registered nurses to assess their learning needs related to orientation. Their descriptive study identified newly employed nurses' learning needs using an instrument that included basic psychomotor nursing skills of nurses working on medical/surgical units. The instrument was pilot tested with 11 nursing instructors. Content validity was established but not reliability. The sample population for the study consisted of one hundred newly employed RNs. The investigators found several of the skills chosen by the newly employed nurses, (e.g. initiating intravenous therapy, removing wound packing, monitoring total parenteral nutrition, and gavage therapy) were not considered to be basic nursing procedures at the

time of the study. More surprising was that nurses identified physical assessment techniques as an area of deficiency. Other learning needs identified included knowledge about CPR and fire procedures. Boyd and Conrad (1981) concluded even newly employed nurses were able to identify their individual learning needs.

Richardson and Sherwood (1985) studied CE needs of Alberta RNs. They reported a province wide needs assessment to identify nurses' preferences regarding content and education delivery methods had not been undertaken since 1971 when it was completed by the Advisory Committee of the Continuing Nursing Education Program of the University of Alberta. Richardson and Sherwood developed, validated, and pretested the questionnaire with 30 RNs. The sample was randomly chosen and 10% of all active RNs in Alberta received the questionnaire via mail. Of the 1,599 mailed questionnaires 847 were returned, constituting a 54% return rate. The questionnaire listed 64 content areas; 12 of these content areas were identified as being most preferred by the RNs. These included: emergency nursing of multiple trauma patients; pharmacology update; drug interactions; diabetic update; care of the terminally ill; implications of alcohol and drug abuse; management of pain; and health assessment of children. The investigators found participants were most interested in content directly related to the clinical aspect of their role, employment setting and patient population with whom they worked. The RNs indicated that they preferred a one or two day workshop format for general learning.

The 1994 study by Boblin-Cumming, et al. investigated the learning needs of RNs in Ontario. The objectives of their study were: to identify the learning needs of RNs from the perspective of nurses, nurse managers, nurse educators, other health team members and patients; identify factors influencing nurses' earning needs; explore the relationship

between job satisfaction and learning needs; and determine the influence of location on learning needs. Four questionnaires were developed, pilot tested for comprehensiveness, ambiguity and reliability. A stratified random sampling technique was used. A total of 890 questionnaires were distributed to nurses, educators, managers and health team members with an overall response rate of 46.52%.

Table 3 summarizes the means for the 10 content areas nurses needed.

Table 3: Needed Information Identified by RNs

Information Needed	Mean
Patients with Certain Characteristics	4.70
Emergency/Crisis Situations	4.62
Legal/Ethics Issues	4.50
Health and Physical Assessment	4.44
Communication	4.62
Nursing Intervention	4.31
General Information	4.31
Self-help Information	4.12
Nursing Administration	4.08
Nursing Research	3.23
Scale	
1-3.5	Not needed
3.5-4	Slightly needed
4-5	Moderately needed
5-6	Definitely needed

(Boblin-Cumming Baumann, & Rath, 1994, p.15)

Table 4 summarizes specific knowledge that, registered nurses found extremely helpful.

Table 4: Knowledge Found Helpful by RNs

Extremely Helpful Information	Mean
Working with new equipment	5.15
Information about patients in pain	5.10
Information about patients who are difficult or non-compliant	5.08
Specific disease conditions	5.07
Pain assessment and management	5.04
Information about patients who are hostile or angry	5.01
Legal aspects of nursing	5.00
Scale	
1-3.5	Not helpful
3.5-4	Slightly helpful
4-5	Moderately helpful
5-6	Extremely helpful

(Boblin-Cumming, Baumann, & Rath, 1994, p.16)

The researchers found nurses selected CE activities based primarily on personal interest followed by job relevance. Other factors influencing attendance at educational activities included timing, scheduling and cost.

A descriptive study examining RNs perceptions of gerontological CE needs was conducted by Timms (1995) in the United States (US) and Ford (1995) in the United Kingdom (UK). In the UK a convenience group of 123 nurses who worked in gerontology constituted the sample. In the US study a random sample of 152 gerontological nurses was generated. Participants from both studies were asked to rate personal educational needs or to rate the needs of nurses in general. A questionnaire was developed, and content experts assisted to establish face validity. The tool was then pilot tested by a convenience sample of 30 nurses for accuracy, readability, clarity and completeness. The questionnaire included 49 topics which were rated using a five point Likert scale. Biographic data included, age, gender, work setting, and years of experience. Participants from the UK had a mean age of 41.7 years and 75.8% of the RNs were prepared at less than the baccalaureate level. In the US the mean age was 52 years and 71.9% of participants had less than a baccalaureate degree. The findings from both studies indicated nurses were interested in identifying their learning needs, and the need for education encompassed a wide variety of topics.

Wood (1998) examined the learning needs of registered nurses in an emergency admissions and high-dependency ward. The instrument used was a 65 question questionnaire. The tool was pilot tested using six registered nurses from other wards. Content validity was established. The questionnaire was distributed to 25 registered nurses and a total of 21 questionnaires were returned for an 84% response rate. In spite of

the small sample size the author felt the findings, although not generalizable to all nurses providing care on surgical units, were reflective of the participants and so the learning needs of the surveyed staff could be used to plan educational activities. Knowledge deficits were identified in the management category, teaching and presentations, skills, research, development of care standards, protocols, technical skills such as hemodynamic monitoring and rhythm recognition. An added benefit of the study was the nurses' ability to identify areas of knowledge they had not previously considered a deficit and the survey helped them highlight educational topics for future study.

Hunt and Repa-Eschen (1998) carried out needs assessment related to RNs' learning needs about osteoporosis education. Nine nurses considered content experts were part of a steering committee to develop and revise a questionnaire. Of the 225 questionnaires distributed using a convenience sampling technique, 139 or 62% were returned. The investigators found 90% of the participants believed there was a need for CE on osteoporosis and 82% indicated they would attend an osteoporosis program. As noted in the other studies, location, cost and length of educational activities played a role in respondent preferences (Boblin-Cumming et al., 1994; Boyd & Conrad, 1981; Richardson & Sherwood, 1985). In Hunt and Repa-Eschen's 1998 study they found 50% of RNs preferred the site of employment for the location of the learning activities; 70% were prepared to pay $24 to $74 for an educational offering on osteoporosis; and 88% indicated program length should be two-eight hour days. The investigators note participant's strongly valued additional information on osteoporosis for themselves and their patients. Hunt and Repa-Eschen also indicated the RNs' interest may have been

heightened by new drug therapies changing the way osteoporosis was being managed clinically.

A study carried out by Glass and Todd-Atkinson (1999) used a survey to determine CE needs of 319 nurses, RNs and Licensed Practical Nurses (LPNs) from 14 nursing facilities. The facilities were randomly chosen from 141 nursing facilities that met selection criteria. All nurses from the 14 facilities were invited to participate in the study and out of a possible 319, 164 questionnaires were returned (51.5%). The questionnaire included six major categories with 59 questions appearing throughout the survey. Nurses were asked to rate their knowledge, skills and attitudes using a 5 point Likert scale. The mean age of the sample was 40 and only 4% of the staff had been prepared at the baccalaureate level. The factors which facilitated CE offerings were: CE programs that were readily available, and encouragement from supervisors and peers. Factors that deterred staff participation in CE courses were: tuition costs (70%), family responsibilities, lack of information about upcoming programs, and work responsibilities.

Huan-hwa and McCutcheon (2001) explored Taiwanese nurses' knowledge and beliefs about caring for patients with irritable bowel syndrome (IBS) using a descriptive design study and utilizing a questionnaire with a five point Likert scale. A pilot study was carried out with the questionnaire and changes were made based on the feedback from the participants. Reliability and validity of the tool were established as part of the pilot project. For practical purposes, a convenience sample of 150 nurses from five medical units in a large medical center in Taiwan was invited to participate in the study. Out of 150 distributed questionnaires 120 were returned for a response rate of 80%. Most of the participants were RNs (76.7%) and most participants (72.5%) had a college degree. Data

were analyzed using descriptive statistics, relying heavily on percentage analysis to determine the "greatest amount of information" (p. 175). The authors presented a limited discussion of their findings, including in general terms the topics: nurses' perceptions of patients with IBS, beliefs about IBS, and learning requirements. Huan-hwa and McCutcheon (2001) did report 60.8% of the nurses surveyed had some knowledge about IBS, although 92.5% indicated they had limited knowledge, and 53.3% believed they did not have a good understanding about IBS. The study also found 10.8% of nurses stated they would recognize symptoms of IBS while 44.5% indicated that they would not be able to do so.

Ross, Carswell, Dalziel, and Aminzadeh (2001) examined continuing education needs for staff working in long-term care facilities. The researchers used a one hour audio-taped interview to collect data from 10 key participants at the administration level. The data was transcribed for content analysis. The participants indicated two main barriers to CE offerings in their institutions were lack of resources (both material and human) and the diverse learning needs of the staff. Replacing staff for CE and trying to offer education to staff working night shift was reported as being especially problematic. Two additional issues identified were difficulty in evaluating CE programs and the inability of staff to appropriately identify learning needs which resulted in the undervaluing of educational offerings. The authors recommended three approaches to overcoming the barriers of limited resources and diverse learning needs: increasing availability of education by utilizing informal self-directed learning resources and utilizing and sharing expertise from within the facility; increasing staff attendance by increasing support from supervisors and by providing information about upcoming CE

opportunities as well as providing practical and relevant content; and lastly, by supporting the implementation of programs facilitating ongoing learning.

Learning needs of RNs reflect the changes in our health care system, or so Collins (2002) found when she completed a longitudinal study to compare responses from two needs assessments over a five year period between 1994 and 1998. A convenience sample of 100 nurses was used in both 1994 and 1998. There were eight categories of interest listed by the nurses. Collins reports in 1998 nurses were more interested in nursing problems/issues, mental health, nursing and health related topics, gerontological nursing and aging issues. Topics of less interest were maternal or child health nursing, leadership or administration, community nursing and education. Collins summarized these results in a table to show the percentage of change in interest between the two groups of nurses in the two years however the results were confusing as the percentage of change did not accurately reflect the numbers listed under the 1994 and 1998 columns.

Collins believes increased interest in the above topics reflect the fact that nurses focus on the challenges of their everyday work situations. Collins questions whether the decline in interest for the topic of leadership or administration has more to do with frustration with administrations' past inability to address issues. She did not question the other results. Collins believes the increased interest in mental health issues reflects emotions nurses identified in their work situations. Collins purports a shift from predominantly clinical topics to more personal or emotional topics reflects a trend in job dissatisfaction is reported in the literature. Collins concludes the shift in interest in the 1998 study reflects the changing health care environment and anxiety generated by change. Collins (2002) and Bowman and Wolkenheim (1987) provide two examples of

longitudinal studies focusing on RNs' learning needs. The third example is the work of Meraviglia, McGuire and Chesley (2003) which is discussed later.

Using a descriptive comparative survey design, Hegge, Powers, Hendrickx, and Vinson (2002) conducted a study to determine if RNs' CE needs were being met, their perceived level of competence, and to detail their use of computers. The tool was pilot tested. Questionnaires were mailed out twice in to increase the response rate to 22.4% (559 participants). The education level data revealed 29.2% of RNs had a diploma in nursing, 29.2% held an associate degree, 31.7% had a bachelor's degree, and approximately 8% held a master's degree in nursing. The majority of nurses had acquired their basic nursing education since 1980. Forty four percent of participants reported their needs were being met while 44.9% indicated their needs were not being met. When asked to rate how competent they felt to practice nursing, 92.3% rated themselves as being competent. The participants were asked whether they thought there was a link between CE and competence; (13.2%) reported competence definitely depends on CE, 54.6% believe CE is somewhat linked to competence, and 25.2% did not feel CE was linked to competence. The survey found 72.3% of RNs had home computers, 76% used computers at work but only 17.9% of the RNs used computers for CE purposes.

Another needs assessment study which included nurses in the sample population was an interdisciplinary study carried out by Booth, Kendall, Fronek, Miller, and Geraghty (2003). The study surveyed 90 [57 nurses] multidisciplinary staff working with patients requiring sexuality rehabilitation following a spinal cord injury. Staff from a spinal cord injury unit, a community rehabilitation program, and a Spinal Outreach Team was surveyed using a questionnaire with open and closed ended questions. Out of 94

staff, 90 staff agreed to participate in the study resulting in a 96% response rate. To ensure confidentiality, demographic questionnaires were distributed in separate envelopes for a return rate of 83%. Four subscales: Knowledge, Comfort, Approach and Attitude measured participants' knowledge and attitude toward issues surrounding patients' sexuality. Descriptive statistics were used to analyze the data and the researchers noted the small sample sized limited their ability to use more meaningful statistics to make comparisons between groups. Findings indicated in spite of diverse learning needs participants identified four common educational needs: counseling, professional practice, fertility assistive devices, and teenage sexuality. The study found differences between groups based on scores from the Comfort subscale and with nurses feeling the least informed about the following topics: orgasms (33%), positions (31%), sexual preference (16%), partner pleasure (35%) and body image (28%). The greatest benefit of the needs assessment study was described as being "the ability to inform the development of an education program that is tailored to the individual needs of the population in question" (p. 260).

Meraviglia, McGuire and Chesley (2003) carried out a study to survey a random sample of RNs in Texas about their CE practices, level of cancer knowledge, and educational needs. Two previous surveys carried out had a response rate of 10% in 1993 and 12.85% in 1997. The 2003 study, had 352 RNs participating out of a possible 4,227 (8.3%), the lowest return rate of three studies carried out by the Nurse Oncology Education Program (NOEP). The questionnaire was adapted for use based on the finding from the previous surveys, reviewed by the NOEP committee, staff nurses and content experts. The reliability of the questionnaire was deemed acceptable with a Cronbach's

alpha score of 0.83. The questionnaire utilized a five point Likert scale as well as two open-ended questions. Descriptive statistics were performed and percentage analysis was predominantly used for questions connected to the Likert scale. The open ended questions were collated and grouped into themes.

