TEMPORAL PERSPECTIVE, PROFESSIONAL IDENTITY, AND PERCEIVED WELLBEING

by

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DISSERTATION

Submitted to the Graduate School of Wayne State University, Detroit, Michigan in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

1986

MAJOR: NURSING
I wish to acknowledge and express sincere appreciation to all who facilitated my learning throughout my doctoral studies, and especially to the following members of my dissertation committee who provided guidance for this research:

To Virginia S. Cleland, PhD, RN, FAAN, Professor Emeritus, for having served as chairperson of my dissertation committee and mentor throughout my doctoral studies. Her professional support, encouragement, and facilitation will always be cherished.

To my other committee members - Darlene W. Mood, PhD, Marcia Andersen, PhD, RN, and Irving Bluestone, University Professor of Labor Studies and Director of the Master's of Arts in Industrial Relations program - each of whom contributed expertise, guidance, and counsel toward the completion of this project. To Dr. Mood for her enthusiasm, expertise, and guidance relative to methodological issues and statistics and her willingness to read and reread very rough, early drafts of emerging ideas. To Dr. Andersen for the invaluable experiences gained as her research assistant/project administrator prior to beginning my own research endeavors. And to Irving Bluestone for his organizational theory expertise and for his unending support in "humanizing" the dissertation process.

I would also like to thank the Deans/Directors of the various nursing programs who facilitated my access to
research subjects. And, to the students and graduates, who voluntarily participated in this study, giving freely of their time, I extend sincere thanks.

And last, but not least, I must acknowledge all of my family, friends, colleagues, and fellow doctoral students. You all provided your own unique kind of encouragement, support, and assistance, without which I could not have been successful. I would like to especially thank Judy Bumbalo, Amy Stone Murai, Susan Schaffer, and Suzanne Wilson whose colleagueship and friendship over the years has exceeded all imaginable bounds. Thank you for always being there with kind words and actions. And to my mother, whose caring, support, and encouragement are never-ending. Your belief in me throughout this process, as in all other previous endeavors, has been sustaining.

The author also gratefully acknowledges the partial support provided by a research grant from Sigma Theta Tau, Lambda Chapter.
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CHAPTER 1
INTRODUCTION

Despite the widespread belief that professional nursing educational experiences, as minimally defined by a baccalaureate degree in nursing, ought to be associated with an increasing sense of professional identity and its associated worth, there is little supportive empirical data reported in the literature (Corwin, 1961; Corwin & Taves, 1962; Kramer, 1974, 1981; Kramer & Baker, 1971; Schmalenberg & Kramer, 1979; Suess, Schweitzer, & Williams, 1982; Treat & Kramer, 1972). This lack of empirical support for the hypothesized relationship between professional nursing education and professional identity seems primarily to be due to a variety of conceptual and measurement problems. Professional identity is a highly abstract concept and past attempts to operationally define it have been fraught with difficulty and have not proven valid and reliable.

In most reported studies professional identity has been primarily addressed under the rubric of a role conception model and yet there is an absence of conclusive empirical support for any differentiation between baccalaureate (professionally prepared) and technically prepared nurses in terms of their sense of professional identity. Although this failure to discriminate between baccalaureate and technically prepared nurses may be secondary to the insensitivity of tools utilized to measure professional
identity, it may also be secondary to the phenomenon termed "reality shock" by Kramer (1974).

Kramer (1974) states that "reality shock" occurs when new baccalaureate graduates enter the labor force and leave the student role behind. Reality shock is a phenomenon of grave concern in that it is purported to result in attrition from the profession of nursing. It appears that an underlying issue of considerable theoretical importance is the divergence from the professional educational emphasis on the quality of care delivered to a few select patients and the institutional emphasis on the quantity of care delivered to a large number of patients. According to Kramer (1985),

...[this] separation in ideals, values, and culture of nursing as conceptualized by nurse educators from the ideals, values, and culture practiced by nurses in nursing service...is not bad, unhealthy, or misguided. It can and should be viewed for what it is—a sign of developing growth and maturity in two major components of the nursing profession. What is bad, unhealthy, and unfortunate is the animosity, misunderstanding, and hostility that has developed between people representing nursing service and nursing education (p.891).

