

**CONTINUING EDUCATION NEEDS OF
REGISTERED NURSES IN NORTHWESTERN ONTARIO:**

**A
NEEDS ASSESSMENT APPROACH**

A Thesis Submitted in Partial Fulfilment of
the Requirements for the Degree of
Master of Education

by

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at

Lakehead University
School of Education

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DEDICATION

I dedicate this thesis, more lovingly called "mommy's book", to my family: my husband, of eighteen years, Henry and my three beautiful children, Alison, Kyle and Erin.

ABSTRACT

In Canada, there has been little progress in the development and advancement of continuing nursing education since World War II. The recent release of national and provincial documents, the trend toward specialization and the need for increased knowledge based on technological changes in practice, supports the importance of continuing nursing education and its vital role in maintaining the credibility of the profession.

The purpose of this study was to investigate and describe the continuing education needs of registered nurses in Northwestern Ontario. A Needs Assessment¹⁾ Framework for Continuing Nursing Education was developed to answer the research questions. The research design involved mailing a questionnaire to 800 registered nurses in Northwestern Ontario and personal interviews with ten participants. Data was analyzed using descriptive and correlation statistics.

Continuing education needs were defined, as well as the factors which influence these needs. The findings indicated that nurses in Northwestern Ontario were interested in pursuing continuing education. However, the majority were not currently participating in continuing

education. The results suggest that geographical location, educational preparation, area of employment and motivational considerations affect continuing education needs and are predictors of participation. Other variables, such as; "valuing" of continuing education, the need for professional upgrading, accessible educational offerings, educational delivery methods, the variety of educational needs and the busy lifestyles of the nurses surveyed, suggest trends or influences which may impact the continuing education needs of registered nurses in Northwestern Ontario.

The present study also has several implications for continuing nursing education in Northwestern Ontario. The findings indicate that continuing education must be recognized and valued by nurses, employers and the profession as a whole. Educational offerings could then be planned and offered in a collaborative approach to meet the nurses needs. The results of this study also indicate that further research is required to explore motivational orientations, appropriate learning methods, barriers to participation, and to investigate the effectiveness of the voluntary model for continuing education.

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CHAPTER 1

THE PROBLEM

Introduction

The past two decades have brought about dramatic changes in the health care delivery system in Canada. The increasing complexity of the applied technology and the dramatic impact of new scientific research in health, has escalated the cost of health care and has placed unprecedented accountability and demands on health care professionals (Bushy, 1992; Connors, 1989; Kathrein, 1990; Radke et al., 1991; Schoen & Morgan, 1993; Weis & Schank, 1991). As members of the health care team, nursing professionals have been affected. Continuing nursing education has been able to meet this increased demand for accountability in the United States through mandatory continuing education legislation and practices (Connors, 1989; Kathrein, 1990; Kristjanson & Scanlon, 1989; Thurston, 1992). However, in Canada there is no legislated mandatory education. The responsibility and accountability for continuing education to enhance professional practice rests with individual nurses. In addition, there has been little research on continuing education for nurses in Canada with only a few articles

having been published.

Kathrein (1990) indicates that:

Continuing learning in nursing is complex. The content of learning is comprehensive and multidimensional, and the process of learning demands the development and use of sophisticated learning skills. The personal, professional and social environments in which nurses practice are becoming increasingly complex, creating new and everchanging demands on the content and process of their continuing learning. (p.216)

Rapidly changing technology and the trend toward specialization increases the need for continuing education for nurses (Bushy, 1992; Connors, 1989; Kathrein, 1990; Schoen & Morgan, 1993; Zorn & O'Keefe, 1989). The increased complexity in the nursing practice environments, as well as changes in the present educational foundation of nursing all contribute to the need for a broader, more comprehensive concept of the content and the process for continuing education for nurses in Canada.

Providers of continuing education require supportive documentation to make decisions about the types of programs that should be offered, who should receive them, when, where, and how these programs should be delivered (Brock, 1989; Gessner, 1982; Kristjanson & Scanlon, 1989; Mills-Zorzes et al., 1987; Wise, 1981). Zorn and O'Keefe

(1989) conclude:

If continuing education for nurses is based on sound investigation of needs and preferences, targeting will be more accurate and marketing will be more successful; as a result, it is assumed that the quality of patient care ultimately will be improved. (p.218)

Using a needs assessment approach is one way to identify continuing education needs in nursing. This approach is the first step in planning continuing education activities and programs for registered nurses (Farley & Fay, 1988; Kristjanson & Scanlon, 1989; Lorig, 1977; Smith et al., 1980).

Purpose of the Study

The purpose of the study was to investigate and describe the continuing education needs of registered nurses in Northwestern Ontario.

Research Questions

The following questions guided this study of registered nurses in Northwestern Ontario:

1. What are the continuing education needs of registered nurses in Northwestern Ontario?
What factors influence the continuing education needs of registered nurses in Northwestern

Ontario?

Are there differences in the continuing education needs of registered nurses in Northwestern Ontario based on their:

- i) educational preparation?
- ii) geographical location?
- iii) area of nursing in which the participant is presently employed?

What motivational considerations influence the Northwestern Ontario registered nurse's pursuit of continuing education?

These guiding questions in conjunction with the literature review assisted in the development of the Needs Assessment Framework for Continuing Nursing Education.

Need and Significance of the Study

One characteristic of a profession is the obligation of the embodied professional to maintain a current knowledge base (Champion, 1991; Cox & Baker, 1981; Grant, 1992; Kristjanson & Scanlon, 1992; RNAO, 1980; Warmuth, 1987). However, it is difficult for the professional to

participate in relevant continuing education when offerings are not reflective of the participants' needs or when there are situational, institutional or dispositional barriers that prevent individuals from participating (Cross, 1981). Investigating continuing nursing education needs helps nurse educators in effectively planning continuing education activities that are relevant to identified needs, thereby assisting nurse professionals in their search for current and relevant education. In addition, this research can assist nurse educators in determining the deterrents or barriers to participation and thus attempt to overcome or plan for these obstacles (Scanlon & Darkenwald, 1984).

Zorn and O'Keefe (1989) noted that as health care costs rise, funds for continuing education decline. They emphasized the importance of nurses in promoting the maintenance of the financial support for continuing education through sound rationale for funding proposals. "This rationale would be strengthened by research in the specific continuing education needs of a population which have been identified" (p.218).

Knowledge of continuing nursing education needs, would be beneficial for the pursuit of resources to

assist with planning, implementing, and evaluating continuing education offerings (Banfield et al., 1990; Bell, 1978; Betz, 1984; Chesney & Beck, 1985; Kristjanson & Scanlon, 1989, 1992; Meyers, 1984). Conducting a needs assessment to determine continuing education needs for registered nurses in a specific geographical region can enhance the understanding and issues surrounding continuing education needs (Bowman et al., 1985; Curran, 1977; Jones & Modica, 1989; RNAO, 1980; Zorn & O'Keefe, 1989). This information can then be used to make predictions for other similar geographic locations or for the profession as a whole (Bachman et al., 1992; Zorn & O'Keefe, 1989). In addition to the specific findings of the assessment, the tools and the research methodology used to conduct the assessment may be helpful to other researchers or nurse educators involved in continuing education.

The Registered Nurses' Association of Ontario issued a report in February 1980 entitled "A Position Paper on Continuing Education for Registered Nurses". This document served to outline the meaning, responsibilities, definition of terms and the issues and trends in continuing nursing education in Ontario. In addition,

this position paper recognized the need for regional planning and coordination and identified that:

The various providers of continuing education must coordinate their efforts so that continuing education manpower, funds, facilities and other resources are utilized to their maximum in order that priority needs may be met and inappropriate duplicating of programs avoided. (p.11)

However, it is difficult for nurse educators in continuing education to implement this philosophical belief, when they are unaware of the continuing education needs of the registered nurse in their geographical region.

Since 1980, there was little emphasis placed on continuing education needs at the national level. It was not until May 1992 that the Canadian Nurses Association released a position statement on continuing education for nurses in Canada. This was the first time continuing education for Canadian nurses had ever been defined.

Subsequently, little research has been conducted in Canada on the continuing education needs for nurses. Therefore, this study will provide valuable information regarding continuing education needs for nurses in Northwestern Ontario and can provide: a cornerstone for further research in continuing education, a foundation for building continuing education delivery models, and

assist in the continued development of provincial and national policy for continuing education for registered nurses.

Limitations

The following constituted the limitations of this study:

1. Some participants may have difficulty identifying or articulating their continuing education needs.

An opinion expressed on the questionnaire or in the interview may not reflect commitment on the part of the participant to support a particular continuing education need.

There was a low return rate of the mailed questionnaire.

Delimitations

The following constituted the delimitations of this study:

1. The sample for the mailed questionnaire was limited to 800 participants.

The sample for the personal interview was

limited to 10 participants.

The sample was drawn from a specific geographical region - Northwestern Ontario.

The personal interview was limited to one hour.

Assumptions

The participants are interested in continuing education.

The participants are honest in their response to the needs assessment questionnaire and in the personal interview.

Definition of Terms

Registered Nurse

For the purpose of this study, a registered nurse was defined as a graduate from a diploma or baccalaureate nursing program who is registered with the College of Nurses in Ontario and holds a current certificate of competence.

Northwestern Ontario

For the purpose of this study, Northwestern Ontario was defined as the geographical region that is limited to the following boundaries: the Manitoba border to the west, White River to the east, the United States border to the south, and the shores of James and Hudson Bay to the north.

Continuing Nursing Education

For the purpose of this study, continuing nursing education was defined as any planned learning experience, undertaken by graduates of basic diploma and baccalaureate nursing programs that contributes to the fulfilment of personal and professional goals and leads to the enhancement of nursing practice, nursing education, nursing administration and nursing research (RNAO, 1980).

Needs Assessment

For the purpose of this study, a needs assessment was defined as a tool which formally determines the gaps between current results and required or desired results, places these gaps in priority order, and assures that the

intervention, once selected, is related to the gap (need) identified (English & Kaufman, 1975; Kaufman & English, 1979).

Need

For the purpose of this study, a need was defined as a deficiency or gap between a desirable standard and the standard that actually exists, it is a state that initiates motive and causes gratification-seeking behaviour and is embedded into the individual's wants and desires (Monette, 1977).

Continuing Education Need

For the purpose of this study, a continuing education need was defined as a discrepancy between an individual's present level of knowledge or competency and his or her desired level of knowledge or competency that can be satisfied by a learning experience.

Summary

In the first chapter, the problem was introduced and some background material to describe the purpose of the study was presented along with the research questions. In addition, the need and significance for the study were presented and the chapter concluded with statements on the assumptions, limitations, delimitations and the definition of terms. In Chapter two the focus will be on a literature review that will support the topic being researched and will also validate the development of the needs assessment framework that guided the research. Set forth in Chapter three will be a detailed discussion of the research methodology and will include: the overview of the study, the instrumentation (selection and development), the selection of the population and samples, the data collection procedures, and the data analysis. The results of the study will be presented in Chapter four. Chapter five, the concluding chapter, will present a summary of the study, a discussion of the research findings, conclusions, implications of the findings and recommendations for further research.

CHAPTER 2

REVIEW OF SELECTED LITERATURE

Introduction

The purpose of the review of literature presented in this chapter is to provide a substantiation of the problem being investigated with broad topics germane to the study. In addition, the literature validates the development of the needs assessment, conceptual framework that guided this research. Emphasis will be placed on continuing nursing education, adult learning theory, motivational considerations and need assessments. The needs assessment framework was created by summarizing the literature and stating how it supports the study.

Continuing Nursing Education

In Ontario, continuing nursing education is defined as "any planned learning experience, undertaken by graduates of basic diploma and baccalaureate nursing programs which contributes to the fulfilment of personal and professional goals and leads to the enhancement of nursing practice, nursing education, nursing administration and nursing research" (RNAO, 1980, p.1). This definition guides the nursing community in its

pursuit, development, implementation and evaluation of continuing nursing education. In addition, the College of Nurses of Ontario, the professional licensing body, also supports continuing education in nursing. In the 1990 Standards of Nursing Practice for Registered Nurses and Registered Nursing Assistants of Ontario, the first standard of nursing practice states: "the RN continues to learn throughout his or her professional life" (CNO, 1990, p.15).

"Continuing learning in nursing is complex. The content of learning is comprehensive and multidimensional, and the process of learning demands the development and the use of sophisticated learning skills" (Kathrein, 1990, p.216). Kathrein also indicates that the personal, professional and social environments in which nurses practice are becoming increasingly complex, creating new and everchanging demands on the content and process of their continuing learning. Rapidly changing technology and the trend toward specialization increases the need for continuing education for nurses. The increased complexity in the personal, professional and social environments in which nursing is practised, as well as changes in the present educational foundation of

nursing all contribute to the need for a broader, more comprehensive concept of the content and the process for continuing education (Kathrein, 1990; Popiel, 1969). Popiel (1969) states that "continuing education in nursing requires nurses to learn new content and skills as well as to review and add to knowledge already gained, to investigate new approaches to nursing care, and to strengthen their abilities in professional nursing" (p.3).

In Canada there has been little progress in the development and advancement of continuing nursing education since World War II, whereas the United States has made major inroads into the development of this paradigm. Not until 1990, when the Canadian Nurse Educators Association was established did opportunities for the advancement of continuing education for nurses become a reality. Then in May 1992 the Canadian Nurses Association, the national professional nursing group, secured the future of continuing education for nurses with the release of a position statement on continuing nursing education. Finally, the groundwork was laid for future trend setting in practice and research.

National and provincial documents, the trend toward

specialization and the need for increased knowledge, based on the technological changes in practice, supports the fact that continuing education is important and plays a vital role in maintaining the credibility of the profession (Connors, 1989; Kathrein, 1990; Kristjanson & Scanlon, 1992). However, since this field of study is still evolving and developing and national policies have only been recently released to guide practice; there has been little research done on the needs of continuing education for nurses in Ontario or Canada. In the next section, needs assessments and their use in continuing nursing education, factors influencing the need for continuing education, continuing nursing education needs, motivational considerations, and educational outcomes will also be discussed.

Needs Assessment

Chesney and Beck (1985) characterize needs assessment into three categories: needs assessments that deals with a particular topic or setting (Anderson & Kimber, 1991; Blair, 1993); needs assessments that focuses on individual needs (Dolphin, 1983; MacDonald & Grogin, 1991; Mackereth, 1989; Mathews & Schumacher,

1979; O'Connor, 1982; Urbano, Jahns & Urbano, 1988); and general needs assessments to determine interests, and, or educational needs that are common to a particular area or region (Farley & Fay, 1988; Price, 1967; Smith et al., 1980; Zorn & O'Keefe, 1989). Pennington (1980) notes that although there are many techniques related to needs assessments; informally asking instructors and educational administrators what they think the client's needs are, or formally developing questionnaires and other instruments to survey educators, community leaders and clients, and gather empirical learner performance data through testing, there is still much to be done in the conceptualization of the needs assessment procedure.

Needs assessments and front end analysis have become critical elements in defining and planning continuing education in nursing (Farley & Fay, 1988). Upon reviewing the literature, specific to continuing nursing education needs, the importance of performing a needs assessment prior to any long-range planning was emphasized (Atwood & Ellis, 1971; Bell, 1986; Bowman et al., 1985; Chatham, 1979; Chesney & Beck, 1985; Cox, 1983; Farley & Fay, 1988; Koonz, 1978; Kristjanson & Scanlon, 1989; Smith et al., 1980; Sovie, 1981; Vogel et

al., 1991; Watson, 1973; Zorn & O'Keefe, 1989.

In addition, using several methods simultaneously to assess educational needs, since a single approach may not uncover all possible needs, was a prevalent theme throughout the research (Austin, 1981; Bell, 1978; Holmes, 1989; Kristjanson & Scanlon, 1989; O'Connor, 1986). The next section will discuss the advantages and disadvantages of the questionnaire when conducting a needs assessment.

Advantages and Disadvantages of the Questionnaire Method

The questionnaire is a tool that can be used systematically to gather large amounts of data and it allows target audiences an opportunity to express their beliefs or opinions. The advantages of using this tool are that; it can be used for large target groups, it can reach a large geographical area and it provides the opportunity for diverse input (Bell, 1978). In addition, it provides an opportunity to make comparisons within and between groups (Jackson, 1988). Therefore, it can be very useful when conducting needs assessments (Bell, 1986; Knox, 1977; Monette, 1977).

One disadvantage of using a mailed questionnaire is

that it can be time consuming for the researcher. For instance, the time involved in the survey development, the mail-out, and the analysis of the data can span several months or years (Bell, 1978). In addition, Bell (1978) identifies that there may be a poor return rate of the mailed questionnaire. Jackson (1988) concurs and identifies that: "Generally, returns will be fast at first and then slow down. After one week expect to receive about 30 percent of those that will be returned, and about 85 percent within two weeks. By the end of four weeks about 96 percent of those that will be returned should have arrived" (p.175). Other disadvantages of the mailed questionnaires include high direct and indirect costs, they are largely representative of the target audience and an opinion expressed on the questionnaire may not reflect commitment on the part of the respondent to support a particular concept, idea or belief.

Regardless of the disadvantages, mailed questionnaires seem to be the most popular survey research method used to identify continuing nursing education needs (Bachman et al., 1992; Banfield et al., 1990; Beach, 1982; Blair, 1993; Bye, 1988; Chesney & Beck, 1985; Farley & Fay, 1988; Zorn & O'Keefe, 1989).

However, personal interviews (MacDonald & Grogin, 1991) and telephone surveys (Hash et al., 1985) are becoming more popular. Jackson (1988) states that personal interviews have the advantage of allowing the researcher to probe in depth to further extrapolate relevant information which may support or refute the mailed questionnaire responses. Used in combination, these two approaches will facilitate the gathering of information to answer the research questions as identified in Chapter one.

The literature describes various other types of learning needs assessments techniques, including the analysis of patient charts, literature, job descriptions, observation, minutes of meetings, and supervisory ratings (Bell, 1978) and quality assessment techniques (Smith et al., 1982). However, learners are still considered the best source for identifying their own educational needs (Knowles, 1985). Therefore the questionnaire is a very useful tool in acquiring individual as well as group information. The next section expands on the use of needs assessments in continuing nursing education.

Use of Needs Assessments in Continuing Nursing Education

Since there is no Canadian research on using a needs assessment approach in continuing nursing education, the American research can serve as a guide to conducting a needs assessment in Canada and assist Canadian nurse educators in building a sound continuing education pedagogy. Much of the literature from the United States focuses on the importance of conducting a needs assessment to build a framework for continuing education (Almquist & Bookbinder, 1990; Bachman et al., 1992; Banfield et al., 1990; Beach, 1982; Bell, 1978; Bell, 1986; Betz, 1984; Chatham, 1979; Chesney & Beck, 1985; Farley & Fay, 1988; Gessner, 1982; Lorig, 1977; MacDonald & Grogan, 1991; Smith et al., 1980; Wise, 1981; Zorn & O'Keefe, 1989). Researchers emphasize that before continuing education can be planned, educational needs must be identified (Atwood & Ellis, 1971; Cox, 1983; Kaufman & English, 1979; Koonz, 1978; Monette, 1979; Pennington, 1980; Sovie, 1981).