Meraviglia et al. (2003) found the following factors influenced nurses' CE choices: cost (82.8%), location (81%), course content (76.7%), course length (51.5%) and home study options (30.3%). Participants preferred courses held on Tuesday (40.2%), Thursday (42.3%) or Saturday (40.5%) and in the morning (61.2%). When participants were asked if CE delivered by computer assisted learning would be helpful, 46.7% reported they preferred using booklets even though 91% of participants had access to a computer. The authors reported 84.1% of participants would utilize computers for a CE course even though it was not their favorite method of delivery. RNs ranked pediatric cancer (84.6%), clinical trials (79.1), genetic issues (78.3%), and complementary therapies (77.3%) as the most popular educational topics related to cancer care. The open ended questions about end-of-life care needs were collated and the themes of: patients' physical needs, expectations of family/patient during the end of life phase, and palliative/hospice care emerged. The authors recommended in future surveys both the nurses' educational needs and their interest in specific topics should be assessed to provide meaningful and well attended CE programs.

Needs Assessment

Research supports a needs assessment as the first step in planning CE programs (Almquist & Bookbinder, 1990; Bell, 1986; Bice-Stephens, 2001; Bowman & Wolkenheim, 1987; Farley & Fay, 1988; Wood, 1998). The purpose of needs assessment

is to identify needs in a specific population of learner, to add, make changes to or develop educational programs.

Williams (1998) describes four assumptions regarding learning needs assessments. The author purports: 1) learning needs can be self-determined, 2) conditions and circumstances constantly change, consequently learning needs change, 3) outcomes can be identified and measured, 4) needs assessments should employ more than one point of view. Williams suggests possible limitations to the first assumption include: failing to identify a learning need, not realizing the need exists, or the limitations with the tool's ability to identify learning needs. Williams (1998) believes multiple viewpoints from such groups as staff nurses, managers, educators, physicians, and others may assist educators to more closely identify the learning needs of the learner. Nurses, managers/supervisors and nurse educators make different choices when completing needs assessments because their needs perception and perspectives differ (Boblin-Cummings, et al. 1994).

Needs assessments can be time consuming and expensive to develop and implement. Nonetheless, it is an important step to effectively develop educational offerings. Bice-Stephens (2001) suggests learning needs assessments usually identify the following criteria: general demographics about the study participants, the best day and time of day courses should be offered, length of courses, factors that impact attendance at CE courses, a list of possible topics to be chosen, and additional information from participants in addition to the assessment.

Almquist and Bookbinder (1990) believe needs assessment for staff should be done annually. Bowman and Wolkenheim (1987) believe learning needs are dynamic and

data more than a year old may no longer be valid. The authors compared data from two need assessment surveys completed in 1983 and 1984 and found a definite change in the ranking of topics over the one-year period. For example, ethics in health care ranked sixteenth in 1983 but became the third most important topic in the following year. In 1983, emergent intervention was ranked first but dropped to tenth place in 1984. Bowman and Wolkenheim believe changes in ranking between1983 and 1984 emphasize the dynamic nature of perceived learning needs and agree with Almquist and Bookbinder that learning needs may become outdated quickly and need to be surveyed regularly. Please note: although data is old (1983, 1984), the change in needs over time is illustrated in this research.

Retention and Recruitment

The retention and recruitment of nurses is a significant problem worldwide. The nursing shortage predicted to become even more critical in the future adds to the problem. Adequate staffing levels are positively associated with nurse job satisfaction and better patient outcomes (Aiken, Clarke & Sloane, 2002). The issue of recruiting and retaining staff is part of every employer's mandate. One way to attract nursing staff and increase their job satisfaction is by offering CE activities (CNAC, 2002).

The 1990s were a decade of job loss, professional displacement, decreased hiring opportunities, and hospital and health care restructuring. Nursing personnel were numbered among the list of casualties. Hospital bed closures, nursing layoffs, reduction in class size in schools, colleges and universities resulted in a decreased nursing population. In contrast, during this decade there has been an escalation in the nursing shortage as documented by the daily press, whose reports reflect the public's concern with the availability and quality of health care services.

The Canadian Nurses Association discussion paper (1998) cites Statistics Canada (1997) to detail the decreased number of Registered Nurses. Between 1993 and 1994 there were 264,000 RNs working in Canada while in 2001, 253,000 were working. The low point occurred in 1998 when only 228,000 RNs were working in Canada. In 1990 the ratio of RNs to Canadians was 1:119, dropping in 2001 to one RN for every 133 Canadians (CNAC, 2002). Ryten, cited in the same discussion paper, suggests Canada is heading toward a severe nursing shortage. She estimates by 2011 there could be a deficit between 59,000 and 113,000 RNs and with the aging population demand for nursing services may rise by as much as 46 per cent (CNA, 1998, p. 5). The aging population also includes the nurses' population because by 2011, nurses will be in their mid- to late-50s and plan on retiring from the nursing profession. Ryten as cited in the CNA 2002 report: *Planning for the Future: Nursing Human Resource Projections* predicts a shortage of 78,000 nurses by 2011. By 2016, Canada will be facing a shortfall of 113,000 nurses (CNA, 2002; Fletcher, 2002).

The nursing shortage does not only affect Canada; it is a problem worldwide. With an aging RN workforce, approximately half of the nation's nurses will reach retirement age in the next 15 years (Mezibov, 1998). New graduates are readily finding jobs, but experienced nurses and nurses with more education and advanced skills are being actively recruited. This recruitment impacts Canadian health care. For example, experienced Canadian critical care nurses are being recruited using aggressive hiring drives offering up to $10,000.00 bonuses (Mezibov, 1998).

Recruitment and retention strategies are complex issues. One factor that is important in attracting and retaining staff is the organization's support for CE (CNAC,

2002). Research findings indicate a consistent relationship between CE support and increased job satisfaction (Pierce et al., 1991; Kramer, & Schmalenberg, 1988). Indeed, the Final Report of the Canadian Nursing Advisory Committee (2002) identifies the need for CE as "one of the strongest recurring themes with nurses" (p. 19).

Support for CE is not the only criterion impacting job satisfaction. Chen-Chung, Samuels and Alexander (2003) examined factors affecting job satisfaction of RNs and found nurses with more experience (over two years) reported less job satisfaction than did those nursing employees with less than two years experience. The study found that job position also played a role in job satisfaction. RNs employed in positions outside of a hospital setting, or employed in positions with more flexible hours and higher salaries reported more job satisfaction compared to RNs who were employed in positions such as staff nurses, charge nurses, managers or clinical nurse specialists. Lastly, the ability to participate in a retirement plan was a major factor affecting the participants, and the researchers concluded that it might well be a predictor of job retention.

Other sources of job dissatisfaction well documented in the literature are high patient to nurse ratios which often result in heavy workload (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; CNAC, 2002). Aiken et al., (2002) reports high patient to nurse ratios result in higher burnout and job dissatisfaction in nurses as well as increased patient mortality rates. Nursing shortages and chronic understaffing in health care institutions only further exacerbate workload issues. Educational levels of hospital nurses were also found to impact patient mortality rates; those prepared at the baccalaureate level lowered patient mortality rates (Aiken, Clarke, Cjeung, Sloane, & Silber, 2003).

The need for CE support from employers is important not only for the retention and recruitment of nurses but also for patient care. Benner (1984) believed "Recognition, reward and retention of the experienced nurse in positions of direct clinical practice...are the first steps in improving the quality of patient care" (p. 244). Using CE as a reward or for retention incentives needs to be a high priority and may contribute to quality patient care. But to enhance the benefits of CE learners must have the opportunity to add their input.

Summary of Literature Review

The literature highlights the difficulties facing nursing with regard to keeping abreast of rapidly changing technology and information. Nurses have verbalized the need not only to have access to CE activities but to have employer support for maintaining clinical skills and knowledge. Rising health costs and financial constraints mean fewer resources are available for CE activities and resources allocated for education are more likely subsumed by new staff orientation and corporate educational programs such as CPR, fire lectures, and patient classification systems. CE opportunities for the experienced RN are limited.

The well-documented nursing shortage, which is predicted to worsen, means retention and recruitment of capable and competent staff becomes an all encompassing issue. Employers are looking at strategies geared to recruit and retain nurses. Research findings suggest there is a connection between job satisfaction and CE. Indeed, job satisfaction is positively related to appropriate staff development (Boblin-Cummings, et al., 1994). However, the educational activity needs to be relevant to the RN by consulting them about the content and delivery of the proposed CE activities.

The first step in establishing appropriate CE activities is to assess learners' needs. In keeping with adult learning theory the learners need to identify these needs. The key question thus becomes what are the learning needs of RNs? From an educator perspective, results from the proposed study would provide direction in program planning and implementing meaningful educational activities.

CHAPTER 3

Method

Design

A descriptive survey design was used to conduct the study. Nurse researchers have used questionnaires to study a wide range of topics. Survey data are based on self-reports. One of the most common methods for collecting data is the questionnaire. In fact the most usual approach of delivering needs assessments is by the questionnaire survey (Williams, 1998). Advantages are that they are self-administered, economical, flexible and broad in scope (Polit & Hungler, 1995). The disadvantages of using questionnaires are their superficial nature, all questions must be worded simply and clearly and even then interpretation of items may be unclear, and the return rate tends to be low. The survey approach uses data collected from a sample of a target group whose needs are being assessed. In this study a needs assessment questionnaire was used to collect data on the learning needs of RNs.

Sample

The target population involved experienced RNs employed on surgical patient care areas of a large tertiary acute care hospital setting. Inclusion criteria for RN participation were:

- employment on a surgical unit
- full time or part time status as a staff nurse
- minimum of five years previous experience working as a RN

A nonprobability convenience sampling technique was used to acquire the sample. As a result the generalization to the target population is limited by the

nonrandom nature of the sample (Polit & Hungler, 1995). The sample consisted of experienced RNs from seven surgical units who volunteered to participate in the study. The clinical nurse educators and patient care managers on the seven surgical units circulated the package to RNs who met the inclusion criteria. Approximately 195 RNs work on surgical areas. Of these approximately 107 RNs met the inclusion criteria. Out of the 107 questionnaires circulated 54 were returned. Two questionnaires were discarded since the inclusion criteria were not met. The final return was calculated as being 52 out of 107 for a 48.6% return rate.

Setting

The Royal Alexandra Hospital (RAH) is one of the largest acute care hospitals in the Capital Health region. It offers general and specialized medical and surgical health services. The RAH has 640 beds and the capacity to care for 375,000 outpatients and 35,000 inpatients per year. I chose this hospital as the setting of my study because as an employee of the RAH I am familiar with the environment and had easier access to the target population. As well, the results of the study have direct relevance for me in my role as a Clinical Nurse Educator. I had both an academic and professional interest in sampling the surgical RNs at the RAH.

Instrument

The data collection instrument used for the study was a self-administered questionnaire entitled 'Nurses' Perceptions of Learning Needs'. It was developed by Boblin-Cummings et al. in 1994 and was adapted for this study with permission (Appendix A). This questionnaire was one of four surveys developed from a grant by the Ontario Ministry of Health, Nursing Innovations Fund.

Boblin et al.,(1994) pilot tested the instrument with 239 individuals consisting of 19 nursing managers, 11 educators, 95 nurses, 57 health team members (other than nurses), and 57 patients. Reliability of the questionnaire was established by assessing for internal consistency. Item-total correlation was used to assess the homogeneity of the scales and items with a Pearson *r* less than .20 were deleted and items with a Pearson *r* greater than 0.80 were eliminated (Boblin-Cummings et al., 1994, p. 6). Based on a recent literature search no other studies using this instrument were found. Instruments are more reliable if similar results are obtained from repeated administration of the instrument (Polit & Hungler 1995).

The authors of the instrument conducted an extensive literature search which identified demographic variables such as: "factors influencing participation in continuing education activities, barriers to attendance, content areas typically included in continuing education activities and modes and mechanisms for continuing education activities" (Boblin-Cummings, et al., 1994, p.4). The questionnaires were based on identified demographic variables and because the instrument seems to be measuring the appropriate constructs it can be said to have face validity (Polit & Hungler, 1995). Sources of information for the survey were gathered from Occupational and Physical Therapists, Nutritionists, Physicians, Registered Nurse Assistants, Pharmacists, Social Workers, patients, nurse managers, educators and nurses. There were no reports content experts analyzed the questionnaire's content. There was no mention of how much time the questionnaire took to complete. Boblin-Cummings et al. sent a copy of the questionnaire to the writer because it had not been published and granted permission to use and adapt

the questionnaire. A copy of the adapted questionnaire used for this study is included as Appendix B.

The revised questionnaire includes an initial 17 questions and statements focusing on quality of patient care, job satisfaction, factors influencing CE activities, methods used by RNs to update knowledge and skills, and paid time away from work. Likert scales are used for the questions that include scales on helpfulness, agreement satisfaction and influence. According to Polit and Hungler (1995), Likert scales consist of declarative items expressing a viewpoint on a topic. The advantages of this scale are: flexibility, ease of construction, and usefulness for a wide range of possible subjects. The scale is often built with a 5-point rating scale ranging from one extreme of a continuum to the other. The higher score is typically associated with the more positively worded statement. The disadvantages of using a Likert scale are not addressed by Polit and Hungler but they do mention differing opinions about including an "uncertain" category as part of the scale. Some researchers believe including this category assists participants who are undecided; while others assert that this only encourages fence-sitting (Polit & Hungler, 1995). Table 5 summarizes the scale and scoring used for this study.

