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Educational process settings and professionalism: A study of traditional and unified baccalaureate programs

Kline, Kay Setter, Ph.D.

Case Western Reserve University (Health Sciences), 1990
EDUCATIONAL PROCESS SETTINGS AND PROFESSIONALISM:
A STUDY OF TRADITIONAL AND UNIFIED BACCALAUREATE PROGRAMS

by

KAY SETTER KLINE

Submitted in partial fulfillment of the requirements
for the Degree of Doctor of Philosophy

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Kay A. Settha Klein
EDUCATIONAL PROCESS SETTINGS AND PROFESSIONALISM:  
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Abstract

by

KAY SETTER KLINE

According to recent literature, the unified educational process setting (EPS) affects the professional socialization process, however, this has not been empirically validated (Christman, 1979; Ford, 1981; Mauksch, 1981). The purpose of this study was to examine the influence of the unified educational process setting (environmental energy field) on professionalism scores of beginning students, senior students, recent graduates, and faculty (human energy fields). A cross-sectional group comparison design was used. Data were collected from four nursing education programs, two programs were traditional educational process settings and two programs were unified educational process settings. Professionalism scores were obtained using Valiga’s Views of Nursing Scale (Valiga, 1982), Hall’s Professional Inventory (Snezik, 1972), and Kramer’s Professionalism Scale Revised (McCloskey & McCain, 1987). The Valiga and Hall five point rating scales were treated as interval scales. The Kramer scale was ordinal, with responses ranging from low to high frequency of professional behaviors. A one way analysis of variance was used to determine if there were any differences among the four EPSs for the Valiga and Hall scales, and a Kruskal-Wallis procedure was used to determine if there were any
differences among the four EPSs for the Kramer scale. No statistically
significant differences were found among the four EPSs on professionalism
scores for beginning students. This supported the assumption that beginning
students did not select an EPS because of pre-existing professional orientation.
Contrary to the conclusions from the literature of Christman (1979), Ford
(1981), and Mauksch (1981), differences were not found on professionalism
scores for senior students or recent graduates among the four EPSs.
Professionalism scores for faculty among the four EPSs did differ, however the
significant differences were between two traditional EPSs and therefore did not
lend support for higher professionalism scores for unified EPS faculty as
compared to traditional EPS faculty. According to the research findings, further
research is recommended using qualitative methods to study professional
socialization in the context within which it takes place.
ACKNOWLEDGEMENTS

There have been many people who have assisted me in arriving at this point in my professional growth. Dr. Rozella Schlotfeldt, through her writings, stimulated my interest in the unification of education and service, and set in motion my doctoral education. Drs. Ruth Anderson, Rosemary Ellis, and Joyce Fitzpatrick provided the foundation for conceptualization. Drs. Mary Adams, Janice Layton, Elisabeth See, Maureen McCausland and Violet Malinski assisted me in the early stages of concept development. A special thanks to Dr. May Wykle, my committee chair and advisor, who guided me through the dissertation process with wisdom, patience, and support. Thanks also to the members of my committee, Drs. Stephanie Nagley, Mary Jo Perley, and Sharon Milligan (Mandel School of Social Sciences), who provided invaluable feedback and direction during the stages of dissertation development.

Acknowledgements would be incomplete without thanks to my colleagues at Grand Valley State University who have provided encouragement and support, and who have stimulated my growth in the nursing profession by their example.

I would especially like to thank my family who have given meaning to my life and have made these years of study worth while: my husband Jack, who has supported and encouraged me continuously from day one; my children, Jerry, Joe, Kathy, and Jeff, and his wife Connie and daughter Nicole. Recognition also goes to my parents, Felix and Charlotte Setter, who gave me love, faith, and the courage to seek new adventures.
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CHAPTER I

Introduction

Throughout the history of nursing, students have been socialized into the nursing role under different settings ranging from caring for the poor and sick in prisons to formal education in universities (Nightingale, 1863/1954; Krampitz, 1983). Currently most nursing students are socialized into the "ideal" world of nursing practice in the educational program, and are then resocialized into the "real" world by the service institution. This dual method of socialization, under separate settings, leads to role conflict. The development of the nurse as a professional within this conflict is unclear (Corwin, 1961; Deane, 1978; Kramer, 1974; Smith, 1976).

A method of socialization that holds promise for the development of the student as a professional is the implementation of the unification model of nursing education. According to the literature, the process of organizationally unifying education with service, can better socialize the student as a professional because faculty role models portray the total professional role of practitioner, educator, and researcher (Christman, 1979; Ford, 1981b; Mauksch, 1981). Having observed both faculty and staff nurses in combined roles of practice, education, and research, during a four week practicum in one setting, in which education and service were unified, the author questioned the influence of the unified setting on the professional socialization of students. Nurses within this environment enacted all three components of the professional role, rather than each person fulfilling only one component of the professional role. Perhaps having this one role modeled within education and
service influenced the level of professionalism attained by students within the setting. The experience in the unified setting gave rise to this study.

The purpose of this study was to examine the influence of the unified educational process setting (EPS) on the professional socialization process. The literature is abundant with studies on professional socialization; however, studies that address professional socialization and unified educational process settings have not been identified.

Factors Influencing Professional Socialization

Professional socialization is a process by which individuals acquire the knowledge, skills, attitudes, and sense of occupational identity that is characteristic of a profession (Crocker & Brodie, 1974; Deane, 1973; Hunter, 1983). Professional characteristics include: full time work (career orientation), a body of knowledge (explicit from books, lectures, and demonstrations; implicit "understanding" from supervised practice and observation), following a code of ethics (both written and unwritten), use of professional organizations as a major referent, belief in public service, belief in self regulation, a sense of calling, and autonomy (Greenwood, 1957; Hall, 1968b; Wilensky, 1964).

Professional socialization includes both formal and informal processes. The formal process covers acquisition of knowledge and skills, as presented through the curricular design of an educational program. Informally students acquire beliefs, attitudes, and values through identification with role models (Bandura, 1969). Other factors that influence professional socialization of nurses are the development of baccalaureate nursing education programs, more positive recognition of nursing as a profession, and the recommendations for higher
education by the Institute of Medicine (1983) and the National Commission on Nursing (1983).

**Development of Baccalaureate Education**

Before the development of baccalaureate nursing education, initial education of nurses resulted from an apprenticeship model in which students served under practicing nurses, as well as under more advanced students. The first formalized nursing education programs were carried out in hospitals organized to include the education of nurses (Nightingale, 1852/1954). Under the apprentice structure, students spent most of their time providing service as the primary focus of activity that left little, if any, time for formal education (Kelly, 1983). Brown (1943) and the Goldmark Report (Garling, 1985) recommended that nursing programs be moved into institutions of higher education to enhance professional education. Based on these recommendations, programs were moved, and are still moving, into institutions of higher education to increase the attainment of nursing knowledge.

While the movement to universities met the need for better education, it also separated students and faculty from the service area that has caused what some authors refer to as the "education-service gap". The "gap" has been described as a conflict between education and service where neither side understands the other (Riddell & Hubalik, 1981). It includes the feeling of unpreparedness by new graduates entering the practice area, as well as the desire by nursing administrators for a more skilled practitioner upon employment. Riddell and Hubalik describe it as a situation in which "the average staff nurse struggles with paperwork, procedures, doctor-nurse games."
poor staffing, bad hours, and minimal economic rewards, (while) the educator ruminates about holistic and quality care, meeting human needs, and nursing assessment and diagnosis" (p.622). Characteristic of the "gap" are educators who view students as learning the ideal situation, while staff nurses see students as extra hands to get the work done. Christman (1976) stated that students would be caught in guerilla warfare between faculty and staff without unification between service and education.

Separation of service and education leads to reduced reality-based instruction (Knue, 1979; Kramer, 1974; Powers, 1976). Educators are viewed by nursing service members as being in an "ivory tower", not caring about clinical concerns and unconcerned about the needs of the health care system, including business and financial matters. Nursing service perceives educational institutions as preparing an inappropriate number of nurses, and inadequately preparing nurses for the work setting (Gilson-Parkevich, 1983).

Educators have definite opinions about nursing services. They believe nursing service members are responsible for chaos in the clinical setting and maintaining paternalistic systems of leadership. They see nursing service personnel as unprepared for their positions and unable to advance nursing practice. From their point of view, nursing service personnel do not appreciate the value of theory and science, nor promote nursing research studies (Gilson-Parkevich, 1983).

Kramer (1974) identified that many nurses leave nursing because this gap causes "reality shock", a situation in which the values and ideals learned in the educational setting go unrewarded in the practice setting. As long as values in
education are different from those in service, there will be difficulties in moving from one subculture to another. This was supported by Olesen and Whittacker (1968) in their study indicating that socialization in these programs produces nursing students, but not nurses.

Service goals are client centered while education goals are student centered. Reward systems are different between service and education, as are salaries. Separation of service and education makes it difficult to envision and experience the professional role that requires the integration of practice, education, and research activity (Anderson, 1981; Christman, 1979; Ford, 1981b; McClellan, 1981; Mowry, 1979).

Conflict resulting from the education-service separation disintegrates the role of faculty as models of professional nursing and students begin to model the staff nurse (Argyris & Schon, 1974; Boyd, 1976; Chaska, 1978; Deane, 1978; Olesen & Whittacker, 1968; Stein, 1978; Trandel-Korechuk, 1984). The level of professionalism held by staff nurse role models is questionable and has been addressed by Andrews, DeSota, Madison, and Smolarkiewicz (1986). They looked at levels of professionalism in relation to educational preparation. In a study of 60 staff nurses randomly selected from two hospitals, with over 400 beds each, in western Michigan, they concluded that there were no differences in levels of professionalism related to educational preparation. Re-analysis of data, to determine the number of respondents that fell in the range indicating professionalism, found only 1 out of 60 was in the professional range, 51 were in the undecided range, and 7 were in the non-professional range. Because of the large number of staff nurses falling in the undecided range, the level of
professionalism held by staff nurses is unclear. Therefore it is also unclear if students are using professionals as their role models when they model staff nurses.

Nursing education was not only affected by the movement of nursing programs into institutions of higher learning, with the subsequent separation of service and education, but it was also influenced by the establishment of professional nursing organizations. Other factors that prompted the movement include legislation related to educational practice and licensure, and an increasing development of professional identity on the part of nursing leaders (Krampitz, 1983).

**Nursing as a Profession**

Professional socialization is not only swayed by the development of baccalaureate education, but also by the degree to which nursing is recognized as a profession. Status of occupations, including nursing, has been debated in health-related literature since Flexner's 1915 report questioning the status of social work. Nursing has been seen as less than a profession by some (Corwin, 1961; Etzioni, 1969), while others indicate nursing is a profession (Cohen, 1981; Gulack, 1983; Hunter, 1983; Leddy & Pepper, 1985). Recognition of nursing as a profession is based on whether or not nursing meets certain criteria.

Professional criteria described by Gulack (1983) included: autonomy: competence; high ethical standards; an attitude toward work as an end, rather than work as a means; a realm of independent functioning; and self-directedness. Hall (1968a) indicated a professional would have autonomy: commitment to a calling, a service orientation, identification with a
professional organization, and belief in self-regulation. Moore (1970) supported
the criteria used by Hall, but also included full-time work and specific
educational attainment. Wilensky (1964) indicated two criteria that separated
occupations from professions: professions possess systematic knowledge
attained through long prescribed training and professions follow a set of
professional norms. Greenwood (1957) described systematic theory, authority,
community sanction, ethical codes, and a specific culture as attributes of a
profession. Hughes (1958) stated that "license to carry out certain activities that
others may not" and a claim of a "mandate to define what is proper conduct of
others toward the matters concerned with their work" are components of a
profession (p. 78). While professional criteria have been described,
controversy remains as to the status of nursing as a profession.

Perhaps some of the confusion regarding the position of nursing as a
profession can be addressed by the description given by Vollmer and Mills
(1966). These authors indicate that a profession is an "ideal type" of
occupational organization that does not exist in reality. The acceptance of an
occupation as professional is dependent on the degree to which occupations
meet the professional criteria. The difference between occupations and
professions is a relative placement on a continuum, between well recognized
professions, such as physician and attorney, and the least attractive
occupations, like truck loader or farm laborer (Greenwood, 1957). Early authors
described nursing as a sub-profession or a semi-profession because nursing had
a shorter training period, was less legitimized, and had less autonomy than
other professions (Becker, Geer, Hughes, & Strauss, 1961; Corwin, 1961; Etzioni,
More recent authors, however, have reported that nursing has begun to be recognized as a full profession that renders a distinct and independent service in the health care delivery system (Cohen, 1981; Gulack, 1983; Hunter, 1983). Leddy & Pepper (1985) suggest that nursing will be a full profession when nursing has identified its body of knowledge and when it has attained autonomy or control over its education and practice. It is unclear how long it will take for nursing to be recognized as a profession by those within the profession, as well as by members of other professions.

One might also consider the influence of women on the profession. In the mid-nineteenth century women were legal wards of fathers and husbands and had no independent rights. Women were considered frail and weak, mentally and physically inferior, and their role was as wife and mother. Women had no need for education, let alone aspire to a career. Even Florence Nightingale believed that women, as nurses, should follow protocol and not make independent decisions (1863/1954). To enter a nursing program the woman needed to be of good character and to defer to authority (Leddy & Pepper, 1985). Even in the late 1960's, women in hospital schools of nursing were still "protected against the dangers of the world and shielded from its temptation" through such mechanisms as "house mothers" and curfews (Krueger, 1968, p. 32).

In more recent years, the women's movement has made an impact. There is greater emphasis on equal rights, more women are employed outside the home and are taking assertiveness training programs, and greater numbers of women are taking positions that were previously held only by men. As the image of
women in society has changed, nursing has changed. Nurses are forming
unions for better working conditions, are assuming more leadership positions,
are entering into independent nursing practice, and are leaving nursing for
"better" career opportunities. The change in women in society is reflected in
nursing by the way nurses view themselves and their profession. "The
contemporary nurse is a forward-thinking decision-maker who is an initiator
of change" (Doheny, Cook, & Stopper, 1982, p. 87).

Recent National Studies

A third factor that influences professional socialization is the direction
given by two recent studies on nurses and nursing education by the Institute of
Medicine (1983), and the National Commission on Nursing Study (1983). The
Institute of Medicine (IOM) study resulted from a mandate by the Nurse Training
Act Amendments of 1979. The study was conducted to assess the need for
continued financial support of nursing education programs by the federal
government. The study recommended no specific federal support was needed to
increase the numbers of generalist nurses because the supply and demand
would be in balance during the next decade. It also recommended that federal
financial support be continued for post secondary students because nursing
students apply for these funds. Increased funding for advanced levels of
nursing (administration, teaching, research, and advanced practice) was
recommended by the IOM study and at the present time there are federal
nursing traineeships for advanced education. Another recommendation was for
the development of an institute for nursing research that has resulted in the
federally funded Center for Nursing Research.
The development of closer collaboration between service and educational institutions was also a recommendation of the IOM study (1983). However, the recommendation that the federal government should make grants available for educational programs that collaborate with service institutions for the development of collaborative educational and clinical programs has not been implemented. The absence of federal financial support has hindered the development of collaboration between schools and hospitals within the current health care cost containment situation.