Kramer (1985) further suggests that baccalaureate education forces students to conceptualize nursing as a holistic process,

...one in which the nurse cares for the whole patient...a process which emphasizes the health promotion and illness prevention aspects of health care as much as if not more than the health restorative or curative aspects. This conceptualization is quite different from the operative of the world of work, particularly in hospital nursing, where the nurse's responsibility is largely to provide or direct the provision of curative care for large groups of patients (p.891).
However, not all who have critically analyzed nursing services in hospitals would agree with the distinction as stated by Kramer. The 1980s have proven to be an age of cost consciousness and increasing Federal regulations relating to health care expenditures. Now more than ever before, hospital nursing services must also place an emphasis on holism through valuing and encouraging health promotion and primary illness and secondary complication prevention. Professional practice in all arenas must be predicated on a strong sense of professional identity. Hardy and Conway (1978) and Styles (1982a) state that a sense of professional identity must be based upon an explicit belief or value system, a manifesto, a social contract. Styles (1982a) further elaborates that the ideological basis of nursing's professional identity should provide the general direction for professional policy and action. As such, the baccalaureate prepared nurse represents a valuable professional resource pool to address the 20th century goals of hospital nursing services. What then, if anything, can be done to minimize the potential negative conflict experienced by nurses in hospital work forces?

Based on the continuing anecdotal observations of nurses in hospitals by this investigator, it is apparent that not all baccalaureate prepared nurses experience reality shock as a conflict with negative outcomes as suggested by Kramer. What is the differentiating factor? It has become
increasingly clear to the researcher that the nurses who do not negatively experience reality shock seem to have a different sense of time. They are not overly preoccupied with segmenting their professional actions into circumscribed eight hour blocks, nor are they so busy attending to immediate signs, symptoms and tasks that they lose sight of long-term patient care goals.

Therefore, sense of time is seen as a key, but little understood concept, which neutralizes the potential negative conflict between the values of professional education and the actual work experience and the resultant development of a sense of professional identity - the cornerstone underlying professional action and professional practice. In order to address the specific phenomenon of interest, namely the development of a sense of professional identity, a parsimonious set of underlying concepts was identified. Thus, the impetus underlying this study was the desire to examine the relationships between education, work experience, sense of time and the development of a sense of professional identity. These basic underlying concepts are depicted in Figure 1.

Justification of the Problem

According to Chinn and Jacobs (1978), "the development of theory is the most crucial task facing nursing today" (p. 1). Walker and Avant (1983) indicate that the increasing concern for delineating nursing's theoretical base has resulted "as nursing has come of age both as a profession
Figure 1  Basic_Underlying_Concepts
and a scholarly discipline" (p. 3). They further state that "commitment to practice based on sound reliable knowledge is intrinsic to the idea of a profession" (p. 4). It is the conviction of this researcher that an extension of this argument is also critically important. A commitment to the notion of a professional identity and its ultimate relationship to professional worth and nursing productivity must also be based on sound reliable knowledge. A critically important first step is the definition and measurement of the elusive concept of professional identity.

In all industrialized nations, productivity is a highly regarded economic measure. Worker productivity and containment of health service costs have clearly emerged as public policy issues in the 1980s. Productivity in nursing and other areas has been associated with job dissatisfaction and high turnover rates (Miner, 1977; Morishima, 1986; Simpson, 1985; Slavitt, Stamps, Piedmont, & Haase 1978, 1979). High turnover may result from a multitude of factors including economic disincentives to maintain full-time jobs, a lack of commitment to nursing as a life time career, "reality shock" experienced by new graduates as they leave the student role and enter the labor force, or a values conflict between professional educational goals and perceived bureaucratic, institutional goals (Cleland, 1982; Hinshaw & Atwood, 1984; Kramer, 1974). Time sense or temporal perspective may prove to be a significant moderating concept pertaining not only to professional
identity, but also to professional worth and productivity in nursing. Therefore, this study will focus on the relationships among the underlying concepts of education, experience, temporal perspective, and professional identity as a precursor to professional worth and productivity.

**Conceptual Model**

In order to construct a model to address the specific phenomenon of interest, namely the lack of congruence between professional nursing education and the development of an increasing sense of professional identity, the researcher extensively reviewed diverse bodies of theoretical and empirical literature. Based on this review, a conceptual model predicated on the holistic construct of expanding awareness of consciousness was developed. Assumptions underlying this theory development effort are as follows: 1) expanding awareness of consciousness is a reflection of human evolution and development; 2) expanding awareness of consciousness is associated with the life processes; 3) the totality of the life processes is holistic in nature and is defined in terms of perceived global wellbeing; 4) the development of a sense of professional identity is one of many life processes; 5) the development of a sense of professional identity is a reflection of expanded awareness of consciousness; and, lastly 6) an understanding of the life processes is an appropriate focus of nursing research (Donaldson & Crowley, 1978).