The needs assessment approach developed by Knox (1977) is designed to assist educators in discovering the educational needs of the participants. The underlying assumption is that there is a "gap" between the current

situation and the desired situation (Betz, 1984; Monette, 1977). Most adult educators would ascribe to the use of a 'needs approach' at least in theory (Atwood & Ellis, 1971; Knowles, 1970). Knox (1977) states that because "adults typically want to use what they learn soon after they learn it, it is usually easy to establish the connection between specific learning activities and the area of performance to which the new knowledge is to be applied" (p.408). Being aware of this information, Houle (1981) points out that "since men and women know what they need to learn, the task of the educator is to discover what it is and provide it for them" (p.7).

Knowles (1970) preferred to categorize needs into three types; those of the individual, those of the organization (profession) or institution, and those of the community or the society as a whole. However, Monette (1977) more specifically described a need as: indicating a deficient state that initiates motive and causes gratification-seeking behaviour; the sense of an individual's wants and desires and implies an ultimate goal; and a deficiency or gap between a desirable standard and the standard that actually exists. Regardless of the definition used, "needs are not fixed;

they are constantly changing. Thus, assessing needs is an ever present concern for the persons who plan continuing education offerings and the learner" (Popiel, 1973, p.53). This becomes critical for the educator who is planning to meet the needs of nurses in a specific geographical region or catchment area (Bell, 1978; Smith et al., 1980; Chesney & Beck, 1985; Farley & Fay, 1988; Jones & Modica, 1989).

Smith, Smith, and Ross (1982) noted that health professionals can no longer afford to plan continuing education activities without first demonstrating a need for the activity. "Emphasis on conservation of time, money, and human resources as well as improvement of patient care provides the rationale for including needs assessment in curriculum planning" (Smith et al., 1982, p.53). Consequently, the effectiveness of continuing education programming is dependent upon accurate identification of the learner needs (Smith et al., 1980).

Curriculum development in continuing education based on a needs assessment approach is essential to ensure this field of study is recognized as a valid paradigm (Bowman et al., 1985; Knox, 1969; Pennington, 1980; & Smith et al., 1982). Once established, nurse educators

and curriculum developers will require sound pedagogy, peer and administrative support, and comprehensive and coordinated efforts that exist between all levels of continuing nursing education, to ensure that the best methodological approaches are found to meet the needs of the nursing profession in their pursuit of continuing education (Smith et al., 1982).

Described in the literature are various types of learning needs assessment techniques, including the analysis of patient charts, literature, job descriptions, observation, minutes of meetings and supervisor ratings (Bell, 1978) and quality assurance (Smith et al., 1982). However, Cox (1983) emphasizes that adults learn better and are more highly motivated when they are involved in the needs assessment process and Knowles (1985) confirms that the learners are considered the best source for identifying their own educational needs.

Need identification describes learning requirements of an individual or a group, using some measurement tool or an assortment of tools. Following the attempt at measurement, needs assessments involve a judgement to determine the relative importance of the needs identifies (Kristjansen & Scanlan, 1992). The use of a needs

assessment approach to determine the continuing education needs of registered nurses has been reviewed. This approach, supported by earlier research, is an effective tool to build delivery models, assist in the development of policy and practice, support current practice and provide data for further research. The next section summarizes the literature that supports the conceptual framework which has been created to guide this study.

Needs Assessment Framework

The Needs Assessment Framework for Continuing Nursing Education (Figure 1) was developed to delineate the process that a nurse would pursue in his or her approach to continuing education. The framework was designed to answer the research questions of this study. In addition, this framework was created following the literature review which clearly supported the process identified in the framework. The framework is comprised of four major sections, factors that influence the need for continuing education, the continuing education need itself, motivational considerations and educational outcomes. The framework identifies factors that affect the continuing education need and once the continuing

Needs Assessment Framework for Continuing Nursing Education

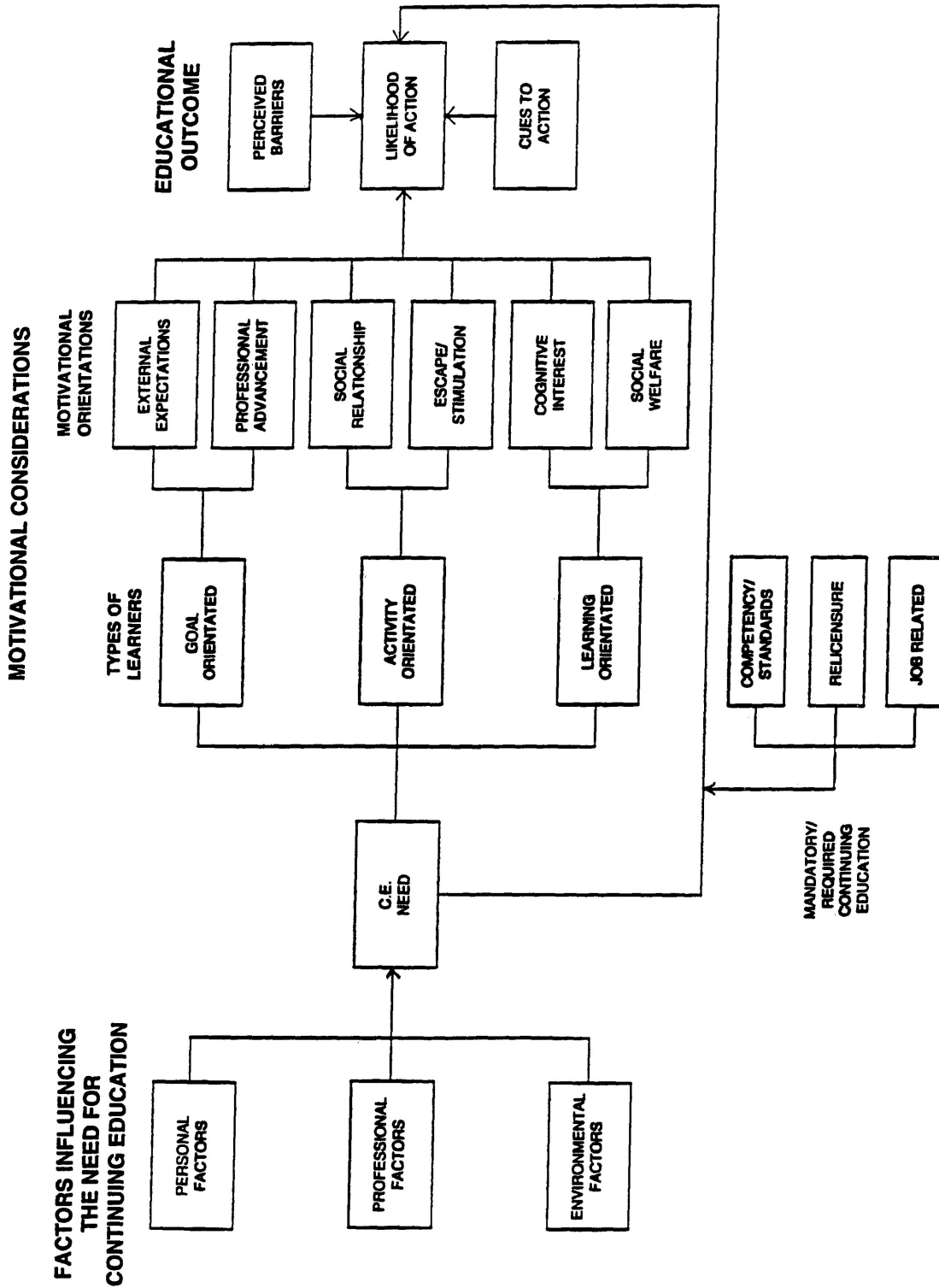


Figure 1

education need has been identified a course of action would follow.

The first course of action would occur if the need for continuing education was determined through professional standards of practice or competency requirements, relicensure requirements, or job requirements and the individual was committed to his or her professional practice. This would be viewed as mandatory continuing education and the individual would automatically participate in the required learning (Figure 1). The mandatory continuing education research is still unclear about whether there is a difference in motivational consideration for individuals who can choose and those who cannot. Therefore, for the purpose of this study, the need for continuing education identified through mandatory or required learning is dealt with separately in the conceptual framework (Figure 1).

The second course of action would result if there was a choice in whether the nurse wanted to participate or pursue the continuing education need, and whether the nurse was motivated to participate in the determined continuing educational activity. Therefore, once the nurse decided to participate or pursue the continuing

education, he or she would be motivated by one of three learning styles that would be goal orientated, activity orientated, or learning orientated (Figure 1). These learning styles could occur independently or in combination and they are directly related to Houle's typology (See Figure 1).

The motivational considerations as determined through the works of Houle (1961) and Morstain and Smart (1974) have been further defined under motivational orientations as external expectations, professional advancement, social relationships, escape/stimulation, cognitive interest and social welfare. The work by Cross (1981) provided the impetus for this structure of motivational considerations to determine the nurses' participation in the continuing education activity (See Figure 1). However, as noted by Scanlon and Darkenwald (1984) the deterrents must also be looked at to validate the reasons for participation. Therefore, the section on educational outcomes explains the perceived barriers, the likelihood of action and the cues to action. The rest of this chapter is devoted to the rationalization of this conceptual framework through a summarizing of the related literature.

Factors Influencing the Need for Continuing Nursing
Education

Thurston (1992) reports that prior to 1980 research indicating characteristics of nurses who participated in continuing education was scarce. Until that time, the few studies conducted focused primarily on the characteristics of the participants who were involved in diverse educational settings (Boshier, 1971, 1977; Burgess, 1971; Clark & Dickinson, 1976; Curran, 1977; Grabowski, 1973; Morstain & Smart, 1974; Sovie, 1972). Identified in these studies were several distinct characteristics of the participants: the learners were young, white, middle-class, well-educated and married. The demographic variables of age and occupation were found to have a strong relationship to participation in continuing education whereas, race, sex and income were weakly related. In one of the few research studies conducted in Canada on continuing nursing education, Flaherty (1965), found that the majority of nurses surveyed in Ontario were not involved in continuing education of any kind.

In the past decade, eight studies have identified the characteristics of the nurse and the factors which

have influenced the need for continuing education (Anderson & Kimber, 1991; Bachman et al., 1992; Craft et al., 1992; Emblen & Gray, 1990; Hauf, 1981; MacDonald & Grogan, 1991; Schoen & Morgan, 1993; Waddell, 1993). These studies identified three major factors (personal, professional, and environmental) that influenced the nurses' need for continuing education.

Personal Factors

Knowles (1970) identified that there is increasing evidence in the psychological literature that self development is a universal human need. One way of describing self development is through Maslow's basic human needs as the need for self esteem or self actualization. Maslow (1970) emphasized that the need for self actualization is essential to a healthy existence. However, he went on to propose that gratification of human needs starting with the lowest (physiological or survival) needs must be achieved before the higher needs can be achieved (self esteem and the need for self actualization). For example, self actualization could be achieved by the individual through active participation in educational activities that met his or her intrinsic

need for acquiring new knowledge or skill (Urbano & Jahns, 1988). "In this instance, the individual's need fulfilment is centred around that person's perceived gap between present and ideal levels of attainment, as well as the individual's perceptions regarding the values of significant others" (Urbano & Jahns, 1988, p.184).

Maslow's need satisfaction model provides an opportunity to explain why learners express varying reasons for participating in continuing educational activities and why these reasons vary at given times. Hauf (1981) supports Maslow's assertions in his findings of personal factors that affect the need for continuing nursing education, these being life style characteristics, which describe demands on the nurses' time and energy such as home, family, civic, religious and social responsibilities, financial obligations, as well as self imposed expectations. Hauf (1981) states "the greater the number and extent of these obligatory responsibilities, the less time and energy the nurse has to devote to continuing education activities" (p.12).

Knowles (1970) states that every individual is aware of some personal needs for further development, whether they have actually acknowledged that they want to do

something about it. Knox (1977) discusses four factors that influence the individual's interest or need for continuing education as: ability, which is affected by age, life experience, previous education, and individual personality; approach, which is reflective of previous experience, including the extent or type of formal education, recent use of learning opportunities and current circumstances which give rise to the need for increased competence; processing, which includes attention to information, memory, practice, pacing of learning, transfer of knowledge, incidental learning and resources; and thinking processes, which includes achievement levels and expectations.

Research studies have indicated some conflicting evidence in their pursuit of identifying common factors that influence nurses to pursue continuing education. Characteristics typically compared have been: age, sex, education, marital status, occupation and recency of participation in continuing education activities. In Curran's (1977) study, 800 nurses were surveyed in a defined geographical area. She found that age had a direct relationship to the perceived need for continuing education and subsequently in the participation in

continuing education. Nurses with lower income reported greater enrolment in college credit courses, and full time nurses participated more in continuing education than part time nurses. In contrast, McLeod (1979) found that neither age, salary level, family responsibilities, urban nor rural location, part-time or full-time employment, or years of experience significantly affected participation in continuing education. The inconsistency in the findings of these two studies may be due to methodological weaknesses or may indicate unique characteristics of the populations investigated. However, these studies are difficult to compare because of the variance in samples (which were from different geographical locations) and assessment tools.

Additional research has suggested that nurses' decisions to participate in continuing education may be made based on cost-benefit analysis (Beach & Mitchell, 1978) or on the perceptions of program value (Payne, 1982). Schoen and Morgan (1993) found that nurses over the age of 40 saw cost as a more important factor than younger nurses, whereas younger nurses listed license requirements as significantly more important than nurses 40 or older, marital status was not viewed as significant

in affecting the need for continuing education.

The individual's degree of needs attainment influences their belief, values and attitudes about themselves, others and their surrounding environment (Urbano & Jahns, 1988). "The individual's current need structure influences personal expectations and perceptions of the need for educational involvement" (Urbano & Jahns, 1988, p.184). The personal factors which influence the need for continuing education are influenced by the perceptions of how others expect that individual to behave as well as their own perceptions of appropriate behaviour (Cross, 1981; Kidd, 1973; Knox, 1977).

Professional Factors

Houle (1981) noted that professionals employed in settings where they are no longer actively engaged in the work of the occupation may experience varying degrees of discomfort. This discomfort exists despite the fact that individuals are involved in aiding and advancing the progress of their profession. It is discomfort that affects the need for continuing education. Schoen (1982), found that most nurses who participate in continuing

education activities have a strong commitment to the profession. For instance, nurses pursue professional continuing education that is directed toward credentialing, job skills, and professional knowledge (Urbano & Jahns, 1988). The professional factors that influence the need for continuing education reflect the professionals' "need to know, desire to meet the external expectations of others," and the commitment to meet the formal requirements of the profession to assure job attainment and job security (Urbano & Jahns, 1988, p.185).

Popiel (1969) reported that the purpose of continuing education for nurses is four-fold: 1. to gain knowledge, skills and attitudes that would enable the nurse to perform his or her job better; 2. to learn new nursing roles, techniques or skills; 3. to provide for self-development and professional growth; and 4. to show competence for relicensure. To that list Schoen (1979) suggested a fifth purpose: "to contribute to the professionalization of nursing itself" (p.4).

Continuing education is frequently identified as a necessary component of professional competence (Warmuth, 1987, p.4). Five researchers who have studied continuing

education and its impact on professional practice concur with Kristjanson and Scanlon (1989, 1992) in their conclusion that continuing education is one way of ensuring that registered nurses maintain their competence (Collart, 1976; Cox & Baker, 1981; Peden et al., 1990; Warmuth, 1987; Weis & Schank, 1991). Their research also justifies the trend in the United States toward mandatory continuing education for nurses (Connors, 1989; Cox & Baker, 1981; Peden et al., 1990; Thurston, 1992).

Environmental Factors

Physical isolation has the greatest impact of all the environmental factors that influence the need for continuing education. Rural nurses often see themselves cut off from the professional mainstream and they are often in situations where there is no collegial support (Anderson & Kimber, 1991). In addition, specialty groups also experience isolation (Smith et al., 1980). Three major studies reported that continuing education accessibility to nurses in a specific geographical area was an important factor in determining the need for and participation in the activity (Andrew & White, 1972; Christensen, 1978; Richardson & Sherwood, 1983).

Urbano and Jahns (1988) note that the degree of availability of the continuing education activity must be congruent with the individual need. Bachman, Kitchens, Halley, and Ellison (1992), indicated that the nurse educators' level of interest in a specific content area was affected by the setting in which they were employed. They also found that educational preparation greatly affected the degree of interest in specific continuing education content areas (Bachman et al., 1992). These findings were consistent with Houle's (1984) belief that everyone has a natural desire to learn and that suitable supporting structures are needed to support participation in learning. Furthermore, the type of employment setting, and academic preparation both influence the need for continuing education (Bachman et al., 1992).

In addition to the geographical considerations, the work place is another environmental factor that influences the individual's need for continuing education. New technology and improved nursing techniques demand that the nurse acquire new skills to remain competent. However, institutional barriers may exist to prevent this from happening. Cross (1981), outlined institutional barriers as scheduling or location

problems, lack of interesting or relevant continuing education, procedural problems, and lack of information regarding educational opportunities. Hauf (1981), noted several circumstantial factors that can affect the need for continuing education, these being, staffing, scheduling, cost, agency support and knowledge of available continuing education. Hauf (1981) states that "only when staffing is adequate and some nurses can be released to participate in continuing education activities can programs be attended" (p.13). However, if relevant continuing education is provided close to home, is convenient (time and place), and does not take away from work and home responsibilities, then many nurses would participate (Hauf, 1981).

In addition, Craft, Heick, Richards, Murray, Lathrop, and Reed (1992) found that nurses indicated all three factor levels (personal, professional and environmental) as determinants of a continuing education need. Costs, benefits and professional characteristics were highly important in selecting programs (Craft et al., 1992). Hauf (1981), is emphatic in her statement: "the key is to learn what is possible and desired in each market setting, i.e., in each division of the nurse

population clearly defined on such bases as clinical specialty, function and geographic location" (p.13).

Considering that continuing education is not mandatory in Canada, it still may be required to perform a specific skill or nursing specialty. Therefore, the need for continuing education may be directly influenced by the requirements of the nurse's role, job function, an employer's expectations, and, or a professional specialty's standards of practice. The next section will explore mandatory continuing education.

Mandatory Continuing Education

Mandatory continuing education in nursing has been the trend in the United States for the past fifteen years. However, in Canada none of the provinces have adopted a compulsory model, rather they have taken a voluntary approach to continuing education (Grant, 1992).

In Ontario, this means that a registered nurse may renew his/her licence to practice nursing without evidence of having completed any continuing education. However, this may change under the new Regulated Health Professions Act. The Regulated Health Professions Act requires the College of Nurses of Ontario (the provincial licensing body) to develop, establish and maintain programs to assure the quality of the practice of the profession and to promote continuing competence among its members" (Grant, 1992, p.10).