Table 5: Scale and Scoring

Agreement		Satisfaction	
1	Strongly disagree	1	Very dissatisfied
2	Disagree	2	Dissatisfied
3	Uncertain	3	Uncertain
4	Agree	4	Satisfied
5	Strongly Agree	5	Very Satisfied
Influence		**Helpfulness**	
1	Not at all influential	1	Not at all helpful
2	Slightly influential	2	Some what helpful
3	Uncertain	3	Uncertain
4	Influential	4	Helpful'
5	Extremely influential	5	Extremely helpful

The section titled "job satisfaction" requested RNs to indicate how helpful the following 11 topics are: emergency/crisis situations, patients with certain characteristics, specific health problems/needs, communication, nursing assessment, nursing intervention, legal/ethical issues, nursing research, nursing administration, general information and self-help information. This section ends with one short answer question which solicited information from RNs about other information they would find helpful to further contribute to job satisfaction. The section titled "better patient care" repeats the same 11 topics and also ends with a short answer question which asked RNs to provide comments detailing what information they would find helpful in providing better patient care.

The last section of the questionnaire includes 10 demographic questions. These relate to: age, nursing experience, education, current position held, area of employment, shift work, and continuing education activities. The question types used in this section were structured, multiple choice, fill in the blank, as well as short answer replies.

Because the questionnaire was used in a prior study it was not piloted; however, given that it was revised, the questionnaire was pretested with three RNs with a similar status to the sample to establish readability, clarity and to establish amount of time needed for completion. The RNs pretested the tool and had no difficulty in completing the questionnaire; they required 25-35 minutes. Two participants did indicate several questions were situated too close together, making answering certain questions more difficult. The questionnaire formatting was revised as a result of the feedback. The data from the pretests was not used as part of the study.

Ethical Considerations

The proposal for the study was approved by Health Ethics Review Committee-Panel B prior to implementation (Appendix C). The study was approved by and conducted according to the Capital Health Ethical Guidelines (Appendix D). The cover letter (Appendix E) includes information participants were told about the study.

Data Collection Procedure

After obtaining ethics approval and letters of support from the Senior Operating Officer of Patient Care at the facility, the Director of Surgical Services and the Director of the Women's Health Program, Patient Care Managers (PCM), Unit Managers and Clinical Nurse Educators (CNE) were contacted to inform them about the study and to garner support for the project. The Unit Managers and CNE were asked to identify RNs who met the inclusion criteria. The packages were distributed to the RNs by the Unit Manager and/or the CNE of each surgical unit. To ensure this was a voluntary process, the Unit Manger/CNE stressed they were only responsible for distributing the packages, not collecting or identifying which RNs completed the questionnaire. Contact information was included in the cover letter. The packages distributed to each RN included:

- A cover letter (Appendix E)
- Questionnaire (Appendix B)
- A self-addressed stamped envelope for returning the survey

The cover letter described the purpose of the study, inclusion criteria, and the voluntary aspect of the study. It outlined the significance and benefits of the research. It described how confidentiality and anonymity was maintained and how informed consent was based on the return of the completed questionnaires. The letter also included contact information for participants who had questions regarding the study. The questionnaire

included direction for completion. Each questionnaire was coded and kept in a locked drawer for security. The investigator contacted PCMs, Unit Managers and CNEs with an offer to attend staff meetings on the units where the study was being conducted to discuss the project.

Surveys were collected for one month after distribution. Two weeks after the initial distribution a reminder in the form of a poster was placed on the unit to remind RNs about the questionnaire deadline. A personal reminder note was also distributed to each RN. The reminder included where to acquire a new questionnaire if necessary. At the four week mark several RNs asked their CNE if they could still participate in the study even though they had not yet completed their questionnaire. As a result of this interest, the investigator asked the CNEs to email the RNs on their respective nursing units that questionnaires for the study would still be accepted for an additional two weeks. The final return rate was 48.6% or 52 out of 107 questionnaires were completed and returned via the mail.

Data Scoring and Analysis

Polit and Hungler (1995, p. 496), describe the phases for the analysis of quantitative data. In the preanalysis stage raw data are logged, checked, coded, and entered into the computer. Data are verified, cleaned and then analysis files are created. During preliminary analysis problems with missing data are addressed, data quality is assessed along with bias issues. During the principal analysis step table shells are prepared and statistical analyses are performed. Lastly, during the interpretive step, information is integrated and any other interpretive analyses are performed.

During the preanalysis phase the data from each questionnaire were entered in the Statistical Package for Social Sciences (SPSS) version 11.5 program for scoring. The demographic data was summarized using descriptive statistics such as mean, range and frequencies.

The data produced from the Likert scale portion of the questionnaire are ordinal in nature. All of the items have a five point scale for measurement therefore the data was summarized using descriptive statistics such as frequencies (see Table 5, p. 32 for scale and scoring summaries). Frequencies were performed on the numerical data. Reporting the frequency and the mean is the most common method used to record data in learning needs assessments (Williams, 1998). The short answer type questions in the questionnaire were collated, and then summarized by grouping the answers into themes. Note: A consultant, available gratis for staff conducting research at the facility, was accessed to assist with data analysis during this phase of the study.

CHAPTER 4

Findings

Description of the Sample

The sample in this study included 52 permanent part time or full time RNs employed as staff nurses on one of seven surgical units: urology, general surgery, thoracic/vascular surgery, gynecology, neuromuscular/trauma, and two orthopedic units. RNs from all seven nursing units participated in the study, however because the sample size was small, the number of nurses responding from each unit was even smaller. For example, two nursing units had only 2 nurses who completed a questionnaire. To ensure confidentiality and anonymity results identifying and describing individual nurses and specific nursing units will not be presented.

Age

Out of 52 participants, 50 nurses chose to disclose information revealing their age. The youngest RN was 27 and the oldest 61 with a range of 34 years. Note 19 RNs were in their forties, 18 RNs in their fifties, and one RN was 61. Thirty eight of the 50 participants or 76% were at least 40 years old (see Table 6 for RN age frequencies). Not surprising then, the average age of the RNs sample was 45.18.

Table 6: Age of RN Frequencies

Age		Frequency	Percent
	27	2	3.8
	28	2	3.8
	33	2	3.8
	35	1	1.9
	37	2	3.8
	38	2	3.8
	39	1	1.9
	40	4	7.7
	42	2	3.8
	43	1	1.9
	44	5	9.6
	45	3	5.8
	46	2	3.8
	48	1	1.9
	49	1	1.9
	50	3	5.8
	51	2	3.8
	53	1	1.9
	54	5	9.6
	55	2	3.8
	56	3	5.8
	57	2	3.8
	61	1	1.9
	Total	50	96.2
Missing	No response	2	3.8
Total		52	100.0

Year of Graduation

Out of 52 participants, 50 nurses chose to disclose information about the year in which they graduated from their basic nursing education program. Data obtained based on this question included graduation dates ranging from 1967 to 1999. Once the data was placed into four categories of different decades, 8% of nurses graduated in the 1960s, 22% graduated in the 1970s, 36% graduated in the 1980s and 34% graduated in the 1990s (see Table 7). This means that 44 out of 50 RNs (88%) graduated from nursing education

programs 10 or more years ago, leaving only 6 (12%) nurses graduating from programs within the last five years.

Table 7: Year of Graduation

Year of Graduation		Frequency	Percent	Cumulative Percent
Valid	1967	1	1.9	2.0
	1968	1	1.9	4.0
	1969	2	3.8	8.0
	1970	2	3.8	12.0
	1971	1	1.9	14.0
	1972	3	5.8	20.0
	1973	2	3.8	24.0
	1974	1	1.9	26.0
	1976	1	1.9	28.0
	1979	1	1.9	30.0
	1980	3	5.8	36.0
	1981	2	3.8	40.0
	1982	1	1.9	42.0
	1983	3	5.8	48.0
	1984	2	3.8	52.0
	1985	1	1.9	54.0
	1988	5	9.6	64.0
	1989	1	1.9	66.0
	1990	4	7.7	74.0
	1991	1	1.9	76.0
	1992	3	5.8	82.0
	1993	2	3.8	86.0
	1994	1	1.9	88.0
	1997	1	1.9	90.0
	1998	2	3.8	94.0
	1999	3	5.8	100.0
	Total	50	96.2	
Missing	No response	2	3.8	
Total		52	100.0	

Nursing Experience

To be eligible to participate in the study RNs had to have at least five years of nursing experience. All participants met the criteria. Data from this question was

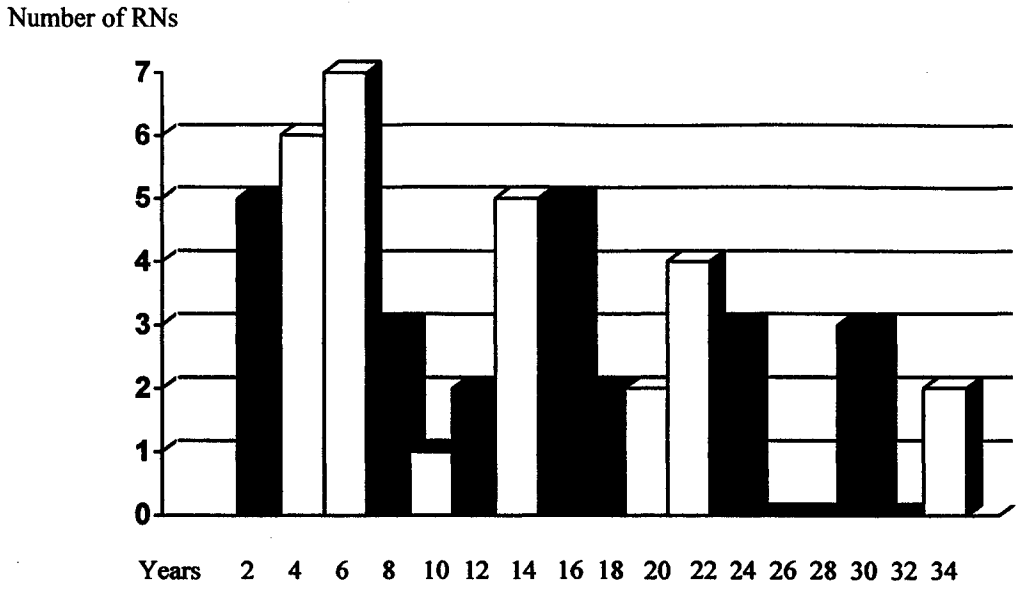
provided by 51 out of 52 participants. The minimum amount of nursing experience reported was five years and the maximum amount was 36 years, the mean was 19.8 years.

There were only three RNs (5.8%) with five years of nursing experience. Six nurses (11.8%) had acquired 6 to 9 years of experience and 13 nurses (25.5%), had worked 11 to 18 years. The largest group included 18 nurses (35.3%) who had 20-28 years of experience. The group of nurses with the most experience included 11 nurses (21.6%); they worked 30 to 36 years.

Employment

The RNs in the study were asked how long they had been employed as a staff nurse on the nursing unit on which they were currently working. Fifty-one nurses responded to this question. Participants indicated that they had been employed as a staff nurse in the same position 1 to 34 years. The mean was 12.97 years. Only 11 nurses (21.6%) were employed on the same nursing unit for less than five years; 11 nurses (21.6%) were employed for 5-9 years; 15 nurses (29.4%) were employed for 10-19 years; and participants indicated 14 nurses (27.5%) were employed on the same surgical unit for 20 to 34 years. The bar graph provides a visual description of this data (see Figure 1).

Figure 1: Years in Current Position



All 52 participants provided information regarding their full time or part time status. Based on the data 23 RNs (44.2%) were employed full time and 29 RNs (55.8%) worked part time. The questionnaire did not ask participants to describe the exact nature of their part time work.

Shift Work

The majority of nurses worked either a 12 hour rotating shift position (51.9%) or an eight hour rotating shift position (26.9%) (see Table 9).

Table 9: Shift Work

Shift Worked	Frequency	Percent
12 hr shift days	3	5.8
12 hr shift nights	2	3.8
12 hr shift rotating	27	51.9
8 hr shift days	1	1.9
8 hr shift evenings	4	7.7
8 hr shift rotating	14	26.9
Less than 8 hr shift Rotating	1	1.9
Total	52	100.0

Nursing Credentials

Participants were requested to provide data regarding the highest level of education attained; all 52 RNs provided this information. Thirty-four RNs (65.4%) attained a diploma in nursing; 16 nurses (30.8%) earned a baccalaureate in nursing; one RN (1.9%) received a master degree in a non-nursing discipline; and one RN (1.9%) earned a nursing certificate. None of the participants identified that they had a master degree in nursing.

Attendance at Continuing Education Activities

RNs were asked a series of questions regarding their attendance at CE activities. Participants were asked if educational activities at work met their learning needs, to indicate their preference for the timing, scheduling, method and delivery of CE activities, provide information about the sources they find helpful in identifying upcoming CE activities, and rate how factors such as cost, interest and relevance to work might influence their attendance. In response to the statement: "you are satisfied with the educational activities offered where you work in meeting your learning needs", 32.7% of participants indicated agreement or strong agreement that this was the case, 50.0% disagreed or strongly disagreed and 17.3% stated they were uncertain as to how they felt.

RNs chose the following sources as being most helpful for identifying upcoming CE activities: word of mouth was rated high at 73.1%; 69.2% of RNs agreed nursing magazines were helpful; and communication from nursing organizations received a score of 63.4% (see Table 9). Surprisingly, the internet was only chosen by 32.7% of nurses. When asked if they were satisfied with the way in which their employer provided them

with information about CE activities, 34.6% of the sample were satisfied, 44.2 % were dissatisfied, and 21.2% rated the item as uncertain.

