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Barbara Simpkins Harrison
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Continuing nursing education: An analysis of the relationship between benefits, participation and socialization of registered nurses in southeastern Virginia

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The College of William and Mary, 1993
CONTINUING NURSING EDUCATION: AN ANALYSIS
OF THE RELATIONSHIP BETWEEN BENEFITS,
PARTICIPATION AND SOCIALIZATION OF
REGISTERED NURSES IN SOUTHEASTERN VIRGINIA

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

by
Barbara Simpkins Harrison
May 1993
CONTINUING NURSING EDUCATION: AN ANALYSIS OF THE
RELATIONSHIP BETWEEN BENEFITS, PARTICIPATION
AND SOCIALIZATION OF REGISTERED NURSES
IN SOUTHEASTERN VIRGINIA

by

Barbara Simpkins Harrison

Approved May 1993 by

James M. Yankovich, Ed.D.
Chair of Doctoral Committee

Ronald C. Wheeler, Ph.D.

Arlene A. Stepnick, Ph.D.
DEDICATION

Bill Irwin
1904-1992

This is dedicated to the memory of my godfather. He rode supply horses which supported the U.S. Army Air Corps and was a biplane wing-walker; he was truly a Texan in every sense. He lived with the true spirit of the Texan that he was--he was kind, funny, caring, generous and loved with a heart as big as Texas.
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CONTINUING NURSING EDUCATION: AN ANALYSIS OF THE RELATIONSHIP BETWEEN BENEFITS, PARTICIPATION AND SOCIALIZATION OF REGISTERED NURSES IN SOUTHEASTERN VIRGINIA

ABSTRACT

There has been limited research on the benefits nurses' derive from participation in continuing nursing education (CNE). Researchers have investigated sociodemographic and attitudinal characteristics of CNE participants or the effects of CNE on nursing practice.

The purpose of this study was to determine what factors influenced registered nurses in the Southeastern region of Virginia to participate or not to participate in CNE. Specifically, this study investigated the relationship of socialization (defined as level of nursing education, reading of professional nursing journals and professional nursing memberships), benefits (defined as either personal or social/professional type) derived from CNE attendance, the importance or non-importance of these derived benefits and participation or nonparticipation in CNE. Respondents' socialization was characterized as either high or low for the purposes of this study.

The theoretical framework used in this study was the Expectancy Valence Model of Participation (Rubenson, 1977).
Valence was described as anticipated satisfaction (i.e. the benefits accrued); it was viewed as the positive and negative values of the effects of participation. Expectancy was defined as an expectation that particular actions would lead to certain outcomes; it related to individuals' perceptions of themselves as successful participants.

Data for the study were collected through the use of two questionnaires which were mailed to a sample of 400 registered nurses selected by systematic sampling. One hundred and fifty five responses were received (38.75%). Data were analyzed by Statistical Analysis Systems (SAS) software using descriptive statistics, Chi square analysis and log linear analysis.

Findings indicated that level of socialization and participation in CNE were positively related. The importance of benefits derived from CNE participation and participation in CNE were not related. Level of socialization, importance of benefits derived from CNE participation and participation in CNE were positively related. High levels of socialization were related to participation in CNE while benefits of CNE were not related.

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SCHOOL OF EDUCATION

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA
CONTINUING NURSING EDUCATION: AN ANALYSIS
OF THE RELATIONSHIP BETWEEN BENEFITS,
PARTICIPATION AND SOCIALIZATION OF
REGISTERED NURSES IN SOUTHEASTERN VIRGINIA
CHAPTER ONE

Introduction to the Problem

Introduction

This chapter contains a description of the problem of this research study. The discussion includes an introduction to the problem, the purpose of the research study, a statement of the problem, the significance of the research study, the research questions, a description of the theoretical framework, the hypotheses, rationale for the research study as supported by related literature, definitions of terms, the delimitations of the study, and a description of the methodology of the study.

Introduction to the Problem

Hamilton (1992) remarks "one of the characteristics of a professional is competence" (p. 59). Competency addresses the issue of behaviors of practitioners; it is a belief that a reserve of behaviors demonstrating requisite knowledge, skills and attitudes of professional nursing practice exists within the professional practitioner. Use of the essential theoretical principles and techniques of nursing in practice represents competence in the professional nurse (Moloney, 1986). Creasia (1991) states that "...the performance of duties and tasks and the assumption of certain
responsibilities form the pattern of behaviors that characterize the professional nurse" (p. 75). Competence is crucial for safe clinical practice (Hamilton, 1992).

Spickerman (1988) states that "socialization of students into the profession is the purpose of undergraduate nursing education" (p. 10). Deane and Campbell (1985) note that an "...expectation of this socialization process is the development of the ability to transfer cognitive, psychomotor, and affective learning to actual health care situations as changes and advances occur in health care delivery" (p. 69). Socialization is the process by which the values, norms, attitudes, behaviors, knowledge and skills of a discipline are transmitted to students enrolled in basic nursing programs leading to licensure (Cohen & Jordet, 1988; Hinshaw, 1977, 1986; McCain, 1985; Simpson, 1967). Acceptance of the role of nurse implies that professional socialization has occurred ("Essentials", 1986; Hinshaw, 1977; Kozier, Erb & Blais, 1992; Rosow, 1965; Simpson, 1967; Watson, 1986).

Schools of nursing traditionally offers three basic educational programs leading to entry into nursing practice; the diploma, associate degree and baccalaureate degree in nursing programs. These programs differ in their educational base, curriculum and educational setting (Billings, 1991; Kozier, Erb & Blais, 1992; Oermann, 1991; Young, Lehrer & White, 1991). All nursing programs,
however, are designed to prepare graduates to be competent practitioners.

While the graduates of the three types of nursing programs are expected to exhibit characteristics related to responsibility and accountability for professional practice and continuing professional development (National League for Nursing [NLN], 1987; NLN, 1989; NLN, 1990a, 1990b, 1991), it is clear that they enter practice with varying degrees of nursing knowledge ("Essentials", 1986) and socialization. Legal statutes in all states except North Dakota (McCarthy, 1989) do not differentiate between the competencies of graduates of these three basic educational programs in nursing (Beletz, 1990). After graduating, all students are eligible to take the RN licensing examination, the National Council Licensing Examination (N-CLEX), for entry into practice (Oermann, 1991). The examination is designed to "...provide determination of those who are and those who are not competent" (Weisenbeck & Calico, 1991, p. 269). There is no testing of knowledge of the values and norms of the profession. Nevertheless, a passing score on this examination indicates that the nurse has at least minimal competency to practice nursing.

Success on this examination leads to the designation of "registered nurse" as denoted by the credential of "RN". This designation used by all registered nurses (RNs) hides the fact that the population of registered nurses, having
been educated and socialized differently, is in fact three separate populations, each with its own distinctive knowledge base and level of socialization.

The knowledge base acquired in basic nursing programs, regardless of the level, is not only distinct in its emphases, it is not sufficient to maintain competence over the duration of the nurse's career. Therefore, continuing nursing education is considered an essential professional responsibility. As members of a profession nurses learn that they must "...identify and participate in formal and informal education offerings" as a means to demonstrate commitment to "...the need for life-long learning and continual growth toward expert practice" ("Essentials", 1986, pp. 63-64).

One of the outcomes of professional socialization is the valuing of learning and recognition of the need for lifelong learning (Estok, 1977). Continuing nursing education (CNE) programs provide updated and expanded knowledge as a means of maintaining the competency expected of the professional nurse (Wilk, 1986). "Nurses must grow up, so to speak, with an attitude and commitment to a career of lifelong learning" (McGriff, 1973, p. 480). Nurses are socialized to expect to participate in CNE and to positively view the benefits acquired as a professional expectation. There is limited research on the benefits of participation
Furthermore, the relationship between socialization and aspects of participation in CNE is unclear.

**Purpose of the Study**

The purpose of this research study was to determine what factors influence registered nurses in the Southeastern region of the Commonwealth of Virginia to participate or not to participate in CNE.

The specific purposes investigated were:
1. to determine if the level of socialization is related to participation and nonparticipation in CNE by registered nurses living in Southeastern Virginia;
2. to identify the perceived benefits of CNE and the importance of these benefits to registered nurses living in Southeastern Virginia who participate and do not participate in CNE; and
3. to determine the relationship of the perceived benefits and the importance ascribed to these benefits by registered nurses living in Southeastern Virginia who participate and do not participate in CNE.

**Statement of the Problem**

It has been stated that CNE is a way to maintain and improve competence. Yet, there is little evidence that nurses in Virginia are participating in CNE. The nursing profession is duty bound to hold members accountable to using its standards and to protect the public from individuals who have not attained the standards of clinical
nursing practice or who willfully do not follow them (American Nurses Association [ANA], 19'2). Nurses as professionals are expected to willingly embrace their responsibilities related to lifelong learning and competency. Since CNE in Virginia is voluntary, it is important to discover what influences nurses to participate or not to participate in CNE. The research problem is, therefore, to investigate the factors associated with nurses' participation or nonparticipation in CNE.

**Significance of the Study**

This study will offer data about nurses' participation patterns in CNE. Specifically, data will show what the identified benefits of participation in CNE are, the identified influence or importance of these benefits on participation or nonparticipation in CNE and the relationship of socialization to registered nurses' participation or nonparticipation in CNE.

An undifferentiated approach to program planning in CNE is inappropriate because registered nurses vary in their knowledge base and level of socialization. Program planning is currently designed to produce activities that are educationally sound and geared toward specifically identified content areas. However, nurses as participants in CNE are frequently influenced in their participation behavior by reasons other than the educational soundness and/or content to be covered in a particular CNE program.
Participation can be influenced by perceived personal or social/professional benefits associated with CNE. The benefits that are derived from participation can determine whether nurses take part in CNE.

Nurses who participate for social/professional reasons may demonstrate through overt behavior that professional socialization has occurred. This supports Rubenson's (1977, 1985) Expectancy Valence Model of Participation; these nurses are showing an active sense of being prepared for participation. This phenomena is present in effectively socialized professionals.

The influence of the professional nurse reference group is viewed as having been effective when nurses participate for social/professional reasons. An outcome of successful socialization is participation in CNE for professional reasons which becomes part of the nurse's value system. Participation for social/professional reasons demonstrates overtly the internalization of professional norms. Collected data can verify that nurses do go the CNE for reasons other than personal gain; participation for social/professional reasons can validate that effective professional socialization has occurred.

The values which are associated with CNE participation or nonparticipation are affected by the individual's experiencing of various types of needs. Personal needs may outweigh social/professional needs; participation and
nonparticipation are affected by this valence. Data from this study will offer evidence of how participants and nonparticipants identify benefits associated with CNE. Individuals who devise CNE can use this information to develop and plan offerings; specific targeting of offerings designed to meet personal needs as well as professional needs can be developed and marketed.

Nurses accrue either social/professional or personal benefits as outcomes of CNE participation. Identification of the importance of the benefits of CNE can indicate which are more highly valued by respondents who do or do not participate. A categorization of the perceived benefits' importance can offer data about which types of benefits are felt to be more important---personal needs of the individual nurse respondent or social/professional obligations to others.

Patterns of participation for certain types of benefits can relate to nurses' socialization. Nurses as a result of basic (and ongoing) socialization, are expected to be competent, responsible practitioners. Participation related to social/professional benefits can offer confirmatory data that internalization of professional values is exhibited. Participation related to personal benefits accrued may offer evidence that socialization has not been effectively achieved. Reporting of nonparticipation, as well, may offer evidence that socialization has not be effectively achieved.
Current CNE offerings may not fully address the needs of nurses. Persons reporting participation and nonparticipation may have attended CNE programs in the past which focused on social/professional benefits and found them not valuable. Respondents may feel that these programs were not of benefit to them; therefore, they are unwilling or are not able to identify the personal relevance of such social/professional offerings.

Differences in levels of nursing education may also relate to socialization into the role of the professional nurse. Professionalism, which is acquired through professional socialization, can be evidenced overtly through the reading of professional journals, membership in professional organizations and participation in continuing education (Lawler, 1988; Moore, 1970; Schoen, 1982). It is anticipated that nurses who are more highly socialized would be more likely to participate in CNE and that they would participate in CNE for benefits that are social/professional more so than personal. Nurses who are less socialized may participate less for social/professional reasons or for personal benefits; others may not feel that they benefit from CNE participation at all.

Variances in participation related to socialization must be addressed by educators in all levels of nursing education. Identification of the need for more specific socialization strategies as part of educational offerings
could be confirmed; educational planning to correct this deficiency could be implemented.

In Virginia, it is important to know what the recent trends in participation in continuing nursing education have been and what benefits of participation are reported by nurses. The identified importance of the expressed benefits associated with CNE participation in Virginia where this participation is voluntary is important. Registered nurses in Virginia are viewed as professionals. As professionals, they are expected to be competent and act responsibly; participation in CNE is but one way they evidence this expectation.

Research Questions

This research study investigated the following questions:

1. What is the relationship between level of socialization and participation and nonparticipation in CNE?
2. What is the relationship between the importance or non-importance of the benefits and participation and nonparticipation in CNE?
3. What is the relationship between participation and nonparticipation, socialization and the importance or non-importance ascribed to each identified benefit of CNE?
Theoretical Framework

Expectancy Valence Model of Participation

This research study used the Expectancy Valence Model of Participation in adult education as the theoretical framework. The Expectancy Valence Model (Rubenson, 1977, 1985) has been used successfully to describe, explain, and predict participation in continuing education.

This model of participation is comprised of two major concepts: valence and expectancy. Valence and expectancy are defined as the determinants of the internal and external forces that result in a decision to participate (Courtney, 1992; Cross, 1981; Long, 1983, Rubenson, 1977, 1985).

Valence is anticipated satisfaction; it can be viewed as the sum of positive and negative values of the effects obtained from participation (Courtney, 1992; Cross, 1981; Long, 1983; Merriam & Caffarella, 1991; Rubenson, 1977, 1985). Individuals participate when they experience valence; they see participation as a potential way to satisfy experienced needs.

Expectancy is defined as a belief (or expectation) that particular actions will lead to certain outcomes (Long, 1983; Rubenson, 1977, 1985). Expectancy relates to individuals' perceptions of themselves as being able to successfully participate and that rewards exist for this participation (Courtney, 1992; Rubenson, 1977, 1985).
This model can be used to describe the complex nature of behavior associated with participation in continuing education. It aids in the consideration of the variety of interrelated variables that affect the phenomenon of participation. Participants are those who believe that they can complete the program of study and that certain needs will be satisfied through participation. In contrast, nonparticipants are those who do not have a positive belief in either of these cases (Long, 1983, pp. 130-131).

**Hypotheses**

The hypotheses derived from the research questions and the theoretical model were:

1. There will be a statistically significant relationship between level of socialization and participation and nonparticipation in CNE.
2. There will be a statistically significant relationship between the importance of the social/professional and personal benefits and participation and nonparticipation in CNE.
3. There will be a statistically significant relationship between participation and nonparticipation, socialization and the importance ascribed to each identified social/professional and personal benefit of CNE.
Three crucial documents define the role of the nurse and the practice of professional nursing. These documents are *Nursing: A Social Policy Statement* (ANA, 1980), *Standards of Clinical Nursing Practice* (ANA, 1992) and *The Code for Nurses with Interpretive Statements* (ANA, 1985a). These three documents define and affirm the roles and responsibilities of professional nurses. Professional responsibility to the general society, parameters of nursing practice and norms for the conduct of nursing responsibilities are discussed. Each document cites the need for nurses to be competent practitioners and addresses nurses’ need to participate in CNE as a means to facilitate such competence.

Some states mandate maintaining competency by requiring nurses to participate in CNE. Licensure renewal is contingent upon acquiring specified amounts of CNE (York, 1991). Failure to participate in prescribed continuing education activities (i.e. certain numbers of contact hours required or in specific types of offerings) may result in the loss of nursing licensure. Some states require mandatory CNE for specific nurses (i.e. nurse practitioners) or under certain circumstances (i.e. nurses who have not been employed).

Other states do not require CNE for relicensure. The justification for this position is professional nurses are
socialized to assume responsibility for competency without legal coercion. This is the position held by the Virginia State Board of Nursing. Participation in CNE activities in Virginia rests solely upon the nurse's sense of professional responsibility ("Virginia Nurses' Association", 1975). Professional socialization, according to Cohen (1981), includes instruction in the technology of the profession and internalizing professional culture. "Values, attitudes, personal qualities, and consistent patterns of behavior . . . are fostered and facilitated by selected educational strategies and the process of socialization to the profession" ("Essentials", 1986, p. 7). Deane and Campbell (1985) comment "the extent to which an individual practices the tenets of the profession regarding continued self-growth through self-evaluation can only be derived from overt or manifest behavior" (p. 72). Thus, the internalized values are expected to be demonstrated by behavior.

The means for nurses to meet the professional responsibility to maintain competence is a dilemma with two options. First, nurses can make a commitment to continuing education by enrolling in learning activities leading to academic credits, certificates and degree granting programs (Hamilton, 1992). These activities are seen as being long term in nature. The alternative is to choose short term learning activities such as workshops, conferences, institutes, and symposiums (York, 1991). Some short term
learning occurs in the form of mandated participation in institutional education; this is often called "inservice education" or "required training". These activities are provided by employing institutions for employees and are designed to improve job performance or for compliance with the accreditation standards (McGriff, 1973). In this sense this type of participation is not voluntary. Reference to participation from this point will refer to only voluntary participation in CNE.

For nurses choosing short term learning opportunities, the Virginia Nurses' Association (VNA) supports nurses in their efforts by reviewing such offerings for their educational soundness, adherence to the principles of adult learning and satisfaction of national standards. CNE may also be provided through programs not approved by VNA since VNA approval of CNE is not mandated either by the state or by professional organizations. The Continuing Education Approval Committee of the VNA reports that in 1991 there were 16 providers of CNE approved and 23 single offerings approved ("VNA-CEA", 1992). Data is not complied to indicate the number of individual nurses who participated in these programs in Virginia (M. Rice, personal communication, December 11, 1992). Data showing the number of nurses who attended other CNE programs are not available (M. Rice, personal communication, December 11, 1992). Nevertheless, these offerings hardly accommodate the 65,957 registered
nurses currently licensed in Virginia (L. McGuire, personal communication, January 7, 1993) and seems to represent a great disparity between the expected professional responsibility to maintain competence and the actual demonstrated acceptance of this responsibility.

There have been a number of studies addressing the effects of continuing nursing education on practice (Brown, Brown & Bayer, 1987; Cox & Baker, 1981; Deets & Blume, 1977; del Bueno, 1977; Flackerud, Lewis, & Shin, 1989; Fogelsong, Lambert, & Emrick, 1987; Harrison & Novak, 1988; Hedman & Miller, 1987; Merservy & Monson, 1987; Oliver, 1984). Fewer studies have addressed the beneficial effects of participation in CNE (Dolphin, 1983; Rizzuto, 1982).

Turner (1986/1988) reports that there are benefits associated with participation in CNE. In a study conducted in Virginia in 1986, Turner studied benefits, costs and the relationship between benefits and costs of continuing nursing education. The purpose of Turner's study was "to identify and examine perceptions of nurses in Virginia regarding the benefits and participation costs of continuing nursing education in Virginia" (1986/1988, pp. 10-11). She studied 266 registered nurses who participated in one of four university-based CNE programs. Using a researcher-developed survey form (Continuing Nursing Education Survey [CNES]), Turner asked RNs who had participated in CNE to rate 33 possible benefits of the CNE activity they had
attended. Of the 33 benefits, 18 were identified by Turner as personal benefits and 15 were identified as social benefits. Benefits were viewed as outcomes or effects which are advantageous to the nurse, client, institution or general public. Personal benefits were advantages accrued by individual participants themselves; social benefits were benefits persons other than individual participants accrued. Additionally, respondents ranked the degree of benefit they would ascribe to each benefit.

Nurses, Turner found, did go to CNE because of the benefits they obtained from their participation. Analysis revealed that none of the benefits identified in the CNES were rated as having a large degree of benefit. Four benefits; personal satisfaction, joy of learning, increased knowledge of new techniques, and self-assurance; were rated to be of moderate benefit. Increased knowledge of new techniques was the only social benefit identified as being of moderate degree of perceived benefit to the respondents. Turner noted this was the first study to analyze CNE in terms of personal or social benefits; she recommended replication of the study with nurses from entrepreneurial, as well as university-based CNE programs. Additionally, she called for creation of a taxonomy of continuing education programs, full assessment of the needs of CNE participants and more comprehensive systematic collection of data on CNE.
The current study continued to investigate the issue of benefits as addressed by Turner (1986/1988). Benefits of CNE were studied; categories of social/professional or personal types of benefits were considered to be outcomes of CNE. Additionally, the following areas of interest were considered. Participants and nonparticipants in CNE were surveyed regarding the identified benefits of CNE; they were asked to rate the importance of the identified personal or social/professional benefits associated with participation in CNE. Respondents who had participated in all types of CNE were considered. Measurement of respondents' socialization was included. A socialization score, based upon reported nursing educational level, professional nursing organization affiliation and the reading of professional literature, was determined. The relationship of socialization to the identification of benefits and the relative importance of benefits associated with participation in CNE was investigated.

Consideration of the research offered in this section supported the need for the current study. There has been limited research on the benefits of participation in CNE. Voluntary participation by nurses in CNE is influenced by the expected outcomes or benefits associated with the activity. Factors related to participation, socialization and importance of types of benefits associated with participation in CNE should be more fully studied.
Definitions

The following definitions are provided to clarify terminology used in the text.

**Benefit**: any outcome that is advantageous to the person (nurse, patient, general public) or the institution. Benefits may be social/professional or personal in nature (Turner, 1986/1988).

**Continuing Nursing Education**: "...those planned educational experiences activities intended to build upon the educational and experiential bases of the professional nurse for the enhancement of practice, education, administration, research or theory development to the end of improving the health of the public" (ANA, 1984, p. 5).

**Expectancy**: the social/professional and personal benefits of CNE identified by registered nurses living in Southeastern Virginia who participate or do not participate (Rubenson, 1977, 1985).

**Personal benefits**: those outcomes that are advantageous to persons themselves which result from participation in CNE. Personal benefits may include higher status, increased salary, and personal satisfaction (Turner, 1986/1988).

**Registered Nurse**: any person who is licensed by the Virginia Board of Nursing to practice professional nursing. This person is legally able to use the designation "RN" ("Statutes", 1991).
Social/professional benefits: those outcomes that are advantageous to persons other than individual participants which result from participation in CNE. Social/professional benefits may include increased quality of patient care, decreased patient hospital stays, and increased institutional reputation (Turner, 1986/1988).

Social/professional and personal benefits: will be measured using the "Described Benefits" as listed on the modified CNES (Turner, 1986/1988). Identification of the benefit as either social/professional (Pro) or personal (Per) will be measured using the "Type of Benefit: Pro or Per" as listed on the modified CNES (Turner, 1986/1988). Importance ascribed the social/professional and personal benefits will be measured using "Important enough to me be an influence in participating" or "Not important enough to me be an influence in participating" as listed on the modified CNES (Turner, 1986/1988).

Socialization: "...the process whereby the values and norms of the professions are internalized into one's own behavior and concept of self" (Watson, 1981, p. 19). For the purposes of this study, socialization was manifested by the following behaviors: 1) basic level of nursing education, 2) reading of professional literature and 3) current membership in professional nursing organizations. It was be measured by tallying the number of professional behaviors.
which were listed on the Demographic Data Sheet (DDS) developed for this study.

Valence: the importance ascribed the benefits of CNE as identified by registered nurses living in Southeastern Virginia who participate or do not participate (Rubenson, 1977, 1985).

Limitations of the Study

1. This research study was limited in its scope to registered nurses living in the Southeastern region of Virginia who have participated or not participated in CNE during the period of June 1991 to June 1992. The findings of this study can be generalized only to the population under study.

2. This study did not account for the socialization which has taken place through other mechanisms than those described in this study.

3. Methods of data collection for this research study involved the use of questionnaires. Questionnaires are self-reported methods of data collection (Brink & Wood, 1988). In as such, there may be distortion in data due to respondents self-perception and self-reporting of their responses on the data collection instruments.

4. CNE participation was limited to short term CNE (i.e. institutes, symposiums, workshops, conferences). It did not include self-directed CNE or long term types of CNE such as academic semester courses or baccalaureate degree programs.
Methodology

This study used descriptive survey methodology. The sample for this study was selected from an accessible target population of registered nurses (RNs) who resided in the Southeastern region of Virginia. The regions identified as the Peninsula and Southside constitute the Southeastern region of Virginia. The Peninsula includes the cities of Hampton, Newport News, Yorktown, Poquoson, Williamsburg and James City County and the Southside includes Norfolk, Virginia Beach, Portsmouth and Chesapeake areas. The list of registered nurses was purchased from the Virginia Board of Nursing; this is a computerized listings by zip codes of RNs living in this area. The Virginia Board of Nursing reported that there were 16,885 licensed registered nurses living in this Southeastern area.

Respondents were selected from the list through systematic sampling; the sample process began with use of a table of random numbers for initial respondent selection. Every forty-second individual was selected to comprise a sample of 400 respondents. The researcher obtained informed consent from each respondent. Each respondent was advised of the purpose of the study and was assured that participation in the study was voluntary. Informed consent was in the form of a cover letter that was mailed to them along with the Demographic Data Sheet (DDS) and the modified Continuing Nursing Education Survey (CNES). The respondents
were assured that data would be considered confidential and that reported data would be in aggregate form. Respondents were anonymous.

Data analysis of the DDS was performed through the use of appropriate descriptive statistics. The CNES and related hypotheses were analyzed using inferential statistics as Chi square testing.

**Summary**

This chapter has discussed, as an introduction to the problem, nursing education and related variations in the knowledge base and socialization patterns of registered nurses. The need for competency of all nurses was presented; continuing nursing education was identified as one means of the maintenance of competency. The problem statement addressed investigation of factors which influence participation in CNE. Purposes of the study, research questions and hypotheses related to the problem were offered. Definitions of terms and limitations of this study have been included in this chapter. The significance of this study and pertinent research relating to the effects of CNE on nursing practice was presented. Specific research on participation in CNE and benefits of such participation was also included in this chapter.
CHAPTER TWO

Review of The Literature

Introduction

The following is a discussion of selected research and background literature relevant to the variables under investigation. The chapter describes literature related to socialization and adult education, professional nursing and socialization, nursing practice, patterns of nursing education, indicators of professional socialization, participation in continuing nursing education (CNE) and summative commentary on the described literature and research.

CNE literature followed an interesting pattern. Extensive writing on CNE was evidenced in the nursing literature during the decades of 1970 and 1980 while less writing on CNE was seen during the 1990s. Much of the literature in the early 1970s was informed opinions from nursing leaders. The need for CNE as a professional responsibility and as a means to counter the effects of a changing professional knowledge base was indicated. Anecdotal commentary on "what constitutes CNE" and "should participation in the process be voluntary or mandated" was often seen in writings of this time.
This trend in commentary on the merits of CNE continued, but in the late 1970s and the early 1980s literature demonstrated more research on CNE. Research on the effects of CNE on nursing practice, participation in CNE and related characteristics of CNE participants was seen. Literature on CNE in the late 1980s and 1990s showed additional changes in emphasis. Research continued to be present but this research addressed areas such as relevant teaching/learning strategies, needs assessment and outcome evaluation of CNE. Informed commentary continued but there was no debate on the need for CNE; this commentary addressed issues such as institutional support for use of participants' knowledge acquired through CNE, relevancy in CNE content and continued to cite nurses' professional responsibilities for maintenance of their professional competency.

Structuring of this chapter reflected synthesis of literature on CNE from the 1970s, 1980s and 1990s. Relevant commentary and research were integrated throughout sections of the chapter.

Socialization and Adult Education

Individuals learn to be members of a society through socialization (Berger & Berger, 1975; Hinshaw, 1986). Socialization is a process through which individuals gain knowledge, skills and values required for functioning within society; "socially relevant behaviors" (Oermann, 1991, p.
are learned through socialization. Standards supporting the process of socialization are derived from group norms and specific roles and values which are accommodated by the group (Rosow, 1965).

Socialization of individuals occurs in phases; childhood socialization is seen as primary socialization while secondary socialization occurs in adulthood (Kozier, Erb & Blais, 1992; Oermann, 1991). Families, schools, peer groups and media commonly serve as instruments of socialization (Kozier, Erb & Blais, 1992; Oermann, 1991).

Adult socialization is viewed as a continuous, adaptive process involving the development of new values and behaviors associated with adulthood (Oermann, 1991). Hinshaw (1936) states that "adult socialization is a process through which individuals prepare for the life roles that they will enact in their society" (p. 20). Acquisition of essential knowledge and skills for occupational roles is a significant socialization process (Hinshaw, 1977, 1986; Kramer, 1974).

Schools serve as agents of socialization in both childhood and adulthood (Kozier, Erb, & Blais, 1992). Watson (1981) comments that "formal education has become a primary means of socialization in society" (p. 19). Schools, also, provide adult socialization in the form of professional socialization.
Educational experiences as adults provide occupational/professional socialization (Cohen, 1981; Jacox, 1973; Kozier, Erb & Blais, 1992; Oermann, 1991; Rosow, 1965); "professional socialization is a part of, and a responsibility of, the formal educational process" (Watson, 1986, p. 43). This professional socialization provides the basis of the values and behaviors required for professional nursing practice (Kozier, Erb & Blais, 1992; Oermann, 1991; Styles, 1983). This process is structured so that a basic set of role values and consequent behaviors can be instilled in the novice (Rosow, 1965).