With the proclamation of the Regulated Health Professions Act in December 1993, the College of Nurses of Ontario established a Quality Assurance Program which is responsible for ensuring that individual nurses maintain their professional competence within their dimension of practice (McCrone, 1994). The quality improvement component of the Quality Assurance Program will be implemented in 1997. Further research will be required, to determine whether voluntary continuing education is still the model of choice, to meet the new legislative standards of practice.

The introduction of mandatory continuing education in the United States in 1972, was the impetus for considerable research to explore the attitudes of mandatory continuing education (Cox, 1984; Schoen, 1979), determine the motivational orientations toward mandatory continuing education (Clark & Dickinson, 1976; O'Connor, 1979; Dolphin, 1983; Kathrein, 1981; Moran, 1977; Schoen, 1979; Urbano, et al., 1988), and the impact of mandatory continuing education on practice (Cox & Baker, 1981; Connors, 1989; Peden et al., 1990; Warmuth, 1987). The results of these studies suggested that the research concerning the learning needs of nurses is inconclusive.

The perceived needs of the staff nurses or specialty groups were frequently different from the needs identified by persons higher on the administrative ladder. For instance in a study by Chatham (1979), the needs of nurses varied based on their area of employment. Chatham compared the perceived needs of directors of nursing and staff nurses and found the needs identified did indeed differ. In addition, there have been five studies that suggested that nurses with a baccalaureate degree or higher are more likely to participate in continuing education as compared to the diploma or lesser prepared nurse (Bell, 1986; Craft et al., 1992; Dolphin, 1983; Emblen & Gray, 1990; Hughes, 1990).

The evidence from these studies of professional practice clearly indicated that nurses in mandatory states favour continuing education as a requirement for relicensure and attend more continuing education than is required. Also, younger, more highly educated nurses employed full-time had a more favourable attitude toward continuing education, than older, less educated nurses who were lower on the administrative hierarchy.

In summary, the research studies have assessed the continuing education needs of registered nurses (Adams,

1991; Backman et al., 1992; Blair, 1993; Chesney & Beck, 1985; Zorn & O'Keefe, 1989), and the factors that influence the nurse to participate in continuing education (Craft et al., 1992; Curran, 1977; Dolphin, 1983; Emblen & Gray, 1990; Gillis & Pettengill, 1993; Mackereth, 1989; Mathews & Schumacher, 1979; O'Connor, 1978, 1979, 1982; Waddell, 1993). This research was inconclusive, but does provide a basis for the conclusion that continuing education needs vary based on personal and professional goals, geographical location and educational preparation.

Continuing Education Need

Research does support the three broad factors that influence the need for continuing education (Anderson & Kimber, 1991; Bachman et al., 1992; Craft et al., 1992; Emblen & Gray, 1990; Hauf, 1981; MacDonald & Grogan, 1991; Schoen & Morgan, 1993; and Waddell, 1993). The needs assessment framework (Figure 1) which will guide this research incorporates Houle's (1984) typology framework to demonstrate how the personal, professional and environmental factors lead to the identification of a continuing education need. These three factors

represent the need identification of continuing education. For instance, personal factors describes "the individual's perceived gap between his or her present and ideal levels of attainment, as well as the individual's perceptions regarding the values of significant others" (Urbano & Jahns, 1988, p. 184). Professional factors are represented by "a need to know, a desire to meet the external expectations of others and the commitment to meet the formal requirements of the profession to assure job attainment and job security" (Urbano & Jahns, 1988, p.185). The environmental factors reflect the nurses' 'need to know' based on the job expectations in a particular work setting or in a particular geographical area or based on community needs, in order to be successful and achieve personal and professional satisfaction. The continuing education need will be determined by these three factors either independently or in combination. This information was used to develop the needs assessment questionnaire and personal interview questions.

The need for research in continuing nursing education is acute (Cooper & Hornback, 1973; Polit & Hungler, 1993). Nursing research is essential to

understand the profession and can: 1. describe the characteristics of a particular nursing situation that is not well known; 2. explain phenomena; 3. predict probable outcomes; 4. control undesirable variables or outcomes; 5. initiate activities that will achieve the desired outcome (Polit & Hungler, 1993). This research would assist Canadian nurses in validating their need for continuing education. It would also support nurses who participate in continuing education to further their practice, maintain their competence, meet relicensure requirements, meet specific job requirements and achieve a higher level of professional recognition.

Over the past decade most of the research on continuing education in nursing in the United States has focused on the relationship or the interrelationships of the adult learner and the principles of adult learning (Gerrish, 1990; Schoen, 1979; Thurston, 1992), the question of mandatory versus voluntary continuing education (DeHaven, 1990; Penny, 1989; Schoen, 1979; Thurston, 1992), factors that affect participation (which focuses on motivational factors), (Christensen et al., 1979; Clark & Dickinson, 1976; Craft et al., 1992; Cross, 1981; Curran, 1977; Dolphin, 1983; Mackereth, 1989;

Mathews & Schumacher, 1979; O'Connor, 1979, 1982; Smith et al., 1980) and the assessment, planning and evaluation of continuing nursing education (Collart, 1976; Connors, 1989; Cox & Baker, 1981; Griffith, 1978; Hughes, 1990; Jones & Modica, 1989; Meyers, 1984; Peden et al., 1990; Vogel et al., 1991; Warmuth, 1987). This research supports the position that continuing education is grounded in adult education theory and practice. The next section will explore the motivational considerations and how they influence the need for and participation in continuing education.

Motivational Considerations

Knowles (1977) defined motivation to learn as an "experience of self-induced dissatisfaction with present inadequacies, coupled with a clear sense of direction for self improvement" (p.42). This driving force can be used by nurse educators to effectively assess and meet continuing educational needs of nurses.

Continuing education participants enter the educational system with experience that directs their educational goals. The participants' intrinsic and extrinsic motives will affect how they perceive the

cognitive process and their role in the learning experience (Knowles, 1970 ; Cross, 1981). Educational goals must be evident and relevant to students to provide them with opportunities to be motivated and active learners. Thus, learning will occur more readily when the information shared is deemed valuable by the participants and is satisfying to their life goals (Knowles, 1970 & 1980; Cross, 1981). Alford (1982) states: "Motivation plays as big a role in learning as ability can. Unlike many younger children who will try to learn anything you want to teach them, older adult learners won't bother unless they think it's useful" (p.63).

Carpenito & Duespohl (1985), nursing researchers, describe learning as a self directed activity requiring motivation, desire and effort by the learner. They further describe learning as an active process that requires deliberate 'choosing' by the participants. This 'choosing' would result from the personal, professional and environmental factors which influence the need for continuing education (Figure 1). Once the continuing education need has been identified, pursuit of this education is subject to the influence of the motivational considerations; the type of learner, and the motivational

orientation. Understanding these factors will help to answer the question "why do nurses participate in continuing education"?

Why Nurses Participate in Continuing Education

Nurses choose to participate in continuing education programs for many reasons: to acquire certification or job information, meet and interact with others, escape from boredom, or experience the joy of learning (Boshier, 1977); to increase job competence, to meet employers' expectations, to qualify for professional advancement or to prepare for community service (Dolphin 1983; O'Connor 1979; Thomas 1986; and Urbano et al., 1988). In contrast, Maslow (1970) theorizes that an adult's motivation to learn is not static and changes continuously in response to changes in need satisfaction. This theory has been supported by Urbano and Jahns (1988) who proposed that motivational orientations, which are driven by need satisfaction, are the main factor in deciding to participate in continuing nursing education. This research has also been supported in Waddell's (1993) research. These motivational orientations are directly influenced by the type of learner identified (Cross, 1981).

Types of Learners

Perhaps the most significant work on adult participation in educational programs has been done by Houle (1961) in which he distinguished three motivational types of learners: goal-orientated, activity orientated, and learning orientated.

Goal orientated learner. Houle (1961) describes the goal orientated learner as an individual who uses learning to gain specific objectives; this individual acquires learning through a series of episodes, each beginning with the identification of a need or interest.

Activity orientated learner. Houle (1961) describes the activity orientated learner as an individual who participates primarily for the sake of the activity itself rather than for the skill or to learn the subject matter.

Learning orientated learner. Houle (1961) describes the learning orientated learner as an individual who pursues learning for its own sake. This individual possesses a fundamental desire to know and grow through learning, their activities were described to be constant and lifelong.

The Houle typology offers a useful framework for

thinking about multiple motives for adult learning (Figure 1). To date, there have been no studies conducted on how these three types of learners influence or motivate the nurse in the pursuit of continuing education.

Motivational Orientations

Morstain and Smart (1974) grouped the reasons for adult participation in continuing education into six categories of motivational orientations. These being, external expectations, professional advancement, social relationships, escape/stimulation, cognitive interest and social welfare (Figure 1). In addition, under each of these categories three motivating factors were identified. For instance, social relationships were described as the need to fulfill a need for personal associations and friendships, make new friends, and meet members of the opposite sex. External expectations were identified as the need to comply with instructions from someone else, carry out the expectations of someone with formal authority, and carry out the recommendations of some authority. Social welfare was described as the need to improve the individuals' ability to serve mankind,

appeared to validate the Houle typology even though Houle was classifying groups of people and Morstain and Smart were identifying clusters of reasons why adults participate. For the purpose of this research study, this information was used to develop the needs assessment framework for continuing nursing education and will guide this research study (Figure 1).

Nurse educators in continuing education need to consider the factors of motivation and the principles of adult learning to effectively impart change (O'Connor, 1979; Meyers, 1984). In a study conducted by O'Connor (1979), she identified seven motivational orientations that influenced the nurse in participating in a continuing education activity; compliance with authority, improvement of social relations, improvement in social welfare, skills, professional advancement, professional knowledge, relief from routine and acquisition of credentials. This study supports the Houle typology (1961) and the Morstain and Smart analysis of motivational orientations (1974).

Emblen and Gray's (1990) findings, comparing self directed learning practices of baccalaureate and master's nurses, indicated that: "Baccalaureate nurses were

motivated more to update knowledge while masters nurses were motivated to develop professionally. In addition to motivation, accessibility of learning materials and other factors which facilitate learning activities were identified" (p.58). Understanding student motivation equips nurse educators with the knowledge to plan ahead to meet the needs of the learner.

In the next section, the educational outcomes that may result from the motivational considerations and their effect on the pursuit of the continuing education need will be explored.

Educational Outcomes

A review of the literature related to variables affecting participation in continuing education indicates that attempts to predict participation based on sociodemographic factors have proved disappointing (Kristjanson & Scanlon, 1989). The research has strongly emphasized identifying learner types, motives or motivational orientations (Boshier, 1971; Burgess, 1971; Grabowski, 1973; and Morstain & Smart, 1974). Educational outcomes may result in active participation, passive participation or no participation (Boshier, 1971). For

the purpose of this study, the research will focus on three broad areas; perceived barriers, the likelihood of action and the cues to action.

Perceived Barriers

Although a nurse may be motivated to participate in continuing education activities, there may be deterrents to prevent this from occurring. Scanlon and Darkenwald (1984) stated that this "lack of attention to deterrents is particularly disturbing in that the construct of deterrent or barriers occupies a central place in theories of participation" (p.156).

Cross (1981) was the first to categorize deterrents to participation in continuing education under three headings: situational, institutional, and dispositional barriers.

Situational barriers. Cross (1981) described situational barriers as those arising from one's situation in life at a given time. For example, lack of time due to job or home responsibilities, lack of money, lack of child care and lack of transportation (for geographically isolated or physically disabled).

Institutional barriers. Institutional barriers were

those practices and procedures that excluded or discouraged working adults from participating in educational activities such as: inconvenient schedules or locations, lack of interesting or relevant offerings, procedural problems with enrolment and lack of information regarding educational opportunities.

Dispositional barriers. Dispositional barriers were described as those related to attitudes and self perceptions about oneself as a learner (Cross, 1981).

More recently, Darkenwald and Merriam (1982) presented a similar typology however, they contended that informational barriers should constitute a separate category since they do not evolve solely from institutional deficiencies in promoting educational activities.

Scanlon and Darkenwald (1984), identified six deterrent barriers to participation in continuing education; disengagement, lack of quality, family constraints, cost, lack of benefits, and work constraints. Their findings indicated that, with the exception of the last factor, these deterrents were powerful predictors of participation and accounted for forty-one percent of the participation variance.

In addition, Scanlon and Darkenwald (1984) in their attempts to determine the utility of the deterrent factors as determined by Cross, developed a Deterrents to Participation Scale. Their research identified six orthogonal factors: disengagement, lack of quality, family constraints, cost, lack of benefit, and work constraints. They concluded that meaningful deterrents can be identified, they are multidimensional and that the factors contribute to explain the variance in participation behaviour and therefore should be included in research that queries participation.

Likelihood of Action

The likelihood of action represents whether the nurse will actively participate in the continuing education activity as identified. Motivation to learn does not arise simply from anything the teacher or learners do individually (Cross, 1981; Maslow, 1970). Rather it results from a great many factors. The one factor that has the greatest impact, is the role of the learner in planning the learning experience. Involving the learner in the process of educational planning, not only increases motivation, but also promotes learning and

the ultimate use of the knowledge and skills gained (Bille, 1979). Bille (1979) reported that in several studies of adult learners, those who participated in program planning had more positive attitudes about their educational experience than those who did not participate. "Motivation to learn seemed to be directly proportional to the amount of input the learner has had in determining the content to be learned" (Bille, 1979, p.37).

The likelihood of the nurse participating could occur through the course of motivation or by the required or mandatory requirement for the designated activity. The cues to action, determinants that a nurse will participate in a continuing education activity, provide the educator with prior knowledge to prepare for the activity.

Cues to Action

The cues to action result from the works of Malcolm Knowles (1970) on anticipating participation by adult learners. Results from the survey will provide a basis for predicting cues to action (eg. prior education, life experience, and attitudes toward learning).

The importance of motivation in continuing nursing education cannot be over emphasized. As a component of adult education theory and the practice of continuing education it also is a critical element of needs assessments. To ensure that knowledge and information are relevant to learner needs, and the learner is able to express their need(s) and participate in the planning of the experience, a needs assessment should be used (Hauf, 1981; Collart, 1976; Lorig, 1977; Chesney & Beck, 1985). In a study conducted by Bohlin, Milheim, and Viechnicki (1990), to determine learners' perception of their motivational needs, they used a learner needs assessment and discovered some significant results. Their research results suggest that: "instructional strategies can have a positive effect on the interest and effort of adult learners, instructional motivation has components of instructional appeal and learner effort, and many instructor's motivational methods are perceived to have a stronger positive effect on adult learners' interest than on their effort in learning" (Bohlin et al., 1990 p.67).

The conceptual framework has been discussed and described using related research and summarizing the

literature. Reviewed in the summary will be the key concepts from the literature review.

Summary

Continuing nursing education is an emerging and increasingly recognized paradigm consisting of multiple theories of practice. In Canada, the ultimate responsibility and accountability for continuing education to enhance professional practice rests with the individual nurse. The lack of Canadian research on continuing nursing education identifies that as a country we are behind in the development of this highly significant field of study. However, the literature does provide insight into the importance of conducting a needs assessment to provide the cornerstone for further research, build a foundation for continuing education delivery models and assist in the development of provincial and national continuing education policies and practice for registered nurses.

The conceptual framework (Figure 1) has been constructed based on the literature review of adult learning theory as it pertains to motivational theories and practice and the continuing nursing education

research on the reasons nurses participate in continuing education. This framework was used to guide the development of the survey questionnaire and the personal interview questions, which comprised the needs assessment format, to determine the continuing education needs of registered nurses in Northwestern Ontario.

In Chapter 2, the literature on continuing nursing education, adult learning theory, motivational considerations, and needs assessments has been reviewed. In addition, the needs assessment framework which was created by summarizing the literature was explained. Provided in Chapter three will be a detailed account of the research methodology for this study.

CHAPTER 3

DESIGN OF THE STUDY

Introduction

The purpose of this chapter is to provide an outline of the design of the study. The chapter presents an overview of the study, an explanation of the selection of the population and samples, the instrumentation, ethical considerations, and the procedures which were used for the collection and analysis of the data.

Overview of the Study

A survey research approach, supported by the work of earlier educational researchers (Bell, 1978; Cross, 1981; Smith, Smith & Ross, 1980) was chosen to explore the research questions. Smith, Smith, and Ross (1982) support the use of the survey method to conduct needs assessments. They describe the survey method as including the personal interview, the telephone interview and the mailed questionnaire or checklist. Cross (1981) also supports the survey method and reports that the survey method, whether by interview or by questionnaire, gives broad coverage to the population being surveyed, shows a certain faith in the capacity of people to analyze their

own behaviour, and is highly useful in identifying different barriers for the various population subgroups.

For the purpose of this study, two types of survey research methods were used, the mailed questionnaire and the personal interview (face-to-face or telephone). This combined methodological approach is supported by Borg and Gall (1989) who state: "The questionnaire and individual interviews are the most common instruments for data collection in survey research" (p. 418).

The mailed questionnaire focused on the questions which guided the research. The questionnaire was designed to gather information based on the research questions which supports the Needs Assessment Framework for Continuing Nursing Education. The questions which guided this study were:

1. What are the continuing education needs of registered nurses in Northwestern Ontario?

What factors influence the continuing education needs of registered nurses in Northwestern Ontario?

Are there differences in the continuing education needs of registered nurses in Northwestern Ontario based on their:

- i) educational preparation?

ii) geographical location?

iii) area of nursing in which the participant is presently employed?

What motivational considerations influence the Northwestern Ontario registered nurse's pursuit of continuing education?

The personal interview questions were developed to investigate the continuing nursing education needs of registered nurses in Northwestern Ontario. The information from both methods was then compared and the use of triangulation assisted the researcher in validating the data collected.

Selection of the Population and Samples

The population from which the sample was drawn is two thousand eight hundred and twenty eight (2,828) registered nurses in Northwestern Ontario who have maintained an active certificate of competence with the College of Nurses of Ontario during 1992 and 1993. Using the College of Nurses of Ontario Registry List, each registered nurse in Northwestern Ontario was assigned a number. Permission was received from the College of Nurses of Ontario, to use this list for the purpose of

this research (Appendix A). Eight hundred registered nurses were randomly selected, using a computerized random number table, from the mailing list of all active registered nurses in Northwestern Ontario. All 800 participants were asked to complete a mailed questionnaire.

The ten personal interview participants were randomly selected from the 306 survey respondents based on their interest in pursuing continuing nursing education and their participation in continuing education within the past two years. Five of the personal interview participants were from Thunder Bay and five were from the Region. Participants were contacted by telephone to determine their interest in participating in the personal interview, their preferred method of the interview (telephone or face to face), and a mutually convenient date, time and place for the interview. A total of ten registered nurses were interviewed, eight telephone interviews and two face to face interviews. All participants who were contacted agreed to participate in the personal interview. The personal interview was limited to one hour and a set number of identical questions was posed to each individual (Appendix B).