Table 9: Helpful Information Sources

Source	Strongly Disagree %	Disagree %	Uncertain %	Agree: %	Strongly Agree: %
Journal Subscriptions	5.8	11.5	30.8	50.0	1.9
Communication from nursing organizations	1.9	9.6	23.1	59.6	3.8
Nursing Magazines	1.9	3.8	23.1	65.4	3.8
Word of mouth	3.8	5.8	17.3	73.1	---
Internet	9.6	7.7	46.2	32.7	---

Scheduling and Timing

RNs were asked to provide feedback regarding the length of CE programs they would most likely attend. The most popular choice (96.1%) was a CE program lasting for one 8 hour day. Other choices were rated less highly. For instance 76.9% of the sample was interested in a two day activity; 60.8% indicated they would be interested in a course offered once weekly for one to six weeks; and 41.2% preferred to attend a course offered once weekly for seven to 12 weeks.

The participants indicated the time of day CE activities are offered may be an influencing factor and the majority of RNs (65.4%) rated a Saturday or Sunday course offered from 0830 to 1630 as their first choice. The second most popular choice (63.5%) was a Monday to Friday course offered from 0830 to 1630 hours. RNs indicated they

would be least attracted to courses offered from 2000 to 0830 hours whether it would be a Monday to Friday course (5.8%) or held on a Saturday/Sunday (5.7%).

Method and Delivery of CE

The study sample was asked to provide information about what methods they found helpful in updating knowledge and skills. Five methods were positively identified as being helpful. These were: reading magazines/journal articles (96.2%), talking with peers (94.2%), lectures/oral presentations (94.2%), watching videos/television programs (92.3%), and reading books (80.8%). Using computer programs or the internet were less popular methods, scoring 53.8% and 46.1% respectively (see Table 10). Although the data indicates the lecture mode is a popular choice, three other methods for CE delivery were not rated as highly. These were: home study packages (66.6%), workshops followed by home study (49.0%), and television program education which scored only 31.4%, even though this was a method highly rated in an earlier question.

Table 10: Methods to Update Knowledge and Skills

Source	Strongly Disagree %	Disagree %	Uncertain %	Agree %	Strongly Agree %
Reading Books	----	13.5	5.8	67.3	13.5
Reading Magazines/Journal Articles	---	3.8	---	82.7	13.5
Listening to Audio Tapes	7.7	21.2	30.8	34.6	5.8
Watching Videos/TV Programs	1.9	1.9	3.8	80.8	11.5
Lectures/Oral Presentations	1.9	---	3.8	67.3	26.9
Talking with Peers	1.9	---	3.8	78.8	15.4
Computer Programs	3.8	9.6	32.7	51.9	1.9
Internet	3.8	13.5	36.5	42.3	3.8

Cost, Personal Interest and Relevance

It is not surprising to find all 52 RNs in the study provided feedback regarding the influence of financial issues on CE activities. When asked how satisfied they were with the financial support they receive for updating skills and knowledge, 15.4% said they were very dissatisfied, 38.5% said they were dissatisfied, 13.5% said they were satisfied, and 32.7 % were uncertain as to how they felt. The RNs provided the following data regarding how much paid time they had taken away from work in the past year: one to two days (71.1%), three to seven days (5.8%), more than two weeks (1.9%), 3.8% did not know, and 9.6% indicated they did not take any paid time away even though this option was not included on the questionnaire.

In response to a series of questions about personally bearing the cost of CE activities, RNs were not as likely to attend a CE program if they lost a day or more in salary. Only 21.1% would attend if they lost one day's salary and 11.5% would attend if they lost two or more days salary. RNs were slightly more inclined to agree to pay for their own registration/tuition costs (32.7%) although paying for travel and lodging costs garnered a rating of 15.4%.

Personal interest in CE activities was another area explored in the study and data was provided by all 52 participants. Personal interest in a topic would influence 57.7% of RNs to attend CE programs and 42.3% indicated they would consider it extremely influential. RNs also appear to associate personal interest with the relevance of educational content to their job or work. When asked if relevance of the topic would influence attendance at CE activities the responses were again very positive; (53.8%) said it was influential and 46.2% said it is very influential. When asked if they would attend a CE program that would be useful but inconvenient to attend 40.3% would not attend but 23.1% indicated they would attend. Relevance seems to matter to the participants of this study because when asked if they would attend a CE activity that was deemed not useful but convenient, only 3.8% of the sample reported they would attend.

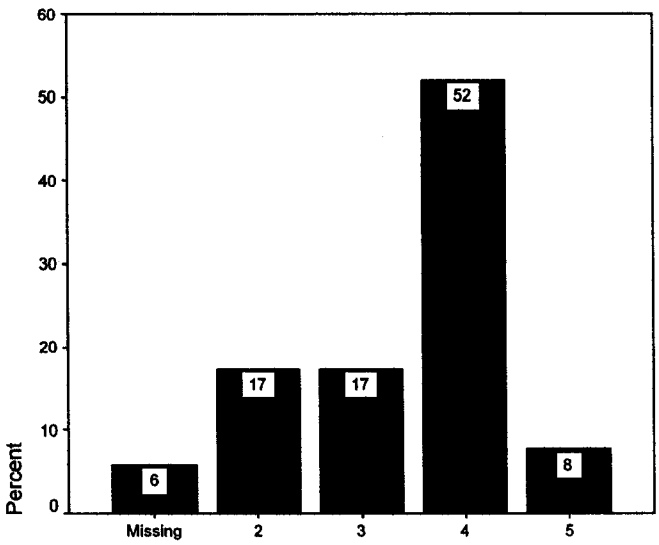
Other factors impacting personal interest in CE may be work and family responsibilities. When asked how influential job scheduling demands and family responsibilities would be in deciding whether to attend a CE activity, 76.9% of RNs responded job scheduling demands were either influential or extremely influential, and 75% of RNs indicated family responsibilities were influential or extremely influential.

Job Satisfaction

Participants were asked to provide information about how they felt about their job. The questionnaire asked if RNs were satisfied with their job, the working conditions and whether or not their job provided them with a sense of accomplishment.

Of the 52 participants, 49 chose to provide information regarding job satisfaction; 51.9% agreed they were satisfied with their job, 7.7% agreed strongly they were satisfied, 17.7% said they were dissatisfied and 17.7% were uncertain (see Figure 2).

Figure 2: Job Satisfaction

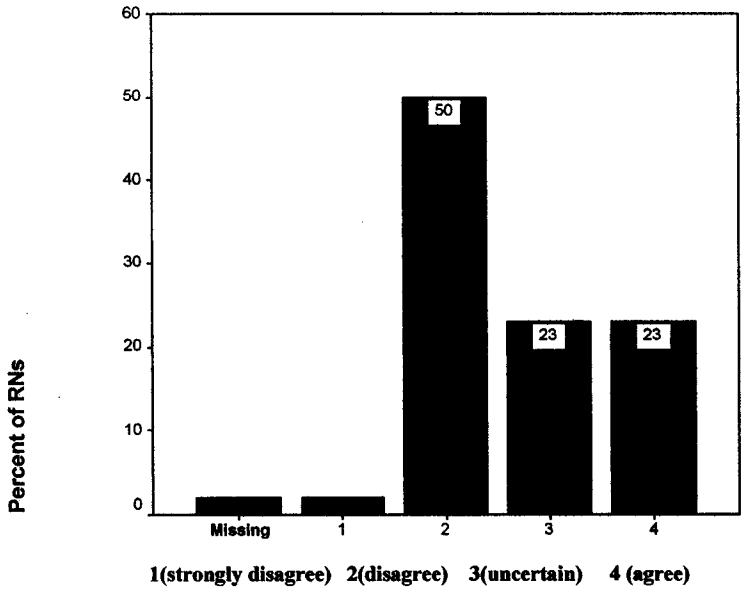


1 (strongly disagree) 2(disagree) 3(uncertain) 4 (agree) 5 (strongly agree)

With regard to working conditions, 51 out of 52 RNs provided the following data: 1.9% strongly disagreed they were satisfied with working conditions, 50% disagreed they were satisfied, 23.1% were uncertain, and 23.1% agreed they were satisfied with their working conditions Results indicate that a total of 51.9% were dissatisfied with their working conditions to some extent (see Figure 3 for a visual depiction). Overall, nurses indicated their job provided them with a sense of accomplishment (76.9%). Also when

asked if attending a CE activity increased their job satisfaction, 65.4% agreed or agreed strongly, 5.8% disagreed while 28.8% were uncertain.

Figure 3: RNs' Satisfaction Level with Working Conditions



Quality of Patient Care

RNs were asked if they were satisfied with the quality of patient care they provided and 80.7% agreed or strongly agreed with this statement. In response to whether they were satisfied with the quality of patient care provided on their respective unit the ratings were as follows: 63.5% agreed or strongly agreed they were satisfied; 13.5% were dissatisfied; and 21.2% indicated they were uncertain. RNs were asked if CE activities enhanced the quality of patient care they provide and 71.1% agreed that it did enhance care; 7.7% indicated that it did not enhance the care they provided; and 21.2% were uncertain.

Content Areas

The questionnaire included 11 content areas: emergency/crises situations, patients with certain characteristics, specific health problems, communication, nursing

assessment, nursing intervention, legal/ethical issues, nursing research, nursing administration, general information, and self help information. There were a total of 71 specific topics presented under the content areas listed above. Nurses were asked to rate information from these content areas with regard to being helpful in a) contributing to job satisfaction and b) providing better patient care. Frequencies listed in percentages from these categories were compiled. Table 11 lists the scale used to interpret frequency results.

Table 11: Helpfulness Scale and Score

Score	Scale
1	Not at all helpful
2	Some what helpful
3	Uncertain
4	Helpful'
5	Extremely helpful

Content Area: Job Satisfaction

Participants were asked if information about specific topics would be helpful in contributing to their job satisfaction. Fifty one (98.0%) the participants provided information about the job satisfaction content area. See Table 12 related to all content areas. Due to the small sample size and for ease of discussion, score one and two, ("not at all helpful and somewhat helpful") and score four and five, ("helpful" and "extremely helpful") was collapsed into one category

Table 12: RNs Job Satisfaction Related to Content Areas

Topic	Missing Responses (%)	Not At All Helpful/ Somewhat helpful (%)	Uncertain (%)	Helpful/Extremely Helpful (%)
Emergency/Crises Situations				
Cardiac arrest	---	---	---	100
Hemorrhage	---	3.8	---	96.2
Coma	---	11.4	15.4	69.2
Seizure	---	7.7	11.5	77.8
Stroke	---	3.8	7.7	88.5
Burns	---	32.7	28.8	38.5
Respiratory arrest	---	---	---	100

Patients with Certain Characteristics				
Dying patients	---	7.7	5.8	86.5
Difficult/challenging patients	---	---	9.6	90.3
Physically challenged	---	3.8	11.5	84.6
Emotionally distraught	---	5.8	7.7	86.5
Hostile/aggressive patients	---	3.8	5.8	90.4
Developmentally delayed	---	13.4	17.3	69.2
In pain	---	1.9	---	98.1
Specific Health Problems				
Physical abuse	1.9	11.5	17.3	69.2
Substance abuse (alcohol/drugs)	1.9	7.7	9.6	80.8
Violence	1.9	11.5	17.3	69.3
Communication				
Communication with health team	---	7.7	7.7	84.6
Communicating with patients	---	3.8	5.8	90.4
Communicating with patients family/friends	---	3.8	7.7	88.4
Communicating with family/friends of dying patient	---	3.8	5.8	90.4
Family counseling	---	11.5	17.3	71.1
Documentation (charting)	---	5.7	7.7	86.5
Patient classification system	---	9.6	11.5	78.9
Teaching methods	---	7.7	23.1	69.3
Interviewing skills	---	19.2	17.3	63.4
Communicating with patients who cannot speak (deaf)	---	15.3	19.2	65.3
Communicating with non-English speaking patients	---	9.6	9.6	80.8
Nursing Assessment				
Health/physical assessment-adults	---	3.8	3.8	92.25
Health/physical assessment-elderly	---	3.8	5.8	90.4
Pain assessment	---	5.7	3.8	90.3
Nursing Intervention				
Pain management	---	7.7	---	92.3
Crisis intervention	---	7,7	11.5	80.7
New equipment	---	3.8	3.8	92.3
Skills (eg. IV therapy)	1.9	1.9	1.9	94.2

Demonstrating caring	---	17.3	23.1	59.7
Coping with patients' sexuality	---	19.2	28.8	52.0
Community support services	1.9	1.9	11.5	84.6
Infectious diseases (e.g. VRE, MSRA, SARS)	1.9	---	1.9	96.1
Legal/Ethical Issues				
Legal aspects of nursing	---	5.8	7.7	86.6
Nursing legislative issues	---	15.3	36.5	48.1
Collective bargaining	---	15.4	26.9	57.7
Unions/negotiation issues	1.9	15.4	21.2	61.5
Ethical issues in nursing	---	5.7	7.7	86.5
Clarifying values	---	13.5	23.1	63.4
Nursing Research				
How to get involved in research	---	38.5	28.8	32.6
Funding sources	---	36.9	30.7	30.7
Writing skills (reports/papers)	---	38.4	30.6	30.8
Proposal writing	---	36.6	36.5	26.9
Research methods	---	38.5	28.8	32.7
Nursing Administration				
Team leadership	---	21.2	7.7---	71.2
Audit	---	34.7	34.6	30.8
Peer evaluation	---	26.9	15.4	57.7
Working in groups	---	23.1	17.3	59.6
Charge nurse responsibilities	---	15.4	---	84.6
General Information				
Anatomy and physiology	---	11.5	5.8	82.7
Specific disease conditions	---	3.8	3.8	92.3
Pharmacology, medications/calculations	---	3.8	1.9	94.2
Diagnostic tests and values	---	5.8	1.9	92.3
Computers in nursing	---	15.4	11.5	73.1
Nursing frameworks/nursing theory	---	30.8	26.9	42.3
Self Help Information				
Time management, organizational skills	---	17.3	9.6	73.0
Women's health issues	---	25.0	5.8	69.2

Conflict management	---	13.5	7.7	78.8
Stress management	---	11.5	3.8	84.7
Coping skills	---	15.4	7.7	76.9
Preventing burnout	1.9	9.6	5.8	82.7
Assertiveness training	1.9	9.6	11.5	77.0
Money management	---	30.8	21.2	48.1
Personal motivation	---	21.2	7.7	71.1
Parenting skills	1.9	42.3	21.2	34.6

Under the category "emergency/crisis situations" five out of the seven items were chosen as being helpful for job satisfaction (77.8% to 100%). The items of cardiac arrest and respiratory arrest were chosen by 100% of the participants. The lowest scored were coma (69.2%) and burns (38.5%)

The content area "patients with certain characteristics" had seven items listed for consideration. The least popular topic was information about patients who are developmentally delayed (69.2%). The other six items were highly rated. For example, RNs indicated information about patients in pain (98.1%), hostile/aggressive patients (90.4%), and challenging patients (90/3%) would be helpful. Out of the three items under "specific health problems" information about substance abuse was chosen by participants (80.8%) as being helpful for job satisfaction. The other items of physical abuse and violence were chosen by 69.2% and 69.3% of RNs, respectively.