Professional socialization occurs through the process of education of nurses (Cohen, 1981; Jacox, 1973; Styles, 1983). Oermann (1991) defines this process as "...learning the roles and values of a professional" (p. 13). During this type of socialization there are changes in adult roles; "...other people in the role assist the individual in learning necessary behaviors, values and norms for assuming the new role" (Oermann, 1991, p. 12). The outcome of professional socialization must be "...a person who has both the technical competencies and the internalized values and attitudes demanded by the profession and expected by the public at large" (Watson, 1986, p. 43).

Professional Nursing and Socialization

Spickerman (1988) maintains that "socialization of students into the profession is the purpose of undergraduate
nursing education" (1988, p. 10). Elements of professional nursing socialization, according to Viar, Booth and Patterson (1988), include groundwork in liberal arts, acquisition of nursing knowledge and internalization of professional values and behaviors. Initial socialization into nursing occurs during the first professional experience (Jacox, 1973; Oermann, 1991; Simpson, 1967). During initial socialization students "...learn both the cultural content of a new role, i.e., its skills, required knowledge, values and behavioral modes, and they acquire a degree of identification with the role" (Hinshaw, 1986, p. 23). Deane and Campbell (1985) believe that an "...expectation of this socialization process is the development of the ability to transfer cognitive, psychomotor, and affective learning to actual health care situations as changes and advances occur in health care delivery" (p. 69).

Socialization is the process by which the values, norms, attitudes, behaviors, knowledge and skills of a discipline are transmitted to students enrolled in basic nursing programs leading to licensure (Cohen & Jordet, 1988; Hinshaw, 1977; McCain, 1985; Oermann, 1991; Simpson, 1967; Styles, 1983; Watson, 1981; Watson, 1986). Professional socialization requires the internalization of group values and norms into the individual’s behavior and conception (Jacox, 1973; Oermann, 1991). Hinshaw (1986) states that professional nursing socialization "...focuses on the
provision of values and behaviors basic to the delivery of quality client care" (p. 20).

"Values, attitudes, personal qualities, and consistent patterns of behavior...are fostered and facilitated by selected educational strategies and the process of socialization to the profession" ("Essentials", 1986, p. 7). During socialization the nursing student acquires the knowledge, skills and attitudes of the professional group (Styles, 1983; Watson, 1981). Socialization "...ultimately provide[s] both the values and behaviors required for nursing practice" (Hinshaw, 1986, p. 20).

Acceptance of the role of nurse implies that professional socialization has occurred ("Essentials", 1986; Hinshaw, 1977; Kozier, Erb & Blais, 1992; Rosow, 1965; Simpson, 1967; Watson, 1986). The rights of professional status are offered to individuals because of their acquired knowledge base and their acceptance of the responsibilities of professionals (American Nurses Association [ANA], 1980; Styles, 1983). Professional nursing roles are constantly evolving and changing; there must be "...continual redefinition of standards and sets of value and behavior expectations as a mechanism for assuring the quality of care that will be delivered" (Hinshaw, 1986, p. 19).

Socialization is also an interactive process which occurs through the passage of time (Hardy & Conway, 1988; Hinshaw, 1986; Kozier, Erb & Blais, 1992). In addition to
basic professional role socialization, the effects of ongoing socialization and the adaptive response of the practitioner must be considered. Professional socialization only begins with initial nursing education (Hinshaw, 1986). Hardy and Conway (1988) suggest that time is also crucial in professional socialization; it is not known how much time is needed for effective professional socialization. In this context, the learning of roles and adaptation to these roles is continuous and is related to the passage of time (Hardy & Conway, 1988; Hinshaw, 1986; Schien, 1971; Styles, 1983). Nurses are, therefore, affected by continuing socialization as they implement their professional nursing practice. Values, norms, attitudes, behaviors, knowledge and skills of nurses are likely to be continually changing as a result of this ongoing socialization.

**Nursing Practice**

Nursing practice focuses on human responses to health problems (ANA, 1980; Hamilton, 1992). Nurses have been traditionally seen as caring, humanistic, nurturing and supportive persons who practice professionally (Kozier, Erb & Blais, 1992). Nurses enter into professional relationships with clients; these relationships pertain to "...a direct connection in the form of an informal contract between the professional and client for an identifiable service in a particular area of expertise" (Newman, 1990, p. 50). According to Oermann (1991) "professional practice
involves deliberately planned actions in response to the needs of clients for whose care nurses are responsible" (p. 1).

"Nursing practice is a type of knowledge, an application of knowledge, and a way of knowing" ("Essentials", 1986, pp. 7-8). Clinical practice "...is the process of translating knowledge and observation into a plan of nursing action and the implementation of that plan for the benefit of the patient/client" ("Essentials", 1986, p. 8). Theory precedes and serves as the justification for nursing actions (ANA, 1980). The ANA (1980) notes that "ideally, the actions of the nurse are taken from a theoretical base that includes an accurate understanding of the phenomena in question and a means for evaluation or readjustment" (p. 12).

Beyers (1991) states that "professional nursing requires that its knowledge base is continually questioned and developed through practice and research; . . . . [this] practice requires that nurses make decisions using principles, concepts and nursing theories" (p. 62). Clinical practice "...is the process of translating knowledge and observation into a plan of nursing action and the implementation of that plan for the benefit of the patient/client" ("Essentials", 1986, p. 8).

All professions have "...delineated roles and defined standards for how individuals in a particular role should
act or behave" (Hinshaw, 1986, p. 19). Three crucial documents of the ANA, the referent professional group in nursing, define the role of the nurse and the practice of professional nursing. These documents are Nursing: A Social Policy Statement (1980), Standards of Clinical Nursing Practice (1992) and The Code for Nurses with Interpretive Statements (1985a). These define and affirm the roles and responsibilities of professional nurses. Professional responsibility to the general society, parameters of nursing practice and norms for the conduct of nursing responsibilities are discussed.

Nursing: A Social Policy Statement (1980) asserts nursing’s social responsibilities and affirms the implied social contract between nursing and society. The social context of nursing, the nature and scope of nursing practice and the idea of specialization in nursing are discussed. This document reflects that there is variety in nursing; and that "...there is a heterogeneity of clinical interests and levels of competence within nursing" (ANA, 1980, p. 21).

Parameters of nursing practice are addressed in standards of practice established by professional groups (Harris, 1991). These parameters stem from norms of nursing as a service profession and serve to guide the specific role of the nurse (Kozier, Erb & Blais, 1992). The ANA (1992) states in the Standards of Clinical Nursing Practice (subsequently referred to as Standards) that "standards are
authoritative statements by the nursing profession describing the responsibilities for which its practitioners are accountable. . . . standards reflect the values and priorities of the profession" (p. 1). These statements address standards relating to care and professional performance.

Guidance for conduct of professional nursing responsibilities is provided by a code of conduct which reflects the norms of the profession (Fry, 1991). The Code For Nurses With Interpretive Statements (1985a) (subsequently referred to as The Code) discusses nursing knowledge noting that "nurses are required to have knowledge relevant to the current scope of nursing practice, changing issues and concerns, and ethical concepts and principles" (p. 10). The Code "...shapes the profession; it is a statement of professional behavior and frame[s] role expectations. . . . [it] specifies dimensions and responsibilities of the role such as accountability, advocacy, competence, delegation and collaboration" (p. 75). Hamilton (1992) notes that ethical codes are "...ever-evolving statements of values, reflecting social and professional change" (p. 197).

These documents describe distinctive values and behaviors that serve as the foundation for professional nursing practice. These values are transmitted to nursing students during the process of nursing education and
professional socialization; "it is within the educational programme [sic] that these values are developed, clarified and internalized" (Watson, 1981, p. 20). Professional education is "...designed to shape the values, attitudes, self-concept, and role behavior of the student, thereby enabling the learner to assume the new role of a professional practitioner" (Oermann, 1991, p. 13).

Professional socialization, according to Cohen (1981), includes instruction in the technology of the profession and the internalization of professional culture; through socialization the beginner begins to adopt a personal and professional role. Deane and Campbell (1985) state that an "...expectation of this socialization process is the development of the ability to transfer cognitive, psychomotor, and affective learning to actual health care situations as changes and advances occur in health care delivery" (p. 69). The purpose of basic nursing education is to socialize students into the nursing profession (Spickerman, 1988).

**Patterns of Nursing Education**

Beletz (1990) comments "nursing has a peculiar melange of educational entry routes to professional nursing practice" (p. 61). Watson (1986) states "there is not, however, agreement that there should be 'one' pathway of formal education" (p. 41). Evident in this mixture of routes into nursing practice are significant variations in
the types of educational preparation (Kuramoto, 1975; Young, Lehrer & White, 1991).

Educational preparation for nursing practice, despite identified variations, should include knowledge of liberal arts and sciences; use of specialized knowledge and skills associated with nursing practice; use of critical thinking exhibited by the use of the scientific method in nursing; and application of theory in nursing practice (Kozier, Erb & Blais, 1992). All nursing programs are designed to prepare graduates to be competent practitioners.

There are three usual, distinct educational programs leading to entry into nursing practice (Watson, 1986); most individuals study nursing in diploma, associate degree or baccalaureate programs. These programs differ in their educational base, curriculum and educational setting (Billings, 1991; Kozier, Erb & Blais, 1992; Oermann, 1991; Young, Lehrer & White, 1991). Programs leading to a generic master's degree and/or a nursing doctorate are other less common types of basic professional programs (Kozier, Erb & Blais, 1992; Oermann, 1991). Diploma, associate degree and baccalaureate programs evolved around varying occupational expectations and functions of graduates (Watson, 1986). Conceptual and structural differences in the diploma, associate degree and baccalaureate programs are described in the following sections. Nursing, as a profession, has not differentiated responsibility according to type of
educational preparation for nursing (Ehrat, 1981; Watson, 1986).

**Diploma Nursing Educational Preparation**

The first type of program, based upon the apprenticeship model (Brodie, 1988), grants a diploma in nursing. Typically, diploma programs are run as "training schools" for nurses (Kozier, Erb & Blais, 1992). The hospital-based diploma programs are noted to provide technical education (Billings, 1991; Oermann, 1991; "State Policy", 1991).

Diploma programs are based on a minimal "...foundation of general education courses in the biological and social sciences" (Billings, 1991, p. 223). The general education courses are usually taught at an academic facility and credit is awarded by the educational institution. Courses in nursing theory are taught at the sponsoring hospital facility by nurses who hold either baccalaureate or master's degrees in nursing (Hamilton, 1992). Nurse faculty members serve as agents of socialization ("Essentials", 1986).

The diploma curriculum, which emphasizes the technical aspect of clinical practice, prepares nurses to practice in safe dependent roles in controlled environments (Billings, 1991; Hamilton, 1992; Montag, 1980). Students learn to function in a hospital bureaucracy and the work of a staff nurse during their socialization experiences in the diploma program (Hamilton, 1992). The Council of Diploma Programs...
of the National League for Nursing (NLN) defines the role of the diploma graduate as that of a beginning practitioner (NLN, 1989).

Associate Degree Nursing Educational Preparation

The second type of program is one that leads to an associate degree (AD) in nursing. The AD program was developed as a model of technical nursing education (Billings, 1991; Kramer, 1981; Montag, 1980; Oermann, 1991; "State Policy", 1991).

The curriculum of associate degree program frequently includes the biological and social science and general education courses; "approximately one half of the curriculum (30 credits) is composed of general education courses" (Billings, 1991, p. 224). Associate degree programs build on a very limited base of general education courses and include specific nursing content (Hamiton, 1992). Nursing content is related to nursing actions associated with commonly recurring health problems (Montag, 1980).

Courses in nursing theory are taught at the junior or community college by nurses who hold master's degrees in nursing. Nurse faculty members serve as agents of socialization. ("Essentials", 1986).

The practice setting of the AD graduate is structured and the focus of care is the individual. The Council of Associate Degree Programs of the NLN defines the role of the associate degree graduate as that of a care provider and
manager (NLN, 1990a). AD graduates are prepared "...to practice nursing, under the direction of a professional nurse, in roles of care provider, communicator, client teacher, manager of care, and member of the profession" (Billings, 1991, p. 224).

Baccalaureate Degree Nursing Educational Preparation

Baccalaureate programs are the third type of basic educational program. These programs provide students with the broad base of knowledge from the sciences, humanities, and arts and letters. According to Oermann (1991) "professional nursing education is provided in baccalaureate programs in college and university settings" (p. 18).

The foundation of baccalaureate programs is a base of liberal arts and sciences and humanities (Hamilton, 1992). Billings (1991) indicates that "these courses are selected to develop a liberally educated person and include inquiry, literacy, understanding numerical data, historical consequences, science, values, art, international and cultural experience and research study in depth....the liberal arts and sciences foundation composes approximately 60 credits of the 120 credit curriculum" (p. 226).

The nursing major is built on these supporting lower level, liberal arts prerequisite courses and emphasizes use of research findings and collaboration with other disciplines throughout the curriculum (Hamilton, 1992). Nursing courses are specified; these include courses related
to theory, research, community health, nursing management and concepts of professionalism emphasizing critical thinking, problem-solving and decision-making (Billings, 1991). Nurse faculty members prepared at the master’s and doctoral level serve as agents of socialization; this socialization occurs "...through modeling and teaching the professional role; demonstrating mastery of nursing knowledge, skills and behaviors; and exhibiting commitment to values, traditions, obligations, and concerns of the profession" ("Essentials", 1986, p. 3).

Baccalaureate prepared nurses provide nursing care to individuals, families and groups in a variety of structured and unstructured settings. They provide leadership skills and utilize critical thinking skills in decision-making (Hamilton, 1992; Primm, 1986).

Despite differences in the three types of programs, Watson (1986) contends that "...each holds the expectation of professional socialization" (p. 42) as an outcome of the educational process. Graduates of the three types of nursing programs are expected to exhibit characteristics related to responsibility and accountability for professional practice and continuing professional development (NLN, 1987; NLN, 1989; NLN, 1990a). It is clear, however, they enter practice with varying degrees of nursing knowledge ("Essentials", 1986) and socialization.
Legal statutes in all states except North Dakota (McCarthy, 1989) do not differentiate between the competencies of graduates of these three basic educational programs in nursing (Beletz, 1990; Watson, 1986). After graduating, all students are eligible to take the registered nurse (RN) licensing examination, the National Council Licensing Examination (N-CLEX), for entry into practice (Ehrat, 1981; Oermann, 1991). N-CLEX is a standardized test designed to evaluate nursing knowledge from predominately the cognitive domain and with lesser emphasis from the psychomotor domain. There is no testing of knowledge of the values and norms of the profession. Nevertheless, a passing score on this examination indicates that the nurse has at least minimal competency to practice nursing (Ehrat, 1981).

Success on this examination leads to the designation of "registered nurse" as denoted by the credential of "RN". This designation used by all registered nurses hides the fact that the population of registered nurses, having been educated and socialized differently, is in fact three separate populations, each with its own distinctive knowledge base and level of socialization.

**Indicators of Professional Socialization**

The practitioners of the nursing discipline should demonstrate attributes of professionalism (ANA, 1980, 1992; Kozier, Erb & Blais, 1992; Moloney, 1986; Moore, 1970; Styles, 1983). Aspects of professionalism include
specialized education, expertise in practice which is based upon theory, a client-service orientation, ethics, self-determination, autonomy and competence (Beletz, 1990; Kozier, Erb & Blais, 1992; Moloney, 1986; Oermann, 1991).

Defining characteristics of a professional orientation (Bell & Rix, 1979; Lawler, 1988; Moore, 1970; Schoen, 1982) include full-time employment, commitment to a vocation, affiliation with a professional organization, educationally derived accomplishment (i.e. advanced education, continuing education, reading professional publications), service orientation and autonomy.

The rights of professional status are offered to individuals because of their body of knowledge and their acceptance of the responsibilities expected of professionals (ANA, 1980). Professional obligations are acquired as a result of professional privileges. Watson (1986) comments "attitudes toward [professional] practice are a reflection of the socialization process which occurs in education" (p. 55).

Professional socialization affects assumption of the professional nursing roles. Professional socialization, according to Cohen (1981), includes instruction in the technology of the profession and internalization of professional culture; through socialization the beginner begins to adopt a personal and professional role.
"Values, attitudes, personal qualities, and consistent patterns of behavior . . . . are fostered and facilitated by selected educational strategies and the process of socialization to the profession" ("Essentials", 1986, p. 7). Deane and Campbell (1985) relate "the extent to which an individual practices the tenets of the profession regarding continued self-growth through self-evaluation can only be derived from overt or manifest behavior" (p. 72). Thus, the internalized values are expected to be evidenced in demonstrated behaviors. Palmer (1974) relates that the "strength of a profession is measured by the degree and extent to which both those who earn their living in it and those who practice it adhere to professional membership and assimilate and internalize the ideals, philosophical beliefs and practices of that profession" (pp. 402-403).

One duty of the professional is the responsibility to remain competent (Beletz, 1990; Moore, 1970). According to McCloskey (1981) competency is "...an ability, talent or skill that allows someone to do something" (p. 356). Competency focuses on behaviors of practitioners. Competent practitioners are judged to have a reserve of behaviors demonstrating requisite knowledge, skills and attitudes of professional nursing practice.

Hamilton (1992) notes that competence "...is essential for safe practice....[it] is achieved through education and experience (p. 33). Competence in professional nurses is
manifested by the use of the essential theoretical principles and techniques of nursing practice (Moloney, 1986). Creasia (1991) notes that "...the performance of duties and tasks and the assumption of certain responsibilities form the pattern of behaviors that characterize the professional nurse" (p. 75). Competence is crucial for safe clinical practice (Hamilton, 1992).

A professional is also expected to demonstrate a commitment to lifelong learning; "ideally, each nurse would continue to have that desire to 'know' that originally led her into a basic nursing education, and would [have] the self-motivation and internal commitment to seek every opportunity for lifelong learning" (Whitaker, 1974, p. 476). Whitaker (1974) continues "the commitment or responsibility for lifelong learning carries with it the expectation of investment of money as well as energy and time" (p. 481).

Within the context of socialization to professional responsibility, Deane and Campbell (1985) state that "...learning is a lifelong process in which one bears the personal responsibility to engage" (p. 90). Basic education serves the function of "...inculcat[ing] this quest for continued learning throughout one's life" (Palmer, 1974, p. 403). Recognition of the need for continuous knowledge relates to basic education for nursing (Whitaker, 1974). Professional socialization, therefore, affects participation in continuing education and lifelong learning.
Need for Continuing Nursing Education (CNE)

The knowledge base acquired in basic nursing programs, regardless of the level, is not only distinct in its emphases, it is not sufficient to maintain competence over the duration of the nurse's career. From a scientific point of view, much of what is considered "state of the art" in health care is obsolete in fewer than five years (Anderson & Kasl, 1982; Apps, 1988; Hoy, 1982; McGriff, 1973; Moore, 1970; York, 1991). Deane and Campbell (1985) state that "basic nursing education does not provide sufficient data for ongoing decision-making in the changing environment of nursing practice" (p. 109); nurses must continuously "...acquire new levels of competence in order to deal effectively within a changing environment" (Deane & Campbell, 1985, p. 70). Hamilton (1992) relates that "nurses must continually update their knowledge, skills, and attitudes to be competent in the ever-changing field" (p. 59).

In schools of nursing, students theoretically acquire entry level professional knowledge, skills and abilities ("Essentials", 1986). As a member of a profession the nurse must "...identify and participate in formal and informal education offerings" ("Essentials", 1986, p. 64) as a means to demonstrate commitment to "...the need for life-long learning and continual growth toward expert practice" (p. 63).
The American Nurses Association (ANA) (1985b) states in its philosophy of continuing education in nursing that: continuing education needs of professional nurses are influenced by many factors including: the nurse's acceptance of accountability and responsibility for his or her own practice, changes in demographic characteristics of providers and adult learner populations, for example, in educational levels and specialization in nursing, and in cultural background . . . . health and nursing research with advances in health and nursing science and technology. . . . (pp. 3-4).

The purposes of continuing nursing education (CNE) according to the ANA (1985b) are: "...to build upon varied educational and experiential bases for the enhancement of practice, education, administration, research, or theory development, to the end of maintaining and improving the health of the public" (p. 3). CNE, the ANA (1985b) continues, is "...essential for maintaining and increasing competence...[and] is necessary for personal and professional growth of the nurse" (p. 3).

Documents defining parameters of nursing practice, Nursing: A Social Policy Statement (ANA, 1980), Standards of Clinical Nursing Practice (ANA, 1992) and The Code for Nurses with Interpretive Statements (ANA, 1985a), cite the need for nurses to be competent practitioners and address
nurses' need to participate in CNE as a means to facilitate such competence.

*Nursing: A Social Policy Statement* (ANA, 1980), recognizes that

...most nursing practice is general nursing in a specialized area, having a specialized population or focus. This range of practice can be related to nurses’ interest, educational level, experience and selection of place of employment. General practice nurses often have a specific focus in their clinical practice. Competency for these nurses is enhanced through CNE. Societal concerns and the need for continuous professional learning offer support for the idea of short term CNE; concentrated, short term CNE has been . . . . aimed at meeting immediate needs for nurses to work more productively in particular areas of nursing practice (p. 29).

In *Standards for Clinical Nursing Practice* (ANA, 1992), the third standard of professional performance, addresses the concept of education—noting that "the nurse acquires and maintains current knowledge in nursing" (p. 14). This maintenance of knowledge, a requirement of all professional nurses, is measured by participation in continuing educational activities "...related to clinical knowledge and professional issues" (ANA, 1992, p. 14). Standards (ANA, 1992) discuss the theoretical base of nursing practice
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noting that "criteria must remain constant with current
nursing practice, which has a theory base but is constantly
evolving through the development of new knowledge and the
incorporation of relevant research findings into nursing
practice" (p. 4).
The fifth statement of the Code (ANA, 1985a) comments
"the nurse maintains competence in nursing" (p. 1).

The

Code (ANA, 1985a) recognizes that "...the profession of
nursing is obligated to provide adeguate and competent
nursing care" (p. 9).

This document continues "the nurse

must be aware of the need for continued professional
learning and must assume personal responsibility for
currency of knowledge and skills" (p. 9).

"The profession

of nursing is obligated to provide adequate and competent
nursing care.

. . .it is the personal responsibility of each

nurse to maintain competency in practice" (ANA, 1985a, p.
9).
"Essentials of College and University Education for
Professional Nursing" (1986) relates that socialization in
professional nursing results in practitioners who have
internalized "...values, traditions, and obligations of the
professional.

. . .[and] identification with and commitment

to the profession"

(p. 3).

As a member of the profession,

the professional nurse "...is committed to the value of
collegiality and the need for lifelong learning and
continual growth toward expert practice" ("Essentials",

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Accountability for nursing practice involves recognition of the effects of theoretical and technological changes on nursing practice and self-evaluation in the identification of learning needs and participation in "formal and informal educational offerings" ("Essentials", 1986, pp. 16-17). Thus, practitioners are expected to participate in lifelong learning as a means to assure competence.

Therefore, continuing nursing education (CNE) has been considered an essential professional responsibility. As members of a profession nurses should understand they must "...identify and participate in formal and informal education offerings" as a means to demonstrate commitment to "...the need for life-long learning and continual growth toward expert practice" ("Essentials", 1986, pp. 63-64).

Continuing nursing education (CNE) programs provide updated and expanded knowledge as a means of maintaining the competency expected of the professional nurse (Wilk, 1986). One of the outcomes of professional socialization is the valuing of learning and recognition of the need for lifelong learning (Estok, 1977). "Nurses must grow up, so to speak, with an attitude and commitment to a career of lifelong learning" (McGriff, 1973, p. 480).

Some states mandate maintaining of competency by requiring nurses to participate in CNE. Licensure renewal is contingent upon acquiring specified amounts of CNE (York,
1991). Failure to participate in prescribed continuing educating activities (i.e. certain numbers of contact hours required or in certain types of offerings) may result in the loss of nursing licensure. The states that have mandatory CNE for all registered nurses (RNs) for license renewal are: Alabama, Alaska, California, Colorado, Delaware, Iowa, Kansas, Kentucky, Massachusetts, Nebraska, Nevada, New Mexico, Texas and Wyoming ("State and Association", 1992). Some states require mandatory CNE for specific nurses (i.e. nurse practitioners) or under certain circumstances (i.e. not employed). These states are: Arizona, District of Columbia, Idaho, Illinois, Indiana, Louisiana, Mississippi, New Hampshire, New York, North Carolina, Oregon, South Dakota, Utah, Vermont and Washington ("State and Association", 1992).

The remaining states do not require CNE for relicensure. The justification for this position is that professional nurses are socialized to assume responsibility for competency without legal coercion. This is the position held by the Virginia State Board of Nursing and supported by the General Assembly. Participation in CNE activities in Virginia rests solely on the nurse’s sense of professional responsibility ("Virginia Nurses’ Association", 1975). Within the context of professional responsibility, Deane and Campbell (1985) note that "... learning is a lifelong process in which one bears the personal responsibility to
engage" (p. 90) and that "the extent to which an individual practices the tenets of the profession regarding continued self-growth through self-evaluation can only be derived from overt or manifest behavior" (p. 72). Thus, the internalized values are expected to be demonstrated by behavior.

The means for nurses to meet the professional responsibility to maintain competence is a problem with two alternatives. First, nurses can make a commitment to continuing education by enrolling in learning activities leading to academic credits, certificates and degree granting programs (Hamilton, 1992). The alternative is to choose short term learning activities such as workshops, conferences, institutes and symposiums (York, 1991). Some short term learning occurs in the form of mandated participation in institutional education; this is often called "inservice education" or "required training". These activities are provided by employing institutions for employees and are designed to improve job performance or for compliance with accreditation standards (McGriff, 1973). In this sense this type of participation is not voluntary. Reference to participation from this point will refer to only voluntary participation in CNE.

For nurses choosing short term learning opportunities, the Virginia Nurses’ Association (VNA) supports nurses in their efforts by reviewing such offerings for their educational soundness, adherence to the principles of adult
learning and satisfaction of national standards. CNE may also be provided through programs not approved by VNA since VNA approval of CNE is not mandated either by the state or by professional organizations. The Continuing Education Approval Committee of the VNA reports that in 1991 there were 16 providers of CNE approved and 23 single offerings approved ("VNA-CEA", 1992). Data was not compiled to indicate the number of individual nurses who participated in these programs in Virginia (M. Rice, personal communication, December 11, 1992). Data showing the number of nurses who attended other CNE programs were not available. Nevertheless, these offerings hardly accommodate 65,957 (L. McGuire, personal communication, January 7, 1993) registered nurses in Virginia and seems to represent a great disparity between the expected professional responsibility to maintain competence and the actual demonstrated acceptance of this responsibility.

Participation in Continuing Nursing Education

Practicing professionally implies responsibility and accountability (ANA, 1980, 1992; Eichhorn, 1981; Kozier, Erb & Blais, 1992; O’Connor, 1979; Palmer, 1974; Tibbles, 1977). del Bueno (1977) notes that "individuals ultimately have control over their own behavior and consciously or unconsciously choose to perform in a desirable or undesirable way" (p. 34). Participation in continuing
education is an indication of professionalism (Eichhorn, 1981; Moore, 1970; O'Connor, 1979; Schoen, 1982).

**Competence**

Nursing literature echoes the need for maintenance of competence in nursing practice. Competence, according to Rizzuto (1982), is "the ability to carry out a specific task or tasks according to predetermined standards of performance" (p. 38). Nurses are responsible for maintaining their own competency (ANA, 1980, 1985a, 1992; Hinshaw, 1986; McGriff, 1973, Moloney, 1986).

Whitaker (1974) observes that "since nursing is concerned with the welfare of human beings, individual's practice should be based on continuously expanding and updated body of knowledge" (p. 475). McGriff (1973) says that "nurses have historically believed that their basic educational programs in nursing prepared them for a lifetime of practice" (p. 483). A nurse's basic professional education is not sufficient for lifetime practice ("Impact", 1982; Rizzuto, 1982). Continued education beyond completion of basic education or awarding of a degree is generally accepted as essential for the professional to continue to practice competently (Kubat, 1975). There is not, however, universal acceptance of the fact that nursing education must be a continuous process (McGriff, 1973).

Kubat's (1976) research reported that participation in professional activities is predictive of competence. Competency was negatively associated with age and employment status. Basic nursing education, advanced nursing education, professional nursing affiliation and reading of professional journals was positively related to competency. Clark and Dickinson (1976) reported a negative association between CNE participation and professional competency.

Changing Knowledge and Obsolescence

From a scientific point of view, much of what is considered "state of the art" in health care is obsolete in fewer than five years (Anderson & Kasl, 1982; Apps, 1988;
Deane and Campbell (1985) state that "basic nursing education does not provide sufficient data for ongoing decision-making in the changing environment of nursing practice" (p. 109); nurses must continuously "...acquire new levels of competence in order to deal effectively within a changing environment" (p. 70). Hamilton (1992) relates that "nurses must continually update their knowledge, skills, and attitudes to be competent in the ever-changing field" (p. 59).

Knowledge becomes outdated rapidly ("Impact", 1982; Krekeler, 1975); this is especially critical in professions where knowledge is applied ("Impact", 1982; Kubat, 1975; Mitsunga & Shores, 1977; O'Connor, 1979; Rizzuto, 1982). "The translation of nursing theory into nursing practice, depends, for the most part, on an educational process" ("Impact", 1982, p. 9). Palmer (1974) states that "continuing education is required because of the variability of preparatory backgrounds presented by the labor force in nursing to assure one of the standard of competence or a baseline of knowledge requisite to the kind of quality of practice demanded of today's professional nurse" (p. 405).

Tibbles (1977) believes that the "...basic education of many nurses had not prepared them to assume this responsibility [for continued education]" (p. 25). Whitaker (1974) notes that "there is growing belief that the original preparation for practice has definite time limits because of
the ever-increasing introduction of new knowledge, technology and therapeutics into practice" (p. 476). Nurses not engaging in educational undertakings are basing actions and judgements on insufficient and/or obsolete knowledge. (Whitaker, 1974).