Instrumentation

Two instruments, the Survey of Continuing Education Needs of Registered Nurses in Northwestern Ontario questionnaire (Appendix C) and the structured interview questions (Appendix B) were developed to collect the data for this study. The development and implementation of the two instruments will be described under the instrument headings.

Survey

The data collection instrument, Survey of Continuing Nursing Education Needs of Registered Nurses in Northwestern Ontario (Appendix C), was developed to focus on the guiding questions of this study and the needs assessment framework that was developed based on the literature review. This survey tool was developed and adapted from the "Continuing Education Survey Data" which was a tool that was developed, by the researcher, to study the continuing education needs of Riverside Healthcare Facilities Incorporated, Fort Frances, Ontario in 1992. In addition, two surveys from the United States were used to guide the development of the survey questionnaire used in this study: "Nursing Educational

Needs Survey", Hash, 1984; and "Survey of Needs in Continuing Education of Active Registered Nurses in Wisconsin", Zorn & O'Keefe, 1989 (Approval for use Appendix D and E respectfully).

The questionnaire had a total of 36 questions which encompassed 99 variables for study. The questionnaire was divided into three sections. Section I included questions which would elicit background information on the participants and general information regarding personal, professional and environmental factors that could affect continuing education needs. For example, a personal factor question was: "Indicate if you have difficulty obtaining care giving services" for dependents "when you attend continuing education activities". An example of a professional factor question was: "Are you required to participate in continuing education by your specialty group?" An environmental factor question was: "Name of the community in which you live." In addition, there were also several questions, in this section, requesting information on the participants' current activity level or participation in continuing education in general. Questions in this section were primarily closed ended, single response with either several choices or yes, no

responses required.

Section II of the survey focused on continuing nursing education. There was a value based question regarding continuing education and several questions regarding participation, motivating factors, and what continuing education offerings should focus on. Closed-ended questions using a Likert-type scale were used to obtain general information for several of these questions. The 5 point Likert scale used identified 1 as strongly agree, 2 as agree, 3 as uncertain, 4 as disagree and 5 as strongly disagree. An example of a question using the Likert-type scale was: "Continuing nursing education is accessible in Northwestern Ontario." A closed ended question approach was used for the rest of the questions in this section. For example: "Does your employer support continuing education?" This section also provided information on the nurses' participation and non participation in continuing education and their motivational orientations.

Section III focused on continuing nursing education needs. Open ended questions were used to explore topics, courses, programs that were most important to the participants. In addition the participants were asked to

identify if and where they would like to participate in continuing nursing education, learning methods in rank order, types of continuing education activities they would be interested in, and why they would not participate in continuing education. This information primarily focused on educational outcomes.

The questionnaire was pre-tested with four registered nurses in Thunder Bay, Ontario who had varying areas of employment and had participated in continuing education within the past two years, all individuals were known by the researcher and were selected based on their experience and expertise in continuing education. Utilizing this group had advantages in terms of their familiarity and interest with the research questions. The pre-test participants examined the questionnaire for clarity, relevance to continuing nursing education, and length of completion time, providing a means for identifying potential problems in administration and scoring.

Interview

The personal interview questions were open ended and developed in parallel to the mailed questionnaire

(Appendix B). For example there were seven reasons listed in the questionnaire indicating why nurses participate in continuing education, however, there was no opportunity for the participants to identify other reasons. Therefore, in the personal interview a question was asked: "Why do nurses participate in continuing education?" This question was asked to determine if there were reasons other than the seven identified in the survey and, or validate the survey responses.

The participants were instructed to answer the questions and discuss their opinions about continuing education for nurses as completely as possible in the given time frame. The participants were given the following verbal instructions:

1. Answer the questions to the best of your ability.

Ask for clarification of the question if required.

A complete list of interview instructions was mailed or faxed to the participants one week prior to the interview (Appendix F). A set of identical questions was asked at each interview session (Appendix B). Questions were asked by the researcher only when it became necessary to

clarify what the participant was relating. For example, when one participant was asked "Is participation in continuing education influenced by the nurses' educational preparation", she described the various levels of education and nurses' participation based on their levels of educational preparation. Once she had completed her response, I asked for clarification: "You do not feel that the educational preparation is a primary motivator?" Upon completion of the formal questions, the participants were asked if they had any other comments regarding continuing nursing education, which the structured interview questions had not addressed. The length of the interview was limited to one hour.

Data Collection Procedures

The data were collected through a questionnaire that was mailed to eight hundred registered nurses in Northwestern Ontario. A cover letter accompanied the survey, explaining the purpose of the study (Appendix G). In addition, a stamped return envelope was provided, to encourage participation and return of the survey. Because of budget constraints, a follow up reminder was not mailed out to those individuals who did not return the

questionnaire. Participants were asked to return the questionnaire within four weeks of the mailing date. Data analysis began five weeks after the questionnaires were mailed out.

The participants for the personal interview were selected six weeks following the mail out of the questionnaire. All survey participants who responded positively on their interest in pursuing continuing nursing education and had participated in continuing education within the past two years were assigned a number. Ten participants were randomly selected from the 192 respondents that met this criteria.

The ten participants were contacted by telephone and invited to participate in the personal interview. The participants were given a brief description of the study and the purpose of the personal interview. They were told that "the purpose of the personal interview is to seek information regarding the continuing education needs of registered nurses in Northwestern Ontario". The participants were then asked to provide a mailing address or fax number so that information and a consent form could be sent directly to them. A cover letter explaining the study (Appendix H) and a consent to participate

(Appendix I), personal interview instructions (Appendix F) and the structured personal interview questions (Appendix B), were then sent to the participants. In addition, when the participants were contacted by telephone, a date and time for the personal interview was arranged. The timing of the interview was scheduled at least one week following the telephone call. The one week delay was to ensure that the information arrived in a timely manner so that the participant would have time to prepare for the interview. Each participant was contacted one to two days prior to the interview to ensure that they had received the package of information. On two occasions the participants had not received the material and the date and time of the interview was rescheduled.

Eight personal interviews were conducted by telephone and two interviews were conducted face to face. All interviews were pre-arranged at least one week in advance of the event. One of the face to face meetings was conducted in the participant's office during working hours at her request. The second face to face meeting was conducted in a lab setting environment on the weekend, to meet the participant's needs. When arranging the setting for the face to face interviews, the researcher took into

consideration the following environmental factors as appropriate; privacy, adequate lighting, quietness, and comfortable seating. There were no interruptions during the face to face interviews. When arranging the telephone interviews, the researcher set a pre-determined date and time (no less than one week after telephone contact and consent) that would support no interruptions, and a comfortable environment. All interviews were conducted at a date, time and location that was convenient to the participant and were completed no later than eight weeks after the mailed questionnaire due date for return. The interviews were audio-taped and a verbal consent was recorded for each participant. In addition, a written consent to participate and have the interview recorded was signed by each participant (Appendix I). Consent was obtained by fully informing the participants as to the nature of the research and the methods of data collection and reporting. Participation was completely voluntary and participants were instructed that they could withdraw at any time.

Ethical Considerations

The research proposal for this study was reviewed and approved by the Lakehead University Ethics Advisory Committee to the Senate Research Committee (see Appendix J). Participant anonymity was guaranteed through several measures:

1. No names were utilized on the questionnaires. The questionnaires were numbered to assist the researcher in coding the data and determining the surveys which would be put through a second random sampling to identify potential participants for the personal interviews. Participants were assured that only the researcher would view the questionnaires' numbered coding.
2. The data was stored in a locked container.
3. No names were used during the audio taping of the personal interviews.

Data Analysis

The questionnaire data were analyzed using descriptive statistics and correlation techniques, to answer the research questions and support the Needs Assessment Framework for Continuing Nursing Education

(Figure 1). Using the SPSS program, frequencies and percentages were compiled and reviewed for all 36 survey questions. In addition, to gain information related to the differences in the continuing education needs of registered nurses in Northwestern Ontario based on their: educational preparation, geographical location and area of nursing in which they are presently employed, the Pearson Correlation test was conducted to compare these three variables with five continuing education need variables. The five continuing education need variables were; continuing nursing education is very important to the safe practice of nursing, continuing nursing education is accessible in Northwestern Ontario and continuing education offerings should focus on community practice, health care reform and nursing specialties.

The personal interview data were transcribed, reviewed and coded. The data was analyzed using a procedure outlined by Colaizzi (1978). The procedure involved the following steps:

1. Each participants' verbatim transcript was read to acquire a sense of the whole.
Significant statements and phrases pertaining to continuing education needs were extracted

from the transcripts.

Significant statements and phrases pertaining to continuing education needs were compared with the survey results (data triangulation). Meaning was formulated from the significant statements.

The data was examined for respondent validation and, or discrepancies among and, or between the two collections of data.

Results were presented.

Specifically, the transcribed interviews were reviewed and significant statements and phrases pertaining to the continuing education needs of registered nurses were identified. Using respondent validation, which represents one kind of triangulation method, significant statements and phrases were determined as they compared to the highest frequencies and percentages of the questionnaire responses. For example, on the questionnaire the respondents were asked to identify why nurses may not participate in continuing nursing education and eleven choices were given. Lack of personal time was the most frequent response to this

question. In the personal interview the participants were asked an open ended question, "What barriers exist which prevent nurses from participating in continuing education?" The transcripts of the personal interviews were coded to determine whether the eleven variables were identified by the participants. In addition, a search was made of other variables and their frequency within responses by the personal interview participants. When there were no questions on the survey that supported the interview responses, key words and phrases were compared to key concepts and trends as identified in the literature review.

The data triangulation techniques used included the respondent validation and the data source triangulation involving the comparison of data relating to the same phenomenon or topic but derived from different sources. These techniques were used to determine respondent validation by drawing inferences from the survey results and the significant statements and phrases identified in the personal interviews. The analysis of the results of the triangulation are presented in Chapter 5.

Summary

The research methodology has been outlined in this chapter. A survey research approach using a mailed questionnaire and personal interviews was used to determine the continuing education needs of registered nurses in Northwestern Ontario. The overview of the study, selection of population and samples, instrumentation, data collection procedures, ethical considerations, and data analysis have been discussed. Chapter four will present the results of the research study.

CHAPTER 4

RESULTS

Introduction

The purpose of this chapter is to present the results of the survey and the responses to the personal interview questions regarding the continuing nursing education needs of registered nurses in Northwestern Ontario. A description of the population is followed by the research findings for each of the research methods used in this study.

Description of the Population

Mailed questionnaires were distributed to eight hundred registered nurses in Northwestern Ontario. Three hundred and eighty nine surveys were returned, a response rate of 48.6%. Of this return, three hundred and six were valid surveys, eighty-three were returned incomplete; seventy-three had incorrect mailing addresses and ten were returned for several reasons (death of a spouse, marriage break-up, son or daughter had moved out of the country to find employment).

Two hundred and ninety-four of the participants were female, the majority were married, and were between the

ages of 30 and 49. In addition, the majority of the participants worked as nursing staff, full time and had more than ten years experience in nursing. Summarized in Table 1 are the findings of these demographic variables for the participants.

Two of the demographic variables had "other" categories; areas of employment and the type of employment, as identified in Table 1. The "other" category for areas of employment was indicated by fifteen respondents and was represented by nine nurses who were in teaching and education, a residential care worker, an occupational health nurse, a nurse in health promotion, a case manager, and two nurses who had a combination of staff and management positions. The "other" category for type of employment was indicated by twenty-eight respondents. The "other" category included: combinations; five nurses employed part time and casual, two nurses who had a job share and half time position, and one nurse who worked full time and casual; one nurse who had seasonal work; one nurse who was attending school; six nurses who were retired; one nurse who was on call; three housewives; one nurse entrepreneur who was self employed; an RN traveller in the USA and six nurses who were

Table 1
Frequencies and Percentages of Respondents by Age, Marital Status, Area of Employment, Type of Employment, and Years of Experience in Nursing

Variable	Frequency	Percent
Age		
under 25 years	6	2.0
26-29	31	10.1
30-39	84	27.5
40-49	110	35.9
50-59	60	19.6
60+ years	15	4.9
Marital Status		
never married	29	9.5
married	245	80.1
divorced	12	3.9
widowed	6	2.0
separated	8	2.6
common law	6	2.0
Area of employment		
management	54	17.6
staff	219	71.8
other	15	4.8
Employment hours		
Full time	152	49.7
Part time	99	32.4
Casual	22	7.2
Other	28	9.1
Years of experience in nursing		
less than one year	1	.3
1-5	43	14.1
6-10	39	12.7
11-20	98	32.0
21-29	77	25.2
30+ years	39	12.7

(Note: N=306. 18 missing cases for area of employment; 5 missing cases for type of employment; 9 missing cases for years of experience in nursing)

seeking employment. In addition, 59.8 % had dependents and 12.7 % had difficulty obtaining childcare. However, the majority of nurses, 70.9 % did not have difficulty obtaining childcare.

One hundred and ninety seven participants were from Thunder Bay, while one hundred and six were from the Region with a total of 37 communities being identified. The communities identified and the frequency and percentage of respondents is presented in Table 2.

The "other" category was represented by sixteen participants each representing a different community. The "other" sixteen communities were; Cochenour, Scoble Township, Pass Lake, Rainy River, Balmertown, Mutrie Township, Kaministiquia, Ignace, Sudbury, Sandy Lake, Cat Lake, Moosonee, Nakina, Pinewood, Nipigon, and Schreiber. Two of the communities identified were outside of Northwestern Ontario, however, the three participants affected identified their permanent address as being in Northwestern Ontario and that they were only temporarily located outside of the region of this study. Their completed surveys were incorporated into the findings of this study.

Table 2
Frequencies and Percentages of Respondents by Community of Residence

Variable	Frequency	Percentage
Community:		
Thunder Bay	197	64.3
Kenora	19	6.2
Fort Frances	13	4.2
Dryden	9	2.9
Geraldton	7	2.3
Red Lake	5	1.6
Marathon	4	1.3
Terrace Bay	4	1.3
Red Rock	4	1.3
Sioux Lookout	3	1.0
Manitowadge	3	1.0
Emo	3	1.0
Atikokan	2	.7
Sarnia	2	.7
Attawapiskat	2	.3
Ear Falls	2	.7
Kakabeka Falls	2	.7
Barwick	2	.7
Murillo	2	.7
Shuniah Township	2	.7
Pikangikum	2	.7
Other	16	4.8

(Note: N=306. 1 missing case, only communities with two or more respondents are presented)

The majority of the participants, 88.9% were currently employed in nursing and 10.5 % were not working as a nurse. The areas of employment for the nurses who were working were varied with 39 areas identified. Twenty areas are identified in Table 3 indicating frequency and percentage of the respondents. These twenty areas had

three or more nurses identified per category. Thirty nine nurses were employed in other areas as shown in Table 3. The "other" category consisted of nineteen nursing areas which represented three percent of the survey population

Table 3
Frequencies and Percentages of Respondents by Area of Employment

Variable	Frequency	Percent
Community Nursing	26	8.5
Emergency Nursing	8	2.6
Gerontology	32	10.5
Intensive Care-CCU	6	2.0
Intravenous Therapy	3	1.0
Medical-Surgical	31	10.1
Midwifery	0	0
Nursing Administration	9	2.9
Nursing Education	20	6.5
Nursing Research	0	0
Occupational Health	8	2.6
Oncology	3	1.0
Operating Room	7	2.3
Outpost Nursing	3	1.0
Pediatric Nursing	6	2.0
Perinatal Nursing	18	5.9
Psychiatric Nursing	14	4.6
Rehabilitation Nursing	4	1.3
Multiple duties	50	16.3
Other	39	12.8

(Note: N=306. 30 missing cases)

and had one to two participants per category. The "other" areas identified were palliative care, hemodialysis, camp nurse, discharge planning, private duty nursing, public health, ambulatory care, recovery room nursing, community

health advisor, nurses employed in a doctor's office and nurse practitioners, to name a few.

The majority of nurses, 32.4 % had been working in their present job for two to five years, the findings for specifics on frequencies and percentage of the nurses' years of working in their present job is presented in Table 4. The findings suggest that the nurses in

Table 4
Frequencies and Percentages of Respondents by Years Working in Present Job

Variable	Frequency	Percent
less than 2 years	23	7.5
2-5	99	32.4
6-10	75	24.5
11-20	63	20.6
21-29	13	4.2
30+ years	4	1.3

(Note: N=306. 29 missing cases)

Northwestern Ontario have a lot of nursing experience with a total of one hundred and fifty one nurses, 49.35 % of the surveyed population, having between six to twenty-nine years experience in the profession.

The majority of nurses, 66.9 % had achieved a diploma in nursing as their highest level of education. The findings regarding the population's highest level of educational preparation are presented in Table 5. The

results indicate that 28.1 % of the population have a degree in nursing, 1.3 % have a masters degree in nursing, and no nurses surveyed in Northwestern Ontario have a doctorate in nursing.

Table 5
Frequencies and Percentages of Respondents by Highest Level of Educational Preparation

Variable	Frequency	Percent
Diploma		
Hospital School	95	31.0
College	105	34.3
Combination	5	1.6
Public Health	3	1.0
Bachelor's Degree		
Nursing	86	28.1
Non-nursing	18	5.9
Master's Degree		
Nursing	4	1.3
Non-nursing	4	1.3
Doctoral Degree		
Nursing	0	0
Non-nursing	1	.3

(Note: N=306. 3 missing cases)

Other variables considered were those related to participation in continuing education, whether nurses were required by their employer or specialty group to participate in continuing education, whether they were currently participating in continuing education and when

was their last experience with a continuing education activity.

One hundred and thirty seven respondents, 44.8 % were required by their employer to participate in continuing education. Whereas, one hundred and thirty six respondents were not required to participate in continuing education by their employer and fifteen were unsure. One hundred and fifty four respondents were not required to participate in continuing education by their specialty group. Whereas one hundred and eighteen were required by their specialty group to participate in continuing education and an additional nineteen were unsure.

Seventy-four nurses indicated that they were currently participating in continuing education activities and 59.8 % of these respondents had done so within the past year. The majority of nurses, 74.5 % were not currently participating in continuing education.

Nurses were surveyed to determine the last time they participated in continuing education. The majority, 59.8 % had participated in continuing education within the past year, 24.9 % had participated between 13 months ago to 5 years ago and 12.7 % had participated more than

5 years ago. The findings are detailed in Table 6.

Table 6
Frequencies and Percentages of Respondents by Last Reported Participation in Continuing Education

Variable	Frequency	Percent
in the past year	183	59.8
13 mo. to 2 years	45	14.7
25 mo. to 3 years	17	5.6
37 mo. to 5 years	14	4.6
more than 5 years	39	12.7

(Note: N=306. 8 missing cases)

Of the seventy four nurses who are presently participating in continuing education the majority, 89.2 % were doing so part time, only two participants were pursuing continuing education on a full time basis. Most of the participants were pursuing continuing education at an educational institution for the purpose of professional upgrading and were working toward certificates in a specialty.