The content area "communication" included 11 specific items to which RNs were asked to provide feedback. The three that ranked the lowest were: teaching methods (69.3%); interviewing skills (63.4%); and communicating with patients who cannot speak (deaf) (65.3%). The other eight items were chosen as helpful by 71.1% to 90.4% of the participants. RNs indicated information about the following items as helpful: communication with patients (90.4%); communicating with family/friends of dying

patients (90.4%); documentation/charting (86.5%); communicating with patients family and friends (88.4%); communicating with the health team (84.6%); communicating with nonEnglish speaking patients (80.8%); patient classification system (78.9%); and lastly, family counseling (71.1%).

The content area "nursing assessment" had three specific items which RNs ranked highly; health/physical assessment of the adult (92.2%); health/physical assessment of the elderly (90.4%); and pain assessment (90.3%).

"Nursing intervention", a content category, had eight specific items listed. Only two topics were chosen by less than 60% of RNs, demonstrating caring (59.7%) and coping with patients' sexuality (52%). RNs indicated the information from these four topics would be most helpful: infectious diseases (96.1%); skills (such as intravenous therapy) (94.2%); pain management (92.3%); and new equipment (92.3%).

The content area "legal/ethical issues" had six specific items for which RNs provided the following data. Two topics were obviously most popular: legal aspects of nursing (86.6%); and ethical issues in nursing (86.5%). The other topics in this category (collective bargaining, unions, clarifying values and nursing legislation issues) were chosen as being helpful by 48.1% to 63.4% of RNs.

The "nursing research" category with five specific topics was the content area RNs deemed the least helpful, with only 26.9% to 32.7% of RNs agreeing that the topics would be beneficial to job satisfaction. This category included topics such as how to get involved in research, funding sources, writing skills, proposal writing, and research methods.

"Nursing administration" was another category whose subtopics were not considered as being as helpful compared to previous categories. Only two topics were chosen by more than 70% of the RNs: charge nurse responsibilities (84.6%) and team leadership (71.2%). Participants appeared to be less interested in topics such as: audit (30.8%), peer evaluation (57.7%), and working in groups (59.6%).

In the "general information" category only the topic of nursing frameworks/nursing theory was deemed less helpful by 42.3% of the participants. The other five items related to: pharmacology/medications/calculations (94.2%), diagnostic tests/values (92.3%), specific disease conditions (92.3%), anatomy and physiology (82.7%) and computers in nursing (73.1%) were much more popular.

The last content category with 10 items was that of "self help information". Less than 50% of participants chose information about parenting skills (34.6%) and money management (48.1%) as being helpful. The three topics participants chose as being the most beneficial were: stress management (84.7%), burnout prevention (82.7%) and conflict management (78.8%). At the end of the section on job satisfaction participants were provided with an open ended question inviting them to add other information they thought would contribute to their job satisfaction. Eleven (21.2%) out of the 52 participants provided feedback (see Table 13).

Table13: Job Satisfaction Feedback

	Frequency	Percent
Valid comments	11	21.2
Missing/no response	41	78.8
Total	52	100.0

Excluding the topics related to work load issues and resources, RNs provided comments that were analyzed and grouped into five topic areas: communication, nursing

intervention, nursing administration, general information, and self help information. Table 14 summarizes the data.

Table 14: Other Information Needed to Contribute to Job Satisfaction

Content	Information Needed
Communication	• effective communication with LPNs • effective communication with physicians/ residents/interns • reassurance that you are doing a good job and regular feedback
Nursing Intervention: New skills	• inservices to learn new skills before they are put into effect • repeat inservices • teaching of important/relevant topics
Nursing Administration	• knowing a unit's budget and allocation of funds toward staffing • listing costs of medications, equipment (e.g. needles, tubing, NG equipment, and ultrasound costs)
General Information: Specific disease conditions	• cancer treatment, chemo/radiation, prognosis, cancer coding • general procedures at Cross Cancer Institute and tour • palliative placement, • how patient care and family guidance is different from acute care hospitals
Self Help Information	• how to effectively cope with 12 hour rotating shift work and generally combating negative effects of shift work • employee wellness programs

Under "communication" two RNs indicated effective communication with physicians/residents/interns and LPNs is important to job satisfaction. One participant commented information about motivating LPNs and "dealing with their negative attitudes toward RNs" would also be helpful. Another participant indicated "regular feedback and reassurance that you are doing a good job and that you are doing it correctly" was needed.

The category "nursing intervention" revealed two RNs would like to have "timely inservices to learn new skills before being expected to start doing them" in order "not to put patients at risk". Two participants thought repeat inservices and the teaching of important/relevant topics would be helpful. The participants did not expand on what they meant by important or relevant topics.

Under "nursing administration" two RNs wrote they would like to know about the nursing unit's budget, the allocation of funds related to staffing, and to have access to the cost of medications and equipment such as (needles, tubing, nasogastric equipment and ultrasound costs).

The "general information" category comments centered on the need for more information related to cancer treatments, chemotherapy/radiation, prognosis, and the staging of cancer. The same participant also indicated that a tour of the Cross Cancer Institute (CCI) and information about general procedures at CCI would be useful. One RN requested information about palliative care placement. Information about the difference between "patient care/family guidance in a palliative care setting and acute care hospitals" was listed. Lastly, one participant stated "surgery observations" would be of use.

The section of "self help information" elicited comments from participants about coping with 12 hour shifts, how to reduce the negative effects of shift work in general, as well as sleeping effectively, diet, and information about employee wellness programs. One participant felt there was not much support for wellness programs especially "if there's a cost to the employer". One RN suggested on site massage services (e.g., 15 minutes of chair massage) that she believed "most employees would pay for themselves".

Not surprising several RNs made comments about work load issues and material resources instead of describing what educational information would be helpful in contributing to job satisfaction. These comments were: "there needs to be a decrease in patient/nurse ratio"; "more staff is required"; "respect from patients"; "better availability of equipment and resources on the unit like (blood pressure machines, and oxygen

saturation monitors);" "should have extra staff at busy times to help with patient transfers, patients coming back from the operating room, and patients needing to go to the bathroom"; "to be able to take coffee and meal breaks"; and "enough staff so one could take time to give total care to the patient". One participant thought the topics listed in the questionnaire, covered all areas "very well" and offered no additional suggestions.

Content Area: Better Patient Care

The "better patient care" content and topics presented in the questionnaire are identical to the content and specific topics of "job satisfaction" just discussed. In this section of the questionnaire however, participants were asked if information about specific topics would be helpful to provide better patient care. Fifty (96.2%) participants provided information about the job satisfaction content area (see Table 15).

Table 15: Content Needed for Better Patient Care

Topic	Missing Responses (%)	Not At All Helpful/Some what Helpful (%)	Uncertain (%)	Better Patient Care Helpful/Extremely Helpful (%)
Emergency/Crises Situations				
Cardiac arrest	1.9	1.9	1.9	94.2
Hemorrhage	1.9	5.8	---	92.3
Coma	1.9	15.3	5.8	76.9
Seizure	1.9	9.6	3.8	84.6
Stroke	1.9	11.5	1.9	84.6
Burns	1.9	30,7	17.3	50.0
Respiratory arrest	1.9	1.9	---	96.2
Patients with Certain Characteristics				
Dying patients	1.9	9.6	---	88.4
Difficult/challenging patients	1.9	1.9	5.8	90.4
Physically challenged	1.9	3.8	5.8	88.5
Emotionally distraught	1.9	7.7	5.8	84.6
Hostile/aggressive patients	1.9	5.8	3.8	87.6
Developmentally delayed	1.9	11.5	9.6	76.9
In pain	1.9	---	3.8	94.2
Specific Health Problems				
Physical abuse	---	17.3	5.8	76.9
Substance abuse (alcohol/drugs)	---	13.4	3.8	82.7
Violence	---	15.3	9.6	75.0

Communication				
Communication with health team	---	7.7	7.7	84.7
Communicating with patients	---	3.8	5.8	90.4
Communicating with patients family/friends	---	3.8	9.6	86.6
Communicating with family/friends of dying patient	---	3.8	3.8	92.3
Family counseling	---	11.6	9.6	78.9
Documentation (charting)	1.9	15,4	11.5	71.1
Patient classification system	---	25.0	26.9	48.1
Teaching methods	3.8	15.3	17.3	66.0
Interviewing skills	1.9	26.9	21.2	50.0
Communicating with patients who cannot speak (deaf)	---	13.5	7.7	78.8
Communicating with non-English speaking patients	---	5.8	7.7	86.5
Nursing Assessment				
Health/physical assessment-adults	---	7.7	3.8	90.4
Health/physical assessment-elderly	---	11.5	3.8	84.6
Pain assessment	---	7.7	5.8	86.5
Nursing Intervention				
Pain management	---	7.7	5.8	86.5
Crisis intervention	---	15.4	11.5	73.0
New equipment	---	11.5	5.8	82.7
Skills (e.g. IV therapy)	3.8	9.6	1.9	84.6
Demonstrating caring	1.9	19.2	17.3	61.5
Coping with patients' sexuality	---	21.1	23.1	55.7
Community support services	---	15.4	13.5	71.1
Infectious diseases (e.g. VRE, MSRA, SARS)	---	7.7	---	92.3
Legal/Ethical Issues				
Legal aspects of nursing	---	23.1	11.5	65.4
Nursing legislative issues	---	22.7	26.9	40.4
Collective bargaining	---	38.5	25.0	36.5
Unions/negotiation issues	---	40.4	19.2	40.4
Ethical issues in nursing	---	11.5	9.6	78.8
Clarifying values	---	19.2	21.2	59.6
Nursing Research				
How to get involved in research	---	44.2	21.2	34.6
Funding sources	---	46.1	26.9	27.0
Writing skills (reports/papers)	---	46.2	28.8	25.0
Proposal writing	---	48.1	28.8	23.0
Research methods	---	46.1	25.0	28.8
Nursing Administration				
Team leadership	---	21.2	5.8	73.1

Audit	---	46.2	25.0	28.9
Peer evaluation	---	25.0	13.5	55.8
Working in groups	---	21.2	17.3	61.5
Charge nurse responsibilities	1.9	15.4	7.7	75.0
General Information				
Anatomy and physiology	---	5.7	1.9	92.4
Specific disease conditions	---	1.9	3.8	94.2
Pharmacology/medications/ calculations	---	3.8	1.9	94.3
Diagnostic tests and values	---	5.8	---	94.2
Computers in nursing	---	23.1	19.2	57.7
Nursing frameworks/nursing theory	---	38.5	17.3	44.2
Self Help Information				
Time management/organizational skills	1.9	13.4	5.8	78.9
Women's health issues	1.9	19.2	7.7	71.2
Conflict management	---	7.7	13.5	78.9
Stress management	---	7.7	3.8	88.4
Coping skills	1.9	9.6	3.8	84.7
Preventing burnout	---	13.4	3.8	82.7
Assertiveness training	1.9	15.3	13.5	69.2
Money management	---	44.2	25.00	30.8
Personal motivation	---	25.0	13.5	61.5
Parenting skills	---	53.8	23.1	23.0

Under the category "emergency/crisis situations" six out of the seven items were chosen as being helpful for providing better patient care (76.9% to 96.2%). The items of cardiac arrest and respiratory arrest were chosen by 94.2% and 96.2% of the participants, respectively. The least popular item was burns (50.0%).

The content area "patients with certain characteristics" had seven items listed for consideration. RNs indicated information about the following topics would be helpful: patients in pain (94.2%), challenging patients (90.4%), physically challenged patients (88.5%), dying patients (88.4%), hostile/aggressive patients (87.6%), emotionally distraught patients (84.6%) and developmentally delayed patients (76.9%).

Out of the three items under "specific health problems", substance abuse at 82.7% was chosen by participants as being helpful for providing better patient care. The other

items, physical abuse and violence were chosen by 76.9.2% and 75.0% of RNs, respectively.

The content area "communication" had 11 specific items that RNs were asked to consider. The three topics that ranked the lowest were: teaching methods (66.0%), interviewing skills (50.0%), and patient classification (48.1%). The other eight items were chosen by 71.1% to 92.3% of the participants as being helpful. RNs indicated that they would find information about the following items helpful: communicating with family/friends of dying patients (92.3%), communication with patients (90.4%), communicating with patient's family and friends (86.6%), communicating with non-English speaking patients (86.5%), communicating with the health team (84.7%), family counseling (78.9%), communicating with patients who cannot speak (deaf) (78.8%), and lastly documentation/charting (71.1%).