The educational and professional socialization environment is shaped by the financial resources available. The availability of funds for program expansion and financial aid for students is frequently dependent on the federal government. If these funds are not appropriated, educational programs, students, and patient care are affected. When the educational environment is affected by financial constraints, so is the professional socialization process within that environment.

Another study, completed by the National Commission on Nursing, was sponsored by the American Hospital Association and its Hospital Research and Educational Trust. The commission was developed to study the nursing shortage of 1980 and the forces that produced the shortage (National Commission on Nursing, 1983). For a three-year period the commission held open hearings and forums, carried out site visits, conducted surveys, and held a conference about new ways to organize nursing in hospitals. The recommendations of the study focused on nursing practice, nursing education, and nursing and the public.

The commission indicated that if the public is to understand nurses, what
they do, and how they are educated, the profession must unite to identify the knowledge base and skills needed for general practice and specialty practice. The report on nursing education focused on the need to reduce barriers for persons wanting to obtain further education, the need to promote the transition to a degree-based educational system, and the need for faculty to maintain their clinical expertise. The commission supported strong affiliations between nursing service and nursing education and the development of career ladders as a means of recognizing clinical expertise and promoting professional growth. The report also called for greater participation by nurses in organizations, in public policymaking, on hospital boards, in hospital and university administrations, and with physicians (National Commission on Nursing, 1983).

Strategies for action recommended by the National Commission on Nursing (1983) included the development "consensus groups" for intraprofessional discussion, "centers for nursing" to share clinical expertise and nursing research, management systems that promote decision making by nurses, and models of education that promote mobility and professional growth. The W. K. Kellogg Foundation funded a project, called The National Commission on Nursing Implementation Project (NCNIP), to implement changes in nursing that were recommended by the 1983 Commission on Nursing and the Institute of Medicine study (Nursing's Vital Signs, 1989). Outcomes from NCNIP have been that nursing organizations have developed strategies for changing the work environment, nursing care delivery systems, and curricula. All these strategies influence the professional socialization of nursing students through
changes in the environment. Both reports encourage collaboration between educational institutions and service agencies to improve clinical experiences for students and to promote practice opportunities for faculty. Although funding has not been provided for collaborative efforts between service and education, the recommendation may be interpreted as supporting unification of education and service.

If nursing is going to be recognized as a profession and discipline, further expansion of the body of nursing knowledge as the result of research and theory is needed. This can be accomplished by ensuring that students are graduating from EPSs with professional attitudes, and behaviors. Only when students attain a professional orientation can they be expected to practice as professionals and to contribute to the growth of their profession. Therefore, if EPSs can be identified that socialize students to a higher professional orientation, it will provide direction for future professional socialization in educational programs and the advancement of the discipline.

Summary

The movement of nursing to institutions of higher education, and the consequent separation from the service setting, the growth of professional identity, and the recommendations of recent national studies have all played a part in the professional socialization of nurses. The proportion of nurses with baccalaureate preparation has risen from one fifth of the total in 1970 to one third of the total by 1981 (IOM, 1983); nursing is gaining in its efforts to promote a positive image of nursing through a mass media campaign (Nursing's Vital Signs, 1989); and some of the recommendations from the National Commission on
Nursing and the Institute of Medicine studies have been implemented through the National Commission on Nursing Implementation Project (Nursing's Vital Signs, 1989). In the midst of these evolving changes in nursing, it is imperative to determine within which environments professional socialization is most effective, in order to prepare nurses who can add to the body of nursing knowledge. If nurses are to experience the professional role which integrates practice, education, and research, they will have to be socialized to this role. This study was conducted to determine the influence of collaboration between nursing service and the educational process setting on professional socialization.
CHAPTER II

Conceptual Framework

The conceptual framework for this study is based on the educational process setting (EPS) and the professional socialization process. Both are components of the professional development of students. The relationship between these components are explored through the application of Rogers' conceptual model.

Educational Process Settings

Educational process settings are those educational settings in which professional socialization begins. EPSs are distributed along a continuum, the unified models are at one end of the continuum and traditional models are at the other end of the continuum. Collaborative models can be viewed as being in the center. Faculty practice models are distributed throughout the continuum. The models selected for this study will be the traditional and the unified EPS, because they represent the two ends of the continuum.

Traditional EPSs

Traditional models of education are those settings in which the chief executive of the nursing education program is responsible for education of students, but not responsible for the provision of nursing services. In other words, the educational institution and the service institution are separate organizations. The traditional model of education provides faculty role models who are responsible for the education of the student, but they are not responsible for the provision of patient care, except as it relates to the student (Christman, 1979; Ford, 1981b). This model supports the shifting of role models

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from faculty to staff nurse, as described by Knox (1971) and Hunter (1983). In
traditional EPSs, students may not see the faculty practicing professional
nursing. This concept was supported from pre-testing Hall's Professional
Inventory (Snizek, 1972) with faculty from a traditional EPS in a large state
university in Michigan. Scores from 5 out of 13 respondents fell in the range
indicating professionalism, 3 scores were in the undecided range, and 5 scores
were in the non-professional range. If more than half the faculty score below
the professional end of the tool, the degree to which they model professionalism
may be questioned.

Combined EPSs

There are three main models of combined educational process settings:
faculty practice models, collaboration models, and unified models. In faculty
practice models, faculty have a practice component in addition to, or as a part of,
their educational position. Faculty practice incorporates practice with clients
within the context of being faculty (Batey, 1983). Activities carried out by
faculty related to care of patients that have the client as the central focus are
considered faculty practice (Ford, 1983). Areas excluded from the faculty
practice definition are: practice carried out secondary to faculty position, such
as "moonlighting" or a part-time practice position; practice performed to
maintain clinical skills that are considered part of one's professional
continuing education; and clinical teaching because the focus is on student
education rather than care of clients (Ford, 1983).

In collaboration models, faculty have a nursing service appointment as
well as a nursing education appointment. Collaboration models of EPSs divide
responsibilities for nursing service and nursing education. Nursing faculty hold appointments in the service setting and service members hold faculty appointments in the educational setting (Grace, 1980). Collaboration utilizes joint appointments and has as its goals education of nursing students, provision of high quality nursing care, and generation of nursing knowledge through research (Fitzpatrick, Halloran, & Algase, 1987).

In unified models, faculty have one position that combines practice, education, and research as part of that one position. Nursing leaders published a statement of their belief regarding unification in a 1979 issue of Nursing Outlook: "Unification is the mechanism to enhance the quality of care, stimulate research into nursing practice questions, infuse curricula with clinical realities, provide exemplary learning opportunities for nursing students, and facilitate entry for nurses prepared for both basic and advanced practice" (Statement of belief, p. 138). Unified models of EPSs are designed so educational and service systems are totally merged throughout the organizational structure (Clark, 1981; Grace, 1980). Persons responsible for nursing services are also responsible for nursing education. This dual responsibility within one position is carried out from the top levels down to clinical levels. At the clinical level teacher-practitioners are responsible for patient care as well as for student clinical experience and learning. Within this setting, nursing service and nursing education are integrated to provide a realistic educational program for students, to upgrade nursing practice and improve patient care, and to stimulate appropriate clinical research (Powers, 1976). The unified EPS provides faculty role models who are responsible for the education of the student, responsible

The EPS is important because of the effects it has on the socialization process. It is the setting of an organization that determines the environment within which role modeling for socialization takes place. In order to describe the environment within which the role models function, a comparison of traditional and unified models is presented in Table 1.

When there are separate settings between education and service, organizational philosophies, goals, and objectives are different. When the setting is unified, objectives are the same for both education and service, and the mission of practice, education, and research are shared between the educational and service components (Ford, 1977; Sovie, 1981). Professional development is facilitated within a common mission because both service and education are working toward the same expected outcome, and the student is exposed to faculty modeling a professional role of practice, education, and research, rather than either a practice role or an educational role.

When education has a traditional EPS, the clinical experience usually takes
Table 1

**A Comparison of Characteristics of Educational Process Settings**

<table>
<thead>
<tr>
<th>Traditional EPS</th>
<th>Unified EPS</th>
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<tbody>
<tr>
<td>Philosophical differences</td>
<td>Common philosophies</td>
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<tr>
<td>More theory than experience</td>
<td>Theory used in clinical experience</td>
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<td>Leadership/research projects</td>
<td>Leadership/research integrated into clinical experience</td>
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<td>Idealistic graduates</td>
<td>Realistic graduates</td>
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<tr>
<td>Educator as supervisor</td>
<td>Practitioner as supervisor</td>
</tr>
<tr>
<td>Students/faculty are guests</td>
<td>Students/faculty are part of setting</td>
</tr>
<tr>
<td>Educator role easily defined</td>
<td>Educator/practitioner role complex</td>
</tr>
</tbody>
</table>

Place within a bureaucratic environment, and students and faculty are viewed as guests (Mauksch, 1981). In this setting, the student sees the faculty modeling the role of educator and the staff nurse modeling the role of practitioner. Within the unified EPS students and faculty are part of the bureaucratic environment. Professional role development is facilitated through faculty modeling the professional role, that of practice, education, and research (Ford, 1977; Ford, 1981a).

Learning is facilitated within the unified EPS through application of theory to practice by role models, and research and leadership are learned as a function of the professional role. Students in traditional EPSs frequently
receive more theory from the faculty than application of that theory, and leadership and research are frequently learned through projects rather than by observing and interacting with a professional role model (Spees, 1977). Research studies have supported a more successful socialization process taking place when there is consistency of attitudes and values between education and service (Christman, 1979; Knapper, 1976; Moore, 1970; Ondrack, 1975; Statement of belief, 1979).

Unified EPS Research

Only two studies involving unified EPSs have been identified. Both studies were completed by persons connected with the University of Rochester. Garling (1984) studied clinical judgment, role adjustment, and career orientation to nursing as a profession in baccalaureate graduates from one unified EPS, one year post graduation. The study group consisted of graduates of the University of Rochester. The comparison group consisted of graduates of traditional EPSs who were working at University of Rochester Hospitals. The hospital was part of the unified EPS. Garling found no significant differences between the study group and the comparison group for the three variables studied. Although she compared graduates from one unified EPS and graduates from traditional EPSs, the results are limited by subject selection from the employment agency that was part of the unified EPS.

Elliott (1980) studied faculty response to the assumption of multiple roles within the “unification system” of collegiate nursing education. She compared three schools, two with unified EPSs and one with a collaborative EPS. Although Elliott did find that perceived stress was related to tenure, level of instruction,
and individual school, she did not find substantially higher levels of stress in faculty within the unified model.

Because the professional role within the unified EPS combines the roles of educator, practitioner, and researcher into one role, it may be concluded that students within this structure have a more professional role model available for both education and service within one person. Perhaps having this one role model influences the level of professionalism attained by students within the unified EPS. If the unified EPS provides professional role models who are part of the professional socialization process, students graduating from these programs may have a higher level of professionalism than students graduating from traditional EPS. If this could be empirically validated, it would give direction to nursing education programs attempting to enhance their professional socialization process.

**Professional Socialization**

A review of literature related to socialization and roles in nursing was completed by Conway in 1983. Her review of 58 articles indicated the breadth of literature on socialization and identified the lack of a consistent conceptual view to guide research of professional socialization. One view that has been used is that of social learning theory, especially the use of role models as a component of role development.

**Socialization**

The professional socialization process has been described as a subjective experience called "doctrinal conversion" (Davis, 1968). This is a "social psychological process whereby students come to exchange their own lay views
and imagery of the profession for those the profession ascribes to itself" (p. 237). Davis has identified six stages of doctrinal conversion that are successive in nature, but that do not have sharp lines of distinction between them. The stages include: (1) initial innocence - a lay image of nursing that includes a component of doing a procedure or task combined with a component of caring, kindness, and love for those who suffer; (2) labeled recognition of incongruity - a situation in which the student's own initial expectations differ greatly from the expectations held by faculty; (3) psyching out - a stage in which the student seeks what the instructor wants and then finds a way to satisfy the instructor's expectations; (4) role simulation - a performance by the student of those things that satisfy the instructor's expectation, even though the student's expectations still differ from the instructor; (5) provisional internalization - a period of vacillation between commitment to the expectations of the instructor and continued attachment to the lay image; and (6) stable internalization - a stage in which the student has greater commitment to those expectations of the profession than to the previously held lay images.

The first four stages are usually completed during the first year of a two year upper-level major in nursing (Davis, 1968). Stage five is completed by graduation, while stage six may not be completed until after graduation. Davis found that during role simulation, the fourth stage, students identified both positive and negative role models. Students identified the positive role models as faculty and the negative role models as staff nurses. This is an interesting phenomena, since it has been identified that as students progress further into the educational program they move from faculty to staff nurses for their

The complexity of the professional socialization process has led to studies from many perspectives, a large number of which include social learning theory. Social learning theory refers to that learning of roles that takes place as a response to the stimulus provided by another person or group of persons (Bandura, 1969). Interactions with other persons, has been used to explain professional socialization by Becker (1961), Bell (1981), Brown, Swift, & Oberman (1974), Deane (1978), Hunter (1983), Stein (1978), and Olesen & Whitacker (1968). The influence of reference groups on the professional socialization of students has been reported by Bell (1981), Corwin (1961), and Sczekan (1976).

**Role Theory and Role Models**

Thornton and Nardi's (1975) anticipatory stage of role acquisition offers one explanation for motivation to select a nursing career. As individuals begin to think about a nursing, they are responding to stimuli from their environment. They begin to adopt group values even before entering nursing education programs. Group values come from such generalized areas as friends or relatives that are nurses and the mass media. The importance of the anticipatory stage and its impact on professional socialization has been well supported (Cohen, 1981; Deane, 1978; Jacox, 1973,1978; Kalisch & Kalisch, 1978; Leddy & Pepper, 1983). Sczekan (1976) found that females chose nursing in their childhood because they wanted to help others, while males chose nursing after entering college because of job security and financial benefits. This may reflect the anticipatory stage of role development.
Hardy and Conway (1978) define role theory as "a collection of concepts and a variety of hypothetical formulations that predict how actors will perform in a given role, or under what circumstances certain types of behavior can be expected" (Conway, 1978, p. 17). Role theory may be considered a special case of social learning theory. Role theory depends upon an interaction between two or more persons for role development. When looking at professional role development, the interaction includes the role model and the role learner.

A role model is a person, real or idealized, chosen by the student as a person to imitate. Usually the role model is seen as an individual who possesses certain skills and displays techniques that the individual is lacking and from whom, by observation and comparison with self-performance, the individual can learn (Bandura, 1969; Bragg, 1976; Lum, 1978). Models of the professional role for students in a nursing program are primarily nursing faculty and practicing staff nurses in the clinical laboratory (Millonig, 1986).

The need for socialization into the profession as one of the major issues in nursing education was identified by the American Association of Colleges of Nursing (Essentials of College, 1987). The report of this project indicated that "faculty serve as socializing agents in the following ways: 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" (p. 55). Modeling, demonstrating, and exhibiting are all components of role modeling and are part of the environment within which socialization occurs.