Of the seventy four participants, the majority, 33.8 % are participating in continuing education at an educational institution, 23 % are participating in continuing education onsite in their facility, and 21.6 % are participating using "other" means. The "other" means identified were; computer based learning, self

directed learning (in preparation for provincial, or national testing), and a combination of one or more of the methods identified.

Using eight variables, as identified in Table 7, nurses were asked to indicate their reasons for participating in continuing education. Each variable had a yes or no response. The most frequent response for participating in continuing education was for professional upgrading. Taking continuing education courses for general interest was the second most common reason identified. The results for the other variables are presented in Table 7.

Table 7
Frequencies and Percentages of Respondents' Reasons for Participating in Continuing Education

Variable	Frequency	Percent
General interest *	29	39.2
Job requirement *	14	18.9
Job promotion *	6	8.1
Job retention *	8	10.8
Relicensure *	2	2.7
Maintaining skill competency *	13	17.6
Professional upgrading	36	48.6

(Note: N=306. * = 1 missing case, + = 2 missing cases)

The responses to the nurses' expectations and outcomes of what they would achieve through continuing education identified that the majority, 52.2 % would achieve a certificate in a specialty. Six indicated that they would achieve a diploma from their continuing education activities. Seventeen indicated that they would receive a degree. The "other" category which represents 14.5 % of the seventy-four nurses currently participating in continuing education included several reasons: taking a credit course (not necessarily related to a specific certificate, degree or diploma), taking courses to maintain their own skills and taking courses that could be used to achieve both a certificate and, or a diploma.

The personal interview participants were randomly selected from the 306 survey respondents based on their interest in pursuing continuing education and that they had participated in continuing education within the past two years. Five of the participants were from Thunder Bay and five were from the Region. All of the participants were female. No other demographic information was gathered on the participants of the personal interview.

This section has presented the description of the population surveyed and interviewed. The next section will present the research findings as they relate to the survey and the personal interview questions.

Survey Results

The questionnaire was divided into three sections. Section I focused on background information and general information, these results were presented under the description of the population and samples. The results of Section II and Section III will be presented under their section headings.

Continuing Nursing Education

The following survey results come from Section II of the questionnaire, which dealt with continuing nursing education.

When the survey participants were asked to respond to the statement "continuing nursing education is very important to the safe practice of nursing", using a five point Likert scale, 89.8% responded positively. When these same participants were asked if continuing nursing education is accessible in Northwestern Ontario, 47.5 %

agreed that it is accessible, however, 20.5 % were unsure and an additional 32% did not agree that continuing nursing education was accessible in Northwestern Ontario.

Using seven continuing education variables, as identified in Table 8, the nurses were asked to identify why nurses participate in continuing education, using a five point Likert scale. The respondents indicated a positive response to all the continuing education variables, over 63.9 %. However, the most positive reason for nurses to participate in continuing education was to gain knowledge, this was indicated by 96 % of the respondents. The second most positive response was to provide self development which represented 92.9 % of the respondents and the third most positive response was to gain skills, which was represented by 91.5 %. The least positive response to why nurses participate in continuing education was to meet relicensure requirements, which was represented by 63.9% of the respondents. The findings are presented in Table 8.

When the participants were asked to indicate why nurses are motivated to participate in continuing education using a five point Likert scale, the most positive reason was for professional advancement. The

Table 8
Percentages of Respondents Citing Reasons for Participation in Continuing Education

	Positive Response
gain knowledge	96.0%
provide self development	92.9%
gain skills	91.5%
learn new nursing roles	81.0%
demonstrate competency	79.1%
contribute to the advancement of the profession	65.1%
meet relicensure requirements	63.9%

(Note: N=306)

motivational variables used to determine why nurses participate in continuing education were; to meet external expectations, for professional advancement, to create or improve social relationships, to escape or seek stimulation, to enhance their learning interest, and to improve their social welfare. The findings are presented in Table 9.

Table 9
Percentages of Respondents Citing Reasons for Nurses' Motivation to Participate in Continuing Education

	Positive Response
for professional advancement	86.7%
to enhance their learning interest	84.1%
to meet external expectations	72.3%
to escape or seek stimulation	57.0%
to improve their social welfare	44.6%
to create or improve social relationships	28.2%

(Note: N=306)

Using eleven variables, the participants were asked to identify the reasons why nurses may not participate in continuing education, using a five point Likert scale. The variables were lack of personal time, lack of money, lack of child care, lack of transportation, lack of employer support, lack of peer support, lack of family support, inconvenient work schedules, lack of interesting or relevant course offerings, lack of information on educational offerings and unable to meet the course requirements. The respondents cited lack of personal time as the most significant reason for not participating in continuing nursing educations by 89.3%. The least important reason cited for not participating in continuing nursing education was that nurses are unable to meet the course requirements, representing 29.6% of the respondents. The findings are presented in Table 10.

The respondents were asked to identify what continuing education offerings should focus on, based on eight continuing education topics germane to nursing, using a five point Likert scale. These continuing education topics were; nursing, the profession, health care reform, the changing role of the nurse, nursing specialties, technological skills, communication and

Table 10
Percentages of Respondents Citing Reasons for Nurses Not Participating in Continuing Nursing Education

	Positive Response
lack of personal time	89.3%
inconvenient work schedules	86.6%
lack of money	81.2%
lack of child care	71.7%
lack of employer support	67.3%
lack of interesting or relevant course offerings	60.6%
lack of family support	53.4%
lack of information on educational offerings	51.5%
lack of transportation	43.0%
lack of peer support	35.4%
unable to meet the course requirement	29.6%

(Note: N=306)

documentation, community practice, and legal implications of practice. In addition, an "other" category was identified for nurses to specify other course offerings that were not presented.

Nursing specialities was identified as the most important topic by 92.8% of the respondents. There were fifty-one "other" course offerings identified by the respondents. Some of these being; nursing research, job search skills, assessment skills, masters of nursing courses, nurse practitioner program, self care courses (eg. prevention of burnout), case management: principles and action, upgrading courses (with a skills focus), and

courses which will lead to a bachelor of nursing. Many of the respondents indicated levelling of these courses (eg. certificate, diploma, degree: bachelor and masters level) and that currently several were not available in Northwestern Ontario. The findings of what continuing education should focus on are presented in Table 11.

Table 11
Percentages of Respondents Citing What Continuing Education Should Focus On

	Positive Response
nursing specialties	92.8%
the changing role of the nurse	86.0%
technological skills	85.8%
legal implications of practice	85.6%
community practice	83.9%
communication and documentation	79.5%
health care reform	73.9%
nursing, the profession	69.2%
other	43.1%

(Note: N=306)

The respondents indicated that 44.2% had a workplace policy that supported continuing education, whereas 26.7% did not have a workplace policy. An additional 29.1% were unsure if their workplace had a policy which supported continuing education.

The majority, 66.7% of the respondents indicated that their employer supported continuing education, whereas 13.4% stated that their employer did not support

continuing education. A further 19.9% were unsure if their employer supported continuing education.

When questioned whether they were able to receive assistance from their employer in their pursuit of continuing education, 50% of the respondents said yes and 28.5% said no. A further 21.5% of the respondents were unsure if they were able to receive assistance from their employer in their pursuit of continuing education.

When asked how this assistance was provided, 197 of the 306 participants responded to this question. There were four variables identified; information on continuing education activities, financial support, time to participate, and an "other" category. The majority, 65% indicated that assistance was provided by the employer through the provision of information on continuing education activities. The "other" category was completed by 18 participants, who identified six other employer assistance activities. These other forms of assistance were: HSTAP (Hospital Services Training Adjustment Program), inservice training, staff health and education, educational leaves, secretarial and library support, and management and peer support during educational activities. The complete findings are presented in Table

12.

Table 12
Percentages of Respondents Citing How Employer Assistance
 is Provided for Continuing Education

	Positive Response
information on continuing education activities only	65%
time to participate	49.7%
financial support	43.7%
other	9.2%

(Note: N=197)

This section has presented the findings from Section II of the survey on continuing nursing education. The next section will present the results of Section III of the survey on continuing nursing education needs.

Continuing Nursing Education Needs

This section presents the results of Section III of the questionnaire and focuses on the continuing nursing education needs of the respondents.

The majority, 52.4% of the respondents reported that their education-training has adequately prepared them to practice nursing in the nineties and beyond. Ninety-four nurses, 31.8%, indicated that their education was not adequate and a further 21.5% were unsure.

When questioned whether they were interested in

pursuing continuing education in nursing, 64.4% said yes, 21.8% said no and a further 13.8% were unsure.

Using the survey results the researcher determined the frequencies and percentages of participants' responses to what topics continuing education should focus on, where participants would prefer the offerings to be held, the type of educational opportunities that should be provided and the learning method(s) preferred by the respondents. The nurses were asked to identify the most important, the second most important and the third most important topic, course, or program in continuing nursing education. The findings of the individual topics for continuing nursing education with their rank ordering as assigned by the respondents are presented in Table 13.

A total of 56 topics were identified as the most important continuing education topic, however, only seven are identified in rank order, in Table 13 and each of these had more than ten respondents. There were 55 topics identified as the second most important continuing education topic and three are identified in rank order, in Table 13 that had more than ten respondents. In addition, there were 50 topics identified as the third most important continuing education category, however

only one topic had more than ten respondents.

Community nursing was the most significant topic for the most important and second most important topics identified. Legislation and politics as it relates to nursing was identified as the third most important topic.

Table 13
Frequencies and Percentages of Respondents Citing Continuing Education Topics, Courses, Programs

Topic	Ranking	Percentage
<u>Ranked Most important</u>		
Community Nursing	1	6.5
Advanced Cardiac Life Support	2	5.6
Perinatal Nursing	3	5.2
Masters in Nursing	4	4.9
Bachelor in Nursing	5	3.9
Nurse Practitioner	5	3.9
Gerontology	6	3.3
<u>Ranked Second most important</u>		
Community Nursing	1	4.2
Changing Role of the Nurse	2	3.3
Legislation-Politics	2	3.3
<u>Ranked Third most important</u>		
Legislation-Politics	1	3.3

(Note: N=306. 65 missing cases for most important; 113 missing cases for second most important; 180 missing cases for third most important. Only responses of 10+ for any variable has been noted.)

When the nurses were asked to identify if they were interested in attending continuing education opportunities on site, in their institution, 224 said

yes, 41 said no, 31 were unsure and a further 10 did not respond. When questioned whether they were interested in attending continuing education opportunities outside of their institution, 207 said yes, 44 said no, 45 were unsure and a further 10 did not respond. Slightly more nurses indicated their interest in attending continuing education activities onsite, in their institution, rather than outside of their institution.

In addition, the participants were asked to indicate whether they were interested in six types of educational activities, which are identified in Table 14. The majority of respondents, 75.2 % expressed an interest in a seminar, workshop type of continuing education opportunity. These findings are presented in Table 14.

Table 14
Frequencies and Percentages of the Respondents' Preferred Type of Continuing Education Opportunities

Variable	Frequency	Percent
seminar, workshop	230	75.2
hospital inservice	171	55.9
university credit	156	51.0
college credit	114	37.3
college general interest	87	28.4
other	18	5.9

(Note: N=306. 19 missing cases for all variables)

Eighteen nurses responded positively to the "other" category. Some of the "other" learning methods indicated were; self directed study, computer assisted learning and credit for experiential learning.

The respondents also identified the most preferred learning method(s) that would best meet their continuing education needs, using a number ranking. Mean ranks for each one were then calculated. These formed the basis of subsequent rank ordering. Workshops was ranked as the number one continuing education learning method preferred by the majority of the respondents, whereas distance education by teleconferencing, a method widely used in Northwestern Ontario, because of great distances, was ranked as the least desirable learning method. The results are presented in Table 15.

The number of respondents varied for each variable identified, ranging from 213 participants responding to the learning method, lectures, which was first on the list as opposed to 150 participants who responded to the learning method of distance education, which was near the end of the list. The lowest number of participants was related to the learning model, cassettes and audiotapes, with only 134 participants responding.

Table 15
Ranking of Continuing Education Learning Methods Preferred by Respondents

Variable	Ranking	Percent Choosing as First Preference
workshops	1	21.2
demonstrations	2	16.3
lectures	3	20.3
group discussion	4	3.3
videotapes	5	1.6
panel discussion	6	.7
handouts, reading	7	.7
self learning with teacher resource	8	5.9
simulation learning	9	1.0
self directed-independent study	10	5.6
cassette, audiotapes	11	1.3
role playing	12	.3
computer assisted learning	13	1.0
distance education by teleconference	14	2.3

(Note: N=306. Ranking is based on 98 cases which responded to all variables.)

In response to why the survey participant would not participate in a continuing education activity, the majority indicated that the cost of the course may be too high. There were eleven variables identified and the participants were to indicate all that applied. The findings are presented in Table 16.

Participants were provided an opportunity at the end of the survey to make other comments. Some general themes

emerged; concern that continuing education is not valued by the nurse, employers and the profession as a whole, the lack of motivation for nurses to participate in continuing education because of job losses and cutbacks, the lack of higher education in Thunder Bay and the Region for nurses who wish to pursue a career in nursing, distance, time and money influence accessibility to

Table 16

Frequencies and Percentages of Respondents Indicating Reasons For Non-Participation in a Continuing Nursing Education Activity

Variable	Frequency	Percent
cost of the course too high	168	54.9
program scheduling not convenient	149	48.7
may not be allowed time off	145	47.4
content may not be relevant to job	141	46.1
distance to travel too great	139	45.4
content does not interest me	138	45.1
personally too busy	128	41.8
shortage of staff to relieve	123	40.2
may have to pay own expenses	109	35.6
wages to attend not reimbursed	107	35.0
none of their colleagues attending	12	3.9

(Note: N=306)

education in nursing in Northwestern Ontario, and the role of the nurse is changing and therefore individuals are uncertain of what type of decisions they should make regarding continuing education, since outcomes in the health care system are still uncertain.

Differences in the Continuing Education Needs of Registered Nurses in Northwestern Ontario

To identify the differences in the continuing education needs of registered nurses in Northwestern Ontario three determinants were used; educational preparation, geographical location, and the area of nursing in which the nurse was presently employed. Pearson Correlation was used to compare these three variables with five continuing education variables; continuing nursing education is very important to the safe practice of nursing, continuing nursing education is accessible in Northwestern Ontario, and continuing education offerings should focus on community practice, health care reform and nursing specialties. The research findings are presented under the three determinant headings.

Educational Preparation

For the purpose of comparison, educational preparation was defined as either diploma or degree prepared. There were 193 participants who were diploma prepared nurses, and 110 participants who were degree

prepared. There were three participants who did not respond to this question. The results of the comparison of educational preparation and the continuing education needs variables are presented in Table 17.

Table 17
Correlation between Educational Preparation and Continuing Education Needs

Continuing Education Need Variables	Correlation	P value
safe practice	-.1249	.05
accessible	.0699	
community practice	-.1597	.01
health care reform	-.1162	.01
nursing specialties	-.0237	

(Note: N=306. 3 missing cases)

The results of this comparison indicate minimal significance for the degree prepared nurses as it relates to continuing education being very important to the safe practice of nursing ($p=.05$), and that continuing education offerings should focus on community practice ($p=.01$) and health care reform ($p=.01$).

Geographical Location

For the purpose of comparison, geographical location was defined as either Thunder Bay or the Region (in Northwestern Ontario). There were 196 participants in

Thunder Bay and 110 participants in the region. The results of the comparison of geographical location and the continuing education needs variables are presented in Table 18.

Table 18
Correlation between Geographical Location in Northwestern Ontario and Continuing Education Needs

Continuing Education Need Variables	Correlation	P value
safe practice	.0137	
accessible	.1800	.01
community practice	.0570	
health care reform	.1342	.05
nursing specialties	.0016	

(Note: N=306)

The results of these findings indicate a very high significance for the participants in Thunder Bay, that continuing nursing education is accessible in Northwestern Ontario ($p=.01$). In addition, there was minimal significance for the participants in Thunder Bay and that continuing education offerings should focus on health care reform ($p=.05$).

Area of Employment

For the purpose of comparison, area of employment was defined as either management or staff. There were 54 participants who were working in management and 219 who were in staff positions. There were 15 participants who had other areas of classification, they were not included in the comparison studies. In addition, 18 participants did not respond to this question. The results of the comparison of area of employment and the continuing education needs are presented in Table 19.

Table 19

Correlation between Area of Employment and Continuing Education Needs

Continuing Education Need Variables	Correlation	P value
safe practice	.2022	.01
accessible	.0663	
community practice	.2282	.01
health care reform	.1864	.01
nursing specialties	.0492	

(Note: N=273. 15 other classifications excluded and 18 missing cases)

The results of the comparison indicate minimal significance in the findings for management as it relates to continuing education being very important to the safe practice of nursing ($p=.01$), and continuing education

offerings focusing on community practice ($p=.01$) and health care reform ($p=.01$).

This section has presented the survey findings and the correlation results of three variables; educational preparation, geographical location within Northwestern Ontario and the nurses area of employment as they compared to five continuing education needs variables. The next section will present the findings of the personal interviews.

Personal Interview Responses

In this section, the research findings for each of the personal interview questions are presented under the nine structured interview questions.

Why do Nurses Participate in Continuing Education?

The ten participants of the personal interview were asked: Why do nurses participate in continuing education. Four of the ten respondents identified that the reason nurses participate in continuing education is for professional development, to keep up to date. One nurse stated: "I feel that nurses want to be more competent on the job, they are dedicated and that is a primary

motivator." Another nurse commented: "Nurses want to obtain a particular certificate, a degree, or whatever gives them formal acknowledgement of increased learning." Other responses given for nurses participating in continuing education were; to remain competent, for job advancement, for personal development, and personal fulfilment.

What factors Influence the Continuing Education Needs of Registered Nurses in Northwestern Ontario?

The personal interview participants were asked to identify the factors influencing the continuing education needs of registered nurses in Northwestern Ontario. The participants identified ten factors as presented in Table 20.

Table 20
Factors Influencing the Continuing Education Needs of Registered Nurses in Northwestern Ontario

Variable	Frequency
poor access due to geographical location	5
lack of physician presence	2
socioeconomic factors	2
increased competition for nursing jobs	1
patient population needs	1
type of facility/institution	1
job opportunities	1
type of jobs in which they are employed	1
conflicts with work schedules	1
cost of the course	1

Access to education was indicated by five of the personal interview respondents as a factor influencing the continuing education needs of registered nurses in Northwestern Ontario. "One of the biggest problems in Northwestern Ontario is our distance and this limits nurses' ability to travel to access educational opportunities." When distance education was mentioned as an alternative to travel, three of the participants identified that they did not want to participate in distance education. "Nurses are more familiar and comfortable with 'hands on' learning and would rather have a teacher on site than participate in distance education." Another participant commented "that's too lonely, you have to work by yourself." An additional four nurses supported and promoted distance education and stated that "we should have more distance education available in the region." In addition, these nurses identified the "lack of access to programming at the baccalaureate degree level and beyond" as a difficulty for nurses in Northwestern Ontario and that this could be resolved through the use of distance education strategies.