The content area "nursing assessment" had three specific items which RNs ranked highly. These were: health/physical assessment of the adult (90.4%), pain assessment (86.5%), and health/physical assessment of the elderly (84.6%).

"Nursing intervention" as a content category had eight specific items listed. Only two topics, demonstrating caring (61.5%) and coping with patients' sexuality (55.7%), were chosen by less than 62% of RNs. RNs indicated information about: infectious diseases (VRE, MSRA and SARS) (92.3%), pain management (86.5%), skills (such as intravenous therapy) (84.6%), new equipment (82.7%), crisis intervention (73.0%), and community support services (71.1%) would be most helpful.

The content area "legal/ethical issues" had six specific items to which RNs responded. The most popular topic in this category was ethical issues in nursing that

78.8% of the participants indicated they were most interested in. The other topics in this category (legal aspects of nursing, collective bargaining, unions, clarifying values and nursing legislation issues) were chosen as being helpful by 36.5% to 65.4% of RNs.

As was the case with the data from the "job satisfaction" section of the questionnaire, the "nursing research" category under "better patient care" was the content area that RNs found the least helpful. Only 23.0% to 34.6% of RNs agreed the topics would be beneficial to providing better patient care. This category included topics such as how to get involved in research (34.6%), funding sources (27.0%), writing skills (25.0%), proposal writing (23.0%), and research methods (28.8%).

Findings from "nursing administration" under "better patient care" were similar to data under the "job satisfaction" section of the questionnaire. Again the topics were not considered as being helpful when compared to some of the previous categories. Only two topics were chosen by more than 70% of the RNs, charge nurse responsibilities (75.0%) and team leadership (73.1%). Participants indicated interest in topics such as audit (28.9%), peer evaluation (55.8%, and working in groups (61.5%).

In the "general information" category two topics, nursing frameworks/nursing theory (44.2%) and computers in nursing (57.7%), were the least popular of topics. The other four items, chosen by participants as being beneficial in providing better patient care were: pharmacology/medications/calculations (94.3%), diagnostic tests/values (94.2%), specific disease conditions (94.2%), and anatomy and physiology (92.4%).

The last content category with 10 items was the category related to "self help information". Two topics identified least helpful to RNs were money management (30.8%) and parenting skills (23.0%). Topics participants chose as being most beneficial

were: stress management (88.4%), coping skills (84.7%), preventing burnout (82.7%), time management/organizational skills (78.9%), and conflict management (78.9%).

At the end of the section on better patient care, participants were provided with an open ended question inviting them to add other information they thought would help them in providing better patient care. Ten (19.2%) out of 52 participants provided feedback.

The comments RNs included about providing better patient care were analyzed and grouped into five topic areas: communication, nursing intervention, nursing administration, general information, and self help information. Three participants indicated the information they provided under the "job satisfaction" open ended question, should be included for the "better patient care" question, they duplicated their comments in this section; therefore, much of the information provided by participants was either repeated or similar in content to the previous section. Table 16 summarizes the data.

Table16: Other Information Needed to Provide Better Patient Care

Content	Information Needed
Communication	• effective communication with LPNs • effective communication with physicians/ residents/interns
Nursing Intervention: New skills	• inservices to learn new skills before they are put into effect • periodic continuing education or inservices related to improving patient care • information relevant to the specifics of the area that you are working on. • ability to obtain additional education
Nursing Administration	• knowing a unit's budget and allocation of funds toward staffing • listing costs of medications, equipment (e.g. needles, tubing, NG equipment, and ultrasound costs) • cost of supplies/drugs/treatments
General Information: Specific disease conditions	• cancer treatment, chemo/radiation, prognosis, cancer coding • general procedures at Cross Cancer Institute and tour • palliative placement, • how patient care and family guidance is different from acute care hospitals
Self Help Information	• how to effectively cope with 12 hour rotating shift work (e.g. sleeping effectively, and diet)

Thus the two tables (Table 14 and Table 16) summarizing the data show only slightly different information. Under "communication", no one commented regular feedback was important. Under "nursing intervention" instead of the need for inservices, the comments of "periodic continuing education or inservices related to improving patient care", "receiving information relevant to the unit you are working on", and the "ability to obtain additional education" were listed as useful to provide better patient care. The participants did not specify what additional education would be important or relevant to them.

Under "nursing administration" one additional respondent commented she/he would like to know the "cost of supplies/drugs/treatments". There was no change under the "general information" category and the "self help category" had only the one item about coping with shift work and no mention of the need for wellness programs.

As was the case with the short answer question in the section "content area: job satisfaction" there were comments listed about work load issues instead of educational information needed to provide better patient care. One RN made the following comments regarding the impact of work load issues on job satisfaction and the ability to provide patient care; "what would improve my job satisfaction is to have adequate nursing staff on each shift", "when I have to juggle a heavy patient load I feel stressed, especially when this is a frequent occurrence", and "I cannot give my patients the kind of care they deserve therefore I feel inadequate".

CHAPTER 5

Discussion, Summary, Limitation, Implications and Recommendations

This descriptive study was conducted to identify the learning needs of experienced RNs working in surgical patient care units of an acute care hospital; identify factors nurses perceive as influencing their learning needs; and explore the interaction between learning needs and job satisfaction. The findings of the study are discussed in this chapter, emphasizing and highlighting connections to other works in the literature. The discussion section begins with an exploration pertinent to demographic data, examines the research questions guiding the study, describes study limitations, presents recommendations for further research, and finally concludes with implications for nursing.

Demographic data

Examination of the demographic data from the study provides us a portrait of the sample.

- The mean age of the participants was 45.18 with 76% of RNs being at least 40 years of age
- 88% graduated from programs 10 or more years ago
- 82.4% have 11 to 36 years of experience in nursing
- 56.9% have worked on the same nursing unit for 10 to 34 years (a mean of 12.97 years)
- 51.9% work 12 hour shift and 26.9% work eight hour shift
- 44.2% are employed full time
- 55.8% work part time
- 65.4% have a diploma in nursing and 30.8% have a bachelor's degree in nursing.

While at first glance it would appear three quarters of the nursing workforce on the surgical units are 45 years or older, it must be noted the sample includes only nurses with a minimum of five years experience. As well, only 48.6% of RNs who met the

criteria participated in the study. There are approximately 195 RNs working on the seven surgical areas and this study's findings reflect data from 52 RNs (26.7%). Even if all eligible RNs had elected to participate in the study, the findings would have reflected information from only 55% of the RNs currently working on the seven surgical areas. Therefore the findings must be interpreted with caution.

The findings relative to the sample show a significant number of RNs (88%) graduated from their basic nursing program more than 10 years ago which means their practice may reflect outdated knowledge and skills that may no longer be current (Gilles & Petengill, 1993; McDiarmid, 1998). Indeed, depending on the length of time since graduation they may not have had the benefit of, for example, a health assessment course which was not always part of basic nursing education in the mid to early1980s, an important component of nursing education today. Some of these nurse participants received the majority of their nursing experience from a limited number of practice areas, and may have been employed on one unit for most of their working career.

Certainly, the findings indicate a significant portion of participants have enjoyed relative career stability given the long service they have provided to their work areas. As long time nurses on the nursing unit, they may be relied upon by managers and new staff, and are in great demand to orientate staff and to preceptor nursing students. While employers may now reap the benefit of their experience it is apparent given the age of RNs that many may well be ready and willing to retire in the next decade which reflects predictions in the CNAC (2002) report of a severe nursing shortage by 2011.

Influential Factors

The two most influential factors listed by participants when pursuing continuing education are relevance of the topic to their job and personal interest in the topic. Both of these items ranked as influential or extremely influential by 100% of RNs. These two factors were also ranked as being the two most important factors in Boblin-Cumming's et al. (1994) study of RNs in Ontario. These finding are not surprising because they are consistent with adult learning theory described in the literature by Merriam (1996) and Brundage and MacKeracher (1980) but it does send a very powerful message to managers and educators about what motivates experienced RNs not only to attend but to value CE programs. In fact, 23.1 % of the sample indicated they would attend a CE program if it was useful in spite of it being inconvenient to attend. Relevance and interest override all other factors examined in the study.

From a practical sense, factors such as course cost, loss of salary and the possibility of financial support impacts decisions nurses make in their pursuit of further education. Only 32.7% of RNs in the study reported they were willing to pay for their own registration or tuition for an educational program, although this may be dependent on the actual course cost. The RNs were not asked to indicate how much they would be willing to pay for courses. In addition to course costs conflicting work schedules might necessitate the loss of salary in order to attend a CE offering. Findings show many nurses would be unhappy if faced with this prospect. Specifically, 59.6% of RNs indicated they would not attend if they lost one day's salary and if two days salary loss was involved 75% would not attend.

Participants indicated they were unhappy with the financial support they have received for updating knowledge and skills; in fact 86.6% of the sample was very dissatisfied, dissatisfied or uncertain about how they felt. Interestingly, 71.2% reported receiving one or two days paid time away for educational purposes indicating that RNs fail to utilize the three paid education days available as part of their union contract. This is an untapped and underutilized source of financial support. Almost 10% of participants indicated they did not take any paid time away even though this option was not included on the questionnaire If there been a "none" category available with this question perhaps more participants would have chosen that option giving a clearer picture of how many paid educational days RNs had taken in the past year.

Nurses in this study indicated they relied on word of mouth (73.1%) or nursing magazines (69.2%) to keep informed about upcoming CE activities and were not inclined to be satisfied with the way the employer provided them with information regarding CE. Boblin-Cumming et al. (1994) also found word of mouth was a popular source identified by nurses to acquire inservice or workshop information but they also indicated the most likely source of information were posted memos by nurses, educators and managers. This begs the question; would better dissemination of information regarding upcoming educational activities increase RNs attendance? Or perhaps the problem is not one of dissemination but that educational activities aimed at piquing the interest of the experienced RNs are not available let alone advertised and offered at the best time for RNs.

A not surprising finding is job scheduling (76.9%) is a factor that influences attendance at educational programs. Given that most RNs work 8 hour and/or 12 hour

shifts it may be difficult to readjust work schedules to pursue CE opportunities. Family responsibility (75%) is another highly ranked and influential factor. Boblin-Cumming et al. (1994) found similar results coupled with the timing and scheduling of educational activities as being important to nurses in their study. In this study RNs did indicate that a one day CE program scheduled Saturday or Sunday between 0830-1630 hours was the most popular choice of days and time. The least popular choice was the weekend during or between 2000-0830 hours. Authors such as Ross et al. (2001) discuss how difficult it is to arrange educational opportunities for night staff especially and that even if those opportunities existed the timing proves to be the least popular option amongst the participants surveyed in this study.

Perceived Learning Needs

Given that much of the educational resources are directed to mandatory or corporate endeavors such as CPR, new patient classification systems, mask fit testing, or are or geared to new hire orientation, limited resources are available to identify and meet the diverse and complex learning needs of experienced RNs (Connelly, 1998; Willis, 1996). This can be problematic as it is the experienced RNs prepared at the diploma level (65.4%) who are providing orientation to new staff, works closely with them, and are their role models. The section that follows presents a discussion of learning needs and educational information perceived to be beneficial for the participants in this study.

Averaging each broad topic the (extremely helpful and helpful) responses provided by the participants provides a general comparison of the data RNs found toward job satisfaction and providing better patient care. Some commonalities were apparent. In both the job satisfaction and the better patient care sections seven categories were ranked

interesting to participants: emergency/crisis situations; patients with certain characteristics; specific health problems; communication; nursing assessment; and nursing intervention.

This investigator expected participants would identify information about cardiac arrests, dying patients, patients with an infectious disease, and patients in pain, as helpful considering surgical nurses care for patients in these situations on a daily basis. In fact most RNs would probably have some difficulty with stating the topics listed under "emergency/crisis situations" would not be helpful, given the criticalness of life and death situations and therefore the most stress for nursing staff. On the other hand, information about burn patients was not perceived to be very helpful. This is not surprising given that none of the RNs were caring for burn patients.

The lowest ranked categories under both the job satisfaction and the better patient care sections were: self help, legal ethical issues, nursing administration, and nursing research. In both sections the least popular topic was nursing research; 30.7% under job satisfaction and 27.7% for the better patient care section. The investigator expected topics such as nursing administration and nursing research to be of less interest to participants, because RNs historically report little interest or perhaps have found such skills as proposal writing and peer evaluation as being less relevant to their work. It is very interesting to note the items "how to get involved in research" and "research methods" scored very low in spite of the push for evidenced based nursing practice. Participants in this study indicated a lack of interest in nursing research and have ruled it as irrelevant. Boblin-Cumming et al. (1994) also found that the topics of nursing administration and nursing research were content areas nurses were least interested in, while topics such as

"patients with certain characteristics, and "emergency/crisis situations" ranked the highest.

One surprising finding was that participants indicated only minor interest in collective bargaining and union/negotiation issues because during the study the nursing contract was overdue to be settled and potential for a strike existed. This finding raised the question, are nurses saying that these topics have little relevance to their job satisfaction or impact nursing care? Nurses are more likely to attend union meetings during critical contract negotiation times than at any other time. Perhaps some topics, although relevant, may hold little interest, or interest is generated only for a specific time period? Participants in this study may have had little interest in the politics of collective bargaining.

When comparing findings of "job satisfaction" to those of "better patient care" very few differences were found. For example, nursing research scored low in both sections and the topic "cardiac arrest" scored high in both sections. An exception to this was the topic "patient classification system" under the content area of communication. Participants (78.9%) indicated patient classification under the job satisfaction section was helpful or extremely helpful; where as under patient care only 48.1% of participants said information about this topic would be beneficial.