Faculty role models are a major factor influencing professional role
development. Faculty model behaviors, attitudes, values, and beliefs of the profession. Students observe and interact with these role models during the educational program. They learn to identify with the profession through the use of these role models (Bandura, 1971; Bell, 1981; Bragg, 1976; Deane, 1978; Knox, 1971; Lum, 1978; Moore, 1970; Siegel, 1967).

Davis and Olesen (1964) and Brown, Swift, and Oberman (1974) agreed that faculty were seen as role models. However, the amount of change that took place in a student, through the image projected by the faculty, varies with the student's own values, cognitions, and prior experiences. The more the values are similar between faculty and student, the greater is the change that takes place. When values are dissimilar between student and faculty, the image projected by the faculty will not be sufficient to insure internalization of that image by the student.

Students reported that actions convey values very strongly and that faculty need to model professional behavior showing a commitment to collaboration, research, self-growth, professional evaluation, ethical conduct and client welfare (Argyris & Shon, 1974; Chaska, 1978; Deane, 1978; Smith, 1976). Students also reported wanting greater faculty example for the development of nursing actions (Rothenberg, 1980).

Role models vary as students move through the educational process. Knox (1971) found a majority of the students identified the faculty as the selected role model earlier in the program. However by the time the students were seniors, they identified practicing nurses as their role models. A change from faculty role models to staff nurse role models was also seen in the work of Hunter...
(1983), Ondrak (1973), and Stein (1978).

Not all studies agree with the importance of role modeling. Wysocki (1982) studied role modeling, along with reinforcement and perceived professional commitment, as part of the socialization process. She found that reinforcement accounted for 88% of the explained variance in the socialization process of baccalaureate programs, while role models accounted for only 3% of the explained variance. She defined the term role model broadly, including books and audiovisuals, as well as human observation. There may have been less than 3% of the variance explained by role modeling, if Wysocki had included only human observations as role models.

Summary

The preceding literature has demonstrated that role models are part of the professional socialization environment and that students switch from faculty to staff nurses as role models in the traditional EPSs as they move through the program. Since, in the unified EPS, faculty are educators, practitioners, and researchers, it would seem that a more positive professional socialization process could result because students would not have to change role models. In addition, with a greater intensity of the professional role model as the combined role, it may be possible that professionalism within this setting is greater than in settings that have separate roles for educators and practitioners. The availability of professional role models, from whom the student can pattern his/her knowledge, skills, and values, needs to be considered in nursing education programs. The method of providing role models is part of the EPS environment.
Conceptual Model

The conceptual model upon which this study is based is the person-environment interaction found in Rogers' Science of Unitary Human Beings (1980, 1985/1983). Rogers indicates the phenomenon of central interest to nursing is the integrality of human beings and environment. The completeness of this person-environment unity is manifested in the student-EPS entity. Rogers describes nursing as science, art, education, practice, and research. She indicates the area of research holding interest for nursing is the study of "unitary human beings and their environments" (p. 15). She describes nursing education as the transmission of the body of nursing knowledge. Studies of the transmission of professional values and attitudes (a component of the body of nursing knowledge) within the educational process setting (EPS) is an appropriate endeavor, according to Rogers' phenomenon of interest to nursing.

The science of unitary human beings holds that "people and their environments are perceived as irreducible energy fields integral with one another and continuously creative in their evolution" (Rogers, 1985/1983, p. 16). Rogers indicates that persons are unitary and therefore cannot be separated into physical, biological, psychological, or sociological beings. Human beings cannot be understood by separation into parts, studying each part, and then rejoining the parts. Human beings must be studied in their wholeness, in the unity of their environment.

The conceptual model described by Rogers (1983) includes four basic building blocks: energy fields, universe of open systems, pattern, and
four-dimensionality. Energy fields are the fundamental unit of the living and non-living (persons and environments). "An energy field underwrites the unity of man (human beings) and provides the conceptual boundaries which identify his oneness... A field transcends its component parts... The human field is a starting point in envisioning the unity of man (human beings)" (Rogers, 1970, p. 46). Energy fields are infinite and are irreducible. Persons and environments are energy fields, they do not have energy fields (Rogers, 1983/1983).

Universe of open systems refers to the continuous exchange of matter between persons and environment. The energy fields, both person and environment, are infinite and are continuously changing and being changed by one another (Rogers, 1970, 1983/1983). Human fields and environmental fields cannot be separated, they are integral with one another.

Pattern is the distinguishing characteristic of a field. Pattern is a single wave that is continuously changing toward a higher level of complexity. The pattern of each field is unique (Rogers, 1983/1983). Patterning includes both structures that are slow processes of long duration and functions that are quick processes of short duration. Patterning encompasses the unity of life, takes place over time and is evolutionary in nature. It is a continuous process of change in human and environmental fields (Rogers, 1970).

Four-dimensionality refers to the three dimensions of space and the further dimension of time (Rogers, 1970). Rogers indicates that four-dimensionality "is defined as a non-linear domain without spatial or temporal attributes" (1983/1983). The function of time in four-dimensionality is
reflected by Malinski (1985): "time changes from a linear progression of past-present-future to incorporate the idea of a relative present where what is perceived as 'present' by one may be 'future' for another" (p.29). Rogers indicates "all reality is postulated to be four dimensional. The relative nature of change becomes explicit" (1983/1983, p. 18).

Rogers' conceptual model defines human fields and environmental fields as "irreducible, four-dimensional energy field(s) identified by pattern and manifestations characteristics different from those of the parts" (1983/1983, p. 18). Human and environmental fields evolve together. The application of Rogers' conceptual model to the study of professionalism, the product of professional socialization, can be seen in Figure 1. Human energy fields are integral with their environmental energy fields. "Each environmental field is specific to its given field. Both change continuously and creatively" (Rogers, 1983/1983, p. 18). Human fields and environmental fields are irreducible and therefore it is appropriate to investigate them together.

The educational process setting is a patterning of the environmental field. It is a structural pattern of slow processes over a long duration. Patterning includes affiliation between service and education. Each institution having its own affiliative pattern. In this study the affiliative patterns are the opposite ends of the unification continuum, traditional settings and unified settings.

Professional socialization is the process by which human energy fields become members of their occupational group. It is the changing of human field patterns to more closely resemble the patterning of those persons within the occupational group. Professional socialization occurs in the EPS through
Rogers' Science of Unitary Human Beings

Environment/Person

Educational Process Setting
(Pattern of Environmental Field)

Professionalism
(Pattern of Human Field)

Unified

Traditional

A

D

B

C

Valiga
Views of Nursing

Hall
Professional Inventory

Kramer
Professionalism Scale Revised

Beginning Students
Senior Students
Graduates
Faculty

Figure 1. Application of Rogers' model from conceptual to empirical levels.
continuous exchange of matter between human energy fields and environmental energy fields. Although this is not the only place in which professional socialization takes place, it is recognized as the beginning of the process. The EPS is generally considered the beginning point at which lay values are gradually exchanged for professional values (Davis, 1968).

Patterning is the distinguishing characteristics of a field. As environmental fields, EPSs exhibit a multiplicity of patterning. For this study two EPSs with traditional patterning and two EPSs with unified patterning will be examined. Traditional patterning is seen as separation of the educational and service environmental fields, while unified patterning is seen as one environmental field including both education and service.

Human energy fields interact with their environmental energy fields with each field being changed as a result of the interaction. For students (human energy fields), the interaction with the EPS results in a change of their values, attitudes, and behaviors, and when their values change, the environmental energy field changes. If persons are interacting with a professional environmental energy field, it may be expected that they will take on some of the patterning of that energy field. Therefore, if human energy fields interact with professional EPSs both persons and EPSs can be expected to change. For this study only the change in the human energy fields will be examined. That is, professionalism scores of beginning students, senior students, graduates, and faculty will be compared between traditional patterning of EPSs and unified patterning of EPSs.

The degree to which professional socialization takes place in EPSs is a result
of the type of field patterning exhibited, traditional or unified (Christman, 1979; Ford, 1981b). In order to study field patterning, specific measures have to be identified. The measures of the environmental fields will include groups of that field, i.e., beginning students, senior students, graduates, and faculty in both traditional and unified EPSs. The measures of the human energy fields will be attitude and behavior scales for persons within those groups. Valiga's Views of Nursing Scale will be used for beginning and senior students (Valiga, 1982). Three scales will be administered to graduates and faculty: Valiga's Views of Nursing, Hall's Professional Inventory (Snizek, 1972) and Kramer's Professionalism Scale Revised (McCloskey & McCain, 1982).

Definition of Terms

The following terms will apply to this study:

Professionalism: a set of inherent characteristics of persons (human energy fields) belonging to a profession (Moloney, 1986). It includes attitudes, and behaviors of that person as measured by Valiga's Views of Nursing Scale (Valiga, 1982), Hall's Professional Inventory (Snizek, 1972), and Kramer's professionalism Scale Revised (McCloskey & McCain, 1982).

Professionalism scores: the scores obtained from the administration of the data collection tools (Valiga, Hall, Kramer). The closer the score to the professional end of the scale, the higher the level of professionalism.

Traditional EPSs: educational settings in which the chief executive of the nursing program is separate from the chief executive of the service agency (Christman, 1979; Ford, 1981b).

Unified EPSs: educational settings in which the chief executive administers
both the education program and the service program (Christman, 1979; Ford, 1981b).

**Senior students**: students (human energy fields) within two months of graduation.

**Beginning students**: students (human energy fields) no more than two months into the nursing major.

**Graduates**: nurses (human energy fields) within ten to twelve months post graduation.

**Faculty**: nurses (human energy fields) teaching either full or part time in the baccalaureate educational process setting.

**Hypotheses**

**Hypothesis 1**: Professionalism scores held by beginning students in unified EPSs will not differ from those held by beginning students in traditional EPSs at the .05 level of significance as measured by the Valiga Views of Nursing Scale.

**Hypothesis 2**: Professionalism scores held by senior students in unified EPSs will be higher than those held by senior students in traditional EPSs at the .05 level of significance as measured by the Valiga Views of Nursing Scale.

**Hypothesis 3**: Professionalism scores held by graduates from unified EPSs will be higher than those held by graduates from traditional EPSs at the .05 level of significance as measured by Hall's Professional Inventory, the Valiga Views of Nursing Scale, and Kramer's Professionalism Scale Revised (McCloskey & McCain, 1987).

**Hypothesis 4**: Professionalism scores held by faculty in unified EPSs will be higher than those held by faculty in traditional EPSs at the .05 level of
significance as measured by Valiga's Views of Nursing Scale (Valiga, 1982).

Hall's Professional Inventory (Snizek, 1972), and Kramer's Professionalism Scale
Revised (McCloskey & McCain, 1987).
CHAPTER III

Design and Procedures

This study was conducted, using a cross-sectional comparison design, to determine the influence of educational process settings (the independent variable) on professionalism scores (the dependent variable). The study investigated two types of educational process settings (EPSs), traditional and unified. Professionalism was measured for beginning students and senior students using the Valiga Views of Nursing Scale; and for graduates and faculty using the Valiga Scale, Hall’s Professional Inventory, and Kramer’s Professionalism Scale Revised.

Sample and Methods

Subjects for this study included beginning students, senior students, recent graduates, and faculty from baccalaureate programs in nursing, since the baccalaureate is considered the minimum level for entry into professional nursing (ANA, 1985). Beginning students were included in the study in order to control for potential bias from selection of either type of program by students with higher initial professionalism scores. Subjects were selected from two nursing programs with traditional EPSs and from two nursing programs with unified EPSs. There were only two baccalaureate programs with unified settings as defined by this study, therefore subjects were selected from those settings. The two programs with traditional settings were similar to the unified settings, using data from State-approved schools of nursing (1986). All four EPSs were accredited by the NLN, were senior colleges or universities, and received private (independent) financial support. In order to control for differences
that might occur from geographic location, each traditional EPS was selected from the two regions where the unified EPSs were located, based on similarity in class size.

Subjects were selected based on the program in which they participated, i.e., traditional EPS or unified EPS. All beginning students, senior students, graduates, and faculty who were associated with the EPS at the time of data collection were included in the study. Beginning students were defined as persons who were no more than two months into the nursing major. Senior students were defined as persons within two months of graduation. Graduates were defined as persons eleven to thirteen months post graduation. Faculty were defined as persons teaching in the nursing education program, either on a full-time or part-time basis, at the time data was collected from senior students.

Subject profiles revealed: the beginning student was female between 24 and 26 years of age, and had never been married; the senior student was female between 21 and 23 years of age, and had never been married; the graduate was a female between the ages of 21 and 23 years, having never been married; and the faculty was female, married, and above 40 years of age.

Permission to conduct the study was sought from two traditional and two unified EPSs. Deans from all four EPSs gave permission for their school to participate in the study. Following approval by their research review committees, arrangements for time and place of data collection were made with those persons designated by the dean. Data were collected from beginning students at the start of the nursing major, so it occurred in the Fall as compared with Spring data collection for senior students, graduates, and faculty.
Subjects were obtained through personal contact or by mail. Students and faculty were contacted in person by the investigator during a regularly scheduled class or meeting. Students were approached at the beginning or end of a regular class period, depending on the preference of the instructor who donated class time for completion of the questionnaire. Likewise faculty were contacted at the beginning or end of the faculty meeting. Deans of all EPSs facilitated data collection from faculty by allowing 20 minutes on the agenda of their regularly scheduled faculty meetings for questionnaire completion. The graduates were contacted by mail.

During personal contact with potential subjects, an explanation of the study and directions for completion of the questionnaire were given. Students and faculty were informed that completing the tool was voluntary and that completion of the tool indicated their willingness to participate in the study. Subjects were instructed to deposit the questionnaires in a box, whether or not they completed it, in order to maintain anonymity of those volunteering. The investigator left the room, as did all persons other than potential subjects. The last person to place a questionnaire in the box was requested to inform the investigator of this, at which time the box of questionnaires was collected.

Lists of names and addresses of graduates from the previous year were sought from the dean of each EPS. Although previously agreeing to participate in the study after reading the proposal, two deans stated it was not possible to release the list of graduates outside the school. However, both deans agreed to have labels placed on prepared envelopes and to mail them to graduates from their schools. The lists that were obtained from the other two schools were used
to distribute questionnaires to their graduates.

A package of materials was sent to each potential graduate subject with the following contents: (a) a cover letter explaining the study, requesting their participation, indicating confidentiality and stating that return of the completed questionnaire was voluntary; (b) the questionnaire; and (c) a stamped, self-addressed envelope for return of the questionnaire. Mailed questionnaires were used for graduates because it was more economical than personal interviews, data collection was anonymous, and potential subjects were widely distributed geographically.

Because mailed questionnaires frequently have a low return rate, sometimes as low as 15 percent (Polit & Hungler, 1983; Wilson, 1985), numbers were placed on the questionnaires that corresponded to the subject's number to facilitate followup mailings. No return date was given in the letter allowing subjects to respond within their own time frame. It was hoped this would facilitate returns by staff nurses working in an environment of nursing shortage. Three weeks after the first mailing, a second complete package was sent to nonrespondents identified from the two lists available. This mailing included another complete package of materials including a restated basic appeal similar to the first cover letter and requested a response within five days. Dillman (1978) recommends a third followup by certified mail, however this was not feasible.