Professional obsolescence is a concern that can be related to the knowledge explosion. Professional obsolescence, according to Kubat (1975), is "a reduction in the current knowledge related to nursing which may make professional practice unsafe or ineffective" (p. 23). Discernible professional obsolescence is a problem for the nursing profession (Ayers, 1973; Stuart, 1975; Whitaker, 1974). Kubat (1976) believes motivation of nurses contributes significantly to obsolescence.

Continuing education is seen to be a means to prevent professional obsolescence (Rizzuto, 1982); she comments that CNE has been given the "task of curing a social problem" (p. 43). "Impact" (1982) comments that "continuing education makes us cognizant of our continual need to know, of the inevitability of obsolescence should we cease to search for the new and the possible" (p. 11).

**Effects of CNE on Nursing Practice**

The effects of continuing education on nursing practice have been studied by a number of researchers (Cox & Baker, 1981; Deets & Blume, 1977; DeHaven, 1990; del Bueno, 1977; Ferrell, 1988; Flaskerud, Lewis & Shin, 1989; Foglesong,

Retention of knowledge acquired through CNE participation was related to actual use of the knowledge in practice (Deets & Blume, 1977). The importance of peer (Brown, Brown & Bayer, 1987) and institutional support for participants using knowledge acquired by CNE in practice was revealed (Brown, Brown & Bayer, 1987; Keltner, 1983; Kiener & Hentschel, 1989). Nurses reported actual and perceived barriers to use of knowledge acquired through CNE in practice; lack of confidence was the most frequently cited barrier (Brown, Brown & Bayer, 1987).

Characteristics associated with CNE Participation

Kubat (1976) noted "demographic characteristics, professional activities and perceptions of continuing education needs were identified as factors which predict
professional competence or obsolescence" (p. 18).

Differences in characteristics can be such things as age, general perceptions, perceived needs, expressed general attitudes, expressed attitudes toward professionalism, expressed reasons for participation, employment status, place of residence, socioeconomic elements/personal backgrounds, employment position, clinical area of nursing practice, basic level of nursing education and highest level of nursing education completed.


Identified sociodemographic and attitudinal characteristics that researchers have found to affect CNE participation will be described in the following sections.
Sociodemographic Characteristics.

Selected sociodemographic characteristics have been associated with participation in CNE. Position or "job title" (Millonig, 1985) and employment status positively affected CNE participation (Arneson, 1985a; Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Keltner, 1983; Kubat, 1975; Puetz, 1980, 1983; Schoen, 1982; Thomas, 1986). Clinical specialty or type of practice area affected CNE participation (Curran, 1977; DeSilets, 1990; Keltner, 1983; Kubat, 1975; Puetz, 1983).

Holding a diploma in nursing was reported to be negatively associated with participation in CNE (Clark & Dickinson, 1976; Curran, 1977; Duquette, Painchaud & Blais, 1988; Parochka, 1985; Puetz, 1980). Millonig (1985) reported results which contradict this pattern. Holding a baccalaureate in nursing was reported to be positively associated with participation in CNE (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980). Additional education beyond basic nursing preparation was also positively related to CNE participation (Clark & Dickinson, 1976; Dolphin, 1983; Kubat, 1975; Millonig, 1985; Puetz, 1980, 1983; Schoen, 1982). Location of the nurses' clinical practice (i.e. clinical setting) affected CNE participation (Puetz, 1980, 1983).

Professional affiliation demonstrated by ANA membership was positively related to CNE participation (Kubat, 1975).
In other instances professional affiliation was negatively related to participation (Schoen, 1979). Professional affiliation was positively related to journal reading (Gessner & Armstrong, 1992).

The lack of professional affiliation in CNE participants was reported in several studies (Kubat, 1976; Miller & Rea, 1977; Schoen, 1979). Some studies commented on journal reading behaviors of CNE participants (Bell & Rix, 1979; Curran, 1977; Gessner & Armstrong, 1992; Kubat, 1976; Schoen 1979; Skinner & Miller, 1989). Kubat (1976) reported that nurses responding to her study had not read professional journals. Curran (1977) found that nurses who were employed full-time read more journals and participated in more CNE. Schoen (1982) reported that CNE participation was positively predicted by the number of journals received by participants. Reading journals was identified as a way to continue education and maintain competence (Gessner & Armstrong, 1992; Skinner & Miller, 1989).

Little or no participation in CNE was reported in a number of studies (Clark & Dickinson, 1976; Duquette, Painchaud & Blais, 1988; Kubat, 1975; Parochka, 1985; Puetz, 1980, 1983; Schoen, 1982). Nonparticipation in CNE was associated with family obligations (Clark & Dickinson, 1976; Duquette, Painchaud & Blais, 1988; Kubat, 1975; Parochka, 1985; Puetz, 1980), unemployment (Puetz, 1983), cost, lack of time, work conflict, lack of transportation (Parochka,
1985), low personal priority and professional disengagement (Duquette, Painchaud & Blais, 1988).

Sociodemographic factors most commonly affecting participation in CNE were position and employment status. Clinical nursing specialty or type of nursing practice also influenced patterns of participation. Educational levels of nurses was related to participation—studies reported that nurses holding diplomas were noted to participate less in CNE while nurses holding baccalaureate degrees were frequent participants. Professional nursing affiliations and professional journal reading were not conclusively supported as important sociodemographic variables which affected CNE participation. Nonparticipation was strongly related to family obligations; influences of professional reference groups were reported to be secondary to that of the family.

**Attitudinal Characteristics.**

Attitudinal or motivational dimensions of CNE participation have been studied (Bell & Rix, 1979; Burgess, 1976; Cooper, 1973; DeSilets, 1990; Dolphin, 1983; Hutton, 1987; Mackereth, 1989; Matthews & Schumacher, 1979; Miller & Rea, 1977; Millonig, 1985; Nugent, 1990; O'Connor, 1979, 1982; Schoen, 1979, 1982; Thomas, 1986; Urbano, Jahns & Urbano, 1988). A sense of "willingness" or positive attitudes about participation was positively associated with CNE participation (Burgess, 1976; Clark & Dickinson, 1976; Hutton, 1987; Mackereth, 1989; Miller & Rea, 1977; Nugent,
1990; O'Connor, 1982; Thomas, 1986; Urbano, Jahns & Urbano, 1988). Negative attitudes associated with participation were also reported (Kubat, 1975).

CNE participants reported high self-esteem and "relatively" high levels of career aspiration (Miller & Rea, 1977, p. 10). A positive attitude for learning was positively associated with CNE participation (Arneson, 1985a, 1985b; Clark & Dickinson, 1976; Deets & Blume, 1977; Dolphin, 1983; Schoen, 1979; Urbano, Jahns & Urbano, 1988). Demonstration of professional characteristics (i.e. increased competency) and a sense of professional alignment were also positively related to participation in CNE (DeSilets, 1990; Dolphin, 1983; Keltner, 1983; Nugent, 1990; O'Connor, 1979, 1982; Puetz, 1980; Thomas, 1986; Urbano, Jahns & Urbano, 1988). Attendance at CNE was also related to personal needs (i.e. self-actualization) of the nurse (Arneson, 1985b; Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Dolphin, 1983; MacDonald & Grogin, 1991; Merservy & Monson, 1987; Puetz, 1980). Lack of perceived need to attend was related to nonparticipation (Duquette, Painchaud & Blais, 1988).

Beliefs of participants were studied by Parochka (1985). Nurses reported that they held affective beliefs that they "should go to CNE" yet they did not go to CNE. Personal beliefs were identified as being more important than social beliefs. The most influential social normative
beliefs were those of the family. Beliefs of professional peers were secondary to those of the family. Motivation to participate was not related to external pressures, social contacts or social interactions (Urbano, Jahns & Urbano, 1988).

Other researchers studied participation in self-directed CNE (Bell & Rix, 1979; Clark & Dickinson, 1976; DeSilets, 1986; Matthews & Schumacher, 1979; O'Connor, 1982). All nurses reported participating in self-directed CNE (Clark & Dickinson, 1976). Less participation in traditional "other-directed" CNE was reported (Clark & Dickinson, 1976; O'Connor, 1982).

Positive attitudes about CNE participation were reported to be associated with CNE participation. Self-esteem and career aspiration along with positive attitudes about learning were attitudinal characteristics associated with CNE participation. Attendance was related, as well, to satisfaction of personal needs. Personal beliefs of CNE participants were reported to influence participation.

Other Characteristics.

A number of research studies indicated that other factors influenced participation in CNE. Relevancy of content was described as positively influencing nurses' participation (Burgess, 1976; Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Matthews & Schumacher, 1979; Puetz, 1980). The issue of cost was raised in several
studies (Arneson, 1985b; Deets & Blume, 1977; Duquette, Painchaud & Blais, 1988; Matthews & Schumacher, 1979; Parochka, 1985; Turner 1986/1988, 1991). Cost of CNE of was indicated to be of little importance in affecting participation by Matthews and Schumacher (1979) while participants’ incurrence of costs were important issues in other studies (Arneson, 1985b; Kubat, 1975; Miller & Rea, 1977).

Scheduling and location of CNE and ability to take time off from work also affected CNE participation (Arneson, 1985a; Kubat, 1975; Puetz, 1980). The need to travel to CNE and employer cooperation with nurses’ attendance negatively affected participation in CNE (Arneson, 1985b). Nurses’ amount of individual effort associated with participation (Kubat, 1976), program quality (Arneson, 1985b), lack of time (Parochka, 1985), accessibility of offerings, fulfillment of employer requirements, community service and/or professional improvement (Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Dolphin, 1983), attendance with friends and collegial socialization (Dolphin, 1983; Puetz, 1980) were reported to have some influence on participation. Peer pressure, salary increases and ability to implement changes in practice after CNE participation were less influential on participation (Puetz, 1980).

Low personal priority, professional disengagement and perceived lack of benefits deterred participation in CNE.
(Duquette, Painchaud & Blais, 1988). Nonparticipation was also related to lack of perceived need, time constraints, lack of course quality, lack of confidence and cost (Duquette, Painchaud & Blais, 1988).

Cost, travel and relevancy of offerings affected participation. Issues relating to program accessibility and the amount of individual effort associated with participation were other characteristics that affected actual attendance at CNE. Nurses were less likely to participate when they did not perceive benefits to be associated with their attendance or when they reported a sense of professional disengagement.

Benefits of Participation in CNE

There has been limited research on the benefits of participating in CNE. Matthews and Schumacher (1979) reported that benefits of CNE participation could be "...increased knowledge and skill, increased awareness of current nursing trends, better patient care and maintenance of professional competence" (p. 25) but they did not study benefits associated with participation. Some nonparticipation in CNE was reported to be related to a perception that there is a lack of benefits that will accrue as a result of participation (Duquette, Painchaud & Blais, 1988).

In the context of a cost-benefit analysis Rizzuto (1982) described the benefits and costs associated with
participation in CNE. Benefits of CNE participation were described as advantages resulting from CNE participation to the individual, institution or society. Benefits, Rizzuto (1982) stated, may be seen as financial gain, increased knowledge and job satisfaction. Direct and in-direct costs of participating were identified.

Turner (1986/1988, 1991) studied the benefits and costs of CNE participation. Based on the literature, Turner (1986/1988, 1991) identified 33 benefits of CNE. Turner (1986/1988, 1991) described these benefits as either personal (benefitting the nurse participant) or social (benefitting persons other than the nurse). Findings indicated that four benefits (personal satisfaction, joy of learning, increased knowledge of new techniques, self-assurance) were perceived to be moderately beneficial outcomes of CNE participation. Only one of the reported benefits (increased knowledge of new techniques) was classified as social or professional in nature.

Benefits were felt to accrue to individual nurses and the persons they care for as a result of CNE participation. These benefits have not been extensively studied.

Summative Commentary on the Literature

Literature on continuing education in nursing addressed many global issues which relate to participation in CNE. Nurses are socialized through professional nursing education; nurses acquired this socialization initially
through two, three or four year nursing educational programs. Effectively socialized nurses should demonstrate behaviors which reflect this professionalism. Practicing professionally implied responsibility and accountability and behavioral choices which show evidence of professionalism.

Participation in CNE was one way in which nurses manifest this professionalism. The literature addressed the need for nurses to participate in CNE; the expected outcome of this participation was that CNE will affect nursing practice and result in better client care. Continuing nursing education was seen as one means to update knowledge, support continuing nursing competence and protect the public.

Professional competency and/or obsolescence was an issue addressed by the literature. Nurses were expected to be competent practitioners. Nursing practice should be based upon continuously expanding and updating one's body of knowledge. Changes in knowledge affect nursing as a practice discipline; nurses who did not maintain currency in their knowledge base experience obsolescence.

Research and observation on characteristics of persons who participate in CNE were described in the literature. These characteristics were considered categorically; sociodemographic, attitudinal and other factors related to participation in CNE were described in much of the literature.
Research conducted in these areas was generally descriptive. Studies frequently combined various sociodemographic and attitudinal characteristics thought to relate to CNE participation. Consensus on significant sociodemographic characteristics was not demonstrated by research. Position or "job title", employment status, clinical specialty, basic level of nursing education, additional education beyond basic nursing preparation, location of the nurses' clinical practice, professional affiliation demonstrated by ANA membership and the number of journals received by participants affected participation in CNE. More of the studies indicated that nurses' position, employment status, clinical specialty and basic level of nursing education positively affected CNE participation. No study identified all the previously described sociodemographic characteristics as being significant.

Consensus on significant attitudinal characteristics was not demonstrated by research. Attitudes for learning and about participation (both positive and negative), self-esteem, career aspiration, identification with professional characteristics (i.e. increased competency), personal needs (i.e. self-actualization), lack of perceived need, beliefs (personal and/or social) affected participation in CNE. More research findings indicated that positive attitudes about CNE participation were associated with CNE participation. Self-esteem, career aspiration and positive
attitude about learning also influenced participation. Personal beliefs and satisfaction of personal needs also reportedly influenced participation. No study identified all these attitudinal characteristics as significantly affecting CNE participation.

Other characteristics (i.e. cost, travel) were reported to affect participation. Relevancy of CNE offerings, program accessibility and the amount of individual effort associated with participation affected actual participation.

Nurses were less likely to participate when they reported a sense of professional disengagement or when they did not perceive benefits to be associated with their attendance at CNE. Benefits accrued to individual nurses and the persons they cared for as a result of CNE participation. Extensive study of the benefits associated with CNE was not evidenced.

Research findings indicated that there was no agreement on which characteristics (or combination of characteristics) caused nurses to participate. A multidimensional nature of participation as a phenomenon appeared to be evidenced.

Nurses who were professionally socialized were expected to participate in CNE and to positively view the benefits acquired from participating as a professional expectation. There was limited research on the benefits of participation in CNE. Furthermore, the relationship between participatory behavior of nurses and their level of socialization was
unclear. This literature review offered support for the importance of CNE participation and demonstrated that benefits associated with this participation have not been fully investigated.

**Summary**

This chapter has discussed related literature and research pertaining to problem of this research study. The chapter described literature related to socialization and adult education, professional nursing, socialization and nursing practice. Professional referent standards addressing nursing practice and the need to participate in continuing education were discussed. Common patterns of nursing education (diploma, associate degree, baccalaureate degree) were described. Behavioral indicators of professionalism and professional socialization were presented. Participation in continuing nursing education (CNE) was analyzed. Research studies related to sociodemographic, attitudinal and other characteristics affecting participation in CNE were described. Benefits associated with participation in CNE were discussed. Summative commentary on the literature and research presented in this chapter was offered.
CHAPTER THREE

Methodology

Introduction

This chapter contains a description of the methodology used in this research study. Included are: observation of data; questionnaires employed in this study (Continuing Nursing Education Survey [CNES] and Demographic Data Sheet [DDS]); pilot testing of the instruments; instrumentation of the study; procedures for data collection (informed consent, ethical considerations); population and sample (population, sample, sampling frame, sampling methodology); effects of bias (sensitivity to extraneous influences, sources of bias); data analysis (treatment of the data, characteristics of the data, measurement of the data); statistical analysis (data entry, computer access, Chi square testing) and hypotheses testing.

Descriptive Survey Research

This research study investigated the relationship between participation and nonparticipation in continuing nursing education (CNE), the perceived benefits of CNE and the importance of perceived benefits of CNE and socialization of nurses. The purposes of this study supported the selection of descriptive survey design.
Wilson (1989) commented that descriptive surveys "...are conducted for the purpose of accurately portraying a population that has been targeted because of some specific characteristics" (p. 150).

A descriptive research study "...provide(s) a picture of situations as they naturally happen" (Burns & Grove, 1987, p. 243). The aim of this type of research is the "description of phenomena" (Burns & Grove, 1987, p. 61); it depicts "...characteristics, opinions, attitudes or behaviors as they currently exist in a population" (Wilson, 1989, p. 252). Descriptive survey facilitated the collection of information from various subjects who paralleled the total population on identified attributes of interest (Wilson, 1989; Woods & Catanzaro, 1988). Survey research methodology supported insightful observation; this method was not chance or accidental in nature (Isaac & Michael, 1971; Leedy, 1980).

The ability to summarize data was the chief advantage of this design; but it also offered the researcher the opportunity to describe systematically variables of interest and explore relationships between them (Brink & Wood, 1988; Isaac & Michael, 1971; Wilson, 1989; Woods & Catanzaro, 1988).

Descriptive survey design is characterized by specific attributes. Leedy (1980) stated that these characteristics include use of observational techniques as principal data
collection measures, selection of a clearly defined and
delineated population of study, consideration of the effects
of bias and/or associated distortions on outcomes and
systematically organized and analyzed data.

Observation of the Data

Leedy (1980) suggests that observation of data is a
broad concept; it is "...being aware of data through some
means of detecting them" (p. 99). Questionnaires are
commonly used in collection of data (Leedy, 1980). They are
used often to gather information on demographic
characteristics of subjects and to "...generate data for
describing phenomena" (Woods & Catanzaro, 1988, p. 301);
ythey can supply information on facts, beliefs, feelings and
attitudes of respondents (Woods & Catanzaro, 1988).

Questionnaires Employed in this Study.

This research employed two instruments for the purposes
of data collection. The instruments were the modified
Continuing Nursing Education Survey (CNES) (see Appendix A)
and the Demographic Data Sheet (DDS) (see Appendix B).
Permission to use the CNES in this research study was
obtained from the author, Dr. Phyllis Turner (see Appendix
C).

Continuing Nursing Education Survey (CNES).

The instrument used in this research study was a
modification of the Continuing Nursing Education Survey form
used by Turner (1986/1988, 1991) in her study of benefits
and costs of CNE. Turner's CNES measured the reported benefits of CNE using a Likert-type scale; all respondents in Turner's study had participated in CNE.

The CNES scale was composed of thirty three benefits reported to accrue nurses themselves or others as a result of participation in CNE. None of the items were considered to be more important that the others on the CNES; therefore, all items were weighted equally. The instrument was divided into two scales—a social/professional benefits scale and personal benefits scale. Reliability of the social/professional benefits scale was determined through the use of Cronbach's alpha to be .8677. Reliability of the personal benefits scale using Cronbach's alpha was .8765 (P. Turner, personal communication, January 27, 1993). Face validity of the CNES was reported (Turner, 1986/1988, 1991).

Turner's (1986/1988, 1991) CNES was modified for this research study. Areas that were not pertinent to the problem of this study were changed (Leedy, 1980; Rubinson & Neutens, 1987). These revisions were necessary so that the research questions of this study could be investigated.

An investigation of the influence of benefits of CNE on nurses' participation or nonparticipation was one of the purposes of this study. In this study, respondents included persons who had and had not taken part in CNE. The CNES scale was modified to address the importance of benefits in a way which addressed the dichotomy of participation in CNE.
This study also investigated respondents’ categorization of reported benefits of continuing nursing education (CNE); therefore, the classification of benefits as either social/professional (Pro) or personal (Per) was added to the CNES. Additionally, this study investigated the effects of identified benefits on nurses’ participation in CNE. In this context, participation was conceptually viewed as being dichotomized—nurses either would be influenced to participate or not to participate by the identified CNE benefit. A Likert-scale reporting of the benefits associated with participating in CNE would not be applicable to nurses who were not participating. A dichotomous scale of importance of the benefit and its relationship to participation in CNE therefore was created.

All reported benefits of CNE as described by Turner remained unchanged on the modified CNES. All items were weighted equally; none of the items were considered to be more important that any of the others on the modified form of the CNES.

The CNES, as designed by Turner (1986/1988, 1991), was then altered to list identified benefits of CNE; to request respondents to categorize identified benefits as either social/professional or personal type; and to report if the identified benefits were important or not important in influencing participation in continuing nursing education. Questions on the modified CNES which assessed the listed
benefits were presented in a fixed-alternative format (Woods & Catanzaro, 1988). Respondents were asked to indicate particular views about types of benefits associated with CNE participation and the influence of these benefits on actual CNE participation (Rubinson & Neutens, 1987). The modified CNES contained three columns (see Appendix A) and was composed of dichotomous questions (Rubinson & Neutens, 1987).

Thirty three social/professional and personal benefits of CNE were listed in the first column. Respondents read the following directions for the first column: "in Column 1 are some phrases that might be used to describe benefits of a Continuing Nursing Education (CNE) activity. A benefit is something that is gained from participation in CNE".

The second column asked the respondents to identify the benefits derived from CNE participation that were listed in column one as either "professional" or "personal" type. Directions for the second column read "in Column 2, for EACH phrase please indicate if you believe the is a PROFESSIONAL (Pro) or PERSONAL (Per) benefit derived from attending CNE. These may benefit you (Personal) or someone else (Professional) but all are benefits felt to be associated with CNE. Please place a mark in the column for Pro or Per depending on how you identify the benefit".

In column three, respondents were asked to identify whether or not the described benefit was "important" or "not
important" in influencing their participation in CNE. Directions for this column read "in Column 3, for EACH phrase identify if the described benefit is Important or Not Important to you in influencing your participation in CNE. Please place a mark in Column 3 under Important or Not Important for each identified benefit".

Reliability in the form of internal consistency of the modified CNES was assessed (Nunnally, 1978; Polit & Hungler, 1989). The reliability for the instrument was determined by using the Kuder-Richardson formula 20 (KR-20) (Nunnally, 1978). KR-20 was used to determine internal consistency since there were dichotomous items (Polit & Hungler, 1989). Reliability of the modified CNES social/professional subscale was .8087 and the reliability of the modified CNES personal subscale was .8072.

Face and content validity of the modified CNES were established by review of the literature related to CNE and the benefits associated with CNE participation. Two members of the VNA CEA committee also reviewed the modified CNES. These two members were RNs who participate in nursing peer review of CNE for Virginia Nurses' Association and were experts in the field of continuing nursing education. They were able to establish content validity for the modified form of the CNES.
Demographic Data Sheet (DDS).

The demographic data sheet (Turner, 1986/1988, 1991) was also revised to meet the purposes of this study. Characteristics relating to the age and gender of respondents were not considered to be related to the purposes of this study (Leedy, 1980; Rubinson & Neutens, 1987) and were deleted from the revised DDS. Items specifically related to the purposes of this study were added to the DDS (see Appendix B).

Data on the following respondent characteristics were collected by the DDS: areas of clinical specialization; nursing role; level of education/year of graduation (with directions to identify all levels of education that were appropriate); reading of professional journals; identification of professional nursing memberships; participation and/or nonparticipation in continuing nursing education within the preceding twelve months; type/topic of continuing nursing education which the respondent attended and if their participation in the particular continuing nursing education program was mandatory.

The DDS was a combination of both closed (i.e. reading journals on a monthly basis) and open question (i.e. listing of professional nursing organization memberships) format (Rubinson & Neutens, 1987; Woods & Catanzaro, 1988). One contingency question was included; respondents were directed to omit reading the question relating to type/topic of CNE
participation if they had not attended CNE (Rubinson & Neutens, 1987). Dichotomous (i.e. participation in CNE in the past twelve months) and multiple choice (i.e. listing area of clinical expertise) questions were also used on the DDS (Rubinson & Neutens, 1987).

**Pilot testing of the modified CNES and DDS.**

The modified CNES and the DDS were pilot tested by seven RNs. These RNs were selected because they shared similar characteristics with those of the target population; they were licensed to practice as RNs and they resided in the Southeastern region of Virginia. These nurses comprised a group that was a subsample of the accessible target population of this study (Woods & Catanzaro, 1988).

The modified CNES and the DDS were administered in the form of printed questionnaires which contained the directions for the actual use of the instruments. Persons in the pilot study completed the study in the same manner (Rubinson & Neutens, 1987) that the potential respondents in the study would be projected to do. They filled out the questionnaires in a setting of their own choice and reported that they completed the instrument in an independent manner.

Appropriateness of items and clarity of language were reviewed by this group. The pilot group reported the content and directions for use of the modified CNES to be clear. These comments reflected a sense that the instrument would be favorably received and would solicit data that
supported the purposes of the research study (Leedy, 1980; Rubinson & Neutens, 1987) by persons comprising the projected sample for the research study. The pilot group suggested revisions for the physical spacing and modifications in the design of the columns for the CNES. These changes were incorporated into the final version of the modified CNES. Pilot testing of the DDS revealed that it was easily understood and directions were clear; no changes in the DDS were identified.

**Study Instrumentation.**

Data related to demographic characteristics of respondents and benefits associated with participation in CNE were collected through the use of two separate instruments. These instruments were the modified CNES and the DDS. To encourage completion of both the instruments by the respondents, a single ivory-colored (Woods & Catanzaro, 1988) piece of 8 1/2 by 11 inch bond paper was mailed along with the cover letter for the survey. This paper was printed on both sides; the CNES was reproduced on one side and the DDS on the other side. Directions to turn the instrument "OVER" were placed in the bottom right corner of each page.

**Procedures for Data Collection**

**Informed Consent for Participation.**

The researcher provided each respondent with information concerning the purposes of the research study in
the cover letter which was mailed to all identified respondents (see Appendix D). Each respondent was informed of the purpose of the research study and assured that participation was voluntary (Rubinson & Neutens, 1987; Woods & Catanzaro, 1988). This constituted informed consent of each potential respondent by the researcher.

Enclosed with the cover letter were the DDS and the CNES. Each respondent was assured that all data would be considered as confidential (Rubinson & Neutens, 1987) and that this data would only be reported in aggregate form. Respondents were anonymous; no personally identifiable information, such as their names or places of employment, was requested. There was an option for the respondents to voluntarily disclose the zip code classification of their residence. Zip code identification was included on the DDS if the respondent chose to report it. Completion and return of the survey instruments was presumed to constitute the respondent’s voluntary decision to participate in the research study.

**Ethical Considerations.**

This research study was reviewed and approved by the College of William and Mary’s School of Education Human Subjects Research Committee (HSRC). Review by this body was designed to protect the rights of respondents and approval of the body was secured prior to data collection in this study. The School of Education’s HSRC deemed this to be an
exempt research study and noted that it did not require further review from the College’s Committee for the Protection of Human Subjects.

The researcher was obligated to provide each respondent with informed consent. The cover letter explained the purposes of the research study and offered informed consent to each respondent. The voluntary nature of participation in the research study was indicated in the cover letter. In no way were respondents coerced into participating in the research study. All collected data were considered by the researcher as confidential and this fact was reported to all potential respondents in writing. It was also noted that any data the researcher reported would only be in aggregate form. Additionally, surveys were not coded when mailed to ensure that respondents were anonymous.

Data collection and Setting.

Questionnaires were mailed to individual respondents at their private home addresses. Individuals electing to participate in the research study as respondents selected their own specific locations for completion of the instruments.

All of the materials were mailed directly to the individual selected for participation in the research study. A cover letter (see Appendix D) explained the purpose of the research study and requested the participation of the selected registered nurse in the research study. Additional
materials contained in the mailing were the CNES (see Appendix A) and the DDS (see Appendix B). A self-addressed, first-class stamped envelope was included with the questionnaires for the convenience of the respondents. Inclusion of the stamped self-addressed return envelope was also seen as a means to assist the researcher in the return of respondents' surveys. Explicit directions (Rubinson & Neutens, 1987) for the completion of the CNES and DDS were supplied with each instrument. Monetary incentives were not included.

Respondents were directed to the CNES and the DDS by the cover letter. The CNES and the DDS were copied onto one side of a single sheet of 8 1/2 by 11 inch paper. Instructions for the completion of each instrument were included on the materials supplied to the respondent. Specific directions requesting the respondent to turn the page over to complete both instruments was also indicated.

The respondents were instructed to return the completed CNES and DDS by mail using the stamped, self-addressed envelope supplied by the researcher. Upon receipt by the researcher, returned surveys were coded. Surveys were coded in the order that they were received in the return mail with a three digit code. The first survey returned was coded 001 and subsequent surveys were coded in increasing numerical order following the three digit coding format.
Population and Sample

Population

A population is "a[n] universe of data [that] consists of the totality of those data within certain specified parameters" (Leedy, 1980, p. 111). According to the Board of Nursing, as of June 30, 1992, the population of licensed registered nurses in the Commonwealth of Virginia was 65,957 (L. McGuire, personal communication, January 7, 1993). This number of RNs comprised a large and broad population.

The Commonwealth of Virginia was viewed as being comprised of discernible, discrete geographic regions. As a matter of convenience, the researcher chose a specific geographic region to comprise the sample for this study. To facilitate the selection of the actual sample, the researcher also designated a geographic region of Virginia as the accessible target population for the research study (Borg & Gall, 1983; Leedy, 1980). The identification of a particular region again was a convenience selection by the researcher.

Target Population.

The defined accessible target population of this research study was all registered nurses holding an active license to practice professional nursing in the Southeastern region of Virginia. This population was a group of all individuals actively licensed by the Board of Nursing to practice as registered nurses in the Commonwealth of
Virginia. These individuals were empowered by the Board of Nursing to use the abbreviation "RN" as a title which denoted licensure to practice in Virginia as registered nurses ("Statutes and Regulations", 1991, p. 13).