The hospital recently implemented a new version of the patient care classification system and much time and effort was invested to ensure nursing staff had the tools they needed to complete the patient classification forms accurately. Because patient classification is linked to funding, it has become vitally important to have staff complete the forms accurately and consistently. The patient care classification system has become

one of the top educational priorities for administrators, managers and educators. This issue has become so important that completing classification forms has been included as part performance evaluation. It is understandable then, that information about patient classification is valuable to RNs as it impacts their job satisfaction in the form of a positive job evaluation. Despite the importance of patient classification to job satisfaction it ranked low in information needed to provide better patient care because RNs may not view patient classification as a way to provide better patient care or if they do, at best, they view it as impacting nursing care indirectly.

Although nurses have indicated that many of the topics listed in the study were of interest to them and considered them beneficial for either job satisfaction or to provide better patient care, participants were not convinced work related educational activities met their learning needs. In fact, 50.0% of RNs who completed the questionnaire disagreed or strongly disagreed that educational activities in the work setting met their learning needs whereas 32.7% indicated agreement. Nurses are dissatisfied with educational activities within the workplace and indicated that ongoing CE opportunities are important to maintain and update knowledge and skills. This point is well documented in the literature (Nursing Advisory Committee, 2002).

Relationship Between Learning Needs and Job Satisfaction

RNs were asked to indicate their perceptions on how attendance at CE activities increased their job satisfaction. A small percentage (5.8%) disagreed that attendance increased job satisfaction; 28.8% were uncertain; 59.6% agreed attendance increased job satisfaction; and 5.8% strongly agreed their job satisfaction increased for a total positive

agreement ranking of 65.4%. In Boblin-Cumming's et al. (1994) study participants reported that attendance at CE activities moderately increased job satisfaction.

A relationship between learning needs and job satisfaction was not established statistically as percentage analysis was the predominate approach used. Based on the percentage analysis, inferences can be made with caution that there is a relationship.

Limitations of the Study

1. The nonrandom sampling strategy and small sample size means that caution must be taken when attempting to generalize any of the results to other groups of RNs working in surgical areas.
2. Question #7: How much paid time away from work did you take in the past year proved to be a poorly constructed question. The question should have included a "none" option. It assumed incorrectly that participants would take a minimum of one or two days of paid education. Five participants wrote "none" on the questionnaire itself.

Implications for Nursing Practice

With the fast pace of technology and the increasing patient acuity levels nurses need to ensure that clinical skills and knowledge are kept current to provide competent and safe patient care. Adult learning is influenced by information that is meaningful to the individual and their practice. Adults are best at defining their own learning needs.

This study identifies the learning needs of 48.6% experienced RNs on seven surgical nursing units. It is anticipated identification of these needs will positively impact hospital program education activities, patient care, ongoing development of nursing skills, and contribute to the body of nursing knowledge. The results of this study will

contribute to establishing a current list of educational activities of interest; direction in understanding factors contributing to the selection of CE; indication of most appropriate times in which to schedule CE; exploring the range of nurses' learning needs; and exploring the connection between CE and enhanced patient care. Based on this study a CE framework for surgical areas could be developed. The framework could include: a list of the current topics of interest, needed and/or available educational resources, suggested timelines for implementing specific CE, expected outcomes of the educational activity, a tool to evaluate the activity, and an ongoing method or strategy with which to address future needs (e.g., current needs assessment).

The results of this study point to pertinent information for educators in planning and implementing future educational activities; managers in their pursuit to retain and recruit nursing staff; and for patients who stand to benefit when cared is provided by nurses who are competent and current in their knowledge and skills. The study also adds to the growing evidence on the importance of ongoing needs assessments. The following points have emerged from the study and are offered for consideration:

- There is moderate agreement that attending CE offerings increases job satisfaction.
- In spite of the benefits of CE half of the nurses surveyed were dissatisfied with education activities in the work setting and identified that their learning needs were not being met.
- Lack of financial support, course costs, loss of salary, and job scheduling difficulties have been identified as being barriers to attending CE.

- RNs may benefit from information regarding potential sources of financial support from such sources as unions and professional associations.
- The two most influential factors listed by participants when pursuing continuing education are relevance of the topic to their job and personal interest in the topic.
- RNs indicated that they are not interested in information about nursing research or nursing administration.
- RNs indicated that they are interested and consider relevant many topics which are more directly related to patient care.
- Nurses rely on word of mouth or nursing magazines to keep informed about upcoming educational activities and have been dissatisfied with how the employer disseminates information about educational opportunities.
- RNs who participated in this study prefer one day CE programs scheduled Monday through Sunday scheduled from or between the hours of 0830-1630.

Recommendations for Future Research

After a long dry spell there has been a resurgence of interest in learning need assessments in nursing. This study reinforces the idea that ongoing need assessments provide meaningful and useful information to promote better patient care. This study identifies the learning needs of experienced RNs working in acute care surgical areas, information that to date has not been available in the literature.

The study collected data from the RN perspective only. It is the RNs' perceptions of their own learning needs that have been captured by a questionnaire completed by a purposive sample of nurses. To add strength to the information provided by the RNs in

this study regarding their learning needs some recommendations for future research can be offered.

Increasing the sample size from the population of interest would provide opportunities to use additional statistical methods and perhaps shed more light on the relationship between learning needs and job satisfaction, and learning needs and the ability to provide better patient care. Also, including additional points of view has been identified in the literature as being an important consideration when trying to extract accurate data. Therefore, it is recommended to survey educators, managers, and administrators about their perceptions of RNs learning needs and to elicit their input about information they believe nurses need to be able to maintain current skills and knowledge.

In terms of practical application, periodic ongoing need assessments should be carried out to identity changes in learning needs to better prepare educational offerings; offerings that having meaning and validity for the RNs surveyed.

Conclusion

The results from this study indicate RNs believe ongoing CE increases their job satisfaction and contributes to better patient care. To function competently and safely, nurses need to keep pace with the latest information, because the acquisition of knowledge is challenging given the speed at which technical information is available.

Eighty eight percent of the RNs surveyed in this study graduated from their basic nursing program 10 or more years ago. These results reinforce the need to identify learning needs of experienced nursing staff to develop and implement ongoing, relevant and meaningful CE programs. However the reality of the workplace is such that human

and material resources are limited, patient acuity is high, and staffing issues are common. It is understandable that educational resources are primarily directed towards new staff orientation activities although the availability of CE is one strategy documented in the literature as aiding in the retention and recruitment of staff.

RNs from this study have identified the need for ongoing CE programs both to promote job satisfaction and to provide competent patient care. To develop programs that promote and support ongoing changes in the workplace periodic need assessments should be carried out. Administrators and educators must seek input from RNs regarding their perception of learning needs and because learning needs are dynamic by nature, they should continually identify ongoing and future learning requirements.

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Appendices

Nursing
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Dear Ms. Zimmer:

Re: Your request for permission to adapt the questionnaire used in the "Learning Needs of Registered Nurses in Ontario" study.

I am pleased to give you permission to use/adapt the questionnaire used for the study of Registered Nurses in Ontario. I would request only that you credit me for the development of the original questionnaire.

Best of luck with your research,
Sincerely,

Dr. Sheryl Boblin, R.N., Ph.D.
Assistant Professor, School of Nursing
McMaster University

APPENDIX B:

Surgical Nurses' Perceptions of Learning Needs Questionnaire

CODE: _____

SURGICAL NURSES' PERCEPTIONS OF LEARNING NEEDS

Thank you for taking the time to complete this questionnaire.

Please answer each question as completely and openly as you can.

Your responses are important to this survey, and will be kept confidential.

Please DO NOT write your name on any part of the questionnaire.

Original questionnaire devised by:
Sheryl Boblin-Cummings
Darlyne Rath
Andrea Baumann
McMaster University
Hamilton, Ontario

Adapted with permission by Dawn Zimmer November, 2003

Please indicate your agreement or disagreement with the following statements. Circle the number that most closely reflects your response.

1. **The following individuals have an accurate perception of what you need to learn to provide the highest quality patient care possible:**

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Yourself	1	2	3	4	5
Your immediate supervisor	1	2	3	4	5
Your inservice educator and/or clinical nurse specialist	1	2	3	4	5
Your nursing peers	1	2	3	4	5
The physicians with whom you work	1	2	3	4	5
Other health team members with whom you work (eg Physiotherapist, Nutritionist)	1	2	3	4	5

2. **You are satisfied with:**

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
The quality of care you Provide to your patients	1	2	3	4	5
Your job	1	2	3	4	5
The conditions under which you work	1	2	3	4	5
The quality of patient care provided on your unit	1	2	3	4	5
The educational activities offered where you work in meeting your learning needs	1	2	3	4	5

3. **Your job provides a sense of accomplishment:**

Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
1	2	3	4	5

4. How satisfied do you feel with the encouragement you receive for updating your knowledge and skills from the following?

	Very Dissatisfied	Dissatisfied	Uncertain	Satisfied	Very Satisfied
The community	1	2	3	4	5
Your immediate supervisor	1	2	3	4	5
The physicians with whom you work	1	2	3	4	5
Your nursing peers	1	2	3	4	5
Your family and/or loved ones	1	2	3	4	5

5. How satisfied do you feel with the financial support you receive for updating your knowledge and skills.

Very Dissatisfied	Dissatisfied	Uncertain	Satisfied	Very Satisfied
1	2	3	4	5

6. How satisfied are you with the way your employer provides you with information about continuing education activities?

Very Dissatisfied	Dissatisfied	Uncertain	Satisfied	Very Satisfied
1	2	3	4	5

7. How much paid time away from work did you take in 2002-2003 for continuing education?

☐ 1 – 2 days ☐ 3 – 7 days ☐ 1 – 2 weeks ☐ more than 2 weeks ☐ I don't know

8. The following sources are helpful to find out about continuing education activities:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Journal subscriptions	1	2	3	4	5
Nursing organization Communications	1	2	3	4	5
Nursing magazines	1	2	3	4	5
Word of mouth	1	2	3	4	5
Internet	1	2	3	4	5

9. How influential are the following factors in deciding whether an upcoming continuing education activity might be beneficial?

	Not at all Influential	Slightly Influential	Uncertain	Influential	Extremely Influential
Relevance of the topic to your job/work	1	2	3	4	5
Personal interest in the topic	1	2	3	4	5
Previous attendance at a poor workshop /conference	1	2	3	4	5
Previous attendance at a good workshop /conference	1	2	3	4	5
Familiarity with the presenters	1	2	3	4	5

10. How influential are the following factors in deciding whether or not you will attend a continuing education activity?

	Not at all Influential	Slightly Influential	Uncertain	Influential	Extremely Influential
Tuition fee (not paid by employer)	1	2	3	4	5
Transportation, food and lodging costs (not paid by employer)	1	2	3	4	5
Previous attendance at a poor workshop /conference	1	2	3	4	5
Length of the conference	1	2	3	4	5
Presence required at work	1	2	3	4	5
Certificate or educational credit given	1	2	3	4	5
Time of year offered	1	2	3	4	5
Job scheduling demands	1	2	3	4	5
Family responsibilities	1	2	3	4	5

11. The following methods are helpful for updating knowledge and skills:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Reading books	1	2	3	4	5
Reading magazines and journal articles	1	2	3	4	5
Listening to audio tapes	1	2	3	4	5
Watching videos and TV programs	1	2	3	4	5
Listening to lectures, oral presentations	1	2	3	4	5
Talking with peers	1	2	3	4	5
Using computer programs	1	2	3	4	5
Using the Internet	1	2	3	4	5

12. Attendance at continuing education activities has increased your job satisfaction.

Strongly Disagree	Disagree l	Uncertain	Agree	Strongly Agree
1	2	3	4	5

13. Attendance at continuing education activities has enhanced the quality of patient care you have since provided.

Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1	2	3	4	5

14. Would you likely attend a continuing education program if:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
It meant you would lose a day's salary?	1	2	3	4	5
It meant you would lose two or more day's salary?	1	2	3	4	5
You had to pay your own travel and lodging costs?	1	2	3	4	5
You had to pay your own registration/ tuition costs?	1	2	3	4	5
It was not useful, but was convenient to attend?	1	2	3	4	5
It was useful, but was not convenient to attend?	1	2	3	4	5

15. Would you be likely to register for and/or attend a continuing education program if it were:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Scheduled for one day?	1	2	3	4	5
Scheduled for 2 days?	1	2	3	4	5
Offered once weekly for 1 to 6 weeks?	1	2	3	4	5
Offered once weekly for 7 to 12 weeks?	1	2	3	4	5
Offered through home study packages?	1	2	3	4	5
Offered through television programs?	1	2	3	4	5
Offered through workshops followed by home study?	1	2	3	4	5

16. Would you likely attend a continuing education program if it were offered Monday to Friday as follows:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
0830 – 1630 hours?	1	2	3	4	5
1500 – 1700 hours?	1	2	3	4	5
1700 – 1900 hours?	1	2	3	4	5
1800 – 2000 hours?	1	2	3	4	5
2000 – 0830 hours?	1	2	3	4	5

17. Would you likely attend a continuing education program if it were offered Saturday and/or Sunday as follows:

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
0830 – 1630 hours?	1	2	3	4	5
1500 – 1700 hours?	1	2	3	4	5
1700 – 1900 hours?	1	2	3	4	5
1800 – 2000 hours?	1	2	3	4	5
2000 – 0830 hours?	1	2	3	4	5

JOB SATISFACTION

18. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Emergency/Crises Situations				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Cardiac Arrest	1	2	3	4	5
Hemorrhage	1	2	3	4	5
Coma	1	2	3	4	5
Seizure	1	2	3	4	5
Stroke	1	2	3	4	5
Burns	1	2	3	4	5
Respiratory Arrest	1	2	3	4	5

19. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Patients with Certain Characteristics				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Patients who are:					
Dying	1	2	3	4	5
Difficult/ Challenging	1	2	3	4	5
Physically Challenged	1	2	3	4	5
Emotionally Distraught	1	2	3	4	5
Hostile/Aggressive	1	2	3	4	5
Developmentally Delayed	1	2	3	4	5
In pain	1	2	3	4	5

20. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Specific Health Problems				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Physical Abuse	1	2	3	4	5
Substance Abuse (alcohol/drugs)	1	2	3	4	5
Violence	1	2	3	4	5

21. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Communication				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Patients who are:					
Communicating with the Health Team	1	2	3	4	5
Communicating with Patients	1	2	3	4	5
Communicating with Patients' Family/ Friends	1	2	3	4	5
Communicating with Family/ Friends of Dying Patients	1	2	3	4	5
Family Counselling	1	2	3	4	5
Documentation (Charting)	1	2	3	4	5
Patient Classification System	1	2	3	4	5
Teaching Methods	1	2	3	4	5
Interviewing Skills	1	2	3	4	5
Communicating with Patients Who Cannot Speak/Deaf	1	2	3	4	5
Communicating with Non-English Speaking Patients	1	2	3	4	5

22. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Nursing Assessment				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Health/Physical Assessment-Adults	1	2	3	4	5
Health/Physical Assessment-Elderly	1	2	3	4	5
Pain Assessment	1	2	3	4	5

23. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Nursing Interventions				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Pain Management	1	2	3	4	5
Crisis Intervention	1	2	3	4	5
New Equipment	1	2	3	4	5
Skills (e.g: I.V. Therapy)	1	2	3	4	5
Demonstrating Caring	1	2	3	4	5
Coping with Patients' Sexuality	1	2	3	4	5
Community Support Services	1	2	3	4	5
Infectious Diseases (e.g. SARS, ESBL,VRE, C. Diff, MSRA)	1	2	3	4	5

24. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Legal/Ethical Issues				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Legal Aspects of Nursing	1	2	3	4	5
Nursing Legislative Issues	1	2	3	4	5
Collective Bargaining	1	2	3	4	5
Unions, Negotiation Issues	1	2	3	4	5
Ethical Issues in Nursing	1	2	3	4	5
Clarifying Values	1	2	3	4	5

25. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Nursing Research				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
How to Get Involved	1	2	3	4	5
Funding Sources	1	2	3	4	5
Writing Skills (Reports, Papers)	1	2	3	4	5
Proposal Writing	1	2	3	4	5
Research Methods	1	2	3	4	5

26. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Nursing Administration				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Team Leadership	1	2	3	4	5
Audit	1	2	3	4	5
Peer Evaluation	1	2	3	4	5
Working in Groups	1	2	3	4	5
Charge Nurse Responsibilities	1	2	3	4	5

27. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	General Information				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Anatomy and Physiology	1	2	3	4	5
Specific Disease Conditions	1	2	3	4	5
Pharmacology, Medications, Calculations	1	2	3	4	5
Diagnostic Tests and Values	1	2	3	4	5
Computers in Nursing	1	2	3	4	5
Nursing Frameworks, Theories	1	2	3	4	5

28. Please indicate if information about the following topics would be helpful in contributing to your job satisfaction.

	Self Help Information				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Time Management, Organization	1	2	3	4	5
Women's Health Issues	1	2	3	4	5
Conflict Management	1	2	3	4	5
Stress Management	1	2	3	4	5
Coping Skills	1	2	3	4	5
Preventing Burnout	1	2	3	4	5
Assertiveness Training	1	2	3	4	5
Assertiveness Training	1	2	3	4	5
Money Management	1	2	3	4	5
Personal Motivation	1	2	3	4	5
Parenting Skills	1	2	3	4	5

29. What other information would contribute to your job satisfaction? (Please specify.)

_____

_____

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BETTER PATIENT CARE

30. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Emergency/Crises Situations				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Cardiac Arrest	1	2	3	4	5
Hemorrhage	1	2	3	4	5
Coma	1	2	3	4	5
Seizure	1	2	3	4	5
Stroke	1	2	3	4	5
Burns	1	2	3	4	5
Respiratory Arrest	1	2	3	4	5

31. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Patients with Certain Characteristics				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Patients who are:					
Dying	1	2	3	4	5
Difficult/ Challenging	1	2	3	4	5
Physically Challenged	1	2	3	4	5
Emotionally Distraught	1	2	3	4	5
Hostile/Aggressive	1	2	3	4	5
Developmentally Delayed	1	2	3	4	5
In Pain	1	2	3	4	5

32. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Specific Health Problems				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Physical Abuse	1	2	3	4	5
Substance Abuse (alcohol/drugs)	1	2	3	4	5
Violence	1	2	3	4	5

33. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Communication				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Patients who are:					
Communicating with the Health Team	1	2	3	4	5
Communicating with Patients	1	2	3	4	5
Communicating with Patients' Family/ Friends	1	2	3	4	5
Communicating with Family/ Friends of Dying Patients	1	2	3	4	5
Family Counselling	1	2	3	4	5
Documentation (Charting)	1	2	3	4	5
Patient Classification System	1	2	3	4	5
Teaching Methods	1	2	3	4	5
Interviewing Skills	1	2	3	4	5
Communicating with Patients Who Cannot Speak/Deaf	1	2	3	4	5
Communicating with Non-English Speaking Patients	1	2	3	4	5

34. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Nursing Assessment				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Health/Physical Assessment-Adults	1	2	3	4	5
Health/Physical Assessment-Elderly	1	2	3	4	5
Pain Assessment	1	2	3	4	5

35. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Nursing Interventions				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Pain Management	1	2	3	4	5
Crisis Intervention	1	2	3	4	5
New Equipment	1	2	3	4	5
Skills (e.g: I.V. Therapy)	1	2	3	4	5
Demonstrating Caring	1	2	3	4	5
Coping with Patients' Sexuality	1	2	3	4	5
Community Support Services	1	2	3	4	5
Infectious Diseases (e.g. SARS, ESBL,VRE, C. Diff, MSRA)	1	2	3	4	5

36. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Legal/Ethical Issues				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Legal Aspects of Nursing	1	2	3	4	5
Nursing Legislative Issues	1	2	3	4	5
Collective Bargaining	1	2	3	4	5
Unions, Negotiation Issues	1	2	3	4	5
Ethical Issues in Nursing	1	2	3	4	5
Clarifying Values	1	2	3	4	5

37. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Nursing Research				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
How to Get Involved	1	2	3	4	5
Funding Sources	1	2	3	4	5
Writing Skills (Reports, Papers)	1	2	3	4	5
Proposal Writing	1	2	3	4	5
Research Methods	1	2	3	4	5

38. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Nursing Administration				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Team Leadership	1	2	3	4	5
Audit	1	2	3	4	5
Peer Evaluation	1	2	3	4	5
Working in Groups	1	2	3	4	5
Charge Nurse Responsibilities	1	2	3	4	5

39. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	General Information				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Anatomy and Physiology	1	2	3	4	5
Specific Disease Conditions	1	2	3	4	5
Pharmacology, Medications, Calculations	1	2	3	4	5
Diagnostic Tests and Values	1	2	3	4	5
Computers in Nursing	1	2	3	4	5
Nursing Frameworks, Theories	1	2	3	4	5

40. Please indicate if information about the following topics would help you provide BETTER PATIENT CARE.

	Self Help Information				
	Not at all Helpful	**Some what Helpful**	**Uncertain**	**Helpful**	**Extremely Helpful**
Time Management, Organization	1	2	3	4	5
Women's Health Issues	1	2	3	4	5
Conflict Management	1	2	3	4	5
Stress Management	1	2	3	4	5
Coping Skills	1	2	3	4	5
Preventing Burnout	1	2	3	4	5
Assertiveness Training	1	2	3	4	5
Assertiveness Training	1	2	3	4	5
Money Management	1	2	3	4	5
Personal Motivation	1	2	3	4	5
Parenting Skills	1	2	3	4	5

41. What other information do you think would help you provide better patient care?

_____

_____

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DEMOGRAPHICS

I would appreciate you taking the time to provide the following information about yourself. As with your previous responses, this information will be kept in confidence.

1. In what year did you become an RN? _____

2. What is your age? _____

3. How many years (total) of nursing experience do you have?_____

4. What is the highest level of education you have earned?

a. Diploma. b. Baccalaureate (Nursing) c. Baccalaureate (other)
d. Masters (Nursing) e. Masters (other) f. Ph.D

5. What is your current position within your institution (e.g: staff nurse, clinical nurse specialist)?

Position: _____

6. How long have you been in this position? _____ years.

7. Where is your current area of employment (e.g: operating room)?

Area: _____

8. What is your current status?

a. Full Time b. Permanent Part Time

9. What type of shifts do you typically work?

a. 12 hr. shift, days b. 12 hr. shift, nights c. 12 hr. shift, rotating
d. 8 hr. shift, days e. 8 hr. shift, evenings f. 8 hr. shift, nights
g. 8 hr. shift, rotating h. less than 8hr shift, days i. less than 8 hr shift, nights
j. less than 8 hr shift, evenings

10. How many formal continuing education activities have you attended in the last two years?

Within your institution: _____
Within 100 kilometer (60 mile) radius: _____
Over 100 kilometers away, within Alberta: _____
Outside Alberta _____

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HEALTH RESEARCH ETHICS APPROVAL

Date: March 2004

Name of Applicant: Joanne Profetto-McGrath/Dawn Zimmer

Organization: University of Alberta

Department: Faculty of Nursing

Project Title: **The Learning Needs of Experienced Registered Nurses Working in Acute Care Surgical Areas**

The Health Research Ethics Board (HREB) has reviewed the protocol for this project and found it to be acceptable within the limitations of human experimentation. The HREB has also reviewed and approved the subject information letter.

The approval for the study as presented is valid for one year. It may be extended following completion of the yearly report form. Any proposed changes to the study must be submitted to the Health Research Ethics Board for approval. Written notification must be sent to the HREB when the project is complete or terminated.

SPECIFIC COMMENTS: This study involves a questionnaire to be administered to health care professionals, and no personally identifiable health information is collected.

Dr. Glenn Griener
Chair of the Health Research Ethics Board
(B: Health Research)

File number: B-130304

UNIVERSITY OF ALBERTA

Capital Health

CARITAS HEALTH GROUP

Capital Health

Regional Research Administration
Clinical Trials Centre
1800 College Plaza
8215 - 112 Street
Edmonton, AB T6G 2C8
Phone (780) 407-1372

NOTICE OF ADMINISTRATIVE APPROVAL FOR PROPOSED RESEARCH

Site: RAH

Project Title: The Learning Needs of Experienced Registered Nurses Working in Acute Care Surgical Areas

Project Number: P-2214

Investigator Name: Profetto-McGrath, Joanne

Department / Faculty: Faculty of Nursing

Division:

Supporting Documents

Ethics Appoval Date: 28-Apr-04 **Ethics File #:** B-030304

Study Protocol

Sponsor: Internal Funding

CRO:

Type of Funds: Internally Funded

Overhead rate: 0%

Legacy Account: **Oracle Account:**

Contract Finalized Date:

Project Approved: 25-May-04 **Comment:** Funded by the co-investigator's (Dawn Zimmer) own personal finances.

Kathy Brodeur-Robb
Regional Research Administration

K. Brodeur Robb

Copies to: Finance and Administration

Tuesday, May 25, 2004

UNIVERSITY OF ALBERTA

Faculty of Nursing

Information Letter

Study: The Learning Needs of Experienced Registered Nurses

Dawn Zimmer, RN, BScN
Clinical Nurse Educator (Gynecology)
Royal Alexandra Hospital
Telephone: 477-4054
E-mail: dzimmer@cha.ab.ca

Dawn Zimmer, a Master of Nursing candidate in the Faculty of Nursing, is conducting a study to explore the learning needs of experienced Registered Nurses (RNs). This study will involve RNs who have a minimum of five years of clinical experience and are currently engaged in direct patient care on all surgical patient care units at the Royal Alexandra Hospital. You are invited to participate in this research project, but you are under no obligation to complete the questionnaire.

You are asked to complete the enclosed questionnaire entitled *Nurses' Perception of Learning Needs*. Your Unit Manager or Clinical Nurse Educator has circulated the package containing the questionnaire to you because they know the RNs who have a minimum of five years experience. The Unit Manager or Clinical Nurse Educator is only responsible for distributing the questionnaire packages. They will not collect the packages and they will not know if you choose to participate in the study.

All information that you provide will be kept confidential. The questionnaire is completely anonymous; therefore, we ask that you do not include your name or any other identifying information on any of its pages. If there are any questions you do not wish to answer, please leave them blank. The questionnaires will not be associated with your name and will never be made available to other individuals or your employer. The information you provide will be kept in a locked filing cabinet for at least five years after the study is done and then destroyed in a confidential manner. We do not anticipate any harm to you as a result of your participation in this study. No direct benefits will accrue to you as a result of your participation. However, this research is important to better meet the learning needs of experienced RNs. The information gathered for this study may be looked at again in the future to help us answer other questions. If so, the proposed study will be submitted to the ethics review board for approval.

A postage paid return envelope has been provided for you to return the completed questionnaire. The questionnaire will take approximately 35 minutes to complete. To summarize the information in a timely manner, I ask that you return the questionnaire to me by June10, 2004 using the envelope provided.

We thank you very much for your cooperation and assistance in completing the enclosed questionnaire. If you have any questions or concerns about the study please contact me as per the information provided below. You may contact Dr. Kathy Kovacs Burns, Director of Research – Faculty of Nursing at (780) 492-0839 if you have any questions about the study or your rights as a participant in a research study.

Joanne Profetto-McGrath, RN, PhD
Assistant Professor, Faculty of Nursing
Telephone: 492-1597
E-Mail: joanne.profetto-mcgrath@ualberta.ca