Instruments

A booklet format was used for the data collection questionnaire to make it attractive, well-organized, and easy to complete, thus encouraging participation
in the study (Dillman, 1978). The questionnaire was divided into four sections.
Each of three sections included one of the following tools: Hall's Professional
Inventory (Snizek, 1972), Valiga's Views About Nursing Questionnaire (Valiga,
1982), and Kramer's Professional Scale Revised (McCloskey & McCain, 1987). The
tools were selected following an analysis of fourteen tools measuring
professional socialization in nursing education. The fourth section requested
subjects to report demographic information.

Hall's Professional Inventory. Hall's Professional Inventory (Snizek, 1972)
was selected because the variables studied were those of established professions.
It was designed for use by subjects within the professions. It was a five point
scale with responses ranging from very well to very poor for the subjects'
agreement with statements. It was an appropriate tool for the graduate, who has
already attained licensure, as well as faculty, but was inappropriate for the
student. Hall's tool measured professional attitudes and behaviors. It was based
on professional characteristics identified by Vollmer and Mills (1966), Gulack
(1983), and Moore (1970), and therefore was assumed to have content validity.

The Professional Inventory was determined by Hall (1968b) to have a
reliability coefficient of .80 using a split-half technique with the
Spearmen-Brown correction formula. Snizek (1972) applied rotated factor
matrices to Hall's tool to determine "empirical fit" of the items to each of the five
dimensions of professionalism. Those items with low factor loading were
dropped from the tool, resulting in each dimension being measured by 3 items,
and overall, resulting in more precise measurement (Snizek, 1972). As a result
of shortening the tool from 30 items to 23 items based on factor loading.
reliability coefficients were reduced from .86 to .84 for Hall's data and from .80 to .78 for Snizek's data (Snizek, 1972).

McCloskey and McCain (1987) used Hall's Professional Inventory with newly employed nurses and obtained Cronbach alpha coefficients of .69, .68, and .72, at 1, 6, and 12 months of employment. From pretesting the revised version of Hall's Professional Inventory with 60 practicing registered nurses a coefficient alpha of .65 was obtained. These values were lower than either Hall (1968b) or Snizek (1972) obtained, however, both groups were practicing registered nurses and more homogeneous than the groups used by either Hall or Snizek. Both Hall and Snizek administered the tool to multiple occupational groups. In other words, the coefficient alpha of .65 was considered acceptable, as lower values may be found in homogenous groups (Polit & Hungler, 1983).

Valiga's Views About Nursing. The Valiga Views About Nursing Scale (Valiga, 1982) was a five point scale with subject responses ranging from strongly agree to strongly disagree when presented with a stated view about nursing. It was selected for administration to students because the variables resulted from characteristics of professional nursing found in the literature, and from the National League for Nursing's characteristics of baccalaureate graduates in nursing (1982). The following nursing concepts were identified by an expert panel as being represented in the Valiga tool: (a) boundaries of the discipline; (b) recipient of discipline's service; (c) goals of the discipline; (d) relationship of the discipline to others; (e) independence of the discipline's practitioners; (f) responsibility of the discipline's practitioners; (g) scholarly component of the discipline; (h) autonomy of the discipline's practitioners; (i)
commitment of the discipline's practitioners; and (j) activities of the discipline's practitioners (Valiga, 1985, personal communication, March 14, 1985). The tool was designed for students within a baccalaureate program. The content validity of this tool was addressed through the use of a panel of experts to select the test items. All stages of content validity determination, according to Lynn (1986), were followed: 1) identification of dimensions, 2) generation of items for all dimensions, 3) items were refined and rearranged, 4) judgment of items by eight experts, and 5) judgment of the instrument for measurement of views of nursing as a profession (Valiga, 1985, personal communication, March 14, 1985).

Valiga reported the reliability of the tool in the following manner. A split-half coefficient of .84 for odd items and of .67 for even items was reported, including an overall estimate of .77 using the Spearman-Brown formula. The coefficient alpha was .86. The results of pretesting by Valiga ended in the division of 50 items into parallel forms (A and B) of 25 items each (Valiga, 1985, personal communication, March 14, 1985). Form B was selected over form A for this study because of higher internal consistency values obtained during pre-testing (B=.78; A=.69) with 30 senior students from a baccalaureate program in western Michigan.

**Kramer's Professionalism Scale Revised.** The Kramer Professionalism Scale was reported by Kramer in 1974 and was revised and used by McCloskey and McCain (1987). It was administered to faculty and graduates. The scale measured professional behavior by indicating the number of professional books purchased, subscriptions to professional journals, hours spent in professional reading and continuing education, participation in professional organizations,
number of professional publications, speeches given, committee activity, and participation in research. The scale was ordinal with responses ranging from no activity to a great deal of activity for each behavior. A test-retest correlation coefficient of .99 was obtained when administered to 11 subjects three weeks apart by McCloskey and McCain (1987). The Cronbach alpha reliability coefficients obtained from McCloskey and McCain data were .62, .63, and .71 at 1, 6, and 12 months of experience as a newly employed nurse.

The last section of the questionnaire obtained demographic data. Questions common for all subjects included gender, marital status, and age. Additional questions were added for each subject group to determine group characteristics. Items sought information from students and graduates on years and level of education, transfer status, and primary role model. In addition, graduates were asked to list positions held following graduation. Faculty were asked to identify highest level of education, years of teaching experience, and the number of nursing programs in which they had taught. The last page of the questionnaire was left blank so the respondent could add comments about improving nursing education or the nursing profession if they desired.

Data Analysis

Data were analyzed using the STATVIEW 512+ program for the Macintosh computer system. Test data from beginning students were run on both SPSS-X and STATVIEW 512+ programs. Results from the test runs were identical from both programs, therefore the STATVIEW 512+ system was selected because of greater feasibility.

Data analysis was completed using descriptive and inferential statistics.
Valiga's Views of Nursing and Hall's Professional Inventory were both 5 point Likert scales. Although many texts describe them as ordinal scales, they were treated as interval scales because the responses were assumed to be equal between each point on the rating scale (Shelly, 1984), the data were normally distributed, the variance was small (.005 to .126), and there was independence of observations (Hopkins & Glass, 1978). The Kramer Professionalism Scale responses were ranked from lower to higher behavioral activities and were therefore treated as ordinal measures. The hypotheses were tested using the one way analysis of variance for interval data and the Kruskal-Wallis analysis of variance for ordinal data.

Hypothesis 1: A one-way analysis of variance at the .05 level of significance was conducted on mean professionalism scores, on the Valiga Views of Nursing scale, for beginning students in the four EPSs (two traditional and two unified), to determine if there were any differences between the four schools.

Hypothesis 2: A one-way analysis of variance at the .05 level of significance was conducted on mean professionalism scores, on the Valiga Views of Nursing scale, for senior students in the four EPSs (two traditional and two unified), to determine if there were any differences between the four schools.

Hypothesis 3: A one-way analysis of variance at the .05 level of significance was conducted on mean professionalism scores, on the Valiga Views of Nursing scale and Hall's Professional Inventory for graduates from the four EPSs (two traditional and two unified), to determine if there were any
differences between the four schools. The Kruskal-Wallis test was performed for scores from the Kramer scale to determine if there were any differences at the .05 level of significance among the four schools.

Hypothesis 4: A one-way analysis of variance at the .05 level of significance was conducted for mean professionalism scores, on the Valiga Views of Nursing scale and Hall's Professional Inventory for faculty in the four EPSs (two traditional and two unified), to determine if there were any differences among the four schools. This was followed by Scheffe tests for both tools to determine which schools differed from which other schools. The Kruskal-Wallis test was conducted for the Kramer scale, at the .05 level of significance, to determine if there were differences among the four schools. Next multiple comparisons were completed using the Mann-Whitney U, following the method of adjusted significance levels described by Ryan (1960).
CHAPTER IV

Results

This study examined the influence of the educational process setting (EPS) on professionalism as a product of the professional socialization process using Rogers' conceptual model. Professionalism scores were obtained from beginning students, senior students, recent graduates, and faculty from traditional and unified EPSs. Based on Rogers' conceptual model, EPSs were viewed as environmental energy fields and persons within specific groups (beginning students, senior students, graduates, and faculty) were viewed as human energy fields. Data analysis results are presented as follows: (1) characteristics of the study sample, (2) analysis of demographic data, and (3) hypotheses testing.

Characteristics of the Sample

The study consisted of 472 subjects from beginning students, senior students, recent graduates, and faculty. Subjects were selected from two traditional EPSs, schools B and C, and from two unified EPSs, schools A and D (see Table 2). Although schools for the study were chosen because they were similar in class size (State-approved schools of nursing, 1986), recent changes in nursing education enrollments were reflected in the actual numbers of persons participating in each EPS and also in the number of subjects participating in the study.

Beginning students. Beginning students (human energy fields) attending class at the time of data collection completed a total of 166 questionnaires. A typical beginning student was female, had never married, was between 24 and
Table 2

Subject Participation by Educational Process Setting

<table>
<thead>
<tr>
<th>EPS</th>
<th>School</th>
<th>Beginning Student</th>
<th>Senior Student</th>
<th>Graduate</th>
<th>Faculty</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Traditional</td>
<td>B</td>
<td>43 (26)</td>
<td>33 (26)</td>
<td>9 (10)</td>
<td>17 (20)</td>
<td>102 (22)</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>24 (14)</td>
<td>28 (22)</td>
<td>28 (31)</td>
<td>17 (20)</td>
<td>97 (20)</td>
</tr>
<tr>
<td>Unified</td>
<td>A</td>
<td>25 (15)</td>
<td>21 (16)</td>
<td>13 (16)</td>
<td>37 (42)</td>
<td>98 (21)</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>74 (45)</td>
<td>46 (36)</td>
<td>39 (43)</td>
<td>16 (18)</td>
<td>175 (37)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>166 (35)</td>
<td>128 (27)</td>
<td>91 (19)</td>
<td>87 (19)</td>
<td>472</td>
</tr>
</tbody>
</table>

Note. There were 12 undeliverable graduate questionnaires.
26 years of age, had completed two or less years of education after high school, had transferred from another program into the nursing program, and identified a nurse in the service setting as her primary role model (see Tables 3 and 4).

The adult learner in the beginning student group was reflected in the number of persons that were older than twenty-six years of age (38%) and that had completed four or more years of education by the time they had entered the nursing major (41%). Only 66 beginning students responded to the item requesting identification of their role model. Of those who did respond, 48% identified their primary role model as working in nursing service, 32% in both education and service, and 21% in education.

**Senior students.** Data were collected from senior students (human energy fields) during a regularly scheduled class. Collection was carried out either at the beginning or the end of the class period. Questionnaires were completed by a total of 128 senior students. The profile of the senior student was similar to that of the beginning student in several areas: the senior student was female, had never been married, and had transferred into the nursing program from another program. However, the senior student was between 21 and 23 years of age, which was younger than the beginning student. As expected, the senior student had completed four years of education after high school. Sixty-two senior students responded to the item requesting identification of their role model. Senior students identified role models that worked in education (24%), service (32%), and in both education and service (44%) (see Tables 3 and 4).

**Graduates.** Data collection from recent graduates (human energy fields)
Table 3

Demographic Characteristics Common to All Subjects

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Beg. Stud.</th>
<th>Sr. Stud</th>
<th>Graduate</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 166</td>
<td>n = 128</td>
<td>n = 91</td>
<td>n = 87</td>
</tr>
<tr>
<td></td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>154 (93)</td>
<td>122 (96)</td>
<td>86 (95)</td>
<td>86 (99)</td>
</tr>
<tr>
<td>Male</td>
<td>11 (7)</td>
<td>5 (4)</td>
<td>3 (3)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>128 (78)</td>
<td>102 (80)</td>
<td>66 (73)</td>
<td>19 (22)</td>
</tr>
<tr>
<td>Married</td>
<td>24 (15)</td>
<td>21 (17)</td>
<td>23 (25)</td>
<td>32 (61)</td>
</tr>
<tr>
<td>Divorced</td>
<td>8 (5)</td>
<td>4 (3)</td>
<td>2 (2)</td>
<td>9 (10)</td>
</tr>
<tr>
<td>Separated</td>
<td>2 (1)</td>
<td>0</td>
<td>0</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Widowed</td>
<td>2 (1)</td>
<td>0</td>
<td>0</td>
<td>4 (3)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 20 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21 - 23 years</td>
<td>26 (16)</td>
<td>80 (63)</td>
<td>46 (50)</td>
<td>0</td>
</tr>
<tr>
<td>24 - 26 years</td>
<td>75 (46)</td>
<td>16 (13)</td>
<td>24 (26)</td>
<td>0</td>
</tr>
<tr>
<td>27 - 29 years</td>
<td>21 (13)</td>
<td>10 (8)</td>
<td>3 (3)</td>
<td>4 (5)</td>
</tr>
<tr>
<td>30 - 34 years</td>
<td>7 (4)</td>
<td>13 (10)</td>
<td>8 (9)</td>
<td>10 (11)</td>
</tr>
<tr>
<td>35 - 39 years</td>
<td>18 (11)</td>
<td>8 (6)</td>
<td>3 (3)</td>
<td>26 (30)</td>
</tr>
<tr>
<td>40 - 49 years</td>
<td>14 (9)</td>
<td>0</td>
<td>7 (8)</td>
<td>24 (28)</td>
</tr>
<tr>
<td>50 years or more</td>
<td>2 (1)</td>
<td>0</td>
<td>0</td>
<td>23 (26)</td>
</tr>
</tbody>
</table>

Note. Values given reflect missing data.
Table 4
Demographic Characteristics of Students and Graduates

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 166</td>
<td>n = 128</td>
<td>n = 91</td>
</tr>
<tr>
<td></td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
<td>Freq. (%)</td>
</tr>
<tr>
<td>Education completed after high school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years or less</td>
<td>52 (32)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 years</td>
<td>44 (27)</td>
<td>15 (12)</td>
<td>0</td>
</tr>
<tr>
<td>4 years</td>
<td>34 (21)</td>
<td>58 (46)</td>
<td>54 (59)</td>
</tr>
<tr>
<td>5 years</td>
<td>15 (10)</td>
<td>31 (24)</td>
<td>28 (31)</td>
</tr>
<tr>
<td>6 years or more</td>
<td>16 (10)</td>
<td>23 (18)</td>
<td>9 (10)</td>
</tr>
<tr>
<td>Transferred into school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>63 (40)</td>
<td>57 (49)</td>
<td>39 (46)</td>
</tr>
<tr>
<td>No</td>
<td>95 (60)</td>
<td>59 (51)</td>
<td>46 (54)</td>
</tr>
<tr>
<td>Primary role model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>13 (20)</td>
<td>15 (21)</td>
<td>24 (45)</td>
</tr>
<tr>
<td>Service</td>
<td>32 (48)</td>
<td>20 (32)</td>
<td>12 (23)</td>
</tr>
<tr>
<td>Education and service</td>
<td>21 (32)</td>
<td>27 (44)</td>
<td>17 (32)</td>
</tr>
</tbody>
</table>

Note. Values given reflect missing data.
was carried out via mailed questionnaires. In the first mailing a total of 211 questionnaires were sent with a return rate of 36%. Six questionnaires were returned undeliverable and one return was not usable. The second mailing of 80 questionnaires resulted in 13 responses and 6 undelivered, a return rate of 16%. The overall return rate of mailed questionnaires was 43%. The 91 usable questionnaires from recent graduates revealed the following profile: female, never married, between 21 and 23 years old, completed four years of education after high school, and had not transferred into the nursing program from another program. Of the 53 graduates who identified their role model, 45% chose nurses who worked in nursing education, 23% chose nurses who worked in nursing service, and 32% chose nurses working in both nursing education and nursing service (see Tables 3 and 4).