According to Bentov (1977) an understanding of
consciousness as the underlying assumption of any conceptual model which purports to address the phenomena of man and the universe is mandated if a sense of wholeness and purpose is to be achieved. He postulates that the direction of the life process is toward expanded consciousness. Within Newman's (1979) conceptual model of nursing, which is partially derived from Bentov's work, "health is viewed as the totality of the life process, which is evolving toward expanded consciousness" (p. 58). Health is not merely the absence of disease or complete psychosocial wellbeing. The "whole" of health is greater than and different than the sum of its parts. Bohm (1980) points out that "the word 'health' in English is based on an Anglo-Saxon word 'hale' meaning 'whole' ...this indicates that man has sensed always that wholeness or integrity is an absolute necessity to make life worth living" (p. 3). Therefore, a sense of global wellbeing would be one indicator of the construct expanding awareness of consciousness.

Bentov's model of expanded awareness of consciousness is a holistic attempt toward the understanding of the life processes in a four-dimensional space-time reality. According to Bohm (1980), as a result of "received" or "accepted theories" in science, a series of fragmented illusions has guided scientific explorations, and, as such, the nature of consciousness or reality has not been addressed as a coherent whole. However, Bentov's model is a rare exception to most of the prevalent views found in the literature.
According to Bentov time is another key concept in any holistic model of consciousness. He (1977) postulates that time may be conceptualized as a subjective phenomenon. Additional theoretical support for this notion is offered by Capra (1982) who indicates that time is much more than a socially construed, mechanical, or synchronized accounting system determined by an external source such as a clock. Time is a subjective phenomenon or experience that is intricately interwoven into an inseparable whole which always includes the observer in an essential way.

In Bentov's model, as in Newman's, the concept of space "is inextricably linked to the concept of time" (p. 61). The inextricability of this link is due in large part to the current theories prevalent in physics. Calder (1979), Capra (1984), Prigogine (1980, 1984), Toben and Wolf (1975), and Zukov (1979) suggest that based on the works of Einstein, the relativity of all measurements involving space and time has forced us to abandon the classical concepts of an absolute space and an absolute time (Newtonian time). Capra (1984) states, "In the new framework, space and time are treated on an equal footing and are connected inseparably. In relativistic physics, we can never talk about space without talking about time, and vice versa" (p. 155).

Other scholars have also addressed the importance of understanding the constructs of consciousness and time. Schaltenbrand (1967) states, "Consciousness ... is the
irreducible, fundamental source of all knowledge and of all science" (p. 633). He specifically addresses a conceptual link between consciousness and time. He acknowledges that the classical theory of time flowing in a unidirectional fashion from the past, through the present, to the future (Newtonian time) is extremely problematic in light of the recent theoretical developments in quantum physics. He also states that any conception of time must be regarded as a reflection of consciousness. Additionally, Straus (1967) suggests that time is an existential phenomenon and therefore defies quantification.

Although time has been categorized, classified, and compartmentalized by numerous scholars (Bentov, 1977; Cottle & Klineberg, 1974; Doob, 1971; E. Hall, 1984; Ornstein, 1969; Priestley, 1964; and Zerubavel, 1979, 1981), it remains elusive. Attempts to define time, whether by description, stipulation or operationalization have been fraught with difficulty. E. Hall (1984) presents a mandala or model of time and postulates that an existential/holistic time sense is functionally related to an absolute/linear or Newtonian time sense. He suggests that existential/holistic time is closer to the notion of philosophical and conscious time than is absolute/linear time.

Although different terminology is employed, conceptual congruence is noted in the works of E. Hall (1984) and Zerubavel (1979, 1981). Both authors concur that perceptions of time do vary and that this variation is a
result of man's evolutionary development and culture. They suggest that professional persons perceive time to be existential or holistic in comparison to occupational workers who perceive time in more absolute or linear terms. They attribute these differences largely to differences in role perceptions and role socialization. Role socialization to any profession occurs not only through the formal educational process but also through exposure to the influence of the practice arena. Therefore, because role socialization is an ongoing developmental process, it is anticipated that there will be differences in sense of professional identity and sense of time for people in different cohort groups, defined in terms of both professional nursing educational preparation and experience as a licensed, registered nurse. Therefore, this phenomenon regarding the differential development of a sense of time and professional identity as it relates to role socialization (cohort group status) will be addressed as a research question in this study.