Sample

The actual sample for this research study was selected from the accessible population of RNs living in the Southeastern region of the Commonwealth of Virginia. This grouping represented individuals residing in the Southeastern region the Commonwealth of Virginia who have, by virtue of their passage of the licensure examination, demonstrated minimal competency to practice professional nursing in the Commonwealth of Virginia. Selection of respondents from this group was projected to demonstrate all characteristics of the total accessible population (Leedy, 1980).

Sampling Frame.

A computerized listing from the Virginia Board of Nursing identified registered nurses who were currently licensed and who were residing in the Southeastern region of the Commonwealth of Virginia; this list constituted the sampling frame (Rubinson & Neutens, 1987). The regions identified as the Peninsula (Hampton, Newport News, Yorktown, Poquoson, Williamsburg, James City County) and Southside (Norfolk, Virginia Beach, Portsmouth, Chesapeake) constituted the Southeastern region of Virginia.
This computerized listing was purchased from the Board of Nursing. This list was composed of computer-generated peel-off mailing labels. It was arranged in three digit numerical categories according to United States Postal Service Zip Codes classifications. Listings were supplied on 11 1/2 inch by 11 7/8 inch computer generated sheets with three columns of labels per page. Each page contained thirty six names of actively licensed registered nurses. Individuals were listed by the only initial letters of both first and middle names in association with their surnames. There was no alphabetized listing of names or street addresses or any other discernible pattern on this computerized listing. Listing on this sampling frame was presumed to be without order (Rubinson & Neutens, 1987).

The three digit zip codes identified in the listing were 230, 231, 233, 234, 235, 236, 237 and 238. These zip codes listings identified RNs living in the Peninsula and Southside areas of the Commonwealth of Virginia. The Virginia Board of Nursing listed 16,885 licensed registered nurses living in these areas as of December 24, 1991.

Sampling Methodology.

The criteria for selection as a respondent in this research study was that an individual held an active licensure as a registered nurse in the Commonwealth of Virginia and resided in the Southeastern region of Virginia. The size of the sample was 400 individuals who met the
criteria for inclusion in the research study. Krejcie and Morgan (1970) report a sample size of 400 was adequate for consideration of the sample as being representative of the defined target population. This sample size of 400 individuals was seen as being of sufficient size to reduce the occurrence of sampling errors while allowing for statistical analysis (Babbie, 1989; Borg & Gall, 1983; Healey, 1990).

Respondents were selected from the list through the use of systematic sampling (Babbie, 1989; Healey, 1990; Leedy, 1980, Rubinson & Neutens, 1987). The sampling process began with use of a table of random numbers. This assured that the origin of the sequence of the process of systematic sampling was controlled by chance (Leedy, 1980; Rubinson & Neutens, 1987). Use of the table of random numbers indicated the first person selected for inclusion in the research study was the 96th individual on the computerized listing (Healey, 1990). Subsequently, every forty second person was then selected.

Leedy (1980) wrote systematic sampling was "...the selection of certain items in a series according to a predetermined sequence" (p. 122). All listings on the computerized sheet were selected in the following predetermined series: starting with the top left name on each page, the researcher counted down the left column to the bottom of that column; upon reaching the end of the left
column, the researcher then proceeded to the top of the middle column and counted down again to the bottom of the middle column; the researcher then proceeded to the top of the right column and counted down to the bottom of the right column.

Systematic sampling of every 42nd (16,885/400) individual, the constant k (Rubinson & Neutens, 1987), was then employed until the total sample of 400 respondents was selected. There was no discarding of any names during the process of systematic sampling. Data collected for this research study was extracted from this identified sample population (Leedy, 1980).

Systematic sampling does not rigidly conform to the definition of random selection (Babbie, 1989; Healey, 1990). Errors associated with nonrandomness of systematic sampling are very negligible "...as long as the list from which the cases are chosen is itself random, or at the very least noncyclical with respect to the traits you wish to measure" (Healey, 1990, p. 114).

Projected Sample for the Study.

The projected sample size was 400 persons who met the criteria for inclusion in the study. Four hundred persons who were actively licensed to practice nursing and resided in the Southeastern region of Virginia were selected from the sampling frame through the use of systematic sampling. These persons received a mailing from the researcher
requesting their participation in the study, a cover letter of informed consent (see Appendix D) and the actual questionnaires (see Appendices A & B) which would be used for data collection. The researcher had anticipated these 400 persons would have been willing to participate in the research study; this group would then reflect an ideal size sample for the study. These persons would then comprise what was projected to be a representative group from the target population.

**Actual Sample for the Study.**

The actual sample of this research study was 155 actively licensed registered nurses residing in Southeastern region of Virginia. This number represented 38.75% of those receiving the initial request to participate in the study. Respondents in the study, therefore, were 155 persons meeting the criteria for inclusion in the study who responded to the researcher’s request. They represented only 155 persons who belonged to the total accessible population for this study.

The researcher indicated participation in the study was voluntary and responses from respondents would be anonymous. The researcher did not compile any listing of the names of persons selected to participate in the study. There were no follow-up mailings to 400 potential respondents; follow up mailings would have indicated the researcher had compiled a list of respondents. This would not have supported the
researcher's promise of anonymity for the respondents. The researcher concedes a follow-up mailing may have served to increase the numbers of persons participating in the study.

Effects of Bias

Bias is "...any influence, condition, or set of conditions, which singly together, cause distortion or aberration of the data from those which may have been obtained under the conditions of pure chance; furthermore, bias is any influence which may have disturbed the randomness by which the choice of a sample population has been extracted" (Leedy, 1980, p. 124). Bias addresses the belief that systematic distortion of responses in data collection may occur (Woods & Catanzaro, 1988). The issue of bias is related to the credibility of the data which is collected.

Sensitivity to Extraneous Influences

This research used a descriptive survey design. Leedy (1980) comments bias exists and influences outcomes of the descriptive survey studies. In the context of this type of design there was no possible control of any extraneous influence on the data. There were no manipulated controls. This influences the ability to draw unambiguous conclusions about the phenomenon being studied and the researcher acknowledges the presence of possible bias.
Sources of Bias in the Data

Size of the Sample.

Four hundred actively licensed RNs who resided in the Southeastern region of Virginia were identified through systematic sampling as potential respondents in this study. Of these 400 persons, 155 (38.75%) returned the questionnaires to the researcher; 245 (61.25%) others did not. This sample may not be representative of the target population. Additionally, the small size of this actual sample affected the confidence the researcher had in inferences drawn from data collected in this study.

Rate of Return.

The rate of return of the instruments was affected by those persons choosing not to participate. Rate of questionnaire return is a possible bias (Rubinson & Neutens, 1987). The influence of these other persons not responding (i.e. their opinions about the benefits of participation in continuing nursing education or motivational attributes) was not known. There were 155 persons who completed the modified CNES and DDS and returned them to the researcher. This was a 38.75% return rate.

Volunteers.

These respondents completing in the questionnaires met the criteria for inclusion in the study; they were actively licensed registered nurses and resided in the Southeastern region of Virginia. Respondents in the actual sample,
however, were volunteers. These respondents may differ from those individuals not electing to participate in the research study.

**Use of Questionnaires.**

Questionnaires were mailed to persons selected for the sample. Use of questionnaires required respondents be able to read, understand and respond to the questionnaires which were mailed. Additionally, use of questionnaires reflected the researcher’s assumption that persons receiving the questionnaires would be sufficiently motivated to return them to the researcher (Wilson, 1989). This constituted a source of possible bias.

**Self-Reported Data.**

Persons participating in the study self-reported data on the modified CNES and DDS. Self-reported data is subject to possible inaccuracies in memory and perception of the respondents.

**Maturation Levels.**

Maturation levels of respondents were not known. Maturation is multidimensional; the biologic, psychologic, personal and/or professional maturation of respondents was not known. The unknown effects of previous professional socialization in persons electing to participate in the research study must be considered as the findings of this study are discussed.
Data Analysis

Treatment of the Data

The data required to answer the questions posed by this research study were those respondent responses to the modified CNES and the DDS. These data were located in the respondents' responses to the modified CNES and the DDS which were used as instrumentation in the study. An inherent deficiency in this manner of data collection was respondents reporting data were volunteers; the data reported by volunteer respondents could be different from that of other persons who did not participate. Additionally, the respondents' self-reported data.

Data were secured from the quantitative examination of the responses to questions identified on the modified CNES and DDS. Data were interpreted through appropriate descriptive and inferential statistics as Chi square testing and log linear analysis (Bigbee, 1986; Leedy, 1980).

Characteristics of the Data

Measurement of the Data.

Data in this study were measured on either nominal or ordinal measurement scales. Categorical data relating to areas as participation in CNE, reported benefits (personal, social/professional) associated with CNE participation and the importance or non-importance of the reported benefit on participation and nonparticipation in CNE were classified as nominal data. Level of socialization (a composite
measurement of the respondents' reported level of nursing education, reading of professional nursing journals and membership in professional nursing organizations) indicated a "...measurement of degree of difference. . . ." (Leedy, 1980, p. 132) and were classified as ordinal data (Kerlinger, 1986).

Data in this study were discrete. Data were measured for the purposes of this study by frequency count (Borg & Gall, 1983; Leedy, 1980).

Statistical Analysis of the Data

Data Entry and Computer Access

Data Entry.

Data entry occurred in August 1992 in the faculty/staff resource center facilities of the academic computing services; Information Technology Services (ITSV), McMurran Hall; located on the campus of Christopher Newport University in Newport News, Virginia. Data were entered through the use of a Digital Equipment Corporation (DEC) 5000/120 workstation terminal. The software operating system used by the DEC 5000/120 workstation was the ULTRIX program.

Data were entered into a data file on the mainframe of the DEC through the use of the ULTRIX program. Accuracy of data entry was determined through a random check of 25 percent of the cases entered in this data file. These cases were verified by comparison of measurements entered in the
data file with raw data reported on the original surveys. No inaccurate data entries were noted in these numbers of cases. The remainder of data was presumed to be accurately transcribed into the data file.

**Computer Access.**

The data file was transferred after all measurements were entered. Through use of the computer technique of "file transfer program" (ftp), data were transferred to the computer system of Dr. Michael Doviak, statistical consultant to the researcher in this study. Dr. Doviak holds an earned doctorate in mathematics and statistics and is a faculty member in the mathematical department of Old Dominion University.

The computer software program used for descriptive and inferential data analysis was the Statistical Analysis System (SAS) (1990) program. Procedures used for this data analysis were the SAS commands for PROC MEANS, PROC FREQ and CATMOD PROC. These SAS commands provided data for descriptive statistics, Chi square testing and log linear analysis.

**Actual Statistical Analysis**

Statistical analysis served two functions (Leedy, 1980) in this research study. Data were characterized through descriptive statistics. Inferential statistics were used to draw conclusions (Babbie, 1989; Leedy, 1980) about the data. Nonparametric inferential statistics were used in this
study. Nonparametric statistics do not make assumptions about population scores; they address "non-normal curve data" (Leedy, 1980, p. 162). These statistics are used when there are "large deviations" from the assumptions which support the idea of a normal distribution and homogeneity in variance (Borg & Gall, 1983).

**Chi Square Testing.**

Chi square testing is commonly used in nonparametric statistical testing; it is "valuable in analyzing data that are expressed as frequencies. . . ." (Leedy, 1980, p. 162). Chi square testing is used to judge whether two variables are independent of one another. The Chi square statistic (Woods & Catanzaro, 1988) is "...used to test hypotheses about the association between variables that can be (or are) divided into categories" (p. 415); it is "...used to test the hypothesis that the observed frequencies (given in the contingency table) are not different from the frequencies to be expected if no association existed between the variables" (pp. 415-416).

Chi square tests are "...designed to test for significant differences between cells and is considered by some to imply causal inference" (Burns & Grove, 1987, p. 486). Chi square tests are indicated when nominal data represents a variable (Brink & Wood, 1983); data is usually arranged in the form of contingency tables (Burns & Grove, 1987).
Assumptions for use of Chi square testing; raw data were always frequencies, data were counted only once in all testing, logical classification categories were created, the recording of nonoccurrence data occurred (Linton & Gallo, 1975); were met in this research study. Additionally, each cell category in the contingency table contained data (Burns & Grove, 1987). There was no assumption of normal distribution of values in the population from which the sample was drawn.

Log linear Analysis.

Log linear analysis was devised as a way to investigate complex types of categorical data (Feinberg, 1980); it is effective in analysis of contingency tables comprised of multiple dimensions (Bigbee, 1986). This type of analysis is "...useful for uncovering the potentially complex relationships among variables in a multiway crosstabulation" (Noursis, 1990, p. 152). Noursis (1990) continues that "the classical chi-square approach does not provide estimates of the effects of the variables on each other, and its application to tables with more than two variables is complicated" (p. 152).

Log linear analysis is used to explore the "...relationships among categorical variables by examining expected cell frequencies. . . ." (Knoke & Burke, 1980, p. 5). Knoke and Burke (1980) report that use of this analysis
aids in the examination of all variables as "...variables whose mutual associations are explored" (p. 11).

Assumptions for use of log linear analysis; "...independent observations using multinominal sampling" (Bigbee, 1986, p. 71) were met in this research study. There was no assumption of normal distribution of values in the population from which the sample was drawn.

Hypotheses Testing

Hypothesis 1.
The first hypothesis of this research study was: There will be a statistically significant relationship between level of socialization and participation and nonparticipation in CNE.

Chi square testing was used to determine the significance of the association between the nominal variable of participation and the ordinal variable level of socialization as identified on the modified CNES (Brink & Wood, 1988; Burns & Grove, 1987). A 2 X 3 contingency table was created.
Hypothesis 2.
The second hypothesis of this research study was: There will be a statistically significant relationship between the importance of the social/professional and personal benefits and participation and nonparticipation in CNE.

Chi square testing was used to determine the significance of the association between the nominal variables of participation and importance of the total benefits as identified on the modified CNES (Brink & Wood, 1983). A 2 X 2 contingency table was created. Additional chi square analyses examined through 2 X 2 X 2 contingency tables the relationship between participation, importance, per scale (personal benefits subscale) and participation, importance, pro scale (professional benefits subscale) as identified on the modified CNES (Brink & Wood, 1988; Burns & Grove, 1987).

Hypothesis 3.
The third hypothesis of this research study was: There will be a statistically significant relationship between participation and nonparticipation, socialization and the importance ascribed to each identified social/professional and personal benefit of CNE.
Log linear analysis was used to determine the significance of the association between the nominal variables of participation, the importance of the reported benefit and the ordinal variable of level of socialization as identified on the modified CNES (Brink & Wood, 1988; Burns & Grove, 1987). A multidimensional contingency table was created for each identified benefit.

Summary

This chapter discussed the descriptive survey as the methodology used in this research study. Discussion on observation of the data were included. Questionnaire instrumentation and the need for modifications of the CNES and DDS were discussed. Procedures for data collection (consent for participation, ethical considerations) were identified. Descriptions of the accessible target population and sample were provided. The sampling frame was identified as was the methodology of systematic sampling. Projected and actual respondents in the study were described. Various effects of bias on the research study were described. Data analysis was described; treatment, measurement and characteristics of data were included. Commentary on statistical analysis was provided. Methods of computer access and data entry were included. The actual statistical analysis used in the study was described. Hypotheses testing through Chi square statistical analysis and/or log linear analysis was described.
CHAPTER FOUR

Results

Introduction

This chapter includes a description of the results from this study. The rate of return for the study is listed. Data regarding the demographic characteristics of respondents such as clinical specialty and nursing role are shown. Data relating to the research questions; level of socialization, participation in continuing nursing education (CNE), types of benefits derived from CNE participation and the importance of these types of benefits and CNE participation; are presented. The findings associated with null hypotheses testing are reported. Additional analyses beyond hypotheses testing are included.

Rate of Return

A total of 400 survey instruments were mailed on July 3, 1992 to individuals selected for inclusion in the study. The researcher requested that respondents answer promptly so that responses could be received by July 15, 1992.

Of these 400 surveys, 15 (3.75%) surveys were returned by the U.S. Postal Service as "unable to be forwarded". Five (1.25%) surveys were returned by respondents who indicated that they were "retired" from nursing practice
(even though they retained active licensure as professional nurses) and they did not wish to participate in the study. Another response indicated the nurse had become a travel agent (again actively licensed) and the survey was "not applicable".

A total of 163 (40.75%) surveys were returned by nurses actively licensed and living in the Southeastern region of Virginia. Eight respondents did not answer the Continuing Nursing Education Survey (CNES) (see Appendix A) but they did complete the Demographic Data Sheet (DDS) (see Appendix B). Because the data from these respondents were incomplete, these persons were excluded from the study. Of the 163 responses received, 155 (95.09%) questionnaires were deemed as usable. The actual rate of return of questionnaires from those originally selected to participate in this study through systematic sampling was 155 (38.75%).

There were 82 (52.9%) surveys with the specific item "year of graduation" containing no response. A second item with incomplete data related to the names of professional organizations to which respondents belonged. Thirty two respondents who indicated they belonged to professional organizations although they did not give the names of such organizations as was requested. While incomplete, these questionnaires were deemed usable with the reasoning that these responses did not interfere with the analysis of the hypotheses.
Characteristics of the Sample

Zip Codes

Registered nurses (RNs) living in the Peninsula and Southside areas of the Commonwealth of Virginia were identified as potential respondents in the study. The sampling frame was a computerized listing of those licensed RNs arranged by the three digit zip codes of their places of residence. The zip codes listings identified were 230, 231, 233, 234, 235, 236, 237 and 238.

Zip codes were listed by 135 (87.1%) respondents. Twenty (12.9%) respondents did not identify zip codes. The most frequently listed zip code was 234 (n=40, 25.81%) with 37 (23.87%) respondents reporting 236. Fourteen respondents reported 233 (9.03%) while 235 was reported by 13 (8.39%) other respondents. Two groups of eleven (7.1% each) respondents identified zip codes 231 and 237. Five (3.23%) respondents listed 238 while four (2.58%) others listed 230. All identified zip code listings comprising the potential sample were reported by respondents.

Demographic variables

The demographic characteristics of respondents included the following: (1) area of clinical expertise; (2) current role; (3) current level of education and year of graduation; (4) reading of professional journals on at least a monthly basis; (5) listing of professional nursing organization
memberships; (6) participation in continuing nursing education (CNE) in the past twelve months; and (7) identification of the content area of the CNE and indication if the related participation in the CNE program was mandatory or voluntary (see Appendix B). The characteristics of respondents in each of these categories are presented in the following sections.

Area of Clinical Specialty Practice.

Nursing is practiced by persons who are either generalists or specialists (American Nurses Association [ANA], 1980) in their focus in nursing. Specialization is described as "...a narrowed focus on a part of the whole field of nursing" (ANA, 1980; p. 21). Clinical specialization focuses on specific, discrete areas of practice which are drawn from broad general nursing practice. Specialty practice can be categorized in varied ways. "Diseases/pathology, systems, ages, settings, acuity, technologies or therapies..." (Styles, 1989, p. 16) are means of classifying specialty practice in nursing.

Nurses often select to practice nursing as specialists. The selection of specialty areas of clinical practice is based upon nurses' interests. Additionally, nurses can develop specialized clinical practice in more than one specific area of nursing.

Respondents were asked to indicate their area of nursing expertise by selecting from the following areas of
clinical practice: critical care, geriatrics, community health, psychiatry/mental health, pediatrics, obstetrics/gynecology/neonatal, adult health (medical/surgical), general practice and emergency/trauma (see Appendix B). The option of the selection of an open ended "other" was also listed. Listed on Table 1 are the areas of clinical expertise reported by the respondents. All 155 respondents responded to this item with 68 (43.87%) selecting two clinical areas.

The choice "other" was the most frequently (n=28, 18.06%) selected option. Responses to "other" area of clinical specialty included a broad range of responses (see Appendix E). Eight respondents gave responses that were roles rather than clinical areas (see Appendix E). Thirty nine respondents gave responses that were areas of clinical specialization, but which were not listed on the DDS (see Appendix E). Among these responses, six respondents reported clinical expertise as school nurses. Three respondents identified post anesthesia care with three others citing perioperative (surgery) and an additional two respondents indicating stepdown clinical expertise. Two others listed occupational health. Oncology was identified by two respondents; two others indicated home health. No respondent indicated having more than 2 areas of clinical expertise.
Table 1

<table>
<thead>
<tr>
<th>Nursing Specialty</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>28</td>
<td>18.06*</td>
</tr>
<tr>
<td>Critical Care</td>
<td>27</td>
<td>17.42</td>
</tr>
<tr>
<td>Community health</td>
<td>22</td>
<td>14.19</td>
</tr>
<tr>
<td>Adult health (medical/surgical)</td>
<td>20</td>
<td>12.90</td>
</tr>
<tr>
<td>Psychiatry/mental health</td>
<td>12</td>
<td>7.74</td>
</tr>
<tr>
<td>Emergency/trauma</td>
<td>11</td>
<td>7.10</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>11</td>
<td>7.10</td>
</tr>
<tr>
<td>Geriatricians</td>
<td>10</td>
<td>6.45</td>
</tr>
<tr>
<td>Obstetrics/gynecology/neonatal</td>
<td>10</td>
<td>6.45</td>
</tr>
<tr>
<td>General practice</td>
<td>4</td>
<td>2.58</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>100.64</td>
</tr>
</tbody>
</table>

N = 155

*Rounded to the nearest hundredth--total percentage may exceed or be less than 100% as a result.
Current Nursing Role.

Nurses practice in varied roles. Nursing roles are associated with nursing position. Position, according to Hardy and Conway (1978), is viewed as either "...status or office location in a social structure" (p. 75). Roles in nursing are described as "...position in a social structure, a set of expectations associated with a position in a social structure or a set of behaviors associated with a position" (Hardy & Conway, 1978). Nurses acquire distinct roles which are associated with the practice of nursing. Additionally, some nurses perform multiple roles.

Five nursing roles were listed on the DDS (see Appendix B). These included educator, administrator, staff nurse, nurse practitioner and clinical nurse specialist. An open ended "other" was also listed. Those respondents who were not employed could select from the option "not currently employed".

All respondents answered this question. The most frequently selected role was staff nurse (n=82, 52.90%); 26 (16.77%) respondents reported "other" roles. Twelve (7.74%) respondents indicated they were educators while fifteen (9.68%) respondents reported administrative roles. Ten (6.45%) respondents reported that they were not currently employed. Table 2 lists reported nursing roles of respondents.
Twenty six (16.77%) respondents selected only the option "other" (see Appendix F). Responses to "other" nursing roles included a broad range of responses (see Appendix F). These responses included four respondents who reported that they were in "supervisor" roles while the role of school nurse was identified by three respondents. An additional two respondents reported roles as nurse managers. Role as charge nurse/coordinator was listed by another four respondents and three others respondents reported roles as office nurses. Two nurses reported home health nursing roles. Fourteen (9.03%) respondents indicated having two roles. No respondent indicated having more than two roles.
### Table 2

**Current Role In Nursing**

<table>
<thead>
<tr>
<th>Nursing Role</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Nurse</td>
<td>82</td>
<td>52.90*</td>
</tr>
<tr>
<td>Other</td>
<td>26</td>
<td>16.77</td>
</tr>
<tr>
<td>Administrator</td>
<td>15</td>
<td>9.68</td>
</tr>
<tr>
<td>Educator</td>
<td>12</td>
<td>7.74</td>
</tr>
<tr>
<td>Not currently Employed</td>
<td>10</td>
<td>6.45</td>
</tr>
<tr>
<td>Clinical Nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialist</td>
<td>6</td>
<td>3.87</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>4</td>
<td>2.58</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>155</strong></td>
<td><strong>99.99</strong></td>
</tr>
</tbody>
</table>

*N = 155

*Rounded to the nearest hundredth—total percentage may exceed or be less than 100% as a result.

**Level of Education.**

Respondents were asked to report all levels of education and to indicate the year of graduation from the respective educational program. Eight levels of education
were presented on the DDS (see Appendix B). Levels of education included: associate degree (AD), diploma, baccalaureate of science degree (BS), baccalaureate of science degree in nursing (BSN), masters degree (MS), masters of science degree in nursing (MSN), doctorate and other.

All respondents reported their levels of education. Of the respondents, 32 (20.64%) held ADs, 58 (37.42%) held diplomas and 21 (13.55%) held BS degrees. Fifty five (35.5%) respondents had BSNs and 12 (7.74%) had masters degrees. Ten (6.45%) respondents held MSNs, one (0.65%) respondent held a doctorate and 13 (8.39%) respondents indicated they had "other" types of education.

Respondents’ highest level of education is reported in Table 3. Highest level of education among the respondents was as follows: associate degree--23 (14.83%), diploma--41 (26.45%), baccalaureate of science degree--9 (5.81%), baccalaureate of science degree in nursing--40 (25.81%), masters degree--3 (1.94%), masters of science degree in nursing--4 (2.58%), and doctorate--1 (0.65%).

Seventy three (47.1%) respondents responded to the item "year of graduation" and 82 (52.9%) did not. These data were collapsed into five year intervals and are reported in Appendix G.
## Table 3

**Respondents’ Highest Levels of Education**

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate degree (AD) n = 32</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AD only</td>
<td>23</td>
<td>14.84</td>
</tr>
<tr>
<td>AD &amp; BS</td>
<td>1</td>
<td>0.65</td>
</tr>
<tr>
<td>AD &amp; BSN</td>
<td>3</td>
<td>1.94</td>
</tr>
<tr>
<td>AD and other</td>
<td>2</td>
<td>1.29</td>
</tr>
<tr>
<td>AD, BS &amp; MS</td>
<td>1</td>
<td>0.65</td>
</tr>
<tr>
<td>AD, BSN &amp; MS</td>
<td>1</td>
<td>0.65</td>
</tr>
<tr>
<td>AD, BS, MS &amp; Doctorate</td>
<td>1</td>
<td>0.65</td>
</tr>
<tr>
<td><strong>Diploma (DI) n = 58</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DI only</td>
<td>41</td>
<td>70.69</td>
</tr>
<tr>
<td>DI &amp; BS</td>
<td>4</td>
<td>6.89</td>
</tr>
<tr>
<td>DI &amp; BSN</td>
<td>3</td>
<td>5.17</td>
</tr>
<tr>
<td>DI and Other</td>
<td>8</td>
<td>13.79</td>
</tr>
<tr>
<td>DI, BS &amp; Other</td>
<td>2</td>
<td>3.45</td>
</tr>
<tr>
<td><strong>Bachelor of Science (BS) n = 12</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS Only</td>
<td>9</td>
<td>75.00</td>
</tr>
<tr>
<td>BS &amp; BSN</td>
<td>3</td>
<td>25.00</td>
</tr>
</tbody>
</table>
Table 3 (continued)

Respondents’ Highest Levels of Education

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science in Nursing (BSN) n = 45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSN Only</td>
<td>40</td>
<td>88.89</td>
</tr>
<tr>
<td>BSN &amp; MS</td>
<td>5</td>
<td>11.11</td>
</tr>
<tr>
<td>Masters (MS) n = 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS Only</td>
<td>3</td>
<td>75.00</td>
</tr>
<tr>
<td>MS and Other</td>
<td>1</td>
<td>25.00</td>
</tr>
<tr>
<td>Master of Science in Nursing (MSN) n = 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSN Only</td>
<td>4</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>100.00</td>
</tr>
</tbody>
</table>

N = 155

*Rounded to the nearest hundredth—total percentage may exceed or be less than 100% as a result.
Reading of Professional Journals.

Respondents were asked to respond "yes" or "no" regarding their reading of professional journals on a monthly basis. Respondents reporting they read journals on a monthly basis were asked to list the journals that they read. Table 4 summarizes the numbers of respondents reporting the reading of professional journals on a monthly basis. Table 5 lists professional nursing journals that were identified by two or more respondents. A complete listing of all journals reported is listed in Appendix H.

<table>
<thead>
<tr>
<th>Reading monthly</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
<td>34.84*</td>
</tr>
<tr>
<td>No</td>
<td>101</td>
<td>65.16</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>100.00</td>
</tr>
</tbody>
</table>

N = 155

* Rounded to the nearest hundredth—total percentage may exceed or be less than 100% as a result.
Table 5

Professional Nursing Journals Listed as Read on a Monthly Basis

<table>
<thead>
<tr>
<th>Journal</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing92</td>
<td>29</td>
</tr>
<tr>
<td>RN</td>
<td>29</td>
</tr>
<tr>
<td>American Journal of Nursing</td>
<td>27</td>
</tr>
<tr>
<td>Nursing Management</td>
<td>9</td>
</tr>
<tr>
<td>Maternal Child Nursing</td>
<td>7</td>
</tr>
<tr>
<td>Heart and Lung</td>
<td>6</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>6</td>
</tr>
<tr>
<td>Pediatric Nursing</td>
<td>6</td>
</tr>
<tr>
<td>Critical Care Nurse</td>
<td>4</td>
</tr>
<tr>
<td>IMAGE: The Journal of Nursing</td>
<td></td>
</tr>
<tr>
<td>Scholarship</td>
<td>4</td>
</tr>
<tr>
<td>Journal of Nurse Practitioners</td>
<td>3</td>
</tr>
</tbody>
</table>

Note. Some respondents reported reading two or more nursing journals. When indicated, one respondent may be represented more than once on the table.
Professional Nursing Organization Memberships.