"Lack of a physician present on site" was a concern

of two of the personal interview participants. "In the smaller hospitals in Northwestern Ontario, we are often alone in the hospital, nurses need more knowledge to feel at ease and be able to cope effectively with emergencies." The participants also indicated that "nurses in Northwestern Ontario really don't have a specialty, they are required to work in all areas and are more of a generalist." Therefore, they concluded "continuing education is critical to our safe practice and the care we give our patients."

The socioeconomic factor "influences access to continuing education in that finances are tight, the location may not be convenient and family and job commitments may add additional burdens." Also "the demand for jobs is high, yet they are few, therefore in order to keep current and be competitive in the job market continuing education is essential."

Is Participation in Continuing Education Influenced by
the Nurses Educational Preparation, the Nurses'
Geographical Location in the Region, and, or the Nurses
Area of Employment?

The ten participants of the personal interview were

asked if continuing education was influenced by the nurses' educational preparation. Four of the respondents said no, five said yes and one was unsure. Respondents indicated that "the type of educational preparation may or may not set the foundation for further continuing education", and one respondent stated: "I think it is a personal thing, if the nurse really wants to educate herself, she will." However, others indicated; "it is my experience that those nurses who have participated in post graduate education will continue to do so because of an inquiring mind." Another respondent indicated that "university prepared nurses have more of a foundation for valuing continuing education, than those prepared in a technical, practical, or skills based program."

When the personal interview participants were asked if the nurses' participation in continuing education was influenced by their geographical location, in the region, eight said yes, one said no and one was unsure. "I think that nurses who live in outlying areas, don't have the availability of educational opportunities that nurses in more urban centres do and based on that, they don't participate as much." One participant stated that: "I believe that the lack of accessibility makes nurses in

the north more desirous of obtaining professional development and they are more likely to look at and demand more and better ways to achieve professional development." Another participant noted: "One of the biggest problems in Northwestern Ontario is our distance and this limits nurses ability to travel to access educational opportunities." Another participant who had taken professional development by distance education stated: "I have taken a few courses by teleconference, so access was not an issue, however, appropriate resource material was not available to support me in his delivery mode and I became discouraged, now access for me is a problem."

The ten personal interview participants were questioned whether participation in continuing education was influenced by the nurses' area of employment. Nine of the participants said yes and one was unsure. "If the nurse wants to specialize, she must upgrade her skills and her knowledge to secure and maintain her job." However, one respondent noted that: "nurses who are in specialties are more likely to participate in continuing education because they are required to, whereas those nurses who are generalists are less likely to

participate, because they don't have to and it takes time and money."

What Barriers Exist which Prevent Nurses from
Participating in Continuing Education?

There were ten barriers identified by the personal interview participants. The ten barriers and the participants' frequency of response are presented in Table 18. Some of the comments by the personal interview participants which support the barriers identified in Table 21 are as follows. "I think the biggest barrier is our geographical location, which impacts on other aspects of our life: family, job, financial constraints, time release to attend, travel expenses, dependents needs and self satisfaction." "Institutional support is another barrier. Considering financial constraints, down sizing, and restructuring, there is no educational budget and the hospitals have no one to cover for you if you do go and take a course. You are expected to pay for it yourself and do it on your own time. I personally can not afford the time and the money that is required." Another nurse stated: "a lack of incentive by employers is a big factor, meaning they don't offer enough flexibility in

planning work schedules, time off and they don't actually provide an environment to support nurses who wish to pursue continuing education."

Table 21
Barriers to Participation in Continuing Education

Variable	Frequency
financial concerns	9
family responsibilities	9
geographical location within the region	7
hours of c.e. offerings not convenient	4
lack of incentives to participate	2
continuing education not valued	2
lack of institutional support	2
personally too busy	2
lack of release time form the job	1
courses are not relevant to need	1
location of course offering nor convenient	1
lack of personal motivation	1

Continuing Education for Nurses is Necessary and is an
Expectation of Employment.

The ten participants of the personal interview were asked to comment on the statement "continuing education for nurses is necessary and is an expectation of employment". All ten personal interview participants agreed that continuing education for nurses is necessary however, only eight expressed that it was an expectation of employment. One stated that her employer did not

expect her to participate in continuing education and another was unsure since she knew some employers encouraged continuing education, but was unsure if it was an expectation. Most agreed that to remain current and competent continuing education was critical especially considering "the new drugs and equipment and the ever changing health care system". There were opposing views on the expectation of employment, some felt that to "maintain professional credibility, meet institutional annual certification requirements and meet specialization needs" the employer should expect the nurse to participate in continuing education, whereas others felt that employers may want nurses to participate to remain current. However, they do not promote continuing education or value it" since there are "a lack of incentives, no job security and no time release or financial commitment" to support nurses who choose to participate in continuing education.

What is the Single Most Important Item or Support that an Employer Could Provide that Would Assist or Motivate the Nurse to Participate in Continuing Education?

All the personal interview participants identified that the single most important support an employer could provide that would assist or motivate the nurse to participate in continuing education was that the employer "value" continuing education. Four of the participants identified that financial assistance was number one (this response came from participants outside of the Thunder Bay area, who expressed that distance and access were factors that prevented them from participating in continuing education). Two participants felt that release time was critical, so that they could participate in continuing education activities. An additional two participants felt that job security by the employer was critical. One participant stated: "there is no point in participating in continuing education if you can't be assured of your job when you come back."

What are the Current Issues of Concern with Continuing Nursing Education in Northwestern Ontario?

When the personal interview participants were asked

to identify the current issues of concern with continuing education in Northwestern Ontario, the responses were varied. Thirteen issues were identified: lack of incentives from the employer (eg. financial as it relates to promotion), conflicts in personal life, health care and hospital restructuring, the changing role of the nurse (new legislation), the increased number of unemployed nurses, new graduates not getting jobs in the nursing field, increased role responsibilities, travel costs to participate in continuing education are high, courses are not relevant to the changes in nursing and the health care field, lack of resource material available to support continuing education, difficulties with accessibility to education, increasing costs of education, and a decrease in the number of registered nurses available to participate in continuing education.

Five of the nurses interviewed expressed concerns with the current health care delivery system and the role of the nurse. One nurse stated: "Current issues are based on political, financial economic and social changes and they are affecting the health care system and subsequently the role of the nurse." She went on to say, "The unemployment and the inability of new graduates to

get jobs in nursing is disturbing", and "we are moving toward more baccalaureate prepared nurses and more registered practical nurses." Another nurse stated: "Little by little diploma prepared nurses are becoming....not necessary." In addition concern was expressed that "the expectations that are being placed on nurses in their new role may be unrealistic and unachievable."

In Your Opinion, What are the Three Most Important
Continuing Education Needs of Registered Nurses in
Northwestern Ontario?

The ten participants in the personal interview were questioned regarding the three most important continuing education needs of registered nurses in Northwestern Ontario. There was a mixed response. However, ten clear needs were identified: access to a degree in nursing, professional development on the changing role of the nurse, skill development, specialty certificate programs, increased access to continuing education (eg. through distance education), financial assistance, community nursing course, legalities course, better promotion of continuing education activities, valuing of continuing

education, and better library service to support continuing education in Northwestern Ontario.

Opportunity to obtain a nursing degree was identified as the most important continuing education need by the personal interview participants. Community nursing which had been identified as the most significant topic from the survey was indicated by less than half of the personal interview participants.

Considering the Restructuring of the Health Care System,
and the New Legislation Regulating the Nursing
Profession, is Continuing Education for Nurses an Issue
of Concern?

All ten personal interview participants agreed that continuing education was an issue of concern in the nineties considering the restructuring of the health care system and the new legislation regulating the nursing profession in Ontario. "I would think there are very major professional development needs around the health professional legislation, new roles for nurses (such as the nurse practitioner role, expanded delegated medical acts), and the changing role of the nurse (more degree nurses, less diploma prepared nurses and more registered

practical nurses)." All the participants expressed concern that continuing education courses related to these changes were limited or not available in Northwestern Ontario.

At the end of the personal interview the participants were asked if they were currently participating in continuing education in nursing, four of the ten were currently participating in continuing nursing education. One participant was participating in continuing education but not in nursing.

The personal interview participants identified six motivational factors to explain their participation in continuing education. These factors with the respondents frequency distribution is presented in Table 22.

Table 22
Motivating Factors for Participation in Continuing Education

Variable	Frequency
nurse required upgrading	4
desire to know	3
job security	2
teacher available onsite	1
job promotion	1
required by employer	1

Several comments follow which support the summary of the motivating factors identified in Table 22. "I wanted to become specialized in my field, and be the best I could be." "The most important aspect for me was that there was a teacher at the site." "If I wanted to keep my job, I had to participate." "It was intrinsic, my own desire to know more...to be challenged intellectually." "I was in a new field and needed knowledge to function competently....education was critical to my survival as a competent and professional nurse." "I started because I wanted my degree...the more I am involved in education, the more interested I have become...it has opened up a whole new world of opportunity for me that I never knew existed...my desire to know continues to grow."

This section has presented the findings of the personal interviews. The next section presents the summary of Chapter four.

Summary

In this chapter, the results of the survey and the responses to the personal interview questions regarding the continuing nursing education needs of registered nurses in Northwestern Ontario have been presented. Chapter five, the concluding chapter, will present a summary of the study, a discussion of the research findings as it relates to the needs assessment framework, conclusions, implications of the findings and recommendations for further research.

CHAPTER 5

SUMMARY, DISCUSSION, CONCLUSIONS AND IMPLICATIONS

Introduction

The purpose of this chapter is to provide a summary of the study and to discuss the research findings as they relate to the needs assessment framework. In addition, the chapter will include the conclusions, implications for continuing nursing education and recommendations for further research.

Summary of the Study

Rapidly changing technology and the trend toward specialization has increased the need for continuing education for nurses. The increased complexity in the personal, professional and social environments in which nursing is practised, as well as changes in the present educational foundation of nursing all contribute to the need for a broader, more comprehensive concept of the content and the process for continuing education (Kathrein, 1990; Popiel, 1969). The purpose of this study was to investigate and describe the continuing education needs of registered nurses in Northwestern Ontario.

A survey research approach, supported by the work of earlier educational researchers (Bell, 1978; Cross, 1981; Smith, Smith & Ross, 1980) was chosen to explore the research questions. For the purpose of this study, two types of survey research methods were used, the mailed questionnaire and the personal interview. A Needs Assessment Framework for Continuing Nursing Education was developed from the literature and was used to develop the survey tool and the personal interview questions. The questionnaire was designed to gather information based on the research questions which supported the Needs Assessment Framework for Continuing Nursing Education. The questions which guided this study were:

1. What are the continuing education needs of registered nurses in Northwestern Ontario?
What factors influence the continuing education needs of registered nurses in Northwestern Ontario?
Are there differences in the continuing education needs of registered nurses in Northwestern Ontario based on their:
 - i) educational preparation?
 - ii) geographical location?
 - iii) area of nursing in which the participant is

presently employed?

What motivational considerations influence the Northwestern Ontario registered nurse's pursuit of continuing education?

Eight hundred registered nurses in Northwestern Ontario were asked to complete a mailed questionnaire. A response rate of 48.6% was returned. A second mail out or reminder to return the survey was not completed and this is a weakness in this study. The proportion of non-respondents to the questionnaire is high at 51.4%. The reasons for the failure of these nurses to respond to the questionnaire are not known. However, the group of respondents is large enough to make some general assumptions regarding the survey results.

Data obtained from the questionnaire was analyzed using the SPSS subprograms; descriptive statistics and Crosstabs, to determine the frequencies and percentages of respondents to the survey questions. In addition, Pearson Correlation and Kendall's Coefficient of Concordance were used to determine specific findings. The analysis of the data involved determining the frequencies and percentages of questionnaire respondents for each of the 36 survey questions, and determining

correlation studies for three variables; educational preparation, geographical location and area of nursing employment.

The personal interview was structured to further investigate continuing education needs of registered nurses in Northwestern Ontario. Ten of the 306 questionnaire respondents were randomly selected, using a table of random numbers, to participate in a personal interview. The personal interviews were audio taped and a written and verbal consent were obtained from each participant. The audiotapes from the personal interviews were transcribed and coded. Then through the use of data triangulation between the survey results and the personal interview transcripts, inferences were determined.

The results of the data analysis and personal interview data presented in Chapter 4, provided information related to the research questions which guided this study. The questionnaire used to gather data from the study sample, had some weaknesses and limitations, which are acknowledged. It was not possible, with this instrument, to achieve the depth and detail in data gathering which might have provided greater insights. The personal interviews were able to provide

some validation and clarification of certain aspects of the questionnaire. However, in some cases the personal interview results provided new and different information that had not been presented in the questionnaire results; indicating that further research is required regarding this new and different information.

The stability of the nurses' responses over time has not been assessed. For example, an expression of interest or willingness to participate in continuing education activities by the questionnaire or personal interview participant does not guarantee his or her interest in actually participating in a continuing education activity. Further, the questionnaires were mailed in the spring, the end of a school year; the interest of the nurses in the study and their participation in continuing education activities may have been lower than at another time of the year.

The study reports information about continuing education needs as reported by a sample of registered nurses in Northwestern Ontario. No attempt has been made to check the accuracy of the nurses' perceptions or the extent of their knowledge regarding continuing education. It is acknowledged that the nurses interviewed in the

personal interviews were only a small fraction of the nurses in Northwestern Ontario and that the opinions reported cannot expect to include all the possible points of view and may not reflect the opinions or views of the many.

Discussion of the Research Findings

The discussion of the research findings will be presented as they relate to the research questions that guided this study. In addition, the research findings as they relate to the literature and the needs assessment framework will be discussed.

What are the Continuing Education Needs of Registered Nurses in Northwestern Ontario?

The majority of the nurses surveyed were interested in pursuing continuing education in nursing. However, the majority were not currently participating in continuing education. Of the nurses who were participating in continuing education, the most frequent reason cited was for professional upgrading. One nurse stated: "I feel that nurses want to be more competent on the job, they are dedicated and that is a primary motivator." This

finding supports Houle's (1961) learning orientated type of learner who pursues learning for its own sake. This finding is also supported by Urbano and Jahns (1988) who explain that the need for continuing education reflects the professionals' "need to know, and desire to meet the external expectations of others" (p.185). These nurses also indicated that their continuing education activity would result in a certificate in a specialty, which supports the goal orientated learner as identified by Houle (1961), Morstain and Smart (1974) and Cross (1984). One nurse reported that nurses want "to obtain a particular certificate, a degree, or whatever gives them formal acknowledgement of increased learning." These findings also support Urbano and Jahns's (1988) research which indicates that nurses pursue professional continuing education that is directed toward credentialling, job skills, and professional knowledge. The needs assessment framework appears to be supported by these research findings.

Frequencies and percentages of the questionnaire responses were analyzed to determine what topics continuing education should focus on, where participants would prefer the offerings to be held, the type of

educational opportunities that should be provided and the learning methods preferred.

The questionnaire respondents were asked to identify what continuing education offerings should focus on, based on eight continuing education topics germane to nursing. Nursing specialties was identified as the most important topic and this was supported when the participants were asked to identify the three most important topics, courses, or programs. The most important educational topic, course, program identified was community nursing, a recognized nursing specialty. This could be explained due to the recent health care reform, which is placing greater emphasis on preventative and primary health care. This reform presents a shift between acute care in institutions and community based service. A wide spectrum of community based services are required, including diagnostics, preventative, therapeutic, rehabilitative, supportive and maintenance services. To be most effective, qualified personnel will be required to ensure that community care is coordinated and is developed as a part of an integrated health care system encompassing a full range of community and institutional based service.

Opportunity to obtain a nursing degree was identified as the most important continuing education need by the personal interview participants. Community nursing which had been identified as the most significant topic by the questionnaire respondents, was indicated by less than half of the personal interview participants. This could be explained because of the lack of access to nursing degree education in the Region and the shift toward nursing degree preparation as the entry to practice for the profession. Reasons for this discrepancy needs to be further investigated.

However, these results support Urbano and Jahns' (1988) research, which indicated that nurses pursue professional continuing education that is directed toward credentialling, job skills, and professional knowledge. These findings also support Houle (1961) who identified three types of learners as presented in Figure 2. It is also not surprising that community nursing and a degree in nursing were listed as the number one choices of nurses, considering that the current trend in health care is toward a community focus and the current trend in nursing is toward degree preparation for entry to practice in the profession.

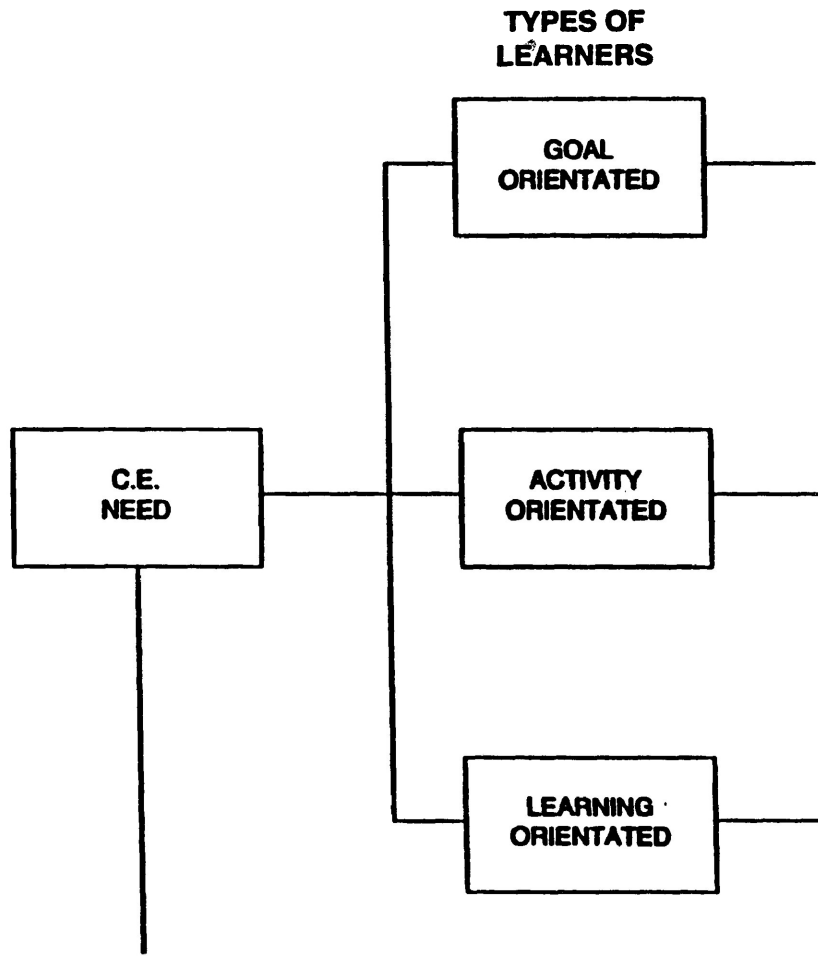


Figure 2

When the nurses were asked to identify if they were interested in attending continuing education opportunities on site, in their institution and outside of their institution. There were slightly more nurses who wanted to attend continuing education activities onsite, in their institution, rather than outside. This could be explained by the respondents' response that the program schedule may not be convenient, they may not be allowed the time off, there may not be staff to cover and the distance to travel may be too great. One nurse stated: "A lack of incentive by employers is a big factor, meaning they don't offer enough flexibility in planning work schedules, time off and they don't actually provide an environment to support nurses who wish to pursue continuing education." These findings appear to be supported by Hauf (1981) who indicates that if relevant continuing education is provided close to home, is convenient and does not take away from work and home responsibilities, then many nurses would participate. These findings are also supported by Cross (1981), Darkenwald and Merriam (1982) and Scanlon and Darkenwald (1984) who studied deterrent barriers to participation in continuing education and found that meaningful deterrents

can be identified, they are multidimensional and that the factors contribute to explain the variance in participation behaviour.