**Faculty.** Faculty (human energy fields) present during a regularly scheduled faculty meeting completed a total of 87 questionnaires (see Table 2). Data were collected for three EPSs (environmental energy fields) at the beginning of the faculty meeting and for the fourth EPS data collection occurred after business had been conducted. Almost half (43%) of faculty were from one unified EPS. At this EPS faculty meetings included clinical faculty, academic faculty, and persons who were both clinical and academic faculty. The other EPSs did not include persons who were only clinical faculty at the faculty meeting. The typical faculty member was female, married, and between the ages of 35 and 39 years (see Table 3). Faculty characteristics include: basic preparation at the baccalaureate level (62%), additional education at the masters level (70%), 35% had taught for greater than 10 years, and 38% had taught in
Table 5

Demographic Characteristics of Faculty

<table>
<thead>
<tr>
<th>Basic preparation</th>
<th>No. (%)</th>
<th>Highest education</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed practical nurse</td>
<td>1 (1)</td>
<td>Baccalaureate</td>
<td>0</td>
</tr>
<tr>
<td>Diploma</td>
<td>27 (32)</td>
<td>Master</td>
<td>60 (70)</td>
</tr>
<tr>
<td>Associate degree</td>
<td>2 (2)</td>
<td>Doctorate</td>
<td>23 (27)</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>33 (62)</td>
<td>Post doctorate</td>
<td>3 (3)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (3)</td>
<td>Other</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teaching experience</th>
<th>No. (%)</th>
<th>Number of programs</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one year</td>
<td>3 (4)</td>
<td>One</td>
<td>32 (38)</td>
</tr>
<tr>
<td>One year</td>
<td>5 (6)</td>
<td>Two</td>
<td>25 (30)</td>
</tr>
<tr>
<td>Two years</td>
<td>8 (9)</td>
<td>Three</td>
<td>16 (19)</td>
</tr>
<tr>
<td>Three to five years</td>
<td>14 (17)</td>
<td>Four</td>
<td>7 (8)</td>
</tr>
<tr>
<td>Six to ten years</td>
<td>25 (29)</td>
<td>Five</td>
<td>3 (4)</td>
</tr>
<tr>
<td>Greater than ten years</td>
<td>30 (35)</td>
<td>Six or more</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

Note: All items were not completed by each subject.
only one nursing program (see Table 5).

**Demographic Variables**

Statistical tests were executed to compare the demographic variables between traditional and unified EPSs (environmental fields). Chi-square tests were done on all groups for gender and marital status and did not reveal any significant differences for these two variables. A Mann-Whitney U was used to determine if there were differences in age between participants in traditional and unified EPSs. Although traditional beginning students were older than unified beginning students, the difference was not significant. A difference was identified for senior student groups. Senior students in unified EPSs were found to be significantly older (p < .0007) than in traditional EPSs (see Table 6). One school (D) had an educational track that lead to a masters degree and was appealing to persons making a career change. This track might explain the differences in age for senior students that was not reflected in beginning students. There were no differences in age between traditional and unified EPSs for graduates.

A significant difference was uncovered for faculty groups. Faculty from traditional EPSs were significantly (p < .00016) older than faculty from unified EPSs (see Table 6). Unified EPSs had 23% of their faculty under the age of 35, while traditional EPSs only had 6% of faculty under 35 years of age.

In order to determine if there were any differences in the number of years of education completed after high school for students and graduates, an independent t-test was used. The results showed that only beginning students demonstrated a difference in years of education completed (see Table 7). Since
Table 6

**Mann-Whitney U for Age and Educational Process Setting**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number</th>
<th>Mean Rank</th>
<th>U</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>67</td>
<td>87.073</td>
<td>2943</td>
<td>-1.083</td>
<td>&gt;.1379</td>
</tr>
<tr>
<td>Unified</td>
<td>97</td>
<td>76.960</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Senior Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>61</td>
<td>54.325</td>
<td>1435</td>
<td>-3.229</td>
<td>&lt;.0007*</td>
</tr>
<tr>
<td>Unified</td>
<td>66</td>
<td>72.758</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Graduates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>37</td>
<td>44.689</td>
<td>951</td>
<td>-4.25</td>
<td>&gt;.3336</td>
</tr>
<tr>
<td>Unified</td>
<td>34</td>
<td>46.898</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Faculty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>34</td>
<td>55.838</td>
<td>498.5</td>
<td>-3.626</td>
<td>&lt;.00016*</td>
</tr>
<tr>
<td>Unified</td>
<td>50</td>
<td>36.406</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *Significant at .05 level. Z scores corrected for ties.*
the nursing major was at the upper division level for schools in the study, it was reasonable that 32% of the beginning students had at least two years of education completed after high school and that an additional 27% had completed three years.

There were no statistically significant differences between traditional EPSs and unified EPSs in regard to transfer status. Many students (40%) did not obtain their pre-nursing educational requirements in the same institution as the nursing program. This was especially true in one EPS (school D) that did not have a lower division educational offering. At this EPS students were required to complete their first two years of education in another institution and then enter the nursing major at school D.

Chi-square procedures reflected differences between EPSs in the selection of a role model, although the differences were not significant (see Table 8). A majority of beginning students identified a role model in nursing service: 44% for traditional EPSs and 51% for unified EPSs. Role models for senior students in traditional EPSs were evenly distributed across all three response categories, but senior students in unified EPSs identified a role model in nursing service and education 53% of the time.

There was no significant association between role model and EPS for graduates one year post graduation (see Table 8). More graduates (44% of traditional and 47% of unified), after a year in the work setting, identified nursing education as the setting of their role model.

Graduates were asked to indicate positions held since graduation from the baccalaureate program. Eighty graduates were employed in the hospital setting
Table 7

**t-Test for Education Completed After High School and Educational Process Setting**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>65</td>
<td>2.631</td>
<td>1.409</td>
<td>159</td>
<td>201.6</td>
<td>.0368*</td>
</tr>
<tr>
<td>Unified</td>
<td>96</td>
<td>2.198</td>
<td>1.184</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Senior Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>61</td>
<td>3.328</td>
<td>.747</td>
<td>123</td>
<td>-1.898</td>
<td>.06</td>
</tr>
<tr>
<td>Unified</td>
<td>66</td>
<td>3.636</td>
<td>1.047</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Graduates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>37</td>
<td>3.486</td>
<td>.631</td>
<td>89</td>
<td>-222</td>
<td>.8249</td>
</tr>
<tr>
<td>Unified</td>
<td>54</td>
<td>3.319</td>
<td>.693</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** * Significant at .05 level.
Table 3

Chi-Square for Identification of Role Model and Educational Process Setting

<table>
<thead>
<tr>
<th>EPS</th>
<th>Service</th>
<th>Education</th>
<th>Service/Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning Students</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Observed</td>
<td>3</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Expected</td>
<td>5.32</td>
<td>13.09</td>
<td>8.79</td>
</tr>
<tr>
<td>Unified Observed</td>
<td>10</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Expected</td>
<td>7.68</td>
<td>18.91</td>
<td>12.41</td>
</tr>
<tr>
<td><strong>Senior Students</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Observed</td>
<td>11</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Expected</td>
<td>7.26</td>
<td>9.68</td>
<td>13.06</td>
</tr>
<tr>
<td>Unified Observed</td>
<td>4</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Expected</td>
<td>7.74</td>
<td>10.32</td>
<td>13.94</td>
</tr>
<tr>
<td><strong>Graduates</strong>&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional Observed</td>
<td>10</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Expected</td>
<td>10.42</td>
<td>5.21</td>
<td>7.38</td>
</tr>
<tr>
<td>Unified Observed</td>
<td>14</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Expected</td>
<td>13.58</td>
<td>6.79</td>
<td>9.62</td>
</tr>
</tbody>
</table>

**Note.**

- <sup>a</sup> $\chi^2 = 4.153$, $p = .1245$, $df = 2$, level = .05.
- <sup>b</sup> $\chi^2 = 5.222$, $p = .0734$, $df = 2$, level = .05.
- <sup>c</sup> $\chi^2 = .1370$, $p = .9339$, $df = 2$, level = .05.
as a staff nurse, and of these 13 were in critical care areas (see Table 9). There were 14 recent graduates employed in managerial positions by the end of their first year as a professional nurse. One graduate had held three different positions since graduation; staff nurse, hospice nurse, and research assistant. Faculty were asked to identify their basic nursing preparation to determine if there were any differences in proportions between traditional and unified EPS faculty. Basic nursing preparation was not significantly associated with the type of educational program in which faculty were teaching ($\chi^2=1.33, df=4$, $p=.3626$).

A Mann-Whitney U was performed to determine if there were differences between traditional EPS faculty and unified EPS faculty on the variable of highest level of education completed. Educational preparation of faculty was considered to be part of the professional socialization environmental field. Traditional faculty had a mean rank of 44.309 as compared to the unified faculty mean rank of 42.971 (see Table 10). This difference, however, was not significant ($U=856.5, z=-.303, p>.3783$). In both traditional and unified EPSs, 70% were prepared at the Masters level, 27% at the doctoral level, while only 3% had completed post doctoral study (one person in traditional and two persons in unified).

The availability of experienced teachers, as part of the professional socialization environmental field, was investigated. The Mann-Whitney U procedure was used on the ordinal data to determine if differences between EPSs existed on the variable of teaching experience. Faculty from traditional EPSs had significantly ($p<.00003$) more experience in teaching (see Table 10).
Table 9

Positions Held by Graduates Within One Year Post Graduation.

<table>
<thead>
<tr>
<th>Position</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
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<td>19</td>
<td>22</td>
<td>51</td>
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<tr>
<td>Obstetrics</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Critical Care</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Medical</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
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<td>Psychiatric</td>
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<td>-</td>
<td>3</td>
<td>1</td>
<td>5</td>
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</tr>
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<td>Community Health</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Hospice</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
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<td>Managerial</td>
<td>-</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Physician’s Office</td>
<td>-</td>
<td>1</td>
<td>-</td>
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<tr>
<td>Research Assistant</td>
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<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Graduate Student</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
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<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Note: Values reflect multiple positions for some graduates.
Table 10

Mann-Whitney U for Faculty Educational Level, Teaching Experience, and Program Experience

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number</th>
<th>Mean Rank</th>
<th>U</th>
<th>z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest Level of Education</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>34</td>
<td>44.309</td>
<td>856.3</td>
<td>-.303</td>
<td>&gt;.3783</td>
</tr>
<tr>
<td>Unified</td>
<td>32</td>
<td>42.971</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Teaching Experience</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>34</td>
<td>37.559</td>
<td>372</td>
<td>-4.616</td>
<td>&lt;.00003*</td>
</tr>
<tr>
<td>Unified</td>
<td>31</td>
<td>33.294</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Program Experience</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>34</td>
<td>43.765</td>
<td>807</td>
<td>-.411</td>
<td>&gt;.3372</td>
</tr>
<tr>
<td>Unified</td>
<td>50</td>
<td>41.64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level. Z scores corrected for ties.
Seventy-nine percent of traditional faculty and 55% of unified faculty had taught for six or more years. Six percent of faculty in traditional EPSs had taught two years or less, while 28% of faculty in unified EPSs has taught two years or less. The influence of teaching experience on professional socialization, however, is unclear.

An assumption of this study was that if faculty had taught in many programs, faculty may have been exposed to many different perspectives of the profession and would have modeled a broader range of professional behavior. Therefore the number of programs in which faculty taught was also studied. This variable was not significant (see Table 10).

Hypotheses Testing

Educational process settings are environmental energy fields that interact with the human energy fields of beginning student, senior student, graduates, and faculty. The interaction between the two energy fields is part of the professional socialization process. The hypotheses were tested to determine the influence of EPSs (environmental energy fields) on professionalism, the patterning of human energy fields.

Comparison of beginning students. Before trying to determine the influence of the unified EPS on the professional socialization of the baccalaureate student, it was first necessary to discover if students were selecting a unified EPS because of pre-existing higher levels of professionalism. This was accomplished by administering the Valiga Views of Nursing Scale to 166 students beginning the nursing major in both traditional and unified EPSs. A one way analysis of variance was used to examine the first hypothesis.
Hypothesis 1: Professionalism scores held by beginning students in unified EPSs will not differ from those held by beginning students in traditional EPSs at the .05 level of significance as measured by the Valiga Views of Nursing Scale.

Analysis of the data indicated professionalism scores of beginning students in unified EPSs did not differ from those of beginning students in traditional EPSs (see Table 11). Although the means of both unified EPSs were larger than traditional EPSs, the difference was not statistically significant (F=.313; df=3,162; p=.816). The Cronbach alpha coefficient for internal consistency for this data was .72.

Comparison of senior students. In order to determine the influence of the unified EPS on professional socialization, professionalism scores for senior students at unified and traditional EPSs were compared. Senior students were chosen because they were at the end of the educational socialization period, and if the EPS influenced their professional socialization, it could not have been measured until the educational process was near completion. The Valiga Views of Nursing scale was used to measure the professionalism scores of 128 senior nursing students. The second hypothesis was examined.

Hypothesis 2: Professionalism scores held by senior students in unified EPSs will be higher than those held by senior students in traditional EPSs at the .05 level of significance as measured by the Valiga Views of Nursing Scale.

The hypothesis that senior students would score higher in unified than in traditional EPSs was analyzed with a one way analysis of variance (see Table 12). Professionalism scores held by senior students in unified EPSs were not higher than those held by senior students in traditional EPSs at the .05 level of
significance ($F = 1.367; df = 3.124; p = .2361$). The Cronbach alpha coefficient for internal consistency for this data was .77. There was no support from analysis of this data to indicate that unified EPSs socialize the student to higher levels of professionalism (i.e., professionalism patterning of the human fields was not different in the two environmental fields studied).

**Comparison of graduates.** It was hypothesized that graduates of the unified EPS would have higher professionalism scores than graduates from traditional EPSs. The third hypothesis was examined by comparing recent graduates from both types of EPSs.

**Hypothesis 3:** Professionalism scores held by graduates from unified EPSs will be higher than those held by graduates from traditional EPSs at the .05 level of significance, as measured by the Valiga Views of Nursing Scale, Hall’s Professional Inventory, and Kramer’s Professionalism Scale Revised.

The Valiga Scale was used to measure professional attitudes held by recent graduates of unified EPSs and traditional EPSs. Data was analyzed using a one-way analysis of variance (see Table 13). No differences in professional attitudes of graduates from unified EPSs and traditional EPSs were identified ($F = .849; df = 3.87; p = .471$). The Cronbach alpha coefficient for internal consistency for this data was .74.