Respondents were asked to list their professional nursing organization memberships. Respondents reported general professional nursing memberships; specialty memberships and a combination of both general and specialty professional nursing memberships. Seventy eight (50.32%) respondents responded that they held membership in at least one professional organization; 18 (11.61%) indicated holding membership in two professional organizations. No respondent indicated holding membership in more than 2 professional organizations. Thirty nine (25.16%) respondents indicated they held no membership in a professional organization. One respondent answered "n/a" while 32 left this area on the DDS blank. Table 6 summarizes the professional nursing organization memberships which were reported by three or more respondents; a complete listing of all organizational memberships is reported in Appendix I.
Table 6

**Professional Nursing Organization Memberships**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Nurses Association</td>
<td>22</td>
</tr>
<tr>
<td>Virginia Nurses' Association</td>
<td>22</td>
</tr>
<tr>
<td>Sigma Theta Tau International Honor Society in Nursing</td>
<td>19</td>
</tr>
<tr>
<td>American Association of Critical Care Nurses</td>
<td>13</td>
</tr>
<tr>
<td>Nurses Association of the College of Obstetricians and Gynecologists</td>
<td>6</td>
</tr>
<tr>
<td>Virginia Public Health Association</td>
<td>4</td>
</tr>
<tr>
<td>American Association of Occupational Health Nurses</td>
<td>3</td>
</tr>
<tr>
<td>Association of Operating Room Nurses</td>
<td>3</td>
</tr>
<tr>
<td>Virginia Association of School Nurses</td>
<td>3</td>
</tr>
<tr>
<td>Virginia Council of Nurse Practitioners</td>
<td>3</td>
</tr>
<tr>
<td>Virginia Society of Post Anesthesia Nurses</td>
<td>3</td>
</tr>
</tbody>
</table>

Note. Some respondents reported two or more professional nursing affiliations. When indicated, one respondent may be represented more than once on the table.
Participation in Continuing Nursing Education (CNE).

Respondents were asked to respond "yes" or "no" if they had participated in CNE in the past twelve months. The "past twelve months" was defined as the time period July 1991 to July 1992. Table 7 summarizes participation in CNE. Thirty three (21.29%) respondents indicated they had not attended CNE during the period described while 122 (78.71%) indicated they had attended CNE.

Table 7
Participation in continuing nursing education from July 1991 to July 1992

<table>
<thead>
<tr>
<th>Participation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>122</td>
<td>78.71*</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>21.29</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>100.00</td>
</tr>
</tbody>
</table>

N = 155
*Rounded to the nearest hundredth—total percentage may exceed or be less than 100% as a result.

Descriptions of participants and nonparticipants in CNE are reported in the following sections. A "typical" participant and nonparticipant are compared in Table 8.
Table 8

Demographic Comparison of "Typical" Participants and Nonparticipants

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Participant</th>
<th>Nonparticipant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Specialty</td>
<td>Critical Care</td>
<td>Other</td>
</tr>
<tr>
<td>Nursing Role</td>
<td>Staff Nurse</td>
<td>Staff Nurse</td>
</tr>
<tr>
<td>Educational Level</td>
<td>Bachelor of Science in Nursing</td>
<td>Diploma</td>
</tr>
<tr>
<td>Reading of Journals</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>at Least Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Organizational Memberships</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of membership</td>
<td>Specialty</td>
<td>None</td>
</tr>
<tr>
<td>Employed</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

N = 155

Note. "Typical" participant and nonparticipant responses are those responses reported most frequently on the DDS.
Description of Participants in CNE.

Critical care was identified most frequently by respondents as their specialty area (n = 23; 13.03%). Community health and "other" were identified by two groups of 20 (16.39%) respondents as their clinical specialty. Twelve (9.84%) respondents listed adult health, 11 (9.02%) reported psychiatric/mental health specialty and ten (8.2%) others indicated they were specialists in pediatrics. Nine (7.38%) respondents were specialists in the field of obstetrics/gynecology/neonatology. Geriatrics and emergency trauma were reported by two groups of seven (5.74%) respondents. Three (2.46%) others indicated they were general practice nurses.

Most respondents performed the role of staff nurse (n=62; 50.82%). Twenty three (18.85%) respondents related "other" roles, while 13 (10.66%) others indicated that they were administrators. Twelve (9.84%) other respondents indicated they were educators. Six (4.91%) persons were nurse practitioners and four (3.23%) others were clinical nurse specialists. Two (1.64%) respondents indicated they were not employed.

A bachelor of science degree in nursing was held by 39 respondents (31.97%). Thirty six (29.51%) respondents had a diploma in nursing. Eighteen (14.75%) participants had an associate degree and ten (8.2%) others reported holding a master of science in nursing degree. Nine (7.38%)
participants related they held a master's degree while one (0.82%) participant listed a doctorate. Nine (7.38%) other participants had a bachelor of science degree.

Eighty six (70.49%) participants reported reading professional nursing journals on at least a monthly basis. Thirty six (29.51%) other participants indicated they did not read professional nursing journals at least monthly.

Specialty nursing organizational membership was reported by 46 (37.7%) participants. Six (4.92%) participants reported general nursing organization memberships while 18 (14.75%) others reported both general and specialty memberships. Twenty three (18.85%) participants did not specify professional nursing affiliations. Twenty four (19.67%) participants reported no professional nursing organization memberships; 4 (3.28%) participants reported "other" memberships and one (0.82%) participant indicated "not applicable".

**Description of Nonparticipants in CNE.**

"Other" was identified most frequently by nonparticipants as their specialty area (n=8; 24.24%). Adult health was also identified by eight (24.24%) nonparticipants as a commonly reported specialty. Emergency room/ trauma and critical care were identified by two groups of four (12.12%) nonparticipants as their clinical specialty. Three (9.1%) nonparticipants listed geriatrics while two (6.06%) others indicated community health nursing
specialty. One (3.03%) nonparticipant reported psychiatric/mental health specialty. One nonparticipant specialized in pediatrics while one other nonparticipant reported a general practice specialty. One nonparticipant’s practice was the area of obstetrics/gynecology/neonatology.

Most nonparticipants performed the role of staff nurse (n = 20; 60.61%). Ten (30.30%) other nonparticipants indicated they were not employed. Two (6.06%) nonparticipants related "other" roles, while one (3.03%) other indicated an administrative role.

Thirteen (39.39%) nonparticipants held a diploma in nursing. Seven (21.21%) nonparticipants held a bachelor of science degree in nursing while seven (21.21%) others had an associate degree. Four (12.12%) nonparticipants indicated holding a bachelor of science degree. Two (6.06%) other nonparticipants reported holding a master of science degree.

Eighteen (54.55%) nonparticipants reported they did not read professional nursing journals on at least a monthly basis. Fifteen (45.45%) other nonparticipants indicated they did read professional nursing journals at least monthly.

Fifteen (45.45%) nonparticipants reported no professional nursing organization memberships. Specialty nursing organizational membership was reported by five (15.15%) nonparticipants. Three (9.09%) nonparticipants reported general nursing organization memberships. Nine
(27.27%) nonparticipants did not specify professional nursing affiliations. One (3.03%) nonparticipant reported "other" memberships.

**Content Area of CNE Programs.**

Respondents who reported participation in CNE were asked to identify the content area of the CNE they attended. Content areas listed on the DDS (see Appendix B) were: critical care, geriatrics, adult health, mental health, maternal/child health and community health. An open ended "other" was also listed.

All 122 respondents who participated answered this item with sixty (49.18%) respondents reporting attending CNE in more than one content area. Thirty respondents attended CNE in two content areas while 15 attended CNE programs in three different content areas. Four respondents attended CNE in four areas with one respondent reporting attendance in six different content areas of CNE. Respondents reported attending an average of 1.83 CNE programs during the period July 1991 to July 1992. Table 9 lists the reported content areas and the frequency each area was selected by respondents.
### Table 9

**Content Areas of CNE Programs Attended**

<table>
<thead>
<tr>
<th>Program Content</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>55</td>
</tr>
<tr>
<td>Maternal Child Health</td>
<td>32</td>
</tr>
<tr>
<td>Community Health</td>
<td>29</td>
</tr>
<tr>
<td>Critical Care</td>
<td>28</td>
</tr>
<tr>
<td>Adult Health</td>
<td>26</td>
</tr>
<tr>
<td>Mental Health</td>
<td>21</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>14</td>
</tr>
</tbody>
</table>

**n = 122**

Note. Frequencies include participants who attended more than one CNE program. Participants are counted more than once in the listed content areas when they reported more than one type of program attendance.

The choice "other" was the most frequently (n = 55, 45.08%) selected option. Responses to "other" area of content areas of CNE attendance included a broad range of programs that were attended by participants (see Appendix J).
Six respondents attended nursing management and/or supervision CNE, while four other respondents reported attending CNE related to HIV/AIDS. Three respondents attended quality assurance and quality improvement CNE; three others attended staff development CNE. Three additional respondents went to CNE which focused upon vascular nursing. A listing of all the responses to "other" content areas of CNE are listed in Appendix J.

Nurses can be required to attend CNE in certain content areas. These programs, usually called "inservice education" (McGriff, 1973), are mandatory in the sense that nurses are required to participate in a particular content areas of CNE offerings. This participation is frequently a condition of continued maintenance of nursing position and/or employment.

In response to the question regarding content areas, respondents were asked to also indicate if attendance at the CNE was mandatory. Sixteen respondents indicated that attendance to the CNE was mandatory. Table 10 describes the status of participants' attendance at CNE as "mandatory", "voluntary" or a combination of both.
Table 10

Voluntary and/or Mandatory Attendance at CNE Programs

<table>
<thead>
<tr>
<th>Attendance</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
<td>99</td>
<td>81.15*</td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>16</td>
<td>13.11</td>
</tr>
<tr>
<td>Mandatory</td>
<td>7</td>
<td>5.74</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.00</td>
</tr>
</tbody>
</table>

n = 122

*Rounded to the nearest hundredth—total percentage may exceed or be less than 100% as a result.

Of those respondents who reported mandatory attendance, three respondents attended community health CNE, while three others reported required participation in critical care CNE. Seven respondents reported attendance at "other" CNE, while one respondent reported attending maternal child, adult health and mental health mandatory CNE respectively.

Other Comments Offered by Respondents.

Ten respondents wrote in comments on the modified CNES questionnaire. Commentary from respondents was not solicited by the researcher. Appendix K indicates the specific comments listed by these respondents.
Discussion of the Findings of Demographic Characteristics.

Research has indicated selected sociodemographic characteristics have been associated with participation in CNE (Kubat, 1976). Differences in nurses' characteristics can be such things as age, general perceptions, perceived needs, expressed general attitudes, expressed attitudes toward professionalism, expressed reasons for participation, employment status, place of residence, socioeconomic elements/personal backgrounds, employment position, clinical area of nursing practice, basic level of nursing education and highest level of nursing education completed (Arneson, 1985a, 1985b; Clark & Dickinson, 1976; Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Deets & Blume, 1977; Duquette, Painchaud & Blais, 1988; Gessner & Armstrong, 1992; Keltner, 1983; Kubat, 1975, 1976; Mackereth, 1989; Matthews & Schumacher, 1979; Nugent, 1990; O'Connor, 1979, 1982; Puettz, 1980, 1983; Rizzuto, 1982; Schoen, 1982; Turner, 1991; Urbano, Jahns & Urbano, 1988; Waddell, 1991).

Findings from this study identified sociodemographic characteristics which were associated with respondents' participation or nonparticipation in CNE.

Respondents in the study reported their participation or nonparticipation in CNE. Participation in CNE was reported by 122 respondents; 33 respondents indicated that they had not participated in CNE. Other researchers have
reported instances of little or no participation in CNE by nurses (Clark & Dickinson, 1976; Duquette, Painchaud & Blais, 1988; Kubat, 1975; Parochka, 1985; Puetz, 1980, 1983; Schoen, 1982).

In this study, respondents who had participated in CNE typically were employed, critical care staff nurses who held baccalaureate degrees in nursing. These participants in CNE reported they read professional nursing journals at least monthly and were affiliated with specialty-type professional nursing organizations. Other researchers reported holding a baccalaureate in nursing (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980) and location/site of clinical practice (Puetz, 1980, 1983) were positively associated with participation in CNE. The effects of professional affiliation on participation were less clearly evidenced in the literature. Schoen (1979) reported negative association with professional affiliation and participation; Kubat (1975) reported a positive association. This study indicated participants in CNE were affiliated with specialty nursing organizations.

Nonparticipants, typically, were employed, staff nurses who reported "other" clinical specialties and held a diploma in nursing. These nonparticipants did not report reading professional nursing journals at least monthly as well as no professional nursing memberships. These findings echoed results of educational levels of nonparticipants reported by
other researchers (Clark & Dickinson, 1976; Curran, 1977; Duquette, Painchaud & Blais, 1988; Parochka, 1985; Puetz, 1980). The lack of professional affiliation in CNE participants, which was reported in this particular study, has been reported in other studies (Kubat, 1976; Miller & Rea, 1977; Schoen, 1979).

Participants and nonparticipants in this study typically indicated they were employed. Research suggested employment status positively affects CNE participation (Arneson, 1985a; Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Keltner, 1983; Kubat, 1975; Puetz, 1980, 1983; Schoen, 1982; Thomas, 1986). In this study, responses by participants supported these findings. Most nonparticipants in this study, however, were employed which was a contradictory finding.

Hypotheses Testing

Research Hypotheses

This research study examined relationships between participation in CNE, nurses’ level of socialization and the benefits of participation in CNE. To investigate these relationships, three research hypotheses (H₀) were formulated:

1. There will be a statistically significant relationship between level of socialization and participation and nonparticipation in CNE;
2. There will be a statistically significant relationship between the importance of the social/professional and personal benefits and participation and nonparticipation in CNE; and

3. There will be a statistically significant relationship between participation and nonparticipation, socialization and the importance ascribed to each identified social/professional and personal benefit of CNE.

Measurement of Variables in Hypothesis Testing

**Level of Socialization.**

Effective socialization results in a number of behavioral manifestations which indicate professionalization (Lawler, 1988; Moore, 1970; Schoen, 1982). These overt professional nursing behaviors include basic and continuing level of nursing education, reading of professional nursing journals and memberships in professional nursing organizations.

Respondents in this study received a score reflecting their level of socialization. This socialization score addressed the respondents' reported level(s) of education, reading of professional nursing literature on a monthly basis and membership(s) in professional nursing organizations. This overall score, reflecting varying levels of socialization among the respondents, was either low (2), moderate (3) or high (4). This score reflected a
means of classifying respondents according to their reported level(s) of nursing education, reading of professional journals and membership in professional nursing organizations.

Level of nursing education was dichotomized in this scoring. Respondents either were ordered according to their reported nursing educational background. Respondents holding an AD or diploma in nursing were placed in one category; respondents holding a BS or higher degree were placed in the other. These categorizations comprised a partial socialization score of the respondents' reported educational levels.

Another partial socialization score was derived from reported reading of journals and professional memberships. Respondents reported no reading or memberships, reading or memberships, or reading and memberships. Accordingly, respondents were tabulated as low (0) (no reading or memberships), moderate (1) (reading or memberships) and high (2) (reading and memberships). These tabulations of respondent's partial socialization related to professional behaviors were then collapsed into two categories. Persons with low and moderate scores were placed in one category; those with high scores were placed in the other. These categorizations comprised a partial socialization score of the respondents' reported professional nursing behaviors.
The overall socialization score was obtained from combining these partial socialization scores. Respondents' educational level scores and partial socialization scores of professional nursing behaviors were combined to yield the final socialization score. This final socialization score ranged from two to four. All respondents in the study received a socialization score which was derived in the previously described manner.

Forty (25.81%) respondents were identified as being "highly" socialized; 115 (74.19%) respondents had a "low" socialization score. Descriptions of the levels of socialization are reported in the following sections. Common demographic characteristics of a respondent with a high and low level of socialization are summarized in Table 11.
Table 11
Demographic Comparison of "Typical" Respondents with Low and High Levels of Socialization

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Level of Socialization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Clinical Specialty</td>
<td>Critical</td>
</tr>
<tr>
<td>Nursing Role</td>
<td>Staff</td>
</tr>
<tr>
<td>Educational Level</td>
<td>Bachelor of Science in</td>
</tr>
<tr>
<td>Reading of Journals</td>
<td>Yes</td>
</tr>
<tr>
<td>Nursing Organizational Memberships</td>
<td>Yes</td>
</tr>
<tr>
<td>Type of membership</td>
<td>Specialty</td>
</tr>
<tr>
<td>Attendance at CNE</td>
<td>Yes</td>
</tr>
</tbody>
</table>

N = 155

Note. Typical responses of respondents achieving a "high" or "low" levels of socialization are those responses reported most frequently on the DDS.
Description of Respondents with High Socialization Scores.

Critical care was identified most frequently by highly socialized respondents as their specialty area (n=9; 22.5%). Seven (17.5%) identified psychiatric/mental health specialty while six (15.0%) others identified pediatrics. Five (12.5%) respondents in this category reported "other" clinical specialties. Community health specialty was listed by four (10.0%) highly socialized respondents. Geriatrics and obstetrics/gynecology/neonatology specialties were identified by two other groups of three (7.5%) respondents. One (2.5%) highly socialized respondent practiced in adult health. General practice and emergency trauma were each reported by one respondent as area of clinical specialty.

Most highly socialized respondents performed the role of staff nurse (n = 10; 25.0%). Eight (20.0%) respondents related "other" roles, while eight (20.0%) other highly socialized respondents indicated that they were educators. Seven (17.5%) others indicated that they were administrators. One (2.5%) respondent with a high socialization score was a nurse practitioner and five (12.5%) others were clinical nurse specialists. One (2.5%) respondent reported being "not employed".

A bachelor of science degree in nursing was held by 27 highly socialized respondents (67.5%). Ten (25%) respondents reported holding a master of science in nursing.
degree. Eight (20%) other highly socialized respondents had a bachelor of science degree. Seven (17.5%) respondents related that they held a master's degree while one (2.5%) respondent listed a doctorate. Three (7.5%) respondents with high socialization held a diploma in nursing while five (12.5%) respondents had an associate degree.

All highly socialized (n=40; 100.0%) respondents reported reading professional nursing journals on at least a monthly basis. Specialty nursing organizational membership was reported by 22 (55%) of these respondents. Two (5.0%) respondents reported general nursing organization memberships while 16 (40.0%) others reported both general and specialty memberships. Thirty seven (92.5%) of the highly socialized participants reported attending CNE. Three (7.5%) respondents reported that they did not attend CNE.

Description of Respondents with Low Socialization Scores.

"Other" was identified most frequently by respondents with a low socialization score as their specialty area (n=23; 20.0%). Nineteen (16.52%) respondents with low socialization scores practiced in adult health. Community health specialty was listed by 18 (15.65%) of these respondents; another group of 18 (15.65%) identified clinical specialty as critical care. Emergency/trauma was reported by ten (8.7%) respondents as area of clinical
specialty. Geriatrics and obstetrics/gynecology/neonatology specialties were identified by two other groups of seven (6.09%) respondents with low socialization scores. Five (4.35%) identified psychiatric/mental health specialty while another five (4.35%) others identified pediatrics. Three (2.61%) of the respondents in this category reported general practice clinical specialties.

Most respondents with low socialization scores practiced in the role of staff nurse (n=72; 62.61%). Seventeen (14.78%) of these respondents related "other" roles while seven (6.09%) others indicated an administrative role. Eleven (9.57%) other respondents indicated they were not employed. Four (3.48%) participants with low socialization scores were educators; three (2.61%) others were in the nurse practitioner role. One (0.87%) respondent was a clinical nurse specialist.

Fifty five (47.83%) respondents with a low socialization held a diploma in nursing while 27 (23.48%) respondents had an associate degree. A bachelor of science degree in nursing was held by 28 (24.35%) of respondents with low socialization scores. Thirteen (11.3%) other respondents had a bachelor of science degree. Five (4.35%) respondents reported holding a master of science in nursing degree. Twelve (10.43%) other respondents related they had "other" types of education.
Sixty one respondents (53.04%) with low socialization scores reported reading professional nursing journals on at least a monthly basis. Fifty four (46.96%) of these respondents reported that they did not read professional nursing journals on at least a monthly basis.

Thirty nine (33.91%) respondents with low socialization scores reported no professional nursing organization memberships. Specialty professional nursing organizational membership was reported by 29 (25.22%) other respondents. Thirty two (27.83%) respondents did not list nursing organizational memberships while seven (6.1%) others reported general nursing memberships. Five (4.35%) of these respondents reported "other" types of professional memberships. Two (1.74%) respondents with low socialization scores reported both general and specialty memberships. One (0.87%) respondent identified "not applicable".

Thirty (26.09%) of the respondents with low socialization scores reported attending CNE. Eighty five (73.91%) respondents reported that they did not attend CNE.

**Participation in CNE.**

Respondents reported no participation in CNE, mandatory CNE participation or voluntary participation in CNE. Participation was conceptually seen as possessing these three dimensions. No participation (0), mandatory participation (1) and voluntary participation (2) comprised the different levels of categorization of participation used.
in this study. These categories were collapsed for some specific statistical analyses; in this case, no participation in CNE was viewed as one category while mandatory participation and voluntary participation constituted the other category. Mandatory participation was still viewed as participation and was combined with voluntary participation.

Benefits Associated with CNE Participation.

Benefits of CNE were felt to influence respondents' participation in CNE. Respondents in this research study responded to thirty three reported benefits of CNE which were identified on the modified Continuing Nursing Education Survey (CNES) (see Appendix A). Respondents considered the type or category of benefits acquired through CNE participation and the importance of each benefit associated with their individual participation in CNE.

The benefits associated with CNE participation in CNE were either "personal" (advantageous to individuals themselves) or "social/professional" (advantageous to persons other than the individual) (Turner 1986/1988). The respondents classified the listed benefits of CNE as either "personal" or "social/professional".

Responses to classification of benefits by respondents in this study were varied. Respondents did not agree on the benefit types of the benefits listed on the modified CNES. Table 12 summarizes Chi square analysis of respondents'
agreement on the type (Personal or Social/professional) of benefits derived from CNE participation.

Table 12

Agreement on Specific Benefit Type (Social/professional or Personal) derived from CNE Participation

<table>
<thead>
<tr>
<th>Benefit of CNE Participation</th>
<th>Type of Benefit</th>
<th>Chi Square %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorter hospital stay for patients</td>
<td>Pro</td>
<td>93.33</td>
</tr>
<tr>
<td>Personal satisfaction</td>
<td>Per</td>
<td>90.73</td>
</tr>
<tr>
<td>Personal vacation</td>
<td>Per</td>
<td>89.58</td>
</tr>
<tr>
<td>Joy of learning</td>
<td>Per</td>
<td>88.51</td>
</tr>
<tr>
<td>Improved health teaching for patients</td>
<td>Pro</td>
<td>88.16</td>
</tr>
<tr>
<td>Improved relationships with agencies</td>
<td>Pro</td>
<td>87.25</td>
</tr>
<tr>
<td>Happier in my job</td>
<td>Per</td>
<td>86.58</td>
</tr>
<tr>
<td>Travel opportunity</td>
<td>Per</td>
<td>85.91</td>
</tr>
<tr>
<td>Better reputation for employing agency</td>
<td>Pro</td>
<td>85.52</td>
</tr>
<tr>
<td>Got away from work for a day</td>
<td>Per</td>
<td>83.67</td>
</tr>
<tr>
<td>Self awareness</td>
<td>Per</td>
<td>83.44</td>
</tr>
<tr>
<td>Assessed patient problems better</td>
<td>Pro</td>
<td>82.67</td>
</tr>
</tbody>
</table>
Table 12 (continued)

Agreement on specific Benefit Type (Social/professional or Personal) derived from CNE Participation

<table>
<thead>
<tr>
<th>Benefit of CNE Participation</th>
<th>Type of Benefit</th>
<th>Chi Square % of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better quality of care for patients</td>
<td>Pro</td>
<td>81.82</td>
</tr>
<tr>
<td>Higher salary for others</td>
<td>Pro</td>
<td>81.38</td>
</tr>
<tr>
<td>Supported professional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>organization</td>
<td>Pro</td>
<td>81.12</td>
</tr>
<tr>
<td>Better able to plan patient care</td>
<td>Pro</td>
<td>81.08</td>
</tr>
<tr>
<td>Better health care for my family</td>
<td>Per</td>
<td>80.79</td>
</tr>
<tr>
<td>Better record keeping</td>
<td>Pro</td>
<td>78.38</td>
</tr>
<tr>
<td>Expanding nursing role</td>
<td>Pro</td>
<td>78.23</td>
</tr>
<tr>
<td>Increased knowledge of new techniques</td>
<td>Pro</td>
<td>76.19</td>
</tr>
<tr>
<td>Met the requirement for my job</td>
<td>Pro</td>
<td>75.84</td>
</tr>
<tr>
<td>Increased nursing competence</td>
<td>Pro</td>
<td>75.00</td>
</tr>
<tr>
<td>Self assurance</td>
<td>Per</td>
<td>75.00</td>
</tr>
<tr>
<td>Increased skill in new techniques</td>
<td>Pro</td>
<td>74.48</td>
</tr>
</tbody>
</table>
Table 12 (continued)
Agreement on Specific Benefit Type (Social/professional or Personal) derived from CNE Participation

<table>
<thead>
<tr>
<th>Benefit of CNE Participation</th>
<th>Type of Benefit</th>
<th>Chi Square % of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition by employer</td>
<td>Pro</td>
<td>73.68</td>
</tr>
<tr>
<td>Higher personal salary</td>
<td>Per</td>
<td>72.97</td>
</tr>
<tr>
<td>Changed ethics/values</td>
<td>Per</td>
<td>66.43</td>
</tr>
<tr>
<td>Increased status at work</td>
<td>Pro</td>
<td>63.10</td>
</tr>
<tr>
<td>Opportunity to meet other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>nurses</td>
<td>Pro</td>
<td>62.25</td>
</tr>
<tr>
<td>Recognition by peers</td>
<td>Pro</td>
<td>60.67</td>
</tr>
<tr>
<td>Better relationship with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>staff</td>
<td>Pro</td>
<td>59.03</td>
</tr>
<tr>
<td>More fringe benefits at work</td>
<td>Per</td>
<td>54.48</td>
</tr>
<tr>
<td>New (better) job</td>
<td>Per</td>
<td>53.10</td>
</tr>
</tbody>
</table>

Note. "Per" is a personal benefit associated with CNE while "Pro" is a social/professional benefit of CNE.

Of the thirty three identified benefits associated with CNE participation which were listed on the modified CNES there was only consensus on the type of benefit on 17 (51.51%) of the identified benefits. The median value
(80.79) reported was selected as the point of delineation to be used in the identification of respondents' consensus on the type of CNE benefit. Table 13 lists the "Personal" and "Social/professional" benefits identified by respondents in this study for which there was agreement upon the benefit type at least the 80% level.

Table 13
Consensus Listings of Types of Benefits Associated with Participation in CNE

<table>
<thead>
<tr>
<th>Type of Benefit</th>
<th>Chi Square % of Agreement on Type of Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td></td>
</tr>
<tr>
<td>Personal satisfaction</td>
<td>90.73</td>
</tr>
<tr>
<td>Personal vacation</td>
<td>89.58</td>
</tr>
<tr>
<td>Joy of learning</td>
<td>88.51</td>
</tr>
<tr>
<td>Happier in my job</td>
<td>86.58</td>
</tr>
<tr>
<td>Travel opportunity</td>
<td>85.91</td>
</tr>
<tr>
<td>Got away from work for a day</td>
<td>83.67</td>
</tr>
<tr>
<td>Self awareness</td>
<td>83.44</td>
</tr>
<tr>
<td>Better health care for my family</td>
<td>80.79</td>
</tr>
</tbody>
</table>
Table 13 (continued)

Consensus Listings of Types of Benefits Associated with Participation in CNE

<table>
<thead>
<tr>
<th>Type of Benefit</th>
<th>Chi Square % of Agreement on Type of Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social/Professional&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Shorter hospital stay for patients</td>
<td>93.33</td>
</tr>
<tr>
<td>Improved health teaching for patients</td>
<td>88.16</td>
</tr>
<tr>
<td>Improved relationships with agencies</td>
<td>87.25</td>
</tr>
<tr>
<td>Better reputation for employing agencies</td>
<td>85.52</td>
</tr>
<tr>
<td>Assessed patient problems better</td>
<td>82.67</td>
</tr>
<tr>
<td>Better quality of care for patients</td>
<td>81.82</td>
</tr>
<tr>
<td>Higher salary for others</td>
<td>81.38</td>
</tr>
<tr>
<td>Supported professional organization</td>
<td>81.12</td>
</tr>
<tr>
<td>Better able to plan patient care</td>
<td>81.08</td>
</tr>
</tbody>
</table>

N = 17

Note. <sup>a</sup> Personal benefits are advantageous to individuals themselves. <sup>b</sup> Social/professional benefits are advantageous to persons other than the individual.
**Total Importance Score.**

Respondents related the influence (importance) of each identified benefit of CNE on their attendance at CNE (see Appendix A). This categorization of each benefit as "important" or "not important" was used to record a total importance of benefit score for each respondent.

Some respondents, however, did not rate the importance of benefits in this manner. Respondents answered by marking mid-way between important and not important columns. Others marked both the "important" and "not important" columns. Other respondents indicated that the importance or not importance of the benefit was "not applicable".

The total importance scale was categorized as either high or low. Ranges of important benefits were 25 to 33 important total benefits (high) or 16 to 24 important total benefits (low). Median total importance score was used to determine the boundaries for the ranges of high and low total importance score.

**Personal Benefits and Social/professional Benefits Subscales.**

Eight personal benefits were identified by respondents in this study. These benefits were classified as a Personal Scale of Benefits. There were also nine social/professional benefits listed by respondents. These nine benefits were identified as a Social/Professional Scale of Benefits.
These scales were viewed as subscales of the total identified benefits of CNE.