The majority of participants, when asked to indicate whether they were interested in six types of educational activities, chose a seminar, workshop format. This preferred type of continuing education activity is supported by the respondents who indicated that they are personally too busy to commit to extended continuing education activities. A seminar, workshop learning environment may be more desirable because it requires less of a time commitment and could be completed quickly, over one or two days, which more nurses in this study seem ready to support. The respondents also identified the learning method(s) that would best meet their continuing education needs. Workshops was ranked as the number one continuing education learning method. Distance education by teleconferencing, a method widely used in Northwestern Ontario because of great distances, was ranked as the least desirable learning method. This could be explained by the number of respondents to this question, only 150 participants responded to this variable. In addition, the number of respondents varied for each variable identified

with only 98 participants responding to all 14 listed learning options. Also the desirability may be related to the placement of the distance education, teleconferencing variable, it was listed last in a list of 14 variables. Another explanation may be that participants do not prefer this method over other types of learning.

What factors Influence the Continuing Education Needs of Registered Nurses in Northwestern Ontario?

This research question was explored by investigating personal factors, professional factors and environmental factors. The discussion of the findings will be presented under these headings as they relate to the needs assessment framework.

Personal Factors

The majority of the participants were female, married and between the ages of 30 and 49. Curran (1977) found that age had a direct relationship to the perceived need for continuing education and subsequently in the participation in continuing education. She found that nurses between 30 and 45 years were less likely to participate in continuing education. This finding is

supported by the results of this study which indicate that the majority of nurses are not participating in continuing education. In addition, the majority of participants had dependents, however, they did not have difficulty obtaining childcare and therefore, family responsibility was not a deterrent to participation in continuing education. This would support the findings of McLeod's (1979) study which noted that family responsibilities did not affect participation in continuing education. In addition, the majority of respondents indicated that they were personally too busy to participate in continuing education activities. These findings support Hauf (1981) who states: "the greater the number and extent of an individuals' responsibilities, the less time and energy the nurse has to devote to continuing education activities" (p.12). These variables may explain why only 24 % of the respondents are actually participating in continuing education.

Professional Factors

The majority of the respondents were currently employed in nursing. Five nursing areas employed more than 6% of the nurses surveyed; multiple roles,

gerontology, medical-surgical nursing, community nursing and nursing education. The majority had been working in their present job for two to five years and between six to 29 years in the nursing profession. It would appear from these results that the nurses in Northwestern Ontario are older and have a lot of nursing experience.

The majority of respondents were not required to participate in continuing education by their specialty group. However, there was no difference in the nurses who were required to participate in continuing education by their employer and those who were not. In addition, the majority of the survey respondents indicated that their workplace either did not have a workplace policy which supported continuing education or they were unsure if a policy existed. However, the majority of the respondents indicated that their employer supported continuing education. However, only 50% of the respondents received assistance from their employer in their pursuit of continuing education. Of those who did receive assistance, it was provided through the provision of information on continuing education.

The personal interview participants indicated that the single most important support an employer could

provide was the "valuing" of continuing education. It was generally agreed by the participants that the profession as a whole did not value continuing education since there were few guidelines and policies requiring continuing education. Since none of the Canadian provinces has adopted a mandatory continuing education model for nursing, further research in this area is needed to determine if the current practice of voluntary continuing nursing education is still the model of choice.

Environmental Factors

The majority of the respondents were from Thunder Bay and had a diploma in nursing. The majority of respondents agreed that continuing education is accessible in Northwestern Ontario. However, accessibility to continuing education was more significant for nurses in Thunder Bay than for nurses in the Region. This finding supports the research by Smith et al (1980) who indicated that specialty groups also experience isolation and the findings of Urbano and Jahns (1988) who indicated that the degree of availability must be congruent with the individual need. However, the findings from the personal interviews indicate that

access was an issue for regional nurses as well. This finding is consistent with the research by Anderson and Kimber (1991) who found that rural nurses often see themselves cut off from the professional mainstream. It would appear that accessible continuing education is an issue of concern for nurses in Northwestern Ontario. Furthermore, when the nurses were asked to identify the most important, second most important and third most important topic, course, or program in continuing nursing education, the responses were varied. Since there was such varied areas of nursing employment and varied educational preparation, in this study, this finding appears to be supported by the research of Bachman et al (1992) who noted that the type of employment setting, and academic preparation both influence the need for continuing education. These results also are supported by Hauf (1981) who is emphatic in her statement: "the key is to learn what is possible and desired in each market setting, i.e., in each division of the nurse population clearly defined on such bases as clinical specialty, function and geographic location" (p.13).

There appears to be some credence to the needs assessment framework that supports the personal,

professional and environmental factors influencing the need for continuing education (See Figure 3). The results of this study support the research by Craft et al (1992) who found that all three factors (personal, professional and environmental) are determinants of a continuing education need. However, further research is required in this area to determine whether one factor weighs more heavily than another or if they equally affect the need for continuing education. Also, more research is required to clearly delineate the inter and intra relationships.

Are There Differences in the Continuing Education Needs of Registered Nurses in Northwestern Ontario?

The differences were categorized under three headings; educational preparation, geographical location and area of nursing employment. The findings will be presented under each heading.

Educational Preparation

The majority of nurses had achieved a diploma in nursing as their highest level of education. Only 1.3% of the nurses surveyed had achieved a masters' degree in nursing and no nurses surveyed in Northwestern Ontario

**FACTORS INFLUENCING
THE NEED FOR
CONTINUING EDUCATION**

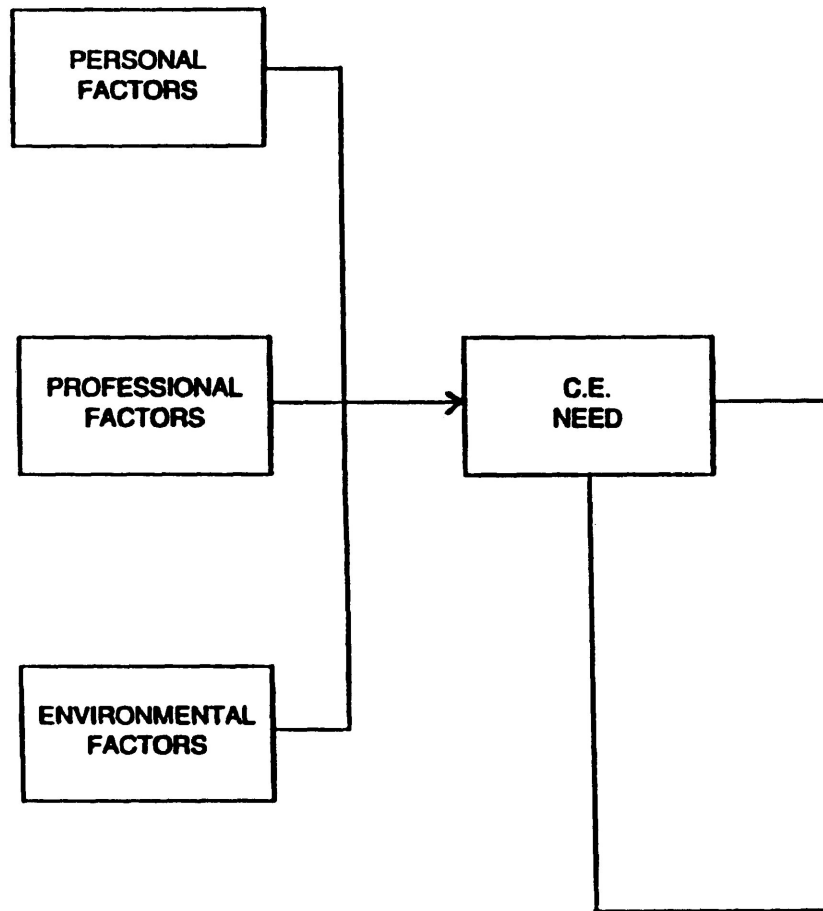


Figure 3

had achieved a doctorate in nursing. However, there were a further four nurses surveyed who had a masters degree and one nurse who had a doctorate, in another discipline. The low numbers of master and doctoral prepared nurses is understandable, considering that there are no masters or doctoral nursing programs available in Northwestern Ontario. The majority of nurses surveyed indicated that their education-training had not adequately prepared them to practice nursing in the nineties and beyond, or they were unsure. These findings appear to support the need for continuing nursing education for nurses in Northwestern Ontario.

Additional findings indicated that there was minimal significance when the variable educational preparation was compared with the variables; continuing education is very important to the safe practice of nursing, and that continuing education offerings should focus on community practice and health care reform. In addition, personal interview participants indicated an even split in their opinions whether continuing education was influenced by the nurses educational preparation. In summary, the significance of educational preparation on the continuing educational needs of nurses in Northwestern Ontario

requires further research to determine the relationship of learning orientations and the influences on motivational orientations.

Geographical Location

The majority of the questionnaire participants lived in Thunder Bay. The results of the comparative studies between the Region and Thunder Bay, indicate that nurses in Thunder Bay believe that continuing education offerings are accessible and should focus on health care reform. Half of the personal interview participants, who were from the Region, indicated that access to continuing education was poor due to geographical location. One nurse explained: " one of the biggest problems in Northwestern Ontario is our distance and this limits nurses ability to travel to access educational opportunities." In addition, the majority of the personal interview participants thought that continuing education was influenced by the nurses geographical location within the region. These findings are supported by the survey results which indicate that the majority did not agree or were unsure if continuing nursing education was accessible in Northwestern Ontario.

Cross (1981), who was the first to categorize deterrents to participation in continuing education, defined geographical isolation as a situational barrier which would prevent an individual from participating in continuing education. It would appear from these findings that nurses in Thunder Bay do not perceive access to continuing education as a problem, whereas nurses in the Region do see this as a barrier to participation. Further study to determine whether access to continuing education is a critical factor and a perceived barrier to the nurses' participation in continuing education is required. Further research is also required in this area to determine other differences and, or similarities in continuing education needs between the urban and rural nurses. In addition, further comparative research regarding the nurses' attitudes toward continuing education both in Thunder Bay and the Region appears warranted.

Area of Employment

The majority of the nurses surveyed were staff nurses who were working full time. However, the survey

results indicated a greater significance in the research findings with the management group than the staff group. For example, the survey results indicate that nurses in management regarded continuing education as being very important to the safe practice of nursing as opposed to the staff nurses. In addition nurses in management supported continuing education offerings in community practice and health care reform. The majority of the personal interview participants supported the concept that participation in continuing education is influenced by the nurses area of employment. One nurse stated: "if the nurse wants to specialize, she must upgrade her skills and her knowledge to secure and maintain her job." Further research is needed in this area to determine differences and similarities in continuing nursing education needs between management and staff nurses. Also further research in the specialty areas of nursing would be useful in predicting motivational orientations.

What Motivational Considerations Influence the
Northwestern Ontario Registered Nurse's Pursuit of
Continuing Education?

The majority of nurses indicated that the reason

they participate in continuing education is to gain knowledge. This was supported by the personal interview participants who stated that nurses are motivated to participate in continuing education because they require new knowledge or upgrading. These findings support Popiel's research (1969) where one of the purposes of continuing education for nurses was identified as: to gain knowledge, skills and attitudes that enable the nurse to perform their job better. The most positive reason for the nurses' motivation to participate in continuing education was for professional advancement. This finding supports Shoen's (1979) research, who added a fifth purpose to Popiel's research, "to contribute to the professionalization of nursing itself" (p.4).

These findings also support Morstain and Smart's (1974) reasons for adult participation in continuing education. One finding indicated that professional advancement including the need to achieve a higher status in the job, secure professional advancement and keep up with the competition was a reason for participating in continuing education. (See Figure 4) The research results also support cognitive interest and external expectations as reasons for participating in continuing education.

MOTIVATIONAL CONSIDERATIONS

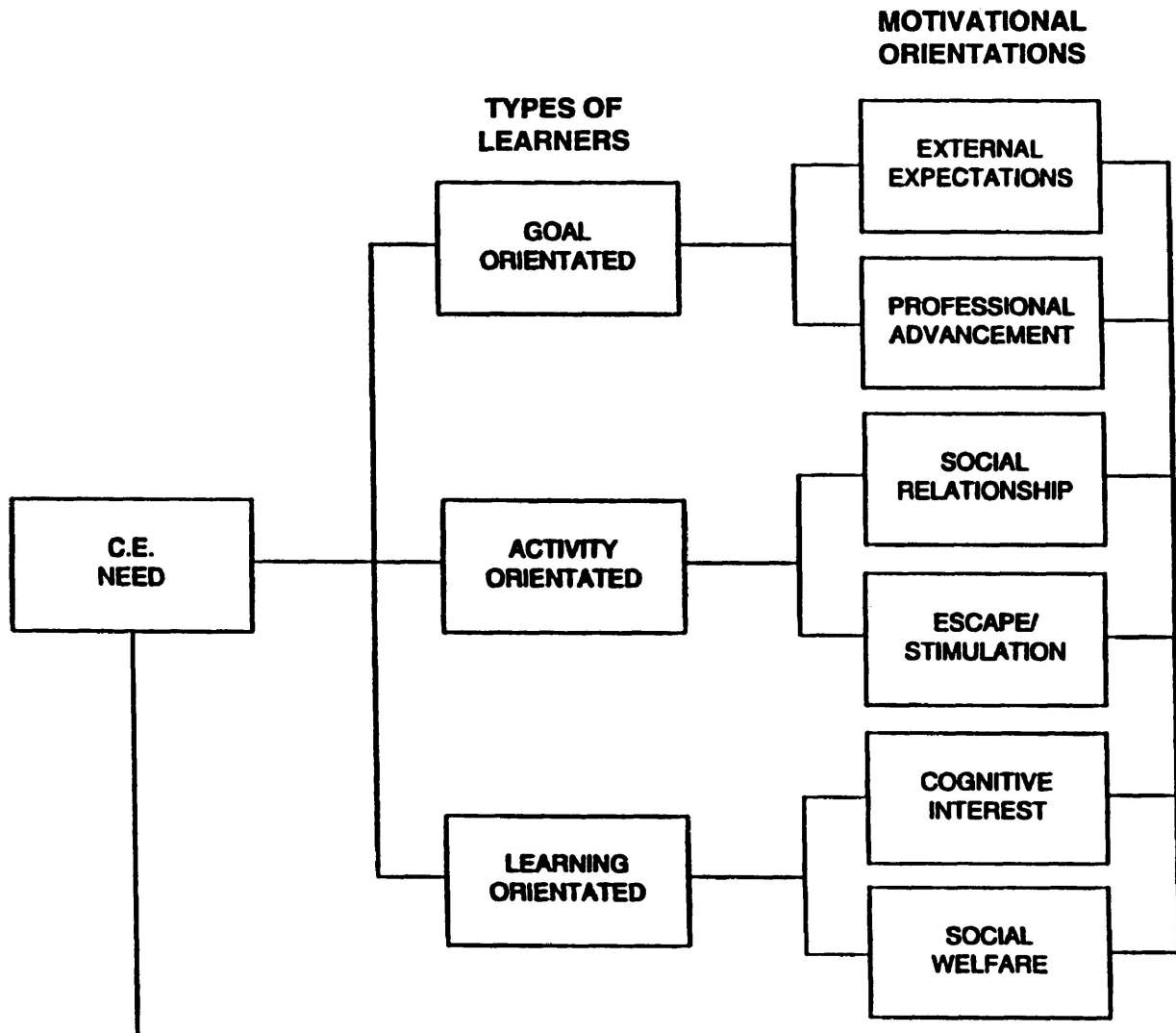


Figure 4

However, the findings were significantly lower for the other reasons for adult participation in continuing education as identified by Morstain and Smart (1974), these being; social relationships, escape/stimulation, and social welfare. Further research in this area is required to support the needs assessment framework.

The nurses surveyed indicated that the reason they would not participate in continuing education was because they lacked personal time and that the cost of the course may be too high. The personal interview participants also indicated financial concerns as well as family responsibilities as barriers to participating in continuing education. These findings support the research done by Cross (1981). They would be considered perceived barriers as indicated in needs assessment framework in Figure 5.

The Cues to Action (Figure 5) based on the works by Knowles (1970) are supported by the research findings on the nurses attitude about continuing education. The results of this study indicate that the majority of nurses are interested in pursuing continuing education and that continuing education is very important to the safe practice of nursing. This would appear to support

**EDUCATIONAL
OUTCOME**

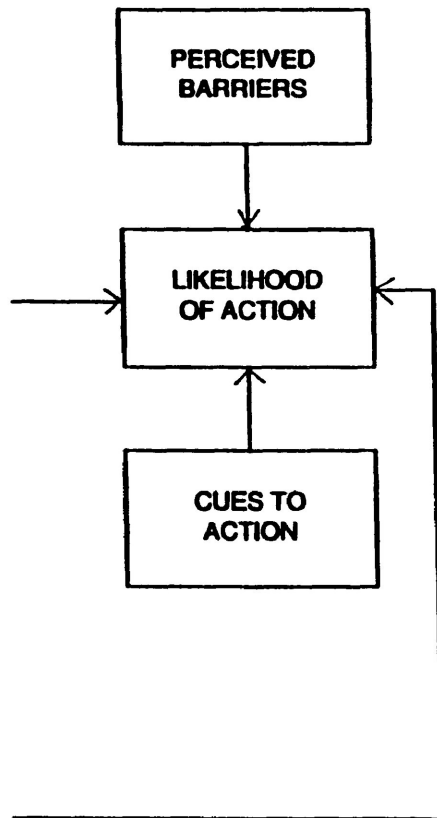


Figure 5

nurses' participation in continuing education activities. However, the Likelihood of Action from this study indicates that the majority of the nurses are not currently participating in continuing education, and this is occurring because of the perceived barriers to participation. Several barriers were identified in this study that could influence the nurses participation, for example; personally too busy, lack of valuing of continuing education by the employer and the profession, lack of support to pursue continuing education and the costs and distance to travel involved with the activity. In addition, Bohlin et al (1990) indicated that instructional strategies can directly influence a learner's interest and motivation to participate in continuing education. Since distance education is used frequently throughout Northwestern Ontario and since distance education was identified as the least desirable learning method by the participants, this learning strategy could be a deterrent to participation and a cue to indicate that participation will be poor. Further research in this area is required before firm conclusions or assumptions can be made.