The Hall Professional Inventory was used with recent graduates from unified and traditional EPSs to measure professional attitudes and behaviors. Data was analyzed with a one-way analysis of variance (see Table 14). The 91 graduates from unified EPSs who completed questionnaires did not have higher professional attitudes and behaviors than traditional EPS graduates ($F = 2.284; df$
Table 11

One Factor Analysis of Variance for Beginning Student Professionalism Scores on Valiga Views of Nursing Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Unified EPS)</td>
<td>25</td>
<td>1.003</td>
<td>.308</td>
</tr>
<tr>
<td>B (Traditional EPS)</td>
<td>43</td>
<td>.959</td>
<td>.34</td>
</tr>
<tr>
<td>C (Traditional EPS)</td>
<td>24</td>
<td>.95</td>
<td>.254</td>
</tr>
<tr>
<td>D (Unified EPS)</td>
<td>74</td>
<td>1.006</td>
<td>.347</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>.101</td>
<td>.034</td>
<td>.313</td>
<td>.816</td>
</tr>
<tr>
<td>Within groups</td>
<td>162</td>
<td>17.378</td>
<td>.107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
<td>17.479</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Power (α = .05, u = 3, n = 42, f = .25 medium) = .78.
Table 12

One Factor Analysis of Variance for Senior Student Professionalism Scores on Valiga Views of Nursing Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Unified EPS)</td>
<td>21</td>
<td>1.227</td>
<td>.431</td>
</tr>
<tr>
<td>B (Traditional EPS)</td>
<td>33</td>
<td>1.182</td>
<td>.363</td>
</tr>
<tr>
<td>C (Traditional EPS)</td>
<td>28</td>
<td>1.199</td>
<td>.303</td>
</tr>
<tr>
<td>D (Unified EPS)</td>
<td>46</td>
<td>1.074</td>
<td>.308</td>
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</table>

<table>
<thead>
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<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>.487</td>
<td>.162</td>
<td>1.367</td>
<td>.2561</td>
</tr>
<tr>
<td>Within groups</td>
<td>124</td>
<td>14.729</td>
<td>.119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>15.216</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Power (α = .05, u = 3, n = 32, f = .25 medium) = .65.
Table 13

One Factor Analysis of Variance for Graduate Professionalism Scores on Valiga Views of Nursing Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Unified EPS)</td>
<td>15</td>
<td>1.291</td>
<td>298</td>
</tr>
<tr>
<td>B (Traditional EPS)</td>
<td>9</td>
<td>1.173</td>
<td>439</td>
</tr>
<tr>
<td>C (Traditional EPS)</td>
<td>28</td>
<td>1.14</td>
<td>274</td>
</tr>
<tr>
<td>D (Unified EPS)</td>
<td>39</td>
<td>1.161</td>
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</table>

<table>
<thead>
<tr>
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<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
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<td>242</td>
<td>.081</td>
<td>.849</td>
<td>.471</td>
</tr>
<tr>
<td>Within groups</td>
<td>87</td>
<td>8.277</td>
<td>.095</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>8.519</td>
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<td></td>
</tr>
</tbody>
</table>

Note. Power (α = .05, u = 3, n = 23, f = .25 medium) = .49.
- 3.88; p < .084). The Cronbach alpha coefficient for internal consistency for this data was .70.

The third measure of professionalism for recent graduates was a measure of behaviors. The Kramer Professionalism Scale as revised by McCloskey and McCain (1987) was used to measure professional behaviors of recent graduates to determine if graduates from unified EPSs scored higher than graduates from traditional EPSs. The Kruskal-Wallis analysis of variance for ordinal data was used to test the hypothesis (see Table 13). Analysis of the data did not support any difference in professional behaviors between recent graduates from unified and traditional EPSs (H = .986; df = 3; p > .80). The Cronbach alpha coefficient for internal consistency for this data was .71.

In analyzing all three measures of professionalism, Vailiga (attitudes), Hall (attitudes and behaviors), and Kramer (behaviors), to test the third hypothesis, no support could be found to indicate that professionalism scores held by graduates from unified EPSs were higher than those held by graduates from traditional EPSs. Testing of the hypothesis derived from the literature of Christman (1979) and Ford (1981b) and Sauksch (1981) did not identify higher professionalism scores in recent graduates from unified EPSs, as compared to recent graduates from traditional EPSs. That is, there were no differences in the professionalism patterning of graduate energy fields between the two types of environmental fields.

Comparison of faculty. One of the assumptions of this study was that faculty from unified EPSs combined practice, education, and research into one role, that was viewed as a professional role. It was then concluded from the
Table 14

One Factor Analysis of Variance for Graduate Professionalism Scores on Hall's Professional Inventory

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Unified EPS)</td>
<td>15</td>
<td>.419</td>
<td>.327</td>
</tr>
<tr>
<td>B (Traditional EPS)</td>
<td>8</td>
<td>.23</td>
<td>.43</td>
</tr>
<tr>
<td>C (Traditional EPS)</td>
<td>28</td>
<td>.396</td>
<td>.336</td>
</tr>
<tr>
<td>D (Unified EPS)</td>
<td>38</td>
<td>.547</td>
<td>.334</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>.845</td>
<td>.282</td>
<td>2.284</td>
<td>.0847</td>
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<tr>
<td>Within groups</td>
<td>85</td>
<td>10.477</td>
<td>.123</td>
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</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>11.322</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Power (α = .05, u = 3, n = 23, f = .25 medium) = .49.
Table 15

**Kruskal-Wallis Analysis of Variance for Graduate Professionalism Scores on Kramer's Professionalism Scale Revised**

<table>
<thead>
<tr>
<th>Group</th>
<th>#Cases</th>
<th>Σ Rank</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>15</td>
<td>640.5</td>
<td>42.7</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>356.5</td>
<td>44.562</td>
</tr>
<tr>
<td>C</td>
<td>28</td>
<td>1370.5</td>
<td>48.946</td>
</tr>
<tr>
<td>D</td>
<td>38</td>
<td>1637.5</td>
<td>43.092</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DF</th>
<th>3</th>
<th>H</th>
<th>.982</th>
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<td>H corrected</td>
<td>.986</td>
</tr>
<tr>
<td>* Cases</td>
<td>89</td>
<td>* tied groups</td>
<td>17</td>
</tr>
</tbody>
</table>

*Note.* $p > .80$
literature that unified EPSs provided a more complete, unified, and professionally intense environment for the professional socialization process, because of the greater availability of nurses who model a complete professional role. Professionalism scores held by 87 faculty were measured using the tools of Valiga, Hall, and Kramer to test the fourth hypothesis.

Hypothesis 4: Professionalism scores held by faculty in unified EPSs will be higher than those held by faculty in traditional EPSs at the .05 level of significance as measured by Hall's Professional Inventory, the Valiga Views of Nursing Scale, and Kramer's Professionalism Scale Revised.

The measurement of professional attitudes held by faculty was carried out using the Valiga Views of Nursing Scale. A one-way analysis of variance was used to determine if there were any differences between faculty in the four EPSs (see Table 16).

Analysis of data collected from faculty does not provide evidence of higher professional attitudes in faculty from unified EPSs. Multiple comparisons were carried out on the ANOVA results for faculty (F=3.038; df=3,83; p=.0336; alpha=.05), using the Scheffe procedure at the .05 level of significance, to determine which groups differed from which other groups (see Table 17). There were no significant differences for any of the comparisons.

Professionalism was also measured using Hall's Professional Inventory that measures both attitudes and behaviors. The one-way analysis of variance was used for data analysis (see Table 18) to determine if there were any differences in attitudes and behavior between faculty from traditional and
Table 16

One Factor Analysis of Variance for Faculty Professionalism Scores on Views of Nursing Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Unified EPS)</td>
<td>37</td>
<td>1.223</td>
<td>.333</td>
</tr>
<tr>
<td>B (Traditional EPS)</td>
<td>17</td>
<td>1.271</td>
<td>.38</td>
</tr>
<tr>
<td>C (Traditional EPS)</td>
<td>17</td>
<td>1.483</td>
<td>.278</td>
</tr>
<tr>
<td>D (Unified EPS)</td>
<td>16</td>
<td>1.388</td>
<td>.233</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>.919</td>
<td>.306</td>
<td>3.038</td>
<td>.0336*</td>
</tr>
<tr>
<td>Within groups</td>
<td>83</td>
<td>9.37</td>
<td>.101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>9.289</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Power (α = .05, u = 3, n = 22, f = .25 medium) = .47.
### Table 17

**Multiple Comparisons of Faculty Professionalism Scores on the Valiga Scale**

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Difference</th>
<th>Required F</th>
<th>Scheffe F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A vs. B</td>
<td>-.047</td>
<td>8.55</td>
<td>.086</td>
<td>ns</td>
</tr>
<tr>
<td>A vs. C</td>
<td>-.262</td>
<td>8.55</td>
<td>2.634</td>
<td>ns</td>
</tr>
<tr>
<td>A vs. D</td>
<td>-.164</td>
<td>8.55</td>
<td>.994</td>
<td>ns</td>
</tr>
<tr>
<td>B vs. C</td>
<td>-.214</td>
<td>8.55</td>
<td>1.292</td>
<td>ns</td>
</tr>
<tr>
<td>B vs. D</td>
<td>-.117</td>
<td>8.55</td>
<td>.372</td>
<td>ns</td>
</tr>
<tr>
<td>C vs. D</td>
<td>.097</td>
<td>8.55</td>
<td>.259</td>
<td>ns</td>
</tr>
</tbody>
</table>

*Note.* Required F $df = 3.83$; at .05 level.
Table 18

One Factor Analysis of Variance for Faculty Professionalism Scores on Hall's Professional Inventory

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Unified EPS)</td>
<td>37</td>
<td>.631</td>
<td>.343</td>
</tr>
<tr>
<td>B (Traditional EPS)</td>
<td>17</td>
<td>.325</td>
<td>.571</td>
</tr>
<tr>
<td>C (Traditional EPS)</td>
<td>17</td>
<td>.708</td>
<td>.436</td>
</tr>
<tr>
<td>D (Unified EPS)</td>
<td>16</td>
<td>.548</td>
<td>.251</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>1.39</td>
<td>.33</td>
<td>3.261</td>
<td>.0235*</td>
</tr>
<tr>
<td>Within groups</td>
<td>83</td>
<td>13.488</td>
<td>.163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>15.078</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
unified EPSs.

Analysis of data collected from faculty in both unified EPSs and traditional EPSs did not provide evidence of higher professional attitudes and behaviors for unified EPS faculty. Multiple comparisons using the Scheffe procedure were completed for the faculty ANOVA results ($F = 3.261; df = 3, 83; p = .0253; \alpha = .05$), at the .05 level of significance (see Table 19). No significant differences were found for any of the comparisons.

The third measure of professionalism used for faculty was the Kramer Professionalism Scale as revised by McCloskey and McCain (1987). The Kramer tool only measures professional behaviors. The tool consists of ordinal data, therefore the Kruskal-Wallis analysis of variance was used to analyze the positively skewed data (see Table 20) to determine differences among the four EPSs (Siegel, 1956).

Faculty in unified EPSs did not differ from faculty in traditional EPSs on professionalism scores for the Kramer scale. Multiple comparisons were carried out on the Kruskal-Wallis analysis of variance results for faculty ($H = 9.699; df = 3; p < .05; \alpha = .05$), using the method of adjusted significance levels as described by Ryan in 1960 (see Table 21). The comparison of School B (T) with School C (T) was significant at the .05 level. School C (T) scored significantly higher on professional behaviors as compared to School B (T). However, because both schools were traditional EPSs, no support was found for the research hypothesis.

Based on the professionalism measures of Valiga, Hall, and Kramer, professionalism scores held by faculty in unified EPSs were not significantly higher than those held by faculty in traditional EPSs. Differences for
professional human field patterning were not evident between two types of environmental energy fields.

Since significant differences were not found between EPSs, additional analysis was then carried out to determine if there were any differences in professionalism scores among beginning students, senior students, graduates, and faculty within the same EPS on the Valiga scale (the only scale administered to all groups). The results from all four schools can be seen in Table 22. Although mean scores for senior students were higher than for beginning students in all four schools, there were no significant multiple comparisons for school A. Faculty scored significantly higher on the Valiga scale (attitudes) than did beginning students in school B. In school C senior students scored significantly higher than beginning students, and faculty scored significantly higher than beginning students, senior students, and graduates. Faculty also scored significantly higher than beginning students and senior students in school D.

Summary

In this study traditional and unified models of educational process settings (EPSs) were examined to determine the influence of the EPS on professionalism, the product of the professional socialization process. Analysis of the data revealed that differences between traditional and unified EPSs in regard to professional attitudes, attitudes and behaviors, or behaviors were not significant. Differences for professional human field patterning in beginning students, senior students, graduates, and faculty were not found between the environmental fields of traditional and unified EPSs in this study. Although not
Table 19

Multiple Comparisons of Faculty Professionalism Scores on the Hall Scale

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Difference</th>
<th>Required F</th>
<th>Scheffe F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A vs. B</td>
<td>.326</td>
<td>8.53</td>
<td>2.541</td>
<td>ns</td>
</tr>
<tr>
<td>A vs. C</td>
<td>-.057</td>
<td>8.53</td>
<td>.079</td>
<td>ns</td>
</tr>
<tr>
<td>A vs. D</td>
<td>.103</td>
<td>8.53</td>
<td>.245</td>
<td>ns</td>
</tr>
<tr>
<td>B vs. C</td>
<td>-.384</td>
<td>8.53</td>
<td>2.365</td>
<td>ns</td>
</tr>
<tr>
<td>B vs. D</td>
<td>-.223</td>
<td>8.53</td>
<td>.839</td>
<td>ns</td>
</tr>
<tr>
<td>C vs. D</td>
<td>.161</td>
<td>8.53</td>
<td>.437</td>
<td>ns</td>
</tr>
</tbody>
</table>

Note. Required F = 3.83 df at .05 level.
Table 20

**Kruskal-Wallis Analysis of Variance for Faculty Professionalism Scores on Kramer’s Professionalism Scale Revised**

<table>
<thead>
<tr>
<th>Group</th>
<th>Cases</th>
<th>Σ Rank</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>37</td>
<td>1777.0</td>
<td>48.027</td>
</tr>
<tr>
<td>B</td>
<td>17</td>
<td>532.5</td>
<td>31.324</td>
</tr>
<tr>
<td>C</td>
<td>17</td>
<td>931.5</td>
<td>54.794</td>
</tr>
<tr>
<td>D</td>
<td>16</td>
<td>587.0</td>
<td>36.688</td>
</tr>
</tbody>
</table>

| DF   | 3     |        | 9.668     |
| Groups | 4     | H corrected | 9.699*    |
| Cases | 87    | * tied groups | 20       |

**Note.** *p < .05*
Table 21

Multiple Comparison Mann-Whitney U Tests at .05 Level of Significance for Faculty Kruskal-Wallis Analysis of Variance Data

<table>
<thead>
<tr>
<th>School</th>
<th>B (T)</th>
<th>D (U)</th>
<th>A (U)</th>
<th>C (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Rank</td>
<td>31.324</td>
<td>36.688</td>
<td>48.027</td>
<td>54.794</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pair</th>
<th>K*</th>
<th>U</th>
<th>Z</th>
<th>Required level</th>
<th>p**</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-C</td>
<td>4</td>
<td>75</td>
<td>-2.401</td>
<td>.0083</td>
<td>.0082</td>
<td>s</td>
</tr>
<tr>
<td>B-A</td>
<td>3</td>
<td>195.5</td>
<td>-2.221</td>
<td>.0123</td>
<td>.0132</td>
<td>ns</td>
</tr>
<tr>
<td>D-C</td>
<td>3</td>
<td>79.5</td>
<td>-2.039</td>
<td>.0123</td>
<td>.0207</td>
<td>ns</td>
</tr>
<tr>
<td>D-A</td>
<td>2</td>
<td>208.5</td>
<td>-1.699</td>
<td>.0250</td>
<td>.0446</td>
<td>ns</td>
</tr>
</tbody>
</table>

Note: *K = size of subgroup being tested; **p = obtained level
Table 22

**Significant Multiple Comparisons of ANOVA Results for Each School**

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Mean Difference</th>
<th>Scheffe F-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A (F = 3.015; df= 3.94; p = .0338)</td>
<td>No significant differences</td>
<td></td>
</tr>
<tr>
<td>School B (F = 4.089; df= 3.98; p = .0088)</td>
<td>BS vs. FC</td>
<td>-.312</td>
</tr>
<tr>
<td>School C (F = 12.372; df= 3.93; p = .0001)</td>
<td>BS vs. SS</td>
<td>-.249</td>
</tr>
<tr>
<td></td>
<td>BS vs. FC</td>
<td>-.335</td>
</tr>
<tr>
<td></td>
<td>SS vs. FC</td>
<td>-.286</td>
</tr>
<tr>
<td></td>
<td>GR vs. FC</td>
<td>-.345</td>
</tr>
<tr>
<td>School D (F = 7.027; df= 3.171; p = .0002)</td>
<td>BS vs. FC</td>
<td>-.381</td>
</tr>
<tr>
<td></td>
<td>SS vs. FC</td>
<td>-.314</td>
</tr>
</tbody>
</table>

* Significant at .05 level.
at a significant level, the practical finding was that senior students had higher mean professionalism scores than beginning students within the same school.