The Personal and Social/Professional Subscales were categorized as either high or low. Ranges of importance of personal benefits identified by the Personal Subscale were: 0 to 6 (low) and 7 to 8 (high). Ranges of importance of social/professional benefits identified by the Social/Professional Subscale were: 0 to 7 (low) and 8 to 9 (high). Median scores on the personal and the social/professional items were used to determine the boundaries for the ranges of high and low scores on the respective subscales.

Findings for the Hypotheses

The findings for each hypothesis are presented in the following sections. For data analysis, each research hypothesis ($H_a$) was stated in the null hypothesis ($H_o$) form.

Hypothesis One

**Null Hypothesis 1:** There will be no statistically significant relationship between level of socialization and participation and nonparticipation in CNE.

Chi square statistical analysis examined the relationship between nurses' participation in CNE and level of socialization. Contingency tables, a way of visually comparing "...summary data output related to [the]
variables within the sample" (Burns & Grove, 1987, p. 485), were used in data analysis.

All respondents received a socialization score. This scoring reflected a means of classifying respondents according to their reported level(s) of nursing education, reading of professional journals and membership in professional nursing organizations. This socialization score was either low, moderate or high.

Participation was viewed as having several dimensions. Some respondents reported no participation in CNE; some indicated mandatory CNE participation. Others reported their voluntary participation in CNE. These categorizations of participation were used in this study.

Three levels of socialization score (low, moderate, high) and three levels of participation (none, mandatory, voluntary) were examined for possible relationships. The level of significance was set at an alpha level of .05. Chi square analysis \[X^2(4, N = 155) = 14.633 \ p = .006\] of this data supported rejection of the null hypothesis (see Table 14).
### Table 14

The Relationship Between Participation and Level of Socialization

<table>
<thead>
<tr>
<th>Level of Socialization</th>
<th>None</th>
<th>Mandatory</th>
<th>Voluntary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>18</td>
<td>3</td>
<td>31</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>E=11.07</td>
<td>E=5.703</td>
<td>E=35.226</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>12</td>
<td>11</td>
<td>40</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>E=13.413</td>
<td>E=6.9097</td>
<td>E=42.677</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>3</td>
<td>3</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>E=8.515</td>
<td>E=4.3871</td>
<td>E=27.097</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>17</td>
<td>105</td>
<td>155</td>
</tr>
</tbody>
</table>

\[ N = 155 \quad X^2 = 14.633 \quad df = 4 \quad p = .006 \]

**Note.** "Expected frequencies of a cell is equal to "...the total of all cases in the row where the cell is located (the row marginal) times the total of all cases in the column (the column marginal), the quantity divided by the total number of cases in the table" (Healey, 1990, p. 211). "O" is observed frequency, "E" is expected frequency."
Discussion of the Findings of Hypothesis One.

The Chi square analysis supported rejection of the null hypothesis. This analysis of data provided by respondents in the study, suggested participation and nonparticipation in CNE is associated with nurses' levels of socialization.

The theoretical framework of this study was the Expectancy Valence Model (Rubenson, 1977, 1985) of Participation. In describing forces which affect participation, Rubenson (1977, 1985) related that socialized persons were ready ("actively prepared") to attend CNE. This readiness is known as expectancy and can be expressed in varying degrees (Rubenson, 1985).

According to Rubenson (1977) socialization is the vehicle through which individuals acquire member and reference group values which affect expectancy. This socialization affects perception of the value of participation in education (Merriam & Caffarella, 1991). Group norms, specifically the need to participate in CNE, then become the standard for individual behaviors when the process has been effective. A "higher" socialization score reflects a report of more respondent behaviors which can be interpreted as indicators of effective professional socialization. Professional socialization, therefore, affects participation in continuing education and lifelong learning.
Defining characteristics of a professional orientation (Bell & Rix, 1979; Lawler, 1988; Moore, 1970; Schoen, 1982) include full-time employment, commitment to a vocation, affiliation with a professional organization, educationally derived accomplishment (i.e. advanced education, continuing education, reading professional publications), service orientation and autonomy. Professionalism, according to Deane and Campbell (1985), can be overtly manifested in behavior. Behaviors should evidence professional values which have been internalized (Palmer, 1974). Researchers have reported participation in CNE was positively related to demonstration of professional characteristics and a sense of professional alignment (DeSilets, 1990; Dolphin, 1983; Keltner, 1983; Nugent, 1990; O’Connor, 1979, 1982; Puetz, 1980; Thomas, 1986; Urbano, Jahns & Urbano, 1988).

In this study, respondents with "high" socialization scores reported holding bachelor of science degrees or higher, reading of professional journals on at least a monthly basis and professional nursing organization affiliation. These "highly" socialized respondents were reporting behaviors which evidenced professionalism.

Other researchers have studied participation of nurses in CNE and have acknowledged that participation in CNE was a multidimensional phenomena (Clark & Dickinson, 1976; Dolphin, 1983; Rubenson, 1977, 1985; Schoen, 1979). These studies have reported findings, even though not specifically
categorized as a level of socialization, which were associated with certain characteristics of CNE respondents.

Participation in CNE was negatively associated with holding a diploma in nursing (Clark & Dickinson, 1976; Curran, 1977; Duquette, Painchaud & Blais, 1988; Parochka, 1985; Puetz, 1980). Holding a bachelor of science degree was reported to be positively associated with participation in CNE (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980). Additional education beyond basic nursing preparation was also positively related to CNE participation (Clark & Dickinson, 1976; Dolphin, 1983; Kubat, 1975; Millonig, 1985; Puetz, 1980, 1983; Schoen, 1982). Results of this study reflected similar findings.

Professional affiliation demonstrated by ANA membership was positively related to CNE participation (Kubat, 1975). Professional affiliation was positively related to journal reading (Gessner & Armstrong, 1992). The lack of professional affiliation in CNE participants was reported in several studies (Kubat, 1976; Miller & Rea, 1977; Puetz, 1980; Schoen, 1979; 1982). This study found professional affiliation and reading of journals was statistically positively related to reported participation in CNE. Respondents in this study also indicated a lack of professional nursing organizational affiliation.

Some studies commented on journal reading behaviors of CNE respondents (Bell & Rix, 1979; Curran, 1977; Gessner &
Armstrong, 1992; Kubat, 1976; Schoen 1979; Skinner & Miller, 1989). Kubat (1976) reported nurses responding to her study had not read professional journals. Curran (1977) found nurses who were employed full-time read more journals and participated in more CNE. Schoen (1982) reported CNE participation was positively predicted by the number of journals received by respondents. Reading journals was identified as a way to continue education and maintain competence (Gessner & Armstrong, 1992; Skinner & Miller, 1989).

In this study, socialization was operationally defined to include level of nursing education, reading of professional nursing journals at least monthly and professional nursing affiliation. Specifically, based upon these sample data, this finding suggested the level of socialization did have an effect on the probability of nurses participating in CNE.

This data also showed that more nurses participated, regardless of level of socialization, than did not participate. Continuing socialization (Kozier, Erb & Blais, 1992; Oermann, 1991) may account for the reported CNE attendance of respondents.

Socialization, as an interactive process, is affected by the passage of time (Hardy & Conway, 1988; Hinshaw, 1986; Kozier, Erb & Blais, 1992). Continuing socialization supplements the professional nursing role socialization.
acquired in basic nursing education. Professional socialization only begins with initial nursing education (Hinshaw, 1986).

Hardy and Conway (1988) suggest that time is crucial in professional socialization; it is not known how much time is needed for effective professional socialization. In this context, the learning of roles and adaption to these roles is continuous and related to the passage of time (Hardy & Conway, 1988; Hinshaw, 1986; Schien, 1971; Styles, 1983). Nurses are, therefore, affected by continuing socialization as they implement their professional nursing practice.

The effects of ongoing socialization, described as a limitation of this study, were not known and may affect participation patterns of nurses. Values, norms, attitudes, behaviors, knowledge and skills of nurses can continuously change as a result of ongoing socialization; this may account for participation of nurses who were less socialized.

**Hypothesis Two**

**Null Hypothesis 2**: There will be no statistically significant relationship between the importance of the social/professional and personal benefits and participation and nonparticipation in CNE.

Chi square statistical analysis examined the relationship between the importance of the
social/professional and personal benefits and nurses' participation in CNE. This hypothesis was examined through the use of three Chi square statistical analyses.

Respondents in the study rated the effects of the benefits of CNE on the modified CNES (see Appendix A). The first Chi square analysis examined the relationship between total importance scoring of social/professional and personal benefits and participation and nonparticipation in CNE.

Data on the importance of all of the identified benefits of CNE on respondents' participation in CNE was collected. Benefits were classified as "important" or "not important". This type of classification of the benefits was used to record a tally of the total number of benefits that each respondent indicated that were important influences on their participation. Based upon this tally of the data reported by respondents, a total importance scale of benefits was created. This score was then assigned to each respondent; the score could be either high or low.

Participation was also examined in this null hypothesis testing. Some respondents reported no participation in CNE; some indicated mandatory CNE participation. Others reported their voluntary participation in CNE. These categorizations of participation were used in this analysis. Two levels of importance (low, high) and three levels of participation (none, mandatory, voluntary) were used to examine possible relationships.
All respondents rated the importance of the benefits of CNE. Forty eight respondents, however, did not rate these benefits as either "important" or "not important". They rated benefits as "neutral", "both" or "not applicable". These ratings were felt to represent uncertainty on the respondent's part about the influence of the benefit on their participation. These responses were, therefore, excluded from this analysis.

When total importance of benefits and participation and nonparticipation in CNE were examined, there was failure to reject this null hypothesis based on Chi square analysis \[X^2(2, n = 128) = 0.904 \ p = .636\]. The level of significance for this testing was set at an alpha level of .05. Table 15 illustrates this finding.
Table 15
The Relationship Between Total Importance of Benefits and Participation

<table>
<thead>
<tr>
<th>Total Importance</th>
<th>None</th>
<th>Mandatory</th>
<th>Voluntary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0=12</td>
<td>0=5</td>
<td>0=37</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>E=11.391</td>
<td>E=6.75</td>
<td>E=35.859</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>0=15</td>
<td>0=11</td>
<td>0=48</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>E=15.609</td>
<td>E=9.25</td>
<td>E=49.141</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>16</td>
<td>85</td>
<td>128</td>
</tr>
</tbody>
</table>

n = 128  $X^2 = 0.904  \text{df} = 2  \text{p} = .636$

Note. Expected frequencies of a cell is equal to "...the total of all cases in the row where the cell is located (the row marginal) times the total of all cases in the column (the column marginal), the quantity divided by the total number of cases in the table" (Healey, 1990, p. 211). "O" is observed frequency, "E" is expected frequency.
General benefits of CNE have been identified by some researchers (Matthews & Schumacher, 1979; Rizzuto, 1982; Turner 1986/1988, 1991). Turner (1986/1988, 1991) indicated that there were specific categories of the benefits derived from CNE participation; these benefits were personal (advantageous to individual respondents) or social/professional (advantageous to persons other than the individual).

Benefits examined in this study (see Appendix A) were both personal and social/professional types. Respondents rated benefits on the modified CNES as either personal or social/professional. Benefits identified by respondents as either personal or social/professional were considered to form a separate subscale of the particular benefit type.

Respondents in this study identified eight personal benefits of CNE. These eight benefits were classified as a Personal Scale of Benefits. There were also nine social/professional benefits listed by respondents. These nine benefits were identified as a Social/Professional Scale of Benefits.

The social/professional and personal scales were viewed as forming distinct scales indicative of specific types of CNE benefit. They were examined in a distinct manner in this statistical analysis. These subscales were categorized as either high or low depending upon the respondents'
indicated frequency of "importance" of the particular benefit in the subscale.

Forty eight respondents, however, did not rate the personal and social/professional benefits as either "important" or "not important". They rated benefits as "neutral", "both" or "not applicable". These ratings were felt to represent uncertainty on the respondent's part about the influence of the benefit on their participation. These responses were then excluded from the analysis.

Consideration of the specific relationships of the Personal Benefits Subscale and the Social/Professional Subscale on participation or nonparticipation appeared to be sound. Hypothesis testing then proceeded to examine, through Chi square analysis, the relationship of the Personal Benefits Subscale, the importance of the Personal Benefits Subscale and participation or nonparticipation in CNE. Social/professional benefits were examined in the same manner.

In these particular analyses, participation was dichotomized as no participation or participation. Collapsing of the participation category was deemed to be theoretically sound; participation, whether it was mandated or voluntary, was still participation. Collapsing of the categories reduced the number of cells. This combination helped to assure that there would be less likelihood that the percentage of cells in the Chi square analysis with less
than five expected frequencies would exist (Healey, 1990, p. 221).

Two levels (high, low) of the Personal Benefits Subscale, importance of personal benefits and participation and nonparticipation in CNE were examined through use of Chi square analysis. The level of significance for this testing was set at an alpha level of .05. Chi square analysis 
$[X^2(2, n = 107) = 28.66 \ p = .2048]$ failed to reject the null hypothesis when considered from the perspective of the Personal Benefits Subscale.

Two levels (high, low) of the Social/Professional Subscale, importance of social/professional benefits and participation and nonparticipation in CNE were also examined through use of Chi square analysis. The level of significance for this testing was set at an alpha level of .05. Chi square analysis 
$[X^2(2, n = 107) = 28.66 \ p = .8260]$ failed to reject the null hypothesis when considered from the perspective of the Social/Professional Benefits Subscale.

Chi square analyses of the total benefit importance; Personal Benefits Subscale; Social/Professional Benefits Subscale and participation and nonparticipation all failed to reject this null hypothesis. These analyses suggested that participation and the importance of benefits associated with participation were independent.
Discussion of the Findings of Hypothesis Two.

The Chi square analyses did not support rejection of the null hypothesis. These analyses of data provided by respondents in the study, suggested participation in CNE was independent of the importance of the benefits perceived to be derived from participation. This finding suggested participation in CNE was not associated with the importance of benefits which were perceived to be gained from CNE participation.

The reported "importance" or "not importance" of the listed benefits of CNE participation was considered to reflect the respondents perception of the value of the benefit as it would influence participation or nonparticipation in CNE. Rating a benefit as "important in influencing my decision to participate in CNE" was felt to demonstrate a positive valuation of the particular benefit. Rating a benefit as "not important in influencing my decision to participate in CNE" was felt to demonstrate a negative valuation of the particular benefit. The Expectancy Valence Model (Rubenson, 1977, 1985), the theoretical framework of this study, addressed the influence of this type of affective valuing on participation in continuing education.

Valuing, be it positive or negative, is related to valence. Valence is "...determined by the experienced need of the individual, his expectations concerning the
consequences of participation and the values of member and reference groups" (Rubenson, 1977, p. 37). Outcomes derived from participation must be valent; they must be seen as important and worthwhile by the person if participation is to occur.

The data obtained from this sample revealed that some respondents indicated there was positive valence associated with a benefit even though there was not actual participation. The importance of benefits are perceptual; they are the individual's perception of the situation (Cross, 1981). This perception is influenced by individuals' perceived needs and the self-evaluation of these experienced needs (Courtney, 1992; Cross, 1981; Merriam & Caffarella, 1991; Rubenson, 1977, 1985). This may account for the discrepancy of reported positive valence of CNE benefits and the actual lack of participation.

Expectancy also relates to individuals' perceptions of positive outcomes associated with participation (Rubenson, 1977, 1985). Expectancy is influenced by the individual's perception of beneficial outcomes associated with anticipated success in CNE participation. This perception of beneficial outcomes relates to the "active preparedness" of expectancy; active preparedness results from effective socialization. This active preparedness results in individual readiness (Long, 1983); it can, however, be expressed in varying degrees (Rubenson, 1985).
Participation in CNE is a multidimensional phenomena (Clark & Dickinson, 1976; Dolphin, 1983; Rubenson, 1977, 1985; Schoen, 1979). As previously mentioned, interpretation of valence is based upon individuals' needs. Researchers have studied the effects of individual needs upon CNE participation. Attendance at CNE was related to personal needs of respondents by a number of researchers (Arneson, 1985b; Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Dolphin, 1983; MacDonald & Grogin, 1991; Merservy & Monson, 1987; Puetz, 1980).

Positive outcomes (benefits) are also acquired as a result of CNE attendance. Research on the benefits derived from CNE and participation in CNE is limited. Advantages of CNE participation, according to Matthews and Schumacher (1979), are more knowledge and skill, enhanced comprehension of nursing trends, better patient care and maintenance of nursing competence. However, Matthews and Schumacher (1979) did not study directly benefits associated with participation.

Several studies (Clark & Dickinson, 1976; Duquette, Painchaud & Blais, 1988; Kubat, 1975; Parochka, 1985; Puetz, 1980, 1983; Schoen, 1982) reported little or no participation in CNE. Duquette, Painchaud and Blais (1988) reported some nonparticipation in CNE was related to a perception there was a lack of benefits which would accrue as a result of participation.
Rizzuto (1982) examined the benefits and costs associated with participation in CNE through the use of cost-benefit analysis. Advantages resulting from CNE participation to the individual, institution or society were described as benefits. Rizzuto (1982) stated benefits could be seen as financial gain, increased knowledge and job satisfaction. Turner (1986/1988, 1991) also studied the benefits and costs of CNE participation. Turner (1986/1988, 1991) identified personal (bettering the nurse participant) and social (bettering persons other than the nurse) benefits derived from CNE participation. None of the benefits Turner (1986/1988, 1991) described were found to be of a large degree of benefit to participants in her study. Findings did indicate four benefits (personal satisfaction, joy of learning, increased knowledge of new techniques, self-assurance) were perceived to be moderately beneficial outcomes of CNE participation. Only one of the reported benefits (increased knowledge of new techniques) was classified as social or professional in nature.

Benefits were felt to accrue to individual nurses and the persons they care for as a result of CNE participation. These types of benefits have not been extensively studied. According to the data obtained from this sample, an individual's choice to participate or not participate in CNE was independent of the importance of the type of benefit associated with CNE participation. Even though in this
instance, there was insufficient evidence to reject the null hypothesis, final judgement on the effects of importance of benefits or the types of benefits on participation must be reserved until both types have been fully investigated.

Hypothesis Three

Null Hypothesis 3: There will be no statistically significant relationship between participation and nonparticipation, socialization and the importance ascribed to each identified social/professional and personal benefit of CNE.

Log linear statistical analysis examined the relationship between nurses' participation and nonparticipation in CNE, level of socialization and the importance associated with personal and social/professional benefits of CNE. This log linear analysis was used to examine the relationship of such complex variables on each other (Kerlinger, 1986).

All respondents received a socialization score. This scoring reflected a means of classifying respondents according to their reported level(s) of nursing education, reading of professional journals and membership in professional nursing organizations. This socialization score was initially low, moderate or high.

However, the data indicated that there would be categories where there were no observable counts in the
cell. To avoid this, data categories of socialization were collapsed. Reporting of a baccalaureate or higher degree, reading of professional nursing journals and professional nursing affiliations reflected a high level of socialization; this group constituted the "high" category. Respondents reporting less behaviors were considered the other "low" category.

Participation was viewed as having several dimensions. Some respondents reported no participation in CNE; some indicated mandatory CNE participation. Others reported their voluntary participation in CNE. For the purposes of this analysis, participation was dichotomized as no participation or participation. Collapsing of the participation category was deemed to be theoretically sound; participation, whether it was mandated or voluntary, was still participation. Furthermore, it was necessary to collapse data to assure that there were sufficient numbers of cases in the cells (Healey, 1990).

Seventeen personal and social/professional benefits of CNE were considered in this log linear analysis. The modified CNES (see Appendix A) contained 33 personal and social/professional types of CNE benefits. Respondents, however, did not agree on the benefit type of all listed benefits. There was consensus on type of benefit for only 17 of the listed CNE benefits. These 17 benefits were identified by respondents as either personal or
social/professional types of benefits. These benefits were then selected for data analysis.

This analysis examined two levels of socialization (low, high), two levels of participation (none, mandatory/voluntary) and the importance ascribed to the previously determined 17 benefits of CNE. The level of significance for these analyses were set at an alpha level of .05.

Separate models were created to examine level of socialization, participation and each identified benefit of CNE. Table 16 summarizes the likelihood (L²) ratio of chi square analysis of each of the 17 benefits, level of socialization and participation and nonparticipation. These models yielded likelihood ratio chi square analyses which were significant for all but one benefit. These findings supported rejection of the null hypothesis.

"Personal satisfaction" [L²(2, N = 155) = 6.83 p = .1453], a personal type of benefit, was not significant. This finding indicated that the relationship of personal satisfaction, level of socialization and participation and nonparticipation was independent. Level of socialization and decisions about participating in CNE were not apparently affected by nurses' need for personal satisfaction.
Table 16
The Relationship Between Identified Benefits, Level of Socialization and Participation in CNE

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Likelihood ratio of chi-square*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher salary for others</td>
<td>10.74</td>
</tr>
<tr>
<td>Self awareness</td>
<td>9.09</td>
</tr>
<tr>
<td>Better health care for my family</td>
<td>9.05</td>
</tr>
<tr>
<td>Improved health teaching for patients</td>
<td>9.04</td>
</tr>
<tr>
<td>Supported professional organization</td>
<td>8.82</td>
</tr>
<tr>
<td>Happier in my job</td>
<td>8.61</td>
</tr>
<tr>
<td>Got away from work for a day</td>
<td>8.55</td>
</tr>
<tr>
<td>Personal vacation</td>
<td>8.38</td>
</tr>
</tbody>
</table>
Table 16 (continued)

The Relationship Between Identified Benefits, Level of Socialization and Participation in CNE

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Likelihood ratio of chi-square*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved relationships with agencies</td>
<td>8.25</td>
</tr>
<tr>
<td>Shorter hospital stay for patients</td>
<td>8.03</td>
</tr>
<tr>
<td>Better reputation for employing agencies</td>
<td>7.66</td>
</tr>
<tr>
<td>Joy of learning</td>
<td>7.66</td>
</tr>
<tr>
<td>Travel opportunity</td>
<td>7.30</td>
</tr>
<tr>
<td>Better quality of care for patients</td>
<td>7.02</td>
</tr>
<tr>
<td>Better able to plan patient care</td>
<td>6.81</td>
</tr>
<tr>
<td>Assessed patient problems better</td>
<td>6.56</td>
</tr>
</tbody>
</table>

N = 155  df = 2  * p < .05

Discussion of the Findings of Hypothesis Three.

Log linear analysis is used to study complex combinations of nominal variables and to test theories of the relationship and influences of such variables on each other (Kerlinger, 1986, p. 140). To answer this research question, log linear analysis was used to examine the
relationship of level of socialization, participation and importance of ascribed benefits of CNE. Log linear analysis supported rejection of the null hypothesis.

Analysis of data provided by respondents in the study, suggested importance of ascribed benefits, level of socialization and participation in CNE appear to be related. Sixteen of the identified benefits of CNE by respondents in this study were statistically significant when considered on an individual basis with level of socialization and participation.

When the effects of respondents' level of socialization were not considered, participation and the importance of benefits derived from participation seemed to be independent. Testing of the second null hypothesis supported this finding. Therefore, the effects of socialization and not the importance of the benefits which accounted for the null hypothesis being rejected.

The Expectancy Valence Model (Rubenson, 1977, 1985) addresses the concept of expectancy. Expectancy is defined as a belief in the probability that particular actions will lead to certain outcomes (Long, 1983). Perceptions of expectancy are affected by active preparedness and perception and interpretation of the environment. Socialization affects perceptions associated with expectancy; membership and referent groups have a strong influence on this perception. Persons who report high
levels of socialization may perceive the "importance" of benefits derived from CNE participation differently from persons with lower levels of socialization.

Valence is related to participation in CNE. Individuals participate when they view participation as a potential way to fulfill experienced needs (Rubenson, 1977). Benefits derived from participation must be valent; they must be seen as important and favorable by the person if participation is to occur. Individual's self-evaluation of valence of benefits is affected by the "...values of the people important to one's self-definition. . . ." (Merriam & Caffarella, 1991, p. 234). A professional reference group could affect how individuals determine the effects of valence of benefits.

Turner (1986/1988, 1991) studied benefits associated with CNE participation. The results of her study indicated nurses perceive certain results or benefits to be associated with participation in CNE. These benefits were labelled as either social/professional or personal benefits (Turner, 1986/1988, 1991). There has been little research upon the relationships of level of socialization, importance of benefits accrued from CNE attendance and participation in CNE.

Results of Hypotheses Testing

Results where some findings support the hypotheses being tested and others do not are mixed results (Woods &
Catanzaro, 1988). The results of hypothesis testing in this study were mixed. Hypotheses one and three were supported by the data obtained in the sample. The second hypothesis, however, was not supported by data obtained from the sample.

These results may have occurred for several reasons. There was a small size sample in this research study. Questionnaires were used in measurement. Data collected was self-reported by volunteer respondents. The actual instruments employed might not have measured data correctly. Items on the Demographic Data Sheet and the modified CNES might not have been structured in a manner to facilitate clear understanding of the items or to elicit clear answers from the respondents. Concepts under study may not be adequately represented by the instrumentation of the study.

Additional Analyses

Additional analyses not related to the hypotheses of the study were undertaken. These analyses examined the relationships between certain categories of demographic data provided by respondents in the study. Analysis used Chi square testing or Fisher's exact testing of associations between these selected demographic factors.

The variables considered in these analyses were educational level, clinical specialty, nursing role, reading professional journals, membership in professional nursing organizations and participation in CNE. Measurement of these variables was formulated according to the following
descriptions. Results of this testing are listed individually in the following sections.

Measurement of Variables in Additional Analysis.

Educational Level.

In this analysis, two levels of nursing education were identified. Respondents were classified according to their reported nursing educational background. Respondents holding an AD or diploma in nursing were placed in one category; respondents holding a BS or higher degree were placed in the other.

Baccalaureate nursing education is viewed as the level of education required for entry into professional nursing practice ("ANA gears up", 1985); hence respondents who held this degree were regarded as comprising one category. The others who did not hold a baccalaureate degree made up the other category of level of education.

Clinical Specialty.

All clinical specialties were considered, but some were collapsed into more general categories for the purposes of analysis. Care of adult clients who experience health problems associated with varying degrees of acuity constituted one category of client care. This group included critical care, geriatrics, adult health, general duty and emergency room/trauma specialties. A second general grouping was also created--this was a category that considered specialty practice relating to experiences of
childbearing and childrearing. A combined group that consisted of obstetrics/gynecology/neonatal and pediatric specialties were created.

Nursing Role.

Nurses practice in roles as generalists or specialists (ANA, 1980; Styles, 1989). Roles in nursing which were identified on the modified CNES were collapsed into two categories that indicated this approach to classification. Nurse generalists were respondents who reported the role of staff nurse. Specialists in nursing were those respondents who reported roles as educator, administrator, nurse practitioner or clinical nurse specialist.

Reading Professional Nursing Journals.

Respondents reported the professional nursing journals that they read at least on a monthly basis. This reading was considered as "yes" (reading) or "no" (not reading).

Membership in Professional Nursing Organizations.

Practice in nursing can be viewed as general and/or specialty. In some instances nurses can demonstrate interests which are both general and specific. Professional memberships were defined in a way to accommodate respondents' indication of general, specialty or both (general and specialty) professional nursing memberships.
Participation.

Respondents in the study either attended or did not attend CNE. Participation was classified in this context.

Actual Analysis of Additional Variables

Professional Nursing Membership and Other Variables.

Professional Memberships and Reading Journals.

The relationship of professional nursing organizational membership and journal reading was examined through the use of Fisher's exact testing. Fisher's exact testing is indicated when more than 20% of cells in Chi square analysis have less than five cases per cell (Healey, 1990). At an alpha level of significance of .05, the results of this testing indicated professional membership and reading of nursing journals were related.

Professional Memberships and Nursing Role.

The relationship of professional nursing organizational membership and nursing role was examined through the use of Fisher's exact testing. At an alpha level of significance of .05, the results of this testing indicated professional membership and nursing role were related.

Professional Memberships and Clinical Specialty.

The relationship of professional nursing organizational membership and area of clinical specialty was examined through the use of Fisher's exact testing. At an alpha level of significance of .05, the results of this testing indicated professional membership and clinical specialty
role were not related. Professional membership and specialty were independent.

**Professional Memberships and Participation.**

The relationship of professional nursing organizational membership and participation was examined through the use of Fisher's exact testing. At an alpha level of significance of .05, the results of this testing indicated professional membership and participation were related.

**Professional Memberships and Levels of Education.**

The relationship of professional nursing organizational membership and level of education was examined through the use of Fisher's exact testing. At an alpha level of significance of .05, the results of this testing indicated professional membership and level of education were related.

**Educational Level and Other Variables.**

**Educational Level and Reading Journals.**

The relationship of educational level and reading journals was examined through the use of Chi square testing. At an alpha level of significance of .05, the results of this testing indicated educational level and reading of journals were related.

**Educational Level and Nursing Role.**

The relationship of educational level and nursing role was examined through the use of Chi square testing. At an alpha level of significance of .05, the results of this
testing indicated educational level and nursing role were related.

Educational Level and Clinical Specialty.

The relationship of educational level and clinical specialty was examined through the use of Chi square testing. At an alpha level of significance of .05, the results of this testing indicated educational level and clinical specialty were related.

Educational Level and Participation.

The relationship of educational level and participation was examined through the use of Chi square analysis. At an alpha level of significance of .05, the results of this testing indicated educational level and participation were not related. Educational level and participation were independent.

Nursing Role and Other Variables.

Nursing Roles and Reading Journals.

The relationship of reading journals and nursing role was examined through the use of Chi square testing. At an alpha level of significance of .05, the results of this testing indicated reading journals and nursing role were related.

Nursing Role and Participation.

The relationship of nursing role and participation was examined through the use of Chi square analysis. At an alpha level of significance of .05, the results of this
testing indicated nursing role and participation were related.