The Needs Assessment Framework for Continuing

Nursing Education appears to be supported by this study. However, further research based on this model is required to determine its effectiveness as a predicting and planning tool.

Conclusions

In spite of the weaknesses and limitations of the study, the findings suggest that certain generalizations can be made with some degree of confidence. It has been assumed that there is a need for continuing education for nurses, nurses are interested in continuing education and that nurses are pursuing continuing education on a voluntary basis as the need arises. The results of this study suggest that registered nurses in Northwestern Ontario have an interest in continuing education, and it would appear that for the majority, this interest is sufficient to motivate the nurse to pursue continuing education. Nevertheless, the results of this study do not indicate that this interest and pursuit of continuing education occurs on a regular or consistent basis.

The following comprise the conclusions for the study. The conclusions relate directly to the questions which guided the investigation, presented in Chapter one

and the needs assessment framework which was presented in Chapter two.

1. Most nurses in Northwestern Ontario were interested in continuing nursing education.

Most nurses in Northwestern Ontario were not currently participating in continuing nursing education.

Sufficient interest was expressed indicating that Community Nursing was the most preferred topic, course, program that nurses in Northwestern Ontario were interested in.

A workshop learning environment was the number one choice of the respondents.

Most nurses in Northwestern Ontario do not participate in continuing education because they are personally too busy.

Most nurses are not required to participate in continuing education by their specialty group and there is no difference in employers' expectations of their nurses to participate in continuing education.

Most workplaces do not have a visible policy which supports continuing education.

8. Employers were generally perceived as supporting

continuing education, however, only 50% provided support to their nurses who were pursuing continuing education.

Sufficient comment was expressed indicating that continuing education is not "valued" by nursing.

10. Access to continuing education for nurses in Northwestern Ontario is an issue of concern and warrants further research.
11. The type of educational preparation may have an influence on the nurses' learning orientations and their motivational orientations to participate in continuing education. This requires further research.
12. The variable area of employment was related to selected activity patterns. The significance of this relationship requires further research.

Implications for Continuing Nursing Education

The findings of the study have produced some ideas which should be of use to those who plan and deliver continuing nursing education in Northwestern Ontario. In addition, the findings of this study could also be used

by other researchers who wish to investigate continuing nursing education.

Continuing education must be recognized and valued by nurses, and must be planned according to the educational needs of registered nurses. This statement is considered essential to the practice of quality, professional nursing. If this statement is accepted, nursing directors, administrators of health care agencies and institutions and other leaders in the health care field should allow their nurses to participate in short term continuing education in nursing. Since participation may be related to job and home responsibilities, it is important that consideration be given to providing relief nursing personnel to free nurses for participation. It is also important to consider making continuing education activities available for nurses to participate in short term continuing education programs or courses in the communities in which they live or practice or within easy commuting distance of these communities. This means that leaders in the health care field should support local educational, training centres where possible.

Nursing service administrators should also develop policies and procedures that support continuing education

activities. Administrators should also study the effects of their policies and procedures on the learning orientations and nursing activity patterns of their staff. In addition, the effects of institutional factors on the continuing learning activities of nurses warrants more research. It may be that there are important influences in this area that should be identified.

In addition, nursing educators should look more closely at the continuing education attitudes of students, conduct regular needs assessments, meet frequently with health care leaders and promote continuing education activities to meet the needs of registered nurses in their catchment areas.

These are not new ideas and have been supported by other researchers in this area (Flaherty, 1965; Sovie, 1972; RNAO, 1980; Austin, 1981; Cross, 1981; and Kathrein, 1981). The research findings from this study also support these strategies to enhance and improve continuing nursing education.

Nursing leaders, in both education and service should collaborate on studies designed to determine the influence of the type of nursing preparation on the extent of participation in specific nursing activity

patterns. Collaborative studies might also provide insights into some unique continuing education needs that graduates of a particular type of basic preparatory program may have. It might be that specific types of continuing education seminars, workshops, courses, programs are needed for graduates in certain preparatory programs. Also continuing education needs for specific groups within the service sector could be more specifically explored and identified. Only further research will provide the answers.

Recommendations for Further Research

Although this study has provided some useful information concerning continuing nursing education, further research is needed to expand the existing data base. Recommendations for further study are presented in this section.

- 1 The design of the study could be replicated using a larger sample from the province of Ontario, including both rural and urban areas to determine relationships between continuing education needs of nurses.

This study could be replicated using a longer scale

on participants' attitudes of the significance of continuing nursing education.

The design of this study could be replicated in a collaborative study between education and service to determine the extent of the influence of educational preparation on the nurses' participation in specific continuing education activities.

A study could be conducted by nursing educators to more closely examine the nurses attitudes toward continuing education.

A study could be conducted to more closely examine the learning orientations of nurses based on their educational preparation and their areas of employment.

More study is required on learning orientations as they relate to continuing nursing education and nursing activity patterns.

A study to determine if the type of continuing education activity chosen by the nurse is a critical factor in determining motivational orientations and future participation.

8. Further study is needed on the learning method distance education as it relates to continuing

nursing education and the nurses learning orientations.

A comparative study of community nursing as a specialty and the need for education in this field for nurses in Thunder Bay and the Region, as it relates to motivational orientations and barriers to participation would be helpful.

10. A study is needed to determine whether voluntary continuing nursing education is an effective model to ensure professional advancement.
11. A study is needed to determine whether access to continuing education in Northwestern Ontario is a critical factor or a perceived barrier to the nurses' participation and determine differences and, or similarities between the urban and rural areas.

Concluding Note

This study has provided a basis for further research. It has provided additional information which is useful to the continuing nursing education paradigm. It has also generated many questions which require further research.

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APPENDICES

APPENDIX A

Letter of Permission from the College of Nurses of
Ontario

Appendix A



101 Davenport Road
Toronto, Ontario
M5R 3P1

Tel: (416) 928-0900
Toll Free: 1-800-387-5526
Fax: (416) 928-6507

May 4, 1993

Ms. Laura Kokocinski
2280 - 15th Sideroad
R.R. # 4
Thunder Bay, Ontario
P7C 4Z2

Dear Ms. Kokocinski,

I am writing in reply to your recent letter requesting permission to use the mailing list for Registered Nurses in Northwestern Ontario, that we have provided you earlier this year for the use of the Confederation College.

We appreciate the time you have taken to request permission from the College before using the information and as long as the list will be used solely for the purpose that you stated in your letter which is to collect information for your thesis, then this letter will serve as authorization for you to use the information. If in the future you would need to use the same list, we would appreciate hearing from you again.

We wish you every success in your future endeavours.

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'M. Wang', written over the typed name and title.

Marilyn S. Wang
Director, Registration

APPENDIX B

Personal Interview Questions

Appendix B

STRUCTURED FOCUS INTERVIEW QUESTIONS

Interview Questions:

1. Why do nurses participate in continuing education?
2. What factors influence the continuing education needs of registered nurses in Northwestern Ontario?

Is participation in continuing education influenced by:

- a) the nurses educational preparation? (explain)
 - b) the nurses geographical location in the region? (explain)
 - c) the nurses area of employment? (explain)
4. What barriers exist which prevent nurses from participating in continuing education?
 5. Please comment on the following statement.
"Continuing education for nurses is necessary and is an expectation of employment."
 6. What is the single most important item/support that an employer could provide that would assist or motivate the nurse to participate in continuing education?

What are the current issues of concerns with continuing nursing education in Northwestern Ontario?

8. In your opinion, what are the three most important continuing education needs of registered nurses in Northwestern Ontario?
9. Considering the restructuring of the health care system, and the new legislation regulating the nursing profession, is continuing education for nurses an issue of concern? Please explain.

Summary Questions:

- i) Are you currently participating in continuing education?
 - a) nursing?
 - b) other?

- ii) If yes: What was the single most important motivating factor for you?

Thank you for your participation.

APPENDIX C

Survey of Continuing Nursing Education Needs of
Registered Nurses in Northwestern Ontario

Appendix C

A SURVEY OF CONTINUING EDUCATION NEEDS OF REGISTERED
NURSES IN NORTHWESTERN ONTARIO

DEFINITIONS:

For the purpose of this study:

CONTINUING NURSING EDUCATION is defined as any planned learning experience, undertaken by graduates of basic diploma and baccalaureate nursing programs that contributes to the fulfilment of personal and professional goals and leads to the enhancement of nursing practice, nursing education, nursing administration and nursing research. (RNAO, 1980)

CONTINUING EDUCATION NEED is defined as a discrepancy between an individual's present level of knowledge/competency and his/her desired level of knowledge/competency that can be satisfied by a learning experience.

Researcher: Laura Kokocinski R.N., BScN

Date: April, 1994

Thank you for responding to this questionnaire during such demanding times.

There are no right or wrong answers to the questions in the survey. Please answer each question as accurately as possible.

The questionnaire is ten (10) pages, with questions on the front and back of each page. Before beginning, please check that you have all ten pages.

Please follow the questionnaire instructions closely and provide only ONE answer to the question unless otherwise directed.

The information in this questionnaire is confidential: your name is not required.

**SURVEY OF CONTINUING EDUCATION NEEDS OF
REGISTERED NURSES IN NORTHWESTERN ONTARIO**

SECTION I

Indicate (X) your response to the following questions.

A. BACKGROUND INFORMATION

1. Sex

Female Male

2. Age as of this Month

<input type="checkbox"/> under 25 years	<input type="checkbox"/> 40 - 49 years
<input type="checkbox"/> 26 - 29 years	<input type="checkbox"/> 50 - 59 years
<input type="checkbox"/> 30 - 39 years	<input type="checkbox"/> 60+ years

3. Marital Status

<input type="checkbox"/> never married	<input type="checkbox"/> widowed
<input type="checkbox"/> married	<input type="checkbox"/> separated
<input type="checkbox"/> divorced	<input type="checkbox"/> other (Specify): _____

4. Dependants

i. Indicate (X) if you have any dependants.

Yes No

ii. Indicate (X) if you have difficulty obtaining care giving services when you attend continuing education activities.

Yes No

5. Name of the Community in which you live.

B. GENERAL INFORMATION

6. Type of Employment

- Full Time
 Part Time
 Casual
 Other (Specify):

7. Area of Employment

- Management
 Staff
 Other (Specify):

8. Area of Nursing in which you are presently employed

***NOTE: If you are currently not employed in the nursing field indicate (X) Not Applicable _____

- Community Nursing
 Emergency Nursing
 Gerontology
 Intensive Care/Critical Care Nursing
 Medical/Surgical Nursing
 Midwifery
 Nursing Administration
 Nursing Education
 Nursing Research
 Occupational Health Nursing
 Oncology
 Pediatric Nursing
 Perinatal Nursing (Maternal/Neonatal)
 Psychiatric Nursing
 Other (Specify):

9. Are you required to participate in continuing education by your specialty group?

Yes No Unsure

10. Term of Employment

i) How long have you been working in nursing
(including your present employment) ?

<input type="checkbox"/> less than one year	<input type="checkbox"/> 11 - 20 years
<input type="checkbox"/> 1 - 5 years	<input type="checkbox"/> 21 - 29 years
<input type="checkbox"/> 6 - 10 years	<input type="checkbox"/> 30+ years

ii) How long have you been working in your present job?

_____ months _____ years

11. Are you required by your employer to participate in
continuing education?

Yes No Unsure

12. Educational Preparation

Indicate (X) your highest level of education obtained to
date.

Hospital School of Nursing diploma

College Nursing diploma

University degree:

Nursing
Non-Nursing (Specify):

Masters degree:

Nursing
Non-Nursing (Specify):

Doctorate degree:

Nursing
Non-Nursing (Specify):

**SECTION II
CONTINUING NURSING EDUCATION**

The following questions relate to continuing nursing education. Based on your personal knowledge and experience, please circle one response to the following statements, using the following scale:

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

18. Continuing nursing education is very important to the safe practice of nursing. 1 2 3 4 5

19. Continuing nursing education is accessible in Northwestern Ontario. 1 2 3 4 5

20. Nurses participate in continuing education to:

- | | |
|--|-----------|
| a. gain knowledge | 1 2 3 4 5 |
| b. gain skill(s) | 1 2 3 4 5 |
| c. learn new nursing roles | 1 2 3 4 5 |
| d. provide self development | 1 2 3 4 5 |
| e. demonstrate competence | 1 2 3 4 5 |
| f. meet relicensure requirements | 1 2 3 4 5 |
| g. contribute to the advancement of the profession | 1 2 3 4 5 |

21. Nurses are motivated to participate in continuing education for the following reasons:

- | | |
|---|-----------|
| a. to meet external expectations | 1 2 3 4 5 |
| b. for professional advancement | 1 2 3 4 5 |
| c. to create/improve social relationships | 1 2 3 4 5 |
| d. to escape or seek stimulation | 1 2 3 4 5 |
| e. to enhance their learning interest | 1 2 3 4 5 |
| f. to improve their social welfare | 1 2 3 4 5 |

26. Are you able to receive assistance from your employer in your pursuit of continuing education?

Yes No Unsure

27. How is this assistance provided?

information on continuing education activities
 financial support
 time to participate
 other (Specify):

SECTION III
CONTINUING NURSING EDUCATION NEEDS

28. Has your formal education/training adequately prepared you to practice nursing in the nineties and beyond?

Yes No Unsure

29. Are you interested in pursuing continuing education in nursing?

Yes No Unsure

30. List the continuing education topics/courses/programs which are the most important to you. (A brief explanation of your choice would be appreciated).

a. The **MOST** important topic/course/program for me is:

b. The **SECOND** most important topic/course/program for me is:

c. The **THIRD** most important topic/course/program for me is:

31. Are you interested in attending continuing education opportunities on site - in your institution?

Yes No Unsure

32. Are you interested in attending continuing education opportunities outside of your institution?

Yes No Unsure

33. What type of continuing education opportunities are you interested in? Please check all that apply.

- hospital inservice
- seminars/workshops
- college credit courses
- college general interest courses
- university credit courses
- other (Specify):

34. What learning method (s) do you prefer? Please rank order all that apply, with number one (1) being the most preferred method.

- lectures
- demonstration
- workshops
- videotapes
- role playing
- handouts/reading
- group discussions
- panel discussions
- cassette/audiotapes
- computer-assisted learning
- self-directed, independent study
- simulation learning opportunities
- distance education/teleconferencing
- self-learning packages with teacher resource
- Other (Specify):

35. Identify (X) why you would **NOT** participate in a continuing nursing education activity. Please check all that apply.

- Shortage of staff to cover duties while attending
- May not be allowed the time off to attend
- Personally too busy to attend due to other commitments
- Wages to attend may not be reimbursed
- Cost of the course may be too high
- May have to pay own expenses
- Content of the C.E. activity may not be relevant to job
- Program scheduling may not be convenient
- Distance to travel is too great
- Content of the C.E. activity does not interest me
- None of my colleagues are attending

36. Other Comments:

Please return this survey in the stamped, addressed envelope or Fax it to me by Friday, May 6, 1994.

ATTENTION: Laura Kokocinski
 Alternate Learning Services
 Confederation College

 Fax # 623-4745

Thank you for participating in this survey.

APPENDIX D
Permission Letter

APPENDIX E
Permission Letter

APPENDIX F
Interview Instructions

Appendix F

FOCUS INTERVIEW INSTRUCTIONS

Please review the following instructions carefully.

A set of structured interview questions will be used for this interview (attached). Please answer the questions to the best of your ability and discuss your feelings about continuing education for nurses as completely as possible in the given time frame.

2. Please ask for clarification on any question that is unclear or you are unsure of.
3. The focus interview questions are all open ended and have been developed from the survey "Continuing Education Needs of Registered Nurses in Northwestern Ontario: A Needs Assessment Approach", which has recently been completed.
4. Once the set of structured questions have been completed, you will be provided an opportunity to express your feelings/opinions about continuing nursing education issues which were not addressed in the interview.
5. The focus interview is being taped therefore, please speak directly into the phone (for a phone interview) or into the microphone (for a face to face interview) so that your responses will be clearly recorded.
6. The researcher will only ask additional questions when clarification of responses is required.

The focus interview will be limited to one hour.

APPENDIX G
Survey Cover Letter



Appendix G

April, 1994

Dear Participant:

I am conducting a research study to determine the continuing education needs of registered nurses in Northwestern Ontario. To date, there has been little research on the continuing education needs of nurses in our Region. Therefore, this study can provide valuable information for educators in Northwestern Ontario to build continuing education delivery models, plan and implement relevant and current education that will meet the needs of registered nurses in our Region.

The intent of this research project is to a) determine the continuing education needs of registered nurses in Northwestern Ontario, b) determine the factors that influence the continuing education needs, c) determine the differences in continuing education needs based on the nurses educational background, geographical location, and the current area of employment, and d) determine the motivational factors that influence the registered nurse to pursue continuing education.

To accomplish this goal, I ask that you complete the attached questionnaire and return it to me by Friday, May 6, 1994. A stamped envelope has been included in this package for your convenience. All information in this survey will remain confidential.

Once the surveys are received, those experienced in continuing education will be grouped and ten participants will be randomly selected to participate in the second phase of this research study: a focus interview. Therefore, you may be asked to participate in the second phase of this research study.

Please note that the questionnaire is numbered for the convenience of the researcher, so that a random selection of survey participants can be conducted for the second phase of this research study: the focus interview. The numbering of the questionnaire does not imply that responses will be matched to names. The list of names and corresponding numbers is kept separately from the aggregation of data. Therefore, please be assured that all responses will be kept confidential and that only aggregated data will be included in the final analysis.

The findings of this research study will be published and available in the Lakehead University Library upon completion of this study.

Thank you for your cooperation and participation in this study.

Yours respectfully,

Laura Kokocinski R.N., BScN.
Masters Candidate
Lakehead University
475-0540 (Home)
473-3845 (Work)

APPENDIX H
Interview Cover Letter

APPENDIX I

Consent to Participate in the Personal Interview



Appendix

CONSENT TO PARTICIPATE IN THE PERSONAL FOCUS INTERVIEW

I _____ am a registered nurse in Northwestern Ontario. I have read and understood the covering letter of the study entitled "Continuing Education Needs of Registered Nurses in Northwestern Ontario: A needs assessment approach", and I agree to participate in the focus interview process. I am aware that the focus interview will be taped and that the tapes will not be shared with anyone else besides the investigator and at the completion of the research all tapes will be erased. I am also aware that I may withdraw at any time from the study and that a final report will be available in the Lakehead University Library upon completion of the study.

Signature: _____

Date: _____

APPENDIX J

Lakehead University Ethics Advisory Committee Approval