Hypothesis 1 was supported: Professionalism scores held by beginning students in unified EPSs did not differ from professionalism scores held by beginning students in traditional EPSs.

Hypothesis 2 was not supported: Professionalism scores held by senior students from unified EPSs were not higher than professionalism scores held by senior students from traditional EPSs.

Hypothesis 3 was not supported: Professionalism scores held by recent graduates from unified EPSs were not higher than professionalism scores held by recent graduates from traditional EPSs.

Hypothesis 4 was not supported: Professionalism scores held by faculty from unified EPSs were not higher than professionalism scores held by faculty from traditional EPSs.
CHAPTER V

Discussion

The findings of this study are inconclusive. Beginning students, senior students, recent graduates, and faculty from two unified educational process settings (EPSs) and from two traditional EPSs did not statistically differ in their professionalism scores. A total of three tools were used to identify professionalism by measuring professional attitudes (Valiga, 1982), professional attitudes and behaviors (Snezik, 1972), and professional behaviors (McCloskey & McCain, 1987). The findings were consistent with the assumption that beginning students did not select a specific EPS based on pre-existing levels of professionalism. Senior students, recent graduates, and faculty from unified EPSs were expected to score higher on professionalism measures because of the environment found in unified settings for professional socialization. According to the literature unified EPSs can better socialize the student as a professional because faculty portray the total professional role of practitioner, educator, and researcher (Christman, 1979; Ford, 1981b, Mauksch, 1981).

Because of the professional role modeled in unified EPSs, student human fields interacting with the professional environmental field should evolve to increased levels of professional patterning according to Rogers' conceptual model (1983). The findings of this research, however, did not indicate any differences in professionalism scores between subjects from unified and traditional EPSs for the four schools studied. In fact, conclusions cannot be drawn from this study because traditional and unified EPSs were more alike than they were different.
Limitations

Although no differences were found between the subjects in this study, the possibility of greater professional socialization by unified EPSs cannot be ruled out because of the limitations of the study in four areas: design, sample size, data collection, and variables studied.

Design. A cross-sectional design was used when a truer picture of the influence of EPSs on professional socialization might have been obtained by following a group of students from entry into the program through one, five, or ten years post graduation. A longitudinal study might have been able to more clearly determine if EPS has an influence on the development of professionalism, and to clarify the influence of environmental energy fields on human energy fields. Repeated measurements on the same subjects rather than on subjects from each class would provide a clearer picture of the changes occurring as the student moves through the professional socialization process (i.e., evolution of professional patterning within each subject from interaction with the environmental field). A longitudinal study would be more appropriate when using Rogers' model. She indicates that both human energy fields and environmental energy fields evolve through their interaction with each other. By conducting a cross-sectional study, neither energy field can be measured for the changes that take place within that field. The cross-sectional study only permitted measurement of the patterning of human energy fields at one point in time.

Another limitation of this study was the use of quantitative measures. Determining quantitative measures of professional attitudes and behaviors does
not fit within Rogers' conceptual model (Rogers, 1983). Because person and environment evolve together, a more accurate picture of the professional socialization process occurring within the person-environment interaction might be better obtained by using a qualitative approach. Use of a quantitative approach implies causality. Rogers' model indicates that changes that occur within the person and environment are evolutionary and noncausal (Kim, 1983). Therefore in order to describe changes that occur from the interaction between the environmental field and the human field, a qualitative approach would be better. Qualitative methods allow for studying "the phenomenon in a naturalistic setting, so that the context within which the phenomenon occurs is considered to be part of the phenomenon itself" (Field & Morse, 1985, p. 11).

**Sample size.** Data were collected from only two traditional and two unified educational process settings (EPS). The convenience sample of beginning students, senior students, recent graduates, and faculty varied in size from nine to seventy-four subjects per group, with most groups around twenty-five in number. Because of the small number of subjects per groups, the probability of finding a significant result, if a medium effect existed, was low, with power ranging from .47 to .65 (Cohen, 1987).

**Data collection.** Results from the mailed questionnaire may have been biased because only those with higher levels of professionalism may have felt it necessary to return them. Also, the low return rate of completed questionnaires by graduates was a limitation. With only 43% of recent graduates being represented in the study, the influence of the EPS on professionalism as described in this study may not reflect the true situation. Perhaps a better
representation of the recent graduate could have been obtained by eliciting support of the schools by means of a cover letter requesting participation by the dean of the program. Another procedure that might have helped would have been to request that even uncompleted questionnaires be returned to determine if recent graduates chose not to participate, rather than forgetting to complete and return the questionnaire.

**Variables studied.** A major limitation of the study was in the failure to ascertain the actual role faculty were modeling for students within the EPSs. The degree to which practice, education, and research was modeled was unclear, and because this data were not available, the presence of a professional environment could only be measured by the scores on the professionalism tools. It might have been better to include an item that requested the percent of time spent in each role component to more clearly determine the professional environment. A more precise way of measuring the role faculty were modeling would have been to observe the faculty in that role. Neither of these methods was used, therefore the modeling of the full professional role by faculty was not clear.

**Interpretation**

It is not enough to provide the results of a research study. It is also important to make sense of the results in light of the purpose and the conceptual framework. The interpretation of this study will now be presented.

**Demographic**

Demographic variables were used to describe the groups under investigation. They may also shed some light on the results of the study. These
variables are presented prior to the research hypotheses.

Age. Older beginning students were found in traditional schools than in unified schools, but the findings were not at a significant level. Twenty percent of all beginning students were over the age of 35. One explanation for this finding might be persons who have chosen to make a change in their careers and have selected nursing as their new career. It may also represent the mothers who have delayed their career development until their children have started school (93% of subjects were female). This would be consistent with changes taking place in women in society as a whole. Another explanation of why older students chose traditional EPSs might be because of convenience or that they are not aware of the differences between traditional and unified EPSs.

Methods of teaching may need to be adjusted for the instruction of adult learners based on adult learning principles. This is consistent with the recent writings of Seidl and Sauter (1990). Professional socialization of older beginning students may be different from that of the student entering college directly following high school. Usually their motivation for education and their past experiences are different from the student entering the program following high school.

Unified EPS senior students were significantly older than traditional EPS students (p<.0007). One school (D) had an educational track that led to a masters degree. This track may have been more appealing to persons making a career change. There were more senior students from this school in the study, which may have influenced the results.

Faculty in traditional EPSs were significantly older than unified EPS faculty
Because 43% of the faculty in this study were from school A, caution must be taken when analyzing the findings. Age differences found in this study were consistent to those found by Elliott (1980). One explanation for younger faculty in traditional EPSs might be reflected in faculty roles. Some faculty in one unified EPS (A) held only clinical appointments. This may have contributed to the larger number of faculty from this school. It may also reflect a greater desirability by younger faculty to adopt the combined role of practitioner, educator, and researcher, and therefore they may seek appointments in unified settings. One might speculate that older faculty would view the unified EPS faculty role as more stressful, and therefore not chose to assume that role, however research conducted by Elliott did not support that assumption. Older faculty did not learn under the unified model and therefore it might not fit their model of nursing education. Another explanation might be that younger faculty might not be able to find positions in traditional EPSs because the older faculty in those settings have already attained tenure.

Education completed. Forty-one percent of beginning students had completed 4 years of college prior to entering the nursing major. It is not clear whether these students were making a change in their major, had low GPAs requiring mediation prior to entering the program, were returning RNs or LPNs needing to repeat courses because previous courses were not transferred for credit, or had other conditions requiring more education before entering the nursing major. It is not expected that there was a long wait to get into the nursing major because of the current shortages of nurses and the declining enrollments in nursing education. Different professional socialization methods
may be needed for those persons who enter the nursing field from another field, especially if the other field is not a health-related field, because they will have already been socialized into the other field and their values may contrast with nursing values.

One of the traditional EPSs (school B) had 38% of their beginning students with five years or more of education completed since high school. It is not clear if those who answered the question were counting years of full-time education or years of part-time education, or if this represents selection of this school by a more highly educated group of beginning students. It might also be that this school, which was a smaller college than the others, was more appealing to the nontraditional student. Percentages for the other schools ranged from 8% to 14% for persons with five or more years of education completed after high school.

Role model. Although there were no significant differences in selection of a role model between traditional and unified EPSs, further discussion of the issue is warranted. The selection of a nurse role model in the service setting by 48% of all beginning students may reflect the anticipatory stages of role development (Thornton & Nardi, 1975). It may also be possible that beginning students chose a role model based upon their knowledge of the role as portrayed by nurses with whom they had interacted prior to entering nursing. These nurse role models may have been from a family member who was a nurse, a nurse seen in the hospital setting during an illness episode, or perhaps a nurse in a physician's office.

Forty-four percent of senior students selected a role model as a person
working in both education and service. If senior students responded to the intent of the question, that is to identify a role model in a combined position of education and service, this finding might be explained by the literature indicating that students identify with faculty (Bell, 1981; Deane, 1978; Millonig, 1986). If on the other hand, senior students responded from a need to select one answer which reflected their two role models, it might support the work of Hunter (1983), Knox (1971), Ondrak (1975), and Stein (1978), that indicated students move from faculty to staff nurses for role models in the later stages of education.

The selection of education as the setting of the primary role model for 43% of recent graduates might be explained by the role modeling done by faculty during the educational process. It may be encouraging for educators to find they were seen as role models one year post graduation. If selection of educators as role models were consistent throughout EPSs, it could have a major impact for nursing education programs in the manner of selecting nursing role models as faculty during the faculty recruitment process. If faculty are retained as role models by graduates, then the type of role modeled needs to be considered. If the nursing profession holds that practice, education, and research are all components of the professional role, then persons modeling the professional role need to include all three components when modeling the role for students.

It must be remembered that the question on role modeling was only answered by slightly over half of the respondents for student and graduate groups. Therefore the results only represent those respondents who answered
the question. Perhaps an interview technique would have obtained more complete data for this item, and analysis would have provided greater clarity of results.

**Positions held.** Positions held by graduates during the first year post graduation included staff nurse, management, working in physician's office, and graduate student. While some graduates have held more than one position during their first year as a professional nurse, the majority (76%) were staff nurses. Data analysis indicated a significant ($\chi^2 = 6.173, df = 5, p = .0367$) difference between schools in positions held. School B differed from the rest in the number of recent graduates who held managerial positions. Thirty-five percent of School B graduates held managerial positions as compared to School A (0%), School C (13%), and School D (11%). However, only 9 recent graduates from School B responded to the questionnaire, and these 9 graduates had held 14 positions since graduation. School B was also the EPS that had 38% of beginning students with five or more years of education completed since high school. These findings may reflect experienced nurses who have chosen to return to school to complete their baccalaureate degree, or the person who is making a career change. It may also indicate nurses who were in managerial positions and needed to obtain a baccalaureate degree to maintain those positions.

**Teaching experience.** Traditional EPS faculty had significantly ($U = 372, z = -4.44, p = .00003$) more teaching experience than did unified EPS faculty. This was especially true for faculty who had taught for two or less years (unified EPS faculty 28%; traditional EPS faculty 6%). These findings are consistent with Elliott (1980) and reflect the younger faculty members found in unified EPS
settings. Because the fulfillment of the professional role in the unified EPS requires practice, education, and research, it may be that new faculty are more willing or able to combine these roles than are faculty who have been taught by, and are teaching in, traditional settings. It may also be that traditional EPSs attract faculty who desire academic year appointments so they will be congruent with raising a family, while those with calendar year appointments in unified EPSs have not yet begun to raise a family. It may also reflect a change consistent with the women's movement in society, in which women entering a profession may be more career oriented than in the past.

Hypotheses

Hypothesis 1. Professionalism scores for beginning students supported the assumption that students did not select traditional or unified EPSs because of pre-existing professional orientation. Persons starting the nursing major in a unified EPS did not differ in their views of the profession from students in a traditional EPS. This finding would be expected according to Davis (1968) because beginning students would have a lay view of nursing and would be in the "initial innocence" stage of doctrinal conversion. Beginning students have not yet begun the professional socialization process within the EPS, therefore one might reason that they were in the anticipatory stages of professional socialization and would not yet have a professional orientation (Thornton & Nardi, 1975).

The findings of this study lend support to the assumption that EPS selection is not a factor of pre-existing professional orientation. This information is necessary if one is to identify effects of the professional socialization process
that occurs as a result of the educational process setting. If measuring professional attitudes is a measure of professionalism, as indicated in this study, any difference that might be found in similar studies after completion of the educational professional socialization process, may be attributed to factors other than selection of a particular EPS based on a pre-existing professional orientation. Determination of professional orientation prior to entrance into EPSs could establish baseline data for further research into this area.

Hypothesis 2. No differences were found in professionalism scores between senior students in traditional and unified EPSs. Some possible reasons for these findings must be explained. It was hypothesized that senior students in unified EPSs would score higher than traditional EPSs because they were exposed to a more professional environment within unification and because faculty portrayed the full professional role of practice, education, and research. It may be these assumptions were unfounded and that further study is warranted to determine their verity. The probability of identifying significant results from the size of the study sample was .65, therefore different results may be found if using a larger number of senior students from each EPS. Another explanation of the findings may be associated with the research design. This study was a cross-sectional design. It may be more appropriate to do a longitudinal study to measure the amount of change that occurs in individuals as they complete professional socialization within unified and traditional EPSs. A longitudinal design may give a clearer picture of actual results of the professional socialization process than can be obtained by looking at different groups of students, especially given the age and educational preparation of the beginning
students in this study.