**Clinical Specialty and Other Variables.**

**Clinical Specialty and Participation.**

The relationship of clinical specialty and participation was examined through the use of Chi square analysis. At an alpha level of significance of .05, the results of this testing indicated clinical specialty and participation were not related.

**Clinical Specialty and Reading Journals.**

The relationship of clinical specialty and reading journals was examined through the use of Chi square testing. At an alpha level of significance of .05, the results of this testing indicated reading journals and clinical specialty were not related.

**Participation and Reading Journals.**

The relationship of reading journals and participation was examined through the use of Chi square analysis. At an alpha level of significance of .05, the results of this testing indicated reading journals and participation were not related. Reading journals and participation were independent.

**Results of Additional Analysis**

The results of these additional analysis were mixed. Results indicated relationships are suggested among some
variables. No statistical relationships between other combination of variables were also found.

**Significant Relationships**

**Professional Memberships.**

Statistically significant relationships were found between professional membership and: reading of nursing journals, nursing role, educational level and participation. Respondents belonging to professional organizations were more likely to read nursing journals then those with no professional memberships. The most usual membership of respondents who were reading was in a specialty nursing organization. Professional membership was related to nursing role. Specialists belonged to professional organizations even though some respondents in all roles reported professional memberships. Membership was usually in a specialty professional membership. Persons with a baccalaureate degree or higher belonged to professional nursing organizations. Participation was also related to professional memberships; persons belonging to professional organizations were more likely to participate in CNE.

**Educational Level.**

Educational level was statistically related to: reading journals, nursing role and clinical specialty. Respondents with baccalaureate (or higher) levels of education read journals more, were in specialists roles and practiced in medical-surgical clinical specialties. Respondents with
associate degree/diploma levels of education were medical-surgical staff nurses (generalist role) who reported less reading of journals.

Nursing Role.

Nursing role was statistically related to reading journals, educational level and participation. Most respondents reported practicing generalist roles. Nursing specialists read journals more. However, nurses practicing in all roles, both generalist and specialist, reported reading journals. Nurses in specialist roles have a baccalaureate or higher degree, while most nurse generalists hold an associate degree/diploma. Nurse specialists were most likely to participate in CNE. Nurses in all roles participated in CNE, although, most nurses participating in CNE were in generalist (staff nurse) roles. Most nonparticipants in CNE were in generalist (staff nurse) roles as well.

Nonsignificant Results.

Clinical Specialty.

Clinical specialty was not statistically related to: professional memberships, reading journals or participation. The respondents' indication of any clinical specialty did not relate to the likelihood of the respondent belonging to a professional nursing organization. Reading journals was not related to particular types of clinical specialization. Nurses in all clinical specialties, reported reading and not
reading journals. Clinical specialty was not related to participation; nurses in all clinical specialties participated. However, medical-surgical clinical nursing specialty was the most frequently identified specialty of both CNE participants and nonparticipants.

Participation.

Participation was not statistically related to: reading journals, educational level or clinical specialty. Both participants and nonparticipants in CNE reported reading journals although most respondents who had participated in CNE indicated they did read journals. Respondents at all levels of education reported both participation and nonparticipation in CNE. Respondents with baccalaureate or higher degrees participated in CNE more than respondents with associate degrees/diplomas. Nurses in all clinical specialties either participated or did not participate in CNE. Medical-surgical clinical specialty was the most frequently identified specialty of participants and nonparticipants in CNE.

Summary

This chapter has discussed the results from this study. The rate of return according to the zip code classification of respondents was presented. Data describing the demographic characteristics of respondents were displayed. Data relating to the research questions; level of socialization, participation in continuing nursing education
(CNE), types of benefits derived from CNE participation and the importance of these types of benefits and CNE participation; were presented. The findings associated with null hypotheses testing were reported. The findings were compared with constructs from the theoretical model and were comparatively related to relevant research. Additional analyses beyond hypotheses testing were included.
CHAPTER FIVE
Summary, Conclusions and Recommendations

The Problem

Purpose of the Study

The purpose of this study was to determine what factors influence registered nurses in the Southeastern region of the Commonwealth of Virginia to participate or not to participate in continuing nursing education (CNE). Specifically, this study attempted: (1) to determine if the level of socialization was related to participation in CNE by registered nurses living in Southeastern Virginia; (2) to identify the perceived benefits of CNE and the importance of these benefits to registered nurses living in Southeastern Virginia who participate and do not participate in CNE; and (3) to determine the relationship of the perceived benefits and the importance ascribed to these benefits by registered nurses living in Southeastern Virginia who participate and do not participate in CNE.

Research Questions

Three research questions were developed. The research questions investigated were: (1) what is the relationship between level of socialization and participation and non participation in CNE? (2) what is the relationship between
the importance or non-importance of the benefits and participation and nonparticipation in CNE? and (3) what is the relationship between participation and nonparticipation, level of socialization and the importance or non-importance ascribed

**Theoretical Framework**

**Expectancy Valence Model of Participation**

This research study used the Expectancy Valence Model (Rubenson, 1977, 1985) of Participation in adult education as the theoretical framework. Valence and expectancy, the major concepts of this model, were the determinants of the internal and external forces that result in a decision to participate (Courtney, 1992; Cross, 1981; Long, 1983, Rubenson, 1977, 1985).

Valence was anticipated satisfaction (i.e. the benefits accrued); it could be viewed as the sum of positive and negative values of the effects obtained from participation (Courtney, 1992; Cross, 1981; Long, 1983; Merriam & Caffarella, 1991; Rubenson, 1977, 1985). Individuals participated when they experienced valence; they saw participation as a potential way to satisfy experienced needs. Expectancy was defined as a belief (or expectation) that particular actions would lead to certain outcomes (Long, 1983; Rubenson, 1977, 1985). Expectancy related to individuals' perceptions of themselves as being able to...
successfully participate and rewards exist for this participation (Courtney, 1992; Rubenson, 1977, 1985).

Participants were those who believed that they could complete the program of study and that certain needs would be satisfied through participation. In contrast, nonparticipants were those who did not have a positive belief in either of these instances (Long, 1983, pp. 130-131). The Expectancy Valence Model was used to describe, explain, and predict the interrelated variables that affect participation in continuing education.

**Selected Variables of Interest**

Nurses' participation or nonparticipation in CNE was thought to be related to their levels of socialization and the types of benefits perceived to be derived from CNE participation. Additionally, the influence or "importance" of these benefits on respondents' participation or nonparticipation in CNE was considered. Since participation in continuing nursing education (CNE) was noted to be a multidimensional concept (Rubenson, 1977, 1985) additional selected demographic characteristics were examined. Operational definitions of the variables were developed.

**Comparison with Other Research Studies**

**Review of Literature Relating to CNE Participation**

Professional socialization affected nurses' participation in CNE. Professional nursing socialization, however, is variable. The initial exposure to socialization

Effectively socialized nurses should demonstrate professional behaviors (Creasia, 1991; Rosow, 1965; Watson, 1986). Professional behaviors should connote responsibility and accountability (American Nurses Association [ANA], 1980, 1985a, 1992; Eichhorn, 1981; "Essentials", 1986; Kozier, Erb & Blais, 1992; Palmer, 1974; O’Connor, 1979; Tibbles, 1977). This professional nursing accountability encompasses the necessity for professional practice. Competency in professional practice is expected; participation in lifelong learning through formal and informal education such as CNE is a means to maintain competency (ANA, 1980, 1992; Deane & Campbell, 1985; Eichhorn, 1981; Estok, 1977; Hamilton, 1992; Hinshaw, 1986; McGriff, 1973; Moore, 1970; O’Connor, 1979;

The need for nurses to participate in CNE was evidenced in the literature; the anticipated result of this participation was CNE would influence nursing practice and result in better client care (Cox & Baker, 1981; Deets & Blume, 1977; DeHaven, 1990; del Bueno, 1977; Ferrell, 1988; Flakerud, Lewis & Shin, 1989; Foglesong, Lambert & Emerick, 1987; Forni & Overman, 1974; Hedman & Miller, 1987; Kiener & Hentschel, 1989; Martin, McNeal, Kronenfeld & Wheeler, 1986; Merservy & Monson, 1987; Nielsen & Miaskowski, 1987; Oliver, 1984; Peden, Rose & Smith, 1990; Waddell, 1991). Continuing nursing education was also seen as a means to update knowledge, support continuing nursing competence and protect the public (Cox & Baker, 1981; Deets & Blume, 1977; del Bueno, 1977; Flakerud, Lewis & Shin, 1989; Martin, McNeal, Kronenfeld & Wheeler, 1986; Merservy & Monson, 1987; Nielsen & Miaskowski, 1987; Oliver, 1984; Peden, Rose & Smith, 1990; Waddell, 1991).

**Studies Related to the Research Questions**

**Levels of Socialization and Participation.**

Professionalism has been defined by a number of characteristics (Bell & Rix, 1979; Lawler, 1988; Moore, 1970; Schoen, 1982). These characteristics included full-time employment, commitment to a vocation, affiliation with a professional organization, educationally derived accomplishment (i.e. advanced education, continuing
education, reading professional publications), service orientation and autonomy. Additionally, participation in continuing education was reported to be an indication of professionalism (Eichhorn, 1981; Moore, 1970; O’Connor, 1979; Schoen, 1982).

This study examined levels of nursing education, reading of professional nursing journals and professional nursing affiliations as indications of the levels of nursing socialization of respondents. Review of the literature indicated other researchers’ investigations of similar attributes of professional socialization, although not operationally defined in the same manner as this particular study.

A number of studies examined levels of nursing education and participation in CNE (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Dolphin, 1983; Duquette, Painchaud & Blais, 1988; Kubat, 1975; Millonig, 1985; Parochka, 1985; Puetz, 1980, 1983; Schoen, 1982). CNE participation was positively related to holding a baccalaureate in nursing (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980) and negatively associated with holding a diploma in nursing (Clark & Dickinson, 1976; Curran, 1977; Duquette, Painchaud & Blais, 1988; Parochka, 1985; Puetz, 1980).

The relationship of professional affiliation and participation in CNE was not clearly exhibited in the
research literature. Kubat (1975) reported that ANA membership was positively related to CNE participation while Schoen (1979) reported professional affiliation was negatively related to participation. Lack of professional affiliation in CNE participants was reported in several studies (Kubat, 1976; Miller & Rea, 1977; Schoen, 1979). Professional affiliation was also positively related to journal reading (Gessner & Armstrong, 1992).

Journal reading behaviors of CNE participants were also investigated (Bell & Rix, 1979; Curran, 1977; Gessner & Armstrong, 1992; Kubat, 1976; Schoen 1979; Skinner & Miller, 1989). Findings in these studies were mixed; Kubat (1976) reported participants had not read professional journals while Curran (1977) found that nurses who were employed full-time read more journals and participated in more CNE. CNE participation was positively predicted by the number of journals received by participants (Schoen, 1982). Reading journals was also identified as a way to continue education and maintain competence (Gessner & Armstrong, 1992; Skinner & Miller, 1989).

Benefits Associated with Participation.

Benefits were thought to accrue to nurses and the persons they care for as a result of CNE participation (Dolphin, 1983; Parochka 1985; Rizzuto, 1982; Turner 1986/1988, 1991; Urbano, Jahns & Urbano, 1988). However,
the benefits associated with participation in CNE have not been extensively studied.

Matthews and Schumacher (1979) described global benefits (i.e. increased knowledge or maintenance of competency) resulting from CNE participation; however, they did not study specific benefits associated with participation. Some studies (Duquette, Painchaud & Blais, 1988; Parochka 1985; Urbano, Jahns & Urbano, 1988) reported that nonparticipation might be related to professional disengagement or a perception there were lack of benefits accruing as a result of participation.

Rizzuto (1982) used a cost-benefit analysis to describe the benefits and costs of CNE participation. Rizzuto (1982) described benefits as advantages resulting from CNE participation to the individual, institution or society. Benefits could be seen as financial gain, increased knowledge and job satisfaction.

Benefits and costs of CNE participation were also examined by Turner (1986/1988, 1991). Thirty three identified personal and social benefits of CNE were identified in Turner's research. Personal benefits were advantageous to the nurse participant while social benefits were advantageous to persons other than the nurse. Findings indicated three personal benefits (personal satisfaction, joy of learning, self-assurance) and one social benefit (increased knowledge of new techniques) were perceived to be
moderately beneficial outcomes of CNE participation. The relationship of the types of benefits associated with CNE participation and the importance of these benefits in influencing CNE participation has not been reported in the literature.

Level of Socialization, Importance of Benefits Derived from CNE Attendance and Participation.

The relationship of level of socialization, the importance of benefits derived from CNE attendance and participation in CNE has not been reported in the literature.

Characteristics of Participants and Nonparticipants.

The literature described research on the characteristics of nurses who do or do not participate in CNE. Researchers have investigated groupings of characteristics which related to participation and nonparticipation. Analysis of the relationship of sociodemographic, attitudinal and other factors and participation and nonparticipation in CNE was described in the literature.

Studies frequently described various sociodemographic and attitudinal characteristics thought to relate to CNE participation (Arneson, 1985a, 1985b; Clark & Dickinson, 1976; Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Deets & Blume, 1977; Duquette, Painchaud & Blais, 1988; Gessner & Armstrong, 1992; Keltner, 1983; Kubat, 1975, 1976;


and personal need satisfaction (Arneson, 1985a, 1985b; Clark and Dickinson, 1976; Deets & Blume, 1977; Dolphin, 1983; Kubat, 1975; Miller & Rea, 1977; Schoen, 1979; Urbano, Jahns & Urbano, 1988) were associated with CNE participation. Relevancy of CNE offerings, program accessibility and the amount of individual effort associated with participation were other factors which affected CNE participation. (Arneson, 1985b; Burgess, 1976; Craft, Heick, Richards, Murray, Lathrop & Reed, 1992; Deets & Blume, 1977; Dolphin, 1983; Duquette, Painchaud & Blais, 1988; Matthews & Schumacher, 1979; Parochka, 1985; Puetz, 1980).

Summary of Research and the Questions of the Study

Research findings indicated there was no agreement upon which characteristics, or combination of characteristics, influenced nurses to participate. The multidimensional nature of variables related to participation appeared to be illustrated in the literature review.

There was also an unclear relationship between participatory behavior of nurses and their level of socialization. The literature offered support for the importance of CNE participation and demonstrated benefits associated with this participation have not been fully investigated. Relationships between level of socialization, importance of types of benefits and participation have not been explored.
Method of the Study

Descriptive survey research was used in this study. Two questionnaires were used to collect data. The instruments were a modified form of the Continuing Nursing Education Survey (CNES) (see Appendix A) and the Demographic Data Sheet (DDS) (see Appendix B). The modified CNES (Turner, 1986/1988, 1991) listed 33 identified benefits of continuing nursing education; respondents were requested to categorize the identified benefits as either personal or social/professional type; and asked respondents to report if the identified benefits were important or not important in influencing their participation in continuing nursing education.

The DDS was used for collecting demographic data. Demographic data reported was area of clinical specialty, nursing role, level of nursing education and year of graduation, reading of professional nursing journals on at least a monthly basis, professional nursing organizational memberships, participation in CNE and content area of CNE attendance.

The accessible target population of this study was actively licensed registered nurses residing in the Southeastern region of the Commonwealth of Virginia. Systematic sampling of a computerized zip code listing of these nurses purchased from the Virginia Board of Nursing identified 400 potential respondents for this study.
A total of 163 (40.75%) surveys were returned. Eight respondents did not answer the Continuing Nursing Education Survey (CNES) (see Appendix A) but they did complete the Demographic Data Sheet (DDS) (see Appendix B). Because the data from these respondents were incomplete, these persons were excluded from the study. Of the 163 responses received, 155 (95.09%) questionnaires were deemed as usable. The responses of the 155 nurses who provided usable questionnaires were the actual sample of this study.

The modified CNES and DDS were mailed to respondents along with a stamped self-addressed return envelope. Information on the purposes of the research study was included in this mailing. The cover letter (see Appendix D) discussed the purposes of the study and gave assurances of confidentiality and anonymity. Completion and return of the survey instruments was presumed to constitute the respondent’s voluntary decision to participate in the research study.

Questionnaires were not coded; respondents were offered anonymity and were assured that data would only be reported in aggregate form. Appropriate approval, which involved the protection of the rights of human subjects, was obtained from the Human Subjects Research Committee of the School of Education of the College of William and Mary.

Use of descriptive survey methodology did not control for extraneous influences on the data. This reduced the
ability to draw unambiguous conclusions about the phenomenon being studied. Possible bias in this study included the representativeness of the sample, rate of return of questionnaires, volunteer respondents, use of questionnaires and self-report data by respondents.

Planned data interpretation by appropriate descriptive and inferential statistics such as Chi square testing and log-linear analysis were described. Methods of computer access and data entry were described. Hypotheses testing through Chi square statistical analysis and/or log linear analysis was described.

Findings of the Study

Demographic Characteristics

Demographic data on respondents' characteristics was collected using the DDS. These data included area of clinical expertise, nursing role, level of nursing education, reading of professional nursing literature, membership in nursing professional organizations and participation and nonparticipation in CNE. Findings from this study identified demographic characteristics which were associated with respondents' participation or nonparticipation in CNE.

Results Associated with Demographic Characteristics

Respondents in the study reported their participation or nonparticipation in CNE. Participation in CNE was reported by 122 respondents; 33 respondents indicated they
had not participated in CNE. Other researchers have reported instances of little or no participation in CNE by nurses (Clark & Dickinson, 1976; Duquette, Painchaud & Blais, 1988; Kubat, 1975; Parochka, 1985; Puetz, 1980, 1983; Schoen, 1982).

In this study, respondents who had participated in CNE typically were employed, critical care staff nurses who held baccalaureate degrees in nursing. These participants in CNE reported they read professional nursing journals at least monthly and were affiliated with specialty-type professional nursing organizations. Other researchers reported holding a baccalaureate in nursing (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980) and location/site of clinical practice (Puetz, 1980, 1983) were positively associated with participation in CNE. The effects of professional affiliation on participation were less clearly evidenced in the literature. Schoen (1979) reported negative association with professional affiliation and participation; Kubat (1975) reported a positive association. This study indicated participants in CNE were affiliated with specialty nursing organizations.

Nonparticipants, typically, were employed, staff nurses who reported "other" clinical specialties and held a diploma in nursing. These nonparticipants did not report reading professional nursing journals at least monthly and they reported no professional nursing memberships. These
findings echoed results of educational levels of nonparticipants reported by other researchers (Clark & Dickinson, 1976; Curran, 1977; Duquette, Painchaud & Blais, 1988; Parochka, 1985; Puetz, 1980). The lack of professional affiliation in CNE participants which was reported in this particular study has been substantiated in other studies (Kubat, 1976; Miller & Rea, 1977; Schoen, 1979).

Participants and nonparticipants in this study typically indicated they were employed. Research suggested employment status positively affected CNE participation (Arneson, 1985a; Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Keltner, 1983; Kubat, 1975; Puetz, 1980, 1983; Schoen, 1982; Thomas, 1986). In this study, responses by participants supported these findings. Most nonparticipants in this study, however, were employed which was a contradictory finding.

**Testing the Research Questions and Hypotheses**

The modified CNES was used to extract data about level of socialization, the types of benefits and their influence on CNE attendance, and participation or nonparticipation in CNE. Level of socialization was defined by three behavioral indicators: level of nursing education, reading of nursing journals and professional nursing memberships.

All respondents received a composite socialization score based upon these three behaviors. Additionally,
respondents in the study reported nonparticipation, mandated participation or voluntary participation in CNE. Most respondents reported voluntary participation in CNE.

Hypothesis testing investigated the relationship among benefits which could be associated with CNE attendance and participation or nonparticipation in CNE. Thirty three personal and social/professional benefits were listed on the modified CNES (see Appendix A). Respondents rated the listed benefits as either personal or social/professional type; agreement was found regarding the benefit type of 17 of the 33 listed benefits. There was a lack of agreement on the benefit type of the remaining 16 benefits listed on the modified CNES.

Results of Testing of the Research Questions

Three research questions were investigated in this study. The results of the study relating to each research question are presented in the following sections.

Research Question One.

What is the relationship between level of socialization and participation and nonparticipation in CNE?

In this study, level of socialization, as hypothesized, was positively related to nurses' participation and nonparticipation in CNE. Nurses who were more highly socialized were more likely to voluntarily participation in CNE.
Research Question Two.
What is the relationship between the importance or non-importance of the benefits and participation and nonparticipation in CNE?

The findings indicated participation or nonparticipation in CNE was not related to the importance or non-importance of the type of benefits associated with CNE. While benefits were classified as social/professional or personal and important and not important, these categories did not seem to have a significant relationship to actual CNE participation.

Research Question Three.
What is the relationship between participation and nonparticipation, level of socialization and the importance or non-importance ascribed to each identified benefit of CNE?

The findings indicated level of socialization, importance or non-importance of the type of identified benefit of CNE and participation and nonparticipation in CNE were positively related.

Results of Testing of the Hypotheses
Three hypotheses which were derived from the research questions and the theoretical model were investigated. The
results of the study relating to each hypothesis are presented in the following sections.

**Hypothesis One.**

There will be a statistically significant relationship between level of socialization and participation and nonparticipation in CNE.

Statistical analysis supported acceptance of this hypothesis and the null hypothesis was rejected. Chi square analysis of data obtained in this study, when examined at the .05 level of significance, revealed level of socialization and participation and nonparticipation in CNE were related.

Participation in CNE was associated with nurses’ levels of socialization. This finding supported the proposition of the Expectancy Valence Model (Rubenson, 1977, 1985). People participated in CNE when they saw participation as a potential way to satisfy experienced needs. Persons with high or increased levels of socialization have the need for professional interaction and ongoing development of their knowledge base; they anticipated professional satisfaction (expectancy) associated with their participation. The results obtained from participation were viewed as valuable (valence) (Courtney, 1992; Cross, 1981; Long, 1983; Merriam & Caffarella, 1991; Rubenson, 1977, 1985).
Other researchers have not directly investigated levels of socialization as conceptualized in this study. Some studies have examined participation in CNE and demonstration of professional characteristics and a sense of professional alignment (Bell & Rix, 1979; Clark & Dickinson, 1976; DeSilets, 1990; Dolphin, 1983; Keltner, 1983; Lawler, 1988; Millonig, 1985; Nugent, 1990; O’Connor, 1979, 1982; Puetz, 1980, 1983; Thomas, 1986; Urbano, Jahns & Urbano, 1988).

Educational level of the typical highly socialized CNE participant in this study was a baccalaureate degree. Other studies reported that participation in CNE was positively associated with holding a baccalaureate nursing degree (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980, 1983; Schoen, 1982).

The lack of professional affiliation in CNE respondents was reported in several studies (Kubat, 1976; Miller & Rea, 1977; Puetz, 1980; Schoen, 1979; 1982). Professional nursing affiliation was related to CNE participation (Bell & Rix, 1979; Kubat, 1975; Schoen, 1982). In this study, nonparticipants typically did not report professional affiliations. Gessner and Armstrong (1992) reported that professional affiliation was positively related to journal reading.

Some studies commented on journal reading behaviors of CNE respondents (Bell & Rix, 1979; Curran, 1977; Gessner & Armstrong, 1992; Kubat, 1976; Schoen 1979; Skinner & Miller,
Participation was related to journal reading (Bell & Rix, 1979; Curran, 1977; Kubat 1975; Schoen, 1979; 1982). Nonparticipants in CNE who responded to this study did not report journal reading.

Hypothesis Two.

There will be a statistically significant relationship between the importance of the social/professional and personal benefits and participation and nonparticipation in CNE.

Statistical analysis did not support acceptance of this hypothesis and the null hypothesis was accepted. Chi square analysis of data obtained in this study, when examined at the .05 level of significance, revealed the importance of the social/professional and personal benefits and participation and nonparticipation in CNE were not related. Participation or nonparticipation in CNE was independent of the effects of the importance of the benefits of CNE.

This finding did not support the proposition of the Expectancy Valence Model that the perception of benefits or rewards (expectancy) derived from CNE participation have a significant positive relationship upon participation in CNE. Additionally, valuing (valence) of the benefits derived from CNE participation did not appear to be related to participation.
General benefits of CNE have been described by some researchers (Matthews & Schumacher, 1979; Rizzuto, 1982; Turner 1986/1988, 1991). Some nonparticipation in CNE was reported to be related to the perception that there was a lack of benefits which will accrue as a result of participation (Duquette, Painchaud and Blais; 1988). Turner (1986/1988, 1991) indicated there were personal and social categories of benefits derived from CNE participation. Turner (1936/1988, 1991) found four benefits, three personal type and one social type, were modestly related to participation in CNE.

Hypothesis Three.

There will be a statistically significant relationship between participation and nonparticipation, socialization and the importance ascribed to each identified social/professional and personal benefit of CNE.

Statistical analysis supported acceptance of this hypothesis and the null hypothesis was rejected. Log linear analysis of data obtained in this study, when examined at the .05 level of significance, revealed level of socialization, importance ascribed to personal and social/professional benefits and participation and nonparticipation in CNE were related.
This hypothesis tested the interaction of the variables of socialization and importance of the type of benefit. In hypothesis one, socialization was significantly positively related to participation; in hypothesis two, the importance of the benefit was not significantly related to participation; therefore it must be concluded that the influences of socialization explained the significant statistical relationship between socialization, importance of the benefit and participation. The influence of importance of the benefit did not seem to have an important relationship to participation. The Expectancy Valence Model of Participation seemed to be only partially supported with these findings.

However, in view of the findings related to hypothesis two, there did not seem to be support for the propositional statement that participants were people who believed that certain benefits will result from participation. Nonparticipants were those who did not have a positive belief in this case.

Additional Analyses.

Other variables which were thought to be associated with participation were investigated. The variables considered in these analyses were educational level, clinical specialty, nursing role, reading professional journals, membership in professional nursing organizations and participation in CNE. Analyses of the relationships of
these variables were examined through Chi square testing or Fisher's exact testing at the .05 level of significance.

Professional affiliation was significantly related to reading of nursing journals, nursing role, educational level and participation. This supported Gessner and Armstrong's (1992) findings that professional affiliation was positively related to journal reading and findings by Kubat (1975) that professional affiliation was related to participation in CNE. Members of professional organizations read more journals and participated in CNE. Additionally, these respondents were specialists and held a baccalaureate degree or higher. Professional affiliations and clinical specialty were not related statistically. The respondents' indication of clinical specialty was not related to the likelihood of the respondent belonging to a professional nursing organization. More respondents reported specialty professional nursing organization memberships.

Education level was statistically related to reading journals, nursing role and clinical specialty. Respondents with education at the baccalaureate or higher level read more journals. Additionally, these baccalaureate educated nurses held specialist roles and practiced in medical-surgical settings. Educational level and participation were not significantly related. Participation and nonparticipation in CNE was reported by respondents at all levels of education. This did not support the findings of
some researchers (Arneson, 1985a; Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Desilets, 1990; Keltner, 1983; Kubat, 1975; Puetz, 1980, 1983; Schoen, 1982; Thomas, 1986). In this analysis, while not significantly related, more persons with a baccalaureate or higher degree than an associate degree/diploma reported participating in CNE. This did offer some support for other researchers’ findings of a positive relationship of holding a baccalaureate degree and participation (Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; Puetz, 1980) and negative association with holding a diploma in nursing and participation in CNE (Clark & Dickinson, 1976; Curran, 1977; Duquette, Painchaud & Blais, 1988; Parochka, 1985; Puetz, 1980).

Nursing role was statistically related to reading journals, educational level and participation. Most respondents reported practicing generalist roles. Nursing specialists read journals more. However, nurses practicing in all roles, both generalist and specialist, reported reading journals. Nurses in specialist roles had a baccalaureate or higher degree, while most nurse generalists held an associate degree/diploma. Most nonparticipants in CNE were in generalist (staff nurse) roles as well.

Clinical specialty was not statistically related to: professional memberships, reading journals or participation. The respondents’ indication of any clinical specialty did not relate to the likelihood of the respondent belonging to
a professional nursing organization. Reading journals was not related to particular types of clinical specialization. Nurses in all clinical specialties reported reading and not reading journals. Clinical specialty was not related to participation; nurses in all clinical specialties participated. However, in this study, medical-surgical clinical nursing specialty was the most frequently identified specialty of both CNE participants and nonparticipants.

Participation was not statistically related to: reading journals, educational level or clinical specialty. The lack of association of clinical specialty upon participation contradicted the findings of other researchers (Arneson, 1985a; Bell & Rix, 1979; Clark & Dickinson, 1976; Curran, 1977; DeSilets, 1990; Keltner, 1983; Kubat, 1975; Millonig, 1985; Puetz, 1980, 1983; Schoen, 1982; Thomas, 1986). Both participants and nonparticipants in CNE reported reading journals, although most respondents who had participated in CNE indicated that they did read journals. Respondents at all levels of education reported both participation and nonparticipation in CNE. Respondents with baccalaureate or higher degrees participated in CNE more than respondents with associate degrees/diplomas. Nurses in all clinical specialties either participated or did not participate in CNE. Medical-surgical clinical specialty was the most frequently identified specialty of respondents.
The results of these additional analysis were mixed. Results suggested that some variables were related while other variables were not. Multiple types of varying events were associated with participatory behavior in CNE. Ongoing socialization may have influenced behaviors of nurses which denote professionalism.

Professionalism seemed to be a composite-type of phenomenon. For example, reading journals and participation when analyzed by Chi square testing, were not significantly related. When reading journals was considered in association with levels of education and professional memberships (the definition of level of socialization) and participation it became significantly related to participation. The synthesis of the behavioral indicators of professional nurses seemed to account for the participatory behaviors. Effective socialization, involving affective domain in the synthesis of professional behaviors, seemed to be more influential upon participation in CNE.