The second hypothesis was based on the assumption that faculty modeled a professional role, from which students learned to identify with the profession. Because the difference between traditional and unified EPS faculty was not statistically significant when multiple comparisons were completed, there was no evidence to support higher levels of professionalism in unified EPSs faculty (Hypothesis 4), the assumption on which the second hypothesis was based may have been unfounded. More information is needed on the professional socialization of senior students in both unified and traditional EPSs. The measurement of professionalism scores did not provide evidence of the process of professional socialization. Information needs to be ascertained about the relationship of different socialization methods and the outcomes of applying those methods.

The absence of statistical differences using any of the three scales (attitudes, attitudes and behaviors, and behaviors) needs to be addressed. The acceptance of a null hypothesis does not indicate the verity of the null hypothesis, only that the data analyzed for the study can not support rejection of the null hypothesis (Polit and Hungler, 1985). In this study there may have been extraneous variables that confounded the results, but that were unknown to the researcher. Would senior student professionalism scores be different in a time of nurse abundance rather than the current nurse shortage? The percentage of unfilled faculty positions or staff nurse positions was not ascertained for any of the EPSs studied. In unified EPSs that had faculty with less than two years of teaching experience, how many of the faculty responding to
the questionnaires were present during the socialization process of the senior students? This information was not sought as part of this study, but should be included in any future studies.

The results of this study may reflect some flaws in the assumptions used as a basis for the study. From the literature review it was concluded that unified EPSs provided a more intense professional model in the combined role of practitioner/educator/researcher as part of the professional socialization environment. The reality may be that both traditional and unified EPSs provide similar role models, but the organization of the environment may be different. Before further research in this area is conducted it might be wise to first determine if role models from traditional and unified EPSs differ in the roles they model for students, as students move through the educational program. It might also be helpful to determine if there is any difference in the intensity of any of the three role components of practice, education, and research, and the length of time each faculty models their particular role for the students.

Hypothesis 3. Data analysis for recent graduates did not support higher professionalism scores for graduates from unified EPSs. In addition to the explanations given for senior students, the results obtained from analysis of graduate data may include other reasons for the findings. There were only nine subjects from School B, 15 subjects from School A, 28 subjects from School C, and 39 subjects from School D. The representation of true situations by these unequal small sized groups is unclear. Different results may have been obtained with larger groups. The total number of recent graduates reflects the 43% return rate of mailed questionnaires. A consortium of researchers
representing each of the study EPSs might have resulted in better followup with the recent graduates because researchers from the two institutions that would not release the names of graduates to persons outside the setting may have been able to obtain the lists that were unavailable for the current study. Another explanation for the low participation by School B recent graduates must be considered. Is it possible that the role of research was not modeled by the faculty of School B, and therefore graduates from that school were less motivated to participate in this study? Data from this research did not provide the answer to this question and should be addressed in future research studies.

Hypothesis 4. Faculty from four EPSs (two traditional and two unified) were compared for differences in professionalism scores on attitudes, attitudes and behaviors, and behaviors. No differences were found between traditional and unified EPSs. Multiple comparisons were computed for faculty data (attitudes, p=.0336; attitudes and behaviors, p=.0235; behaviors, p<.05), and revealed only one comparison that was significant at the .05 level. Professional behaviors of faculty in School B differed from professional behaviors of faculty in School C, however both schools were traditional EPSs. This finding may be explained by the fact that School B was located in a small college while School C was located in a large university. Even though the schools of nursing were similar in the number of faculty (17 for each), the size of the parent institutions were not similar. This may be perceived as a flaw in the research design. Usually larger universities have resources, larger libraries and research capabilities, that are sought by professional faculty. Therefore selection of School B as one of the study groups may have biased the results. Further study into this area may be
more appropriate if the institutional environment is more similar between EPSs.

Another factor that needs to be considered is the geographic location of each school. School C was located in the Eastern states region and School B was located in the Midwestern states region. Does this account for the difference? How do other geographic regions compare with regards to professionalism scores? One way to answer these questions might be to replicate this study using a variety of geographic regions. Another way might be to conduct longitudinal studies between traditional and unified EPSs in several geographic regions, simultaneously.

The lack of significant findings for attitudes, and attitudes and behaviors, when multiple comparisons were completed might be the result of selection of the Scheffe procedure over other multiple comparison procedures. The Scheffe test is "one of the most conservative multiple comparison procedures, so that it tends to yield fewer significant results than other methods" (Volcier, 1984, p. 211). An advantage to using the Scheffe procedure is that it adjusts according to the number of means being compared and the chance of finding a significant difference does not become inflated (Gay, 1976). Using the Scheffe procedure reduces the chance of saying there is a significant difference when there isn't. Had a more liberal multiple comparison procedure been used, significant differences may have been attributed to the study when they could have been a result of chance or random error.

When multiple comparisons were carried out for differences within each school, some significant differences were identified. All schools demonstrated higher professionalism scores for senior students than for beginning students.
It is unclear, however, what these differences mean. The study was cross-sectional and caution needs to be taken when interpreting the results. It may be possible that students did gain professional attitudes as they moved through the educational program, however the cross-sectional design did not allow comparison of senior students before and after the professional socialization process. Although these findings are encouraging, they do not clearly indicate evolving higher professional patterning as students move throughout the program, as would be anticipated in the application of Rogers' model of person-environment interaction.

Conclusion

Within the past decade, nursing literature addressing professional socialization and the unification model of nursing education indicated new hope for the development of professionalism in nurses (Christman, 1979; Ford, 1981b; Gilson-Parkevich, 1983; Hunter, 1983; Institute of Medicine, 1983; Mauksch, 1981; National Commission on Nursing Study, 1983). The provision of a professional environment, within educational process settings (EPSs) that were unified with service settings and with faculty that were fulfilling the professional role of practice, education, and research, was believed to influence professional socialization in a positive manner. The interaction between the environmental fields of traditional and unified EPSs and the human fields within these EPSs should have led to the evolution of higher patterning of professionalism on the part of students and graduates. Although findings of the study are inconclusive, information has been added to the body of knowledge surrounding the interaction between EPSs (environmental energy fields) and
the persons (human energy fields) within those EPSs, for the groups investigated. Beginning students did not select a specific EPS because of pre-existing professionalism. There were no statistical differences found between senior students, graduates, and faculty on professionalism scores between traditional and unified EPSs.

The findings of this study are not generalizable, therefore one needs to be careful to not make decisions about unified or traditional EPSs based on these findings. There are other benefits from unification of service with education that have not been addressed in this study. The following statement published by nursing leaders provides a summary of these benefits: "Unification is the mechanism to enhance the quality of care, stimulate research into nursing practice questions, infuse curricula with clinical realities, provide exemplary learning opportunities for nursing students, and facilitate entry for nurses prepared for both basic and advanced practice" (Statement of belief, 1979, p. 158).

**Recommendations**

As a result of this study specific recommendations can be made for future nursing education research. Differences between beginning students on the variable of professional attitudes was not supported by the findings of this study. If this is true, there are some implications for nursing education. If students do not select a particular EPS because of pre-existing professional attitudes, faculty have an opportunity to promote development of the students' professional attitudes and behaviors through modeling a professional role. Beliefs, values, and attitudes are learned through a social learning process of
identification with role models (Bandura, 1969). The type of roles that are modeled are at the discretion of the faculty in nursing programs. If the nursing profession expects students to acquire the knowledge, skills, attitudes, values, and sense of identity that are consistent with professional nursing, then EPSs must provide the professional models with whom the students can interact as part of the professional socialization process within that EPS.

Human fields and environmental fields change as they interact with each other (Rogers, 1983). If the environmental field has models of the professional role, then the human fields should change by interacting with the professional role models. Likewise, if the human fields change to higher levels of professionalism, then the environmental fields should change as well. The availability of professional role models in environmental fields needs to be addressed in future nursing research.

The body of knowledge surrounding the professional socialization process within unified EPSs is just beginning to be identified, and further research into this area must be carried out. Specific recommendations that flow from this study include the following:

1. Future nursing research into professional socialization requires the use of qualitative approaches in order to focus on the process rather than the outcome. Nursing cultures within which professional socialization takes place for traditional and unified EPSs need to be identified. The socialization processes that take place in traditional and unified EPSs need to be investigated to identify which methods are being used, and in which settings.

2. Although professionalism has been defined in the literature, clearer
definitions and better measurements of professionalism need to be identified. Research needs to be conducted that describes what professionalism means to those within the nursing profession, within other health care provider groups, within consumer groups, and within educational facilities. Because one of the driving forces for the conduction of this study was to promote the development of nursing's body of knowledge, studies need to be conducted that determine if there is a component of professionalism which promotes the desire to contribute to the profession.

3. Future nursing research into professional socialization needs to include the variety of students that are seeking entry into the profession. Examination of the professional socialization processes used in EPSs should be carried out to determine: the methods most appropriate for the older beginning student, the student making a career change, and the associate degree or diploma nurse returning for a baccalaureate degree; and the effect of various professional socialization methods on graduates one, five, and ten years post graduation.

4. Based on the statement of beliefs about unification, studies need to be conducted that address the following areas: unification as a mechanism to enhance the quality of care; unification as a means for stimulating research into nursing practice questions; unification as a mechanism for providing exemplary learning opportunities for nursing students; and unification as a means of facilitating entry for nurses prepared for both basic and advanced practice.
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doctoral dissertation, Teachers College, Columbia University.


Appendix A: Verbal Explanation

My name is Kay Setter Kline. I am a nurse and a doctoral candidate at Case Western Reserve University. In view of recent changes in the nursing profession, many nurses are taking a close look how they view nursing. Unfortunately current views of nursing have not been obtained from (beginning students, senior students, faculty). Without such information, responsive changes in nursing education are difficult to implement. The purpose of this research is to determine your views about nursing. Your participation in this study is voluntary. Your decision to participate or to not participate in this study will in no way affect your role within this school. You may discontinue participation at any time. Your responses will be kept confidential and you will not be identified by name or school in any oral or written report. Results of this study will be published and used to improve the education of nurses. I will distribute the questionnaire and a pencil to you. It will take approximately 15 minutes for you to complete it. Your completed questionnaire will indicate that you have volunteered to participate. When you have completed the questionnaire, place it in the box. Are there any questions? Thank-you!
Appendix B: Cover Letter

Date
Name
Address
City, State

Dear 

In view of recent changes in the nursing profession, many nurses are taking a close look how they view nursing. Unfortunately current views of nursing have not been obtained from recent graduates. Without such information, responsive changes in nursing education are difficult to implement.

You have been selected because of your participation in _____ School of Nursing. Your response is voluntary. However, true representativeness of recent graduates can only be obtained through the completion and return of each questionnaire. It will take approximately 15 minutes to complete.

You may be assured of the confidentiality of your responses. The questionnaires have been numbered so your name can be removed from the mailing list when the completed questionnaire is returned. Your name will not be identified with the study in any way.

The results of this study will be available to nurses through professional publications. You may receive a summary of the results by writing “copy of results requested” on the back of the return envelope, and printing your name and address below it. Please do not identify yourself on the questionnaire.

I will be happy to answer any questions you may have. Please call 616-327-1840 between 5 PM and 10 PM.

Thank you for your attention.

Kay Setter Kline, MSN
Doctoral Student,
Frances Payne Bolton School of Nursing
Case Western Reserve University
Appendix C: Survey Tool: Valiga, Hall, Kramer, Demographic

NURSING EDUCATION:
SEEKING INPUT FROM
STUDENTS, GRADUATES, AND FACULTY

This survey is being done to obtain your ideas, feelings, and activities as current or past participants of nursing education programs. If you wish to comment on any question or qualify your answers, please feel free to use the space in the margins.

Directions for completion of the survey:

Students: Complete Sections I & IV

Graduates: Complete Sections I, II, III, & IV

Faculty: Complete Sections I, II, III, & IV

Frances Payne Bolton School of Nursing
Case Western Reserve University
2121 Abingdon Road
Cleveland, Ohio 44106
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SECTION IV

In order to be able to determine group characteristics of persons completing the survey, I would like to ask you some background questions.

Directions: Please select each answer that applies to your situation.

---

D-61 Your sex.
   ____ Male
   ____ Female

D-62 Your present marital status.
   ____ Never married
   ____ Married
   ____ Divorced
   ____ Separated
   ____ Widowed

D-63 Age to nearest birthday.
   ____ Under 20 years
   ____ 21 - 23 years
   ____ 24 - 26 years
   ____ 27 - 29 years
   ____ 30 - 34 years
   ____ 35 - 39 years
   ____ 40 - 49 years
   ____ 50 years or more

---

Students: Answer questions 64 - 67.
Graduates: Answer questions 64 - 68.
Faculty: Answer questions 69 - 72.

---

Students and graduates:
D-64 Years of education completed after high school.
   ____ 2 years or less
   ____ 3 years
   ____ 4 years
   ____ 5 years
   ____ 6 years or more

---

---
**D-65 Level of education completed prior to the current program (select all that apply):**

<table>
<thead>
<tr>
<th>Level</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed Practical Nurse</td>
<td></td>
</tr>
<tr>
<td>Registered Nurse</td>
<td></td>
</tr>
<tr>
<td>Associate degree</td>
<td></td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td></td>
</tr>
<tr>
<td>Master degree</td>
<td></td>
</tr>
<tr>
<td>Doctorate degree</td>
<td></td>
</tr>
<tr>
<td>Other (Please specify)</td>
<td></td>
</tr>
</tbody>
</table>

**D-66 Did you transfer from another program into the current program?**
- Yes - At which level? (Please circle) Fresh, Soph, Jr, Sr.
- No

**D-67 Who was your primary role model?**
Name: __________________________
Title: __________________________
For which organization did the role model work? (Select only one.)
- Nursing education
- Nursing service
- Nursing service and nursing education

**Graduates:**
**D-68 List positions you have held since graduation from baccalaureate program.**
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

**Faculty:**
**D-69 What was your basic nursing preparation? (Select only one)**
- Licensed practical nurse program
- Diploma program
- Associate degree program
- Baccalaureate degree program
- Other (Please specify) ________________________________
D-70 What is your highest level of education, and in which major?

<table>
<thead>
<tr>
<th>Level (Please check)</th>
<th>Major (Please list)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccalaureate</td>
<td></td>
</tr>
<tr>
<td>Master</td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td></td>
</tr>
<tr>
<td>Post doctorate</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

D-71 Please indicate your teaching experience in a school of nursing.

- Less than one academic year
- One academic year
- Two academic years
- Three to five academic years
- Six to ten academic years
- Greater than ten academic years

D-72 Please indicate the number of nursing programs in which you have taught.

- One
- Two
- Three
- Four
- Five
- Six or more
Is there anything else you would like to share about improving nursing education or the nursing profession? If so, please use this space for that purpose.

Your contribution to this survey is greatly appreciated. If you would like a summary of the results, write your name and address on a separate sheet of paper. It will be sent when the study is completed. DO NOT write it on this survey.