**Explanation of the Findings**

Statistical testing of the hypotheses indicated the level of professional nursing socialization, measured in this study as a composite scoring of professional nursing behaviors, was positively related to participation in CNE. Analysis of the first hypothesis offered support for this commentary.
The effects of the "importance" of type of benefit were not statistically significant when examined in association with CNE participation or nonparticipation. Failure to accept the second hypothesis suggested this conclusion.

The "importance" of benefits became statistically significant when the effects of levels of socialization, importance of benefits and patterns of CNE participation were considered. Log linear analysis supported this hypothesis.

Findings and the Expectancy Valence Model of Participation.

The theoretical model selected for this study was the Expectancy Valence Model of Participation (Rubenson, 1977, 1985). This model attempted to describe and explain participation in CNE.

Results of this study, while mixed, offered some support for the relationship of professional socialization and nurses' participatory behavior in CNE. Testing of hypotheses one and three suggested that socialization could be related to expectancy and valence; therefore, socialization may affect nurses' participation when considered from the Expectancy Valence Model.

According to this model, perceptions of benefits influence participation. Testing of the second hypothesis revealed that type of benefit and the importance of the benefit was not related to CNE participation. This finding
did not support the theoretical position of the effects of perceptions of benefits of CNE on participation.

Critique of the Findings of the Study

Possible Sources of Bias

Instrumentation.

Failure to support or reject the hypotheses of this study could be associated with insufficient measurement of the variables by the two instruments used in this study. Questionnaires, as self-reported measures, can be subject to distortion (Brink & Wood, 1988).

One questionnaire was a tally sheet designed to collect demographic data about participants in the study (see Appendix B). Review of data obtained from the DDS revealed that the item relating to "levels of education and year of graduation" was unclear; a number of participants did not include year of graduation in their responses to this item. Additionally, some participants did not report their specific professional nursing organizational memberships as requested by the DDS. The item which requested this data may not have been clear to the respondents. This possible lack of clarity on some items of the DDS may account for inaccuracies in data as reported by respondents.

The second instrument was the modified CNES (Turner, 1986/1988) (see Appendix A). The modified CNES was an instrument which reported to measure benefits associated with participation in CNE. Thirty three benefits of CNE
were listed on this questionnaire. Some respondents in this study did not rate the benefit as either "personal" or "social/professional" as requested; some rated the benefit as both "personal" and "social/professional". Directions on the questionnaire may have been unclear and respondents may have been unsure about the actual benefit type--personal or social/professional.

Descriptive Survey Methodology.

This study used descriptive survey methodology. There was no control of extraneous variables when this method is used. Description of data collected cannot account for the effects of any extraneous influences. Alternative hypotheses from intervening variables may account for the findings in this study.

Representativeness of Volunteers.

It was unknown if the volunteer respondents were representative of the accessible target population. The findings of this study can only be generalized to the population under study. Even this generalization must be cautious; only 155 (38.75%) of the projected sample of 400 nurses responded to the survey.

Sample Size.

There were 155 respondents in this study. This sample size was small; this may limit variability, thereby skewing the results of hypothesis testing.
Identification of CNE Benefits.

Respondents did not report agreement on the benefit type of all benefits listed on the modified CNES. There was agreement on benefit type of only 17 (51.52%) of the listed benefits. Therefore, benefits included in data analysis were only those benefit types identified at the median (80%) level of consensus. This consensus level of 80% agreement on the benefit type could decrease variability in the range of respondents' answers.

Limitations of the Study.

Acceptance of the findings was certainly bound by the limitations of the study. First, respondents in the study were limited to actively licensed registered nurses living in the Southeastern region of Virginia who have participated or not participated in CNE during the period of June 1991 to June 1992. Secondly, this study did not account for the socialization which has taken place through mechanisms other than those described in this study. Finally, CNE participation was limited to short term CNE (i.e. institutes, symposiums, workshops, conferences). Continuing nursing education did not include self-directed CNE or long term types of CNE as such academic semester courses or baccalaureate degree programs.
Conclusions

The following conclusions were derived from the findings of this study.

1. It is possible that participation or nonparticipation in CNE could be predicted with some accuracy when this predication was based on nurses' reported levels of higher socialization.

Nurses who are highly socialized can be described as staff nurses who practice in critical care units, hold bachelor of science in nursing degrees, read professional nursing journals, belong to specialty nursing organizational affiliations and exhibit CNE participation. In contrast, respondents with low socialization scores can be described as staff nurses practicing in other clinical areas; hold diplomas in nursing; do not read professional nursing journals, nor belong to professional nursing affiliations; nor participate in CNE.

2. Importance of benefits did not seem to be associated with participation in CNE.

The Expectancy Valence Model suggested the benefits accrued as a result of CNE would influence positively nurses' participation in continuing education. In this study, participation or nonparticipation in CNE was independent of the effects of the importance of the benefits of CNE.
3. Benefits, regardless of how they were categorized as personal or social/professional, were usually seen as important. However, they were not important enough to the respondents to influence their participation in CNE. In this study, regardless of the influence of benefits, baccalaureate prepared nurses were more likely to maintain their competence through self-directed learning and CNE activities than nurses with less than a baccalaureate degree.

4. Other relationships of interests among variables were found. Level of education, holding a baccalaureate or higher degree, was significantly related to clinical specialty area, nursing role, professional membership and reading of journals. Nurses who held baccalaureate or higher degrees reported medical-surgical clinical specialization and were practicing nursing roles that were not generalist (i.e. staff nurse). These nurses were affiliated with professional nursing organizations; the organizations were usually specialty-type nursing organizations. They did report reading journals monthly.

Implications For Nursing

These findings have implications for socialization experiences associated with nursing education. Nursing education at the baccalaureate level does focus more on the affective dimensions of professional responsibilities than the more technically oriented associate degree/diploma
levels of education. The need for reading of professional nursing journals, affiliation with professional nursing organizations and lifelong learning is stressed more in baccalaureate nursing education. The need for participation in continuing education as a professional responsibility receives more emphasis in baccalaureate level affective education.

Nurses, as professional practitioners, must practice safely and competently. This expectation is an inherent component of responsible and accountable nursing practice. One way for nurses to maintain their competency is through participation in CNE. Therefore, nurses should participate in CNE.

The findings from this research study indicate the baccalaureate nurse who is highly socialized exhibited the professional expectation for lifelong learning which is manifested in CNE participation. However, some nurse respondents did not participate in CNE. The nursing profession must work to increase the levels of socialization of all nurses; hopefully, this would ultimately promote responsibility and accountability in all nurses.

Based upon the data obtained in this study, baccalaureate nurses were more likely to participate in CNE and maintain competency and a knowledge base for safe practice throughout their careers. Nurses, in this study, with less than a baccalaureate degree did not appear to
expand their knowledge base nor maintain competency through CNE participation, therefore their practice could be seen as more likely to deteriorate and become unsafe.

This study reinforces the long-standing recommendation for a two-tier level of nursing practice, a professional and a technical level. Educational entry into the professional level of nursing practice should be at the baccalaureate level of education. This professional level of education would continue to support professional socialization based upon the valuing and expectation of life long learning. The technical level, achieved through associate degree education in nursing, would focus upon maintenance of competence based upon some external authority which would mandate certain educational activities. In this way the social mandate for safe effective professional practitioners of nursing would be addressed.

The findings from this study have implications for those who conduct CNE. Since the benefits of any particular offering do not seem to relate to participation, the marketing strategies associated with CNE might be targeted to those nurses more likely to attend, namely baccalaureate prepared nurses. Since it is still important for those nurses with low levels of socialization to participate in CNE, CNE planners should also target activities toward nursing administrators who are in positions to strongly encourage and/or support those less socialized persons to

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participate in CNE. Baccalaureate prepared nurses could serve as role models, encouraging CNE participation of nurses who are less socialized. CNE planners should offer specific programs for these nurses.

Recommendations For Further Study

Recommendations for further study were related to two distinct areas. These areas were focused on replication of this study and answering additional research questions.

Replication of this Study

This study should be replicated with a larger sample. The small sample used in this research study limits the variability of the responses and may not be typical of the population from which it was drawn. The new sample should be selected through the process of stratified random sampling to increase the representativeness of the population. Suggested strata are: all geographic regions, clinical practice sites, educational level, years in practice and participation in both types of CNE: formal and informal.

The DDS and the modified CNES, the questionnaires used in this study, should be modified. Editorial clarification of questions on both instruments should be performed.

Questionnaire modifications on the DDS should eliminate "not currently employed" from the question on nursing role; nursing role is not necessarily a function of employment status. Employment status should be separately assessed.
Levels of nursing education should be addressed specifically. Basic level of nursing education should be considered separately from all other educational experiences. Year of graduation should be clearly identified on the questionnaire; spacing modifications (leaving a blank space) should be made in an attempt to facilitate collection of this data. General categorical types of journals could be listed on the DDS. Respondents should be asked, in a "yes" or "no" format, if they participate in professional nursing memberships. This item should be positioned on the questionnaire before the request for listing of professional memberships. Memberships could also be listed in categories that could be marked by respondents.

Directions on the modified CNES should be revised. Directions should clearly indicate that responses to the type of benefit and the important of the identified benefit on participation are a dichotomous choice. Some respondents opted to mark both choices, midway between the choices or indicated that choices were "not applicable". This indicates unclear directions were present on the modified CNES.

Recommendations for Future Research

The findings of this study point to the need for further research. Future research should examine the following areas.
The theoretical model of this study explains the effects of socialization on the expectancy and valence of forces relating to participation in CNE. This study begins to examine the relationship of professional nursing socialization to participation in CNE. Further study in this area is indicated.

The relationship of levels of socialization and participation in CNE should continue to be studied. Various characteristics which indicate socialization (i.e. full-time employment, vocational commitment, professional organizational affiliation, educationally derived accomplishment [i.e. advanced education, continuing education, reading professional publications], service orientation and autonomy) should be included in this study. This study did not examine all of the characteristic attributes of effectively socialized professionals.

Additional research on the needs of participants and nonparticipants in CNE is indicated. Study of nurses' needs and the perceptual basis for these needs should be implemented. CNE, in this study, was defined as short-term CNE; self-directed and long term CNE may better meet the needs of CNE participants. Future study of CNE should reflect this broader perspective.

Nurses' reasons (i.e. motivational, psychological, attitudinal, situational) for participation and nonparticipation in CNE should be explored. Qualitative
research studies focusing on in-depth interviews of participants and nonparticipants could be employed. Qualitative methodology would assist researchers in identification and specification of the benefits associated with CNE as they are perceived by persons directly affected. This could also elicit reasons for nonparticipation and determine what would motivate nurses to participate in CNE. Nurses should be asked why they do not go participation in CNE.

Benefits of CNE participation should continue to be studied. In this study, the types of benefits (personal or social/professional) were not associated with participation. Additionally, there was lack of consensus on benefit type for 16 of the benefits listed on the modified CNES. This type of categorization or actual listing of specific benefits may not accurately define benefits derived from CNE participation. Research should investigate if there are really benefits associated with CNE participation or determine if those benefits listed on the modified CNES were the actual benefits derived from CNE participation. Qualitative studies might assist in answering these concerns.

Factors, other than benefits, might motivate nurses to participate or do not participate in CNE. These factors should be identified and investigated.
The direct relationship of participation in CNE on safe and responsible nursing care should continue to be studied. Mandating participation in CNE as a condition of licensure should be considered.
CONTINUING NURSING EDUCATION SURVEY

In Column 1 are some phrases that might be used to describe benefits of a Continuing Nursing Education (CNE) activity. A benefit is something that is gained from participation in CNE.

In column 2, for EACH phrase please indicate if you believe this is a PROFESSIONAL (Pro) or PERSONAL (Per) benefit derived from attending CNE. These may benefit you (Personal) or someone else (Professional) but all are benefits felt to be associated with CNE. Please place a mark in the column for Pro or Per depending on how you identify the benefit.

In Column 3, for EACH phrase identify if the described benefit is Important or Not Important to you in influencing your participation in CNE. Please place a mark in Column 3 under Important or Not Important for each identified benefit.

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<thead>
<tr>
<th>Benefits</th>
<th>Column 2</th>
<th>Column 3</th>
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<td>Higher personal salary</td>
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</tr>
<tr>
<td>Self assurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity to meet other nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Got away from work for a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition by peers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition by employer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met the requirement for my job</td>
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<td></td>
</tr>
<tr>
<td>Travel opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New (better) job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanding nursing role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased status at work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joy of learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More fringe benefits at work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changed ethics/values</td>
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<td></td>
</tr>
<tr>
<td>Happier in my job</td>
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<td></td>
</tr>
<tr>
<td>Personal vacation</td>
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<td></td>
</tr>
<tr>
<td>Higher salary for others</td>
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</tr>
<tr>
<td>Increased nursing competence</td>
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<td></td>
</tr>
<tr>
<td>Increased skill in new techniques</td>
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<td>Increased knowledge of new techniques</td>
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<td></td>
</tr>
<tr>
<td>Better quality of care for patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better health care for my family</td>
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<td></td>
</tr>
<tr>
<td>Better relationship with staff</td>
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<td></td>
</tr>
<tr>
<td>Better record keeping</td>
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<tr>
<td>Improved health teaching for patients</td>
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<tr>
<td>Improved relationships with agencies</td>
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<td>Better reputation for employing agency</td>
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<tr>
<td>Supported professional organization</td>
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<td></td>
</tr>
<tr>
<td>Assessed patient problems better</td>
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<td></td>
</tr>
<tr>
<td>Better able to plan patient care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shorter hospital stay for patients</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

Demographic Data Collection Sheet (DDS)
DEMOGRAPHIC DATA SHEET

1. Your area of clinical expertise:

Critical care  Geriatrics
Community Health  Psych/Mental Health
OB/Gyn/Neonatal  Pediatrics
Adult Health (Medical/Surgical)  General Practice
Emergency/Trauma
Other (please specify) _______________________________________________________________________

2. Your current role:

Educator  Administrator
Staff Nurse  Nurse Practitioner
Clinical Nurse Specialist
Other (please specify) _______________________________________________________________________
Not currently employed ____________________________________________

3. Your current level of education and year of graduation:

(Check all that apply)
AD  Diploma  BS  BSN
Masters  MSN  Doctorate  Other

4. Do you read professional journals at least monthly?

Yes  No
If yes, please list ____________________________________________
________________________________________________________________________
________________________________________________________________________

5. Please list your professional nursing organization memberships.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

6. Have you participated in Continuing Nursing Education (organized workshops, symposiums, conferences) in the past 12 months?

Yes  No (If no, please skip item #7)

7. If yes, please check the type/topic to which is was related.
(If your attendance at a program was required [ie mandatory inservice] please indicate by placing a R next to the entry)

Critical care  Geriatrics
Adult Health  Mental Health
Maternal/Child Health  Community Health
Other (please specify) _______________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

OVER
Appendix C

Permission Letter
November 28, 1991

Phyllis Turner, RN, PhD, CS  
Assistant Professor  
University of Texas Health Science Center at San Antonio, TX 78284-7948

Barbara Harrison, RN  
Christopher Newport College  
40 Shoelane  
Newport News, VA 23606

Dear Barbara:

It was exciting to talk with you on the phone and learn that someone else is interested in the area of continuing nursing education. As I mentioned on the phone, the study that I had published in JCEN was completed in 1986. I replicated that study and extended it to include barriers, participation patterns and motivational orientation for my current study in Texas.

I am very pleased that you want to use some of the tools that I used in my research of CNE. You certainly have my permission to use these. I pulled together some things that I hope will be helpful to you. Since my 1986 study was the first to look at personal versus social benefits of CNE, I have included a copy of my definitions and some references (old by now) from the literature to these personal and social benefits.

Included is a copy of both the 1986 survey form and the 1990-91 form (all tools). Although I obtained face and content validity for the cost and benefit tools I developed, I continued to have problems with the item in the cost tool related to 'time'. Nurse respondents still, in the 1990 survey, wrote that their time didn't cost anything. That, in itself, was a significant finding.

Lastly, I included several tables comparing results from the 1986 and 1990-91 studies. I am still in the process of writing up the data from the 1990-91 study.

I hope that this information is helpful to you in your research. Please let me know if I can provide further information. I am very interested in your area of research. Please let me know more about your final direction / questions and results as you get them.

Sincerely,

Phyllis Turner

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Appendix D

Cover Letter
Dear Registered Nurse:

The purpose of this letter is to request your participation in a study which I am conducting for my doctoral dissertation at The College of William and Mary. The study examines the relationship between continuing nursing education (CNE), the benefits CNE offers to registered nurses, importance of these identified benefits to nurse participants and the socialization of nurses into professional roles.

I am interested in continuing nursing education as one of the ways we as nurses maintain our competency. In Virginia participation in continuing education is voluntary and I wish to examine the benefits that continuing nursing education offers to participating nurses.

Your name and address was obtained from a listing of the registered nurses living in the Southeastern region of Virginia. This listing was purchased from the Virginia Board of Nursing. Your participation in the study will provide data which will assist in understanding the influence of socialization on participation in CNE and the identification of benefits nurses obtain as a result of this participation.

You have been randomly selected to receive the enclosed survey form and demographic data sheet. Your participation in this study is strictly voluntary; participation in the study requires the completion of a 33 item Continuing Nursing Education Survey (CNES) and a Demographic Data Collection Sheet (DDCS). Your participation will be anonymous and the CNES and DDCS are not coded for this particular reason. To assure confidentiality, all data will be reported as group data and all raw data will be destroyed when the study is completed.

I anticipate that this survey will only require 15 minutes of your time for completion. Enclosed you will find a survey form, a demographic data sheet and a stamped return-addressed envelope for your use in the return of the survey. Directions for completing the CNES are included at the beginning of the survey. Please return the enclosed survey by July 15, 1992.

I wish to thank you for your willingness to participate in this study. I appreciate your assistance.

Sincerely,

Barbara S. Harrison, Ed.S., R.N., C.

Enclosures: (3)
Appendix E

Other Areas of Clinical Specialization
Other Areas of Clinical Specialization*

**Administration (2)
Alcohol and drug rehabilitation
Ambulatory care
Cardiac surgery
Chronic hemodialysis
College health
Dialysis
Family practice
Geriatrics
Home health (2)
Infection control
Maternal child
**Medical sales
Minor emergency
Neurology—private practice group
Nurse anesthetist
Occupational health (2)
**Office nurse—internal medicine, infectious diseases
**Office management
Oncology (2)
Outpatient surgery
Perioperative care (surgery) (2)
Post anesthesia care unit (3)
Pre-surgery nurse
Preventive medicine
Primary care
**Quality assurance/utilization review
**Recruitment/human resources
Rehabilitation
Respiratory care
School nurse (5)
Stepdown unit
Stepdown unit—prolonged ventilatory patients
**U. S. Naval Training Officer
Vascular surgery—private practice group

*Unless otherwise indicated, one respondent reported this area of clinical expertise.

**Nursing role identified as area of clinical specialization
Appendix F

Other Roles in Nursing Reported
Other Roles in Nursing Reported by One or More Respondents*

Admission coordinator
Administrative manager of diabetes program
Charge nurse/coordinator (4)
Child care/home support program coordinator
Director of nursing
Drug study coordinator
Gerontology nurse practitioner student
Home health coordinator
Home health nurse (2)
House supervisor
Medical legal consultation
Medical sales consultant
Nurse manager (2)
Nurse manager--director respiratory care services
Nurse practitioner student
Office nurse (3)
Pediatrics
Psychiatric nurse consultant
Public health nurse
Recruiter
Relief charge nurse on telemetry and orthopedics
Review analyst
School nurse (3)
School of nursing counselor
Supervisor ("Head nurse type") (3)
Supervisor/utilization review for third party reimbursement
Vascular specialty coordinator

Reported Other Role (Non-Nursing):

Licensed Professional Counselor

*Unless otherwise indicated, one respondent reported this role.
## Reported Year of Graduation (Five Year Intervals)

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<th>Degree Held</th>
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<th>Percent</th>
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<tr>
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Reported Year of Graduation (Continued)  
(Five Year Intervals)

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# Reported Year of Graduation (Continued)

(Five Year Intervals)

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\[N = 155\]

* *Rounded to the nearest hundredth—total percentage may exceed or be less than 100% as a result.*
Appendix H

*Journals Reported as Having Been Read*
Nursing Journals Reported as Having Been Read by
One or More Respondents at Least Monthly*

American Journal of Nursing (27)
Association of Operating Room Nurses Magazine
Caring
Continuing Care
Critical Care Journal
Critical Care Nurse (4)
Emergency Nurse Association Journal (2)
Focus on Critical Care (2)
Geriatric Nursing (2)
Heart and Lung (6)
Home HealthCare Nurse (2)
IMAGE: Journal of Nursing Scholarship (4)
Journal of the American Public Health Association
Journal of Critical Care
Journal of Gerontological Nursing
Journal of Nurse Practitioners (3)
Journal of Nursing Administration (2)
Journal of Nursing Staff Development (2)
Journal of Obstetric and Gynecologic Nursing
Journal of Pediatric Nursing (2)
Journal of Post Anesthesia Care Nurses
Journal of Psychosocial Nursing
Journal of School Nursing
Maternal Child Nursing (7)
Neurological Nursing Journal
Nurse Educator
Nurse Practitioner (6)
Nurse Practitioner Forum (2)
Nursing92 (29)
Nursing Management (9)
Nursing Research (2)
Occupational Health Nurse (2)
Pediatric Nursing (6)
Psychiatric Nursing
Public Health Reports
Respiratory Care
RN (29)
School Nurse
Virginia Nurse (2)

*Numbers in parenthesis indicate that more than one respondent reported reading this journal; it lists the total number of respondents who reported that they read this journal.
Non-nursing Journals Reported as Having Been Read by One or More Respondents at Least Monthly*

AIDS Education and Prevention
AIDS Research
American Association of Respiratory Therapists’ Times
American College Health Journal
Contemporary Pediatrics
Contraceptive Technology
Decubitus
Emergency Medicine (2)
Family Practice (2)
Family Therapy Network
Harvard Mental Health Newsletter
Hospital and Community Psychiatry
Hospitals
In Health
Innovations in Oncology
Journal of the American Medical Association (2)
Journal of Counseling and Development
Journal of Enterostomal Therapy
Journal of Gerontology
Journal of Hospital Administration
Journal of Pediatrics
Journal of Pediatric Health Care
Journal of School Health (2)
Neonatal Network (2)
Medical Economics
Mental Health Counseling
Military Medicine
PAIN
Pediatric Infectious Diseases
Physician’s Assistant Journal
Professional Pediatrics

*Numbers in parenthesis indicate that more than one respondent reported reading this journal; it lists the total number of respondents reading this journal.
Appendix I

Reported Professional Organization Memberships
Reported Professional Nursing Organization Memberships*

General nursing professional organizations:

American Nurses Association (ANA) (22)
National League for Nurses
Virginia Nurses’ Association (22)

Specialty nursing professional organizations:

American Association of Critical Nurses (13)
American Association of Neurosurgical Nurses
American Association of Nurse Anesthetists
American Association of Nurse Practitioners
American Association of Occupational Health Nurses (3)
American Assembly for Men in Nursing
American College of Nurse Practitioners
American Holistic Nursing Association
American Psychiatric Nurses Association
American Public Health Association
American Organization of Nurse Executives
Association of Operating Room Nurses (3)
Emergency Nurses Association (2)
Hampton Roads Directors of Nursing Education
Nurses’ Association of the American College of Obstetricians and Gynecologists (6)
National Association of Pediatric Nurse Associates and Practitioners (2)
National Nursing Staff Development Organization
Nurse Practitioner Association
National School Nurses Association (2)
Nurse Healers
Nursing Section—American College Health Association
Nursing Section—Mid Atlantic College Health Association
Nurses in AIDS Care
Oncology Nurses’ Society
Peer Assistance for Chemically Dependent Nurses
Post Anesthesia Care Unit Nurses Association (2)
Psychiatric Professional Practice Group of the Virginia Nurses’ Association
Richmond Council of Nurse Practitioners
Sigma Theta Tau International Honor Society in Nursing (19)

*Unless otherwise indicated, one respondent reported membership in the indicated professional organization

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Reported Professional Nursing Organization Memberships (Continued)*

Society for Vascular Nurses (2)
Tidewater Organization of Nurse Executives
Tidewater Council of Nurse Practitioners (2)
Tidewater Academy of Psychiatric Clinical Nurse Specialists
Uniformed Nurse Practitioners Association
Virginia Association of Occupational Health Nurses
Virginia Association of School Nurses (3)
Virginia Council of Nurse Managers
Virginia Council of Nurse Practitioners (3)
Virginia Public Health Association (4)
Virginia Society of Post Anesthesia Nurses

Other Professional Certifications:

ANA certification in Psychiatric Nursing
ANA certification in Pediatric Nursing

Other Professional (Non-Nursing) Organizational Memberships:

American Association of Electrodiagnostic Testing
American Association of Counselors
American Association of Mental Health Counselors
American Geriatric Society
American Red Cross
American School Health Association
Association for the Care of Children’s Health
Association of Military Surgeons of the United States (2)
National Education Association
National Association of Reproductive Health Professionals
Society and Teachers of Family Practice
Tidewater Employee Health Organization
Virginia Education Association
Virginia Health Care Recruiters Association

*Unless otherwise indicated, one respondent reported membership in the indicated professional organization
Appendix J

Reported "Other" Content Topics of Continuing Nursing Education
Reported "Other" Content Topics of Continuing Nursing Education*

Adult health
Advanced cardiac life support instructor course
Alcohol and drug rehabilitation
Anesthesia
Assessment skills for school nurses
Asthmatic children
Basic cardiac life support instructor course
Cardiopulmonary resuscitation (2)
Case management
Chemotherapy
Cholesterol
Clinical update in home health care nursing
Combat casualty care
Computers in nursing
Customer service
Diabetes
Emergency/trauma
Employment law update
Hazardous materials response
HIV/AIDS (3)
HIV/AIDS among teenagers
Home health (2)
Hospital management
Immunization update
Law and ethics
Leukemia update
Managed care
Maternal child care convention
Nursing and political action
Nursing management/supervision (6)
Nutrition
Occupational health
Oncology nursing (2)
Operating room-related topics
OSHA Bloodborne pathogen regulations update
Outpatient surgery care and procedure update
Pain
Patient focused hospital
Pediatrics/neonatal care
Pediatric advanced life support certification
Physical assessment
Post anesthesia care
Preceptor management

*Unless otherwise indicated, one respondent reported attending the indicated type/topic of CNE
Reported "Other" Content Topics of Continuing Nursing Education (Continued)*

Quality improvement/assurance (3)
Recruitment/retention
Renal update
Residency in family practice
Safety
Society of vascular nurses national convention (2)
Staff development conference (3)
Stress management (2)
Trauma
Uniformed nurse practitioner conference
Vascular nursing symposium
Ventilator management
Working with difficult people
Wound care

*Unless otherwise indicated, one respondent reported attending the indicated type/topic of CNE
Appendix K

Narrative Comment Offered by Respondents on the CNES
Narrative Comment Offered by Respondents on the CNES

"'Higher personal salary' and 'more fringe benefits at work' as a benefit of CNE participation is unrealistic. 'Meeting the requirement for my job' and 'higher salary for others' through participation in CNE is not applicable. 'Travel opportunities' are unrealistic. 'Changed ethics/values' as a result of CNE participation are 'doubtful' ".

"I completed this questionnaire as according to instructions but I don't agree with the tight definition of pro equal benefit to someone else. This states that my professional growth could not benefit me ???"

"'Higher personal salary' and 'higher salary for others' are not applicable because of my military status. 'New (better) job' is not applicable because my job is quite flexible. 'Increased status at work' is not applicable since I already have good status. 'More fringe benefits' is not applicable since I already have quite a few! "

"'Opportunity to meet other nurses' as a benefit of CNE depends. 'Self awareness' and 'changed ethics/values' depends on the topic".

"When I was working inservices were looked on as an intrusion in an already too busy day on an understaffed floor. Upon return to the floor all my work was waiting for me including meds which were due while I was in the mandatory inservice!"

"I feel that continuing education is very important, but often the content of these programs aren't. We need more information about diseases and their treatment, update on medications, diet in relation to disease and what the patients can expect when they go home. Often CNE relate (sic) to QA's and repetition of things that we know. I want information that will help me do a better job and help the patients. A lot of people are concerned about salary but I am more concerned about the best care of patients, better environment, so the next generation has a chance and how to get health care to all Americans. If I get more money health care price goes up; I am satisfied with what I get. Happier on the job would be great!"
"Problem with this—a number of these benefits do not exist in my place of employment resulting from CNE".

" 'Travel opportunities'—I prefer local CNE's".

" 'Travel opportunities' and 'new (better) job' would be important if expenses were paid by company".
" 'More fringe benefits at work' are important but in real life this never occurs".

"My hospital is NOT a teaching hospital and since not a mandatory requirement, CNE's are rare or never offered. All outside education is not paid for by hospital so little opportunity for CNE advancement is possible, financially".
References


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Vita

Barbara Simpkins Harrison

Birthdate: December 8, 1950
Birthplace: Radford, Virginia

Education:
1988 The College of William and Mary
  Williamsburg, Virginia
  Educational Specialist
  Higher Education

1983 Hampton University
  Hampton, Virginia
  Master of Science in Nursing
  Community Health Nursing

1977 Hampton Institute
  Hampton, Virginia
  Master of Arts in Guidance and
  Counseling

1973 Hampton Institute
  Hampton, Virginia
  Bachelor of Science
  Nursing

Professional Experience:
1990 Christopher Newport University
  Department of Nursing
  Assistant Professor of Nursing

1990 Certified by the American Nurses
  Association in Community Health
  Nursing

1984 Hampton University
  School of Nursing
  Assistant Professor of Nursing/
  Continuing Nursing Education
  Coordinator

1971 Licensed as a Registered Nurse