In a discussion on different metaphysical axes of knowledge, Quinn and R. Hall (1983) state that existentialism and rationalism represent juxtaposed positions along a single axis. They suggest that with an existential orientation the focus of inquiry is usually viewed as an ever-evolving subjective phenomenon or process. This is in contrast to a rational orientation which is regarded as static and generated from more external
sources. Here the focus is "frozen in time and abstracted from its temporal context" (p. 283). So, while rationalism is associated with externally generated knowledge, Quinn and R. Hall state that existentialism is associated with "a person's unique capacity for knowing" (p. 282). This description of existential thought is congruent with what Bentov (1977) calls "intuitive leaps" or creative thoughts. He states that these intuitive leaps are indicative of expanding awareness of consciousness. Therefore, one may infer that existentialism, in contrast to rationalism, is associated with expanded awareness of consciousness.

In summary, based on the works of Bentov (1977), E. Hall (1984), Newman (1979, 1983), and Quinn and R. Hall (1983), the conceptual model developed for this investigation is considered to be an adequate and parsimonious model for addressing the phenomena of interest in this study. Variation in time sense or temporal perspective is conceptualized as being an important, but little understood, moderating concept which may help to explain the relationships between professional education, professional experience and the development of a sense of professional identity. Therefore, the specific problem statement of this nursing study is: What are the relationships between the concepts of professional education, professional work experience, temporal perspective, and professional identity? The specific aims of this study are to: 1) explore the relationships among the stipulated concepts;
2) postulate and test a priori hypotheses derived from theoretical and empirical generalizations; 3) explore an additional research question regarding role socialization; and 4) examine the usefulness of the synthesized model to facilitate the development of an applied middle range theory relevant to the profession of nursing.

**Definition of Terms**

Based on the construct, expanding awareness of consciousness, theoretical definitions of the key concepts of the model, shown previously in Figure 1 are as follows:

**Expanding Awareness of Consciousness.** Expanding awareness of consciousness is defined as a holistic construct which is conceptualized as the developmental life process, ever-evolving toward greater dimensions. Consciousness is the process whereby the development of awareness of self and environment as a totality is actualized. In this study, perceived global wellbeing is conceptualized to be one empirical indicator of broad scope for the construct expanding awareness of consciousness. Perceived global wellbeing is a holistic indicator of expanding awareness of consciousness which considers self and environment as a totality, an inseparable whole.

**Professional Identity.** Professional identity is defined as a multidimensional concept and is reflective of the internalization of a reference group's norms and values. As an empirical indicator, professional identity is a reflection of one's beliefs about the value of certain
characteristics to one's professional work life or practice. Professional identity is yet another empirical indicator of expanding awareness of consciousness, but is more narrowed in scope than perceived global wellbeing.

**Temporal Perspective.** Temporal perspective is defined as a holistic concept which is the subjective construction of experienced or lived time and is expressed either in absolute/linear terms or in existential/holistic terms. These two temporal perspectives, namely existential/holistic and absolute/linear, are conceptualized as being functionally related along a single continuum. Therefore, an existential temporal perspective is indicative of a higher level of expanded awareness of consciousness than an absolute/linear temporal perspective. Temporal perspective is an as yet unexplored moderating concept in this study.

**Professional Education.** Professional education is defined in this study as the formal process whereby one is exposed to the scientific knowledge, clinical practices, and reference group's norms and values via a formal program of higher education in nursing. A baccalaureate degree in nursing is recognized by the American Nurses' Association (1965) as the entry level, or initial exposure to, professional education in nursing.

**Professional Experience.** Professional experience is a highly complex and abstract concept which must consider both quantity and perceived quality of work experiences. Length of experience is an indicator of the quantity of experience
and is defined simply in terms of length of work experience as a licensed, registered nurse. Perceived quality of experience is defined in terms of the goodness of fit between one’s values/beliefs and the degree to which those same values are perceived to be present in reality in the current work setting. As defined, the two essential underlying, but different, aspects of professional experience, namely the quantity and perceived quality of one’s experiences in the work place are considered. This definitional approach to professional experience is more holistic than most other definitions reported in the literature. These other definitions largely address experience simply as length, amount, or quantity of work experience. In this study, however, both quantity and perceived quality of work experiences are considered.

**Research Hypotheses and Question**

In summary, the model developed for this study represents a hypothetico-deductive approach toward the beginning development of a theory directly relevant to the profession of nursing. Initially, the relationships between the concepts of education, experience, temporal perspective, professional identity, and perceived global wellbeing will be explored and tested with empirical data. Figure 2 depicts more fully the underlying concepts of this study and the hypothesized causal relationships among the concepts. Eight specific a priori hypotheses were generated by this conceptual model. In addition, one research question was
Figure 2  Hypothesized Relationships Among the Concepts of the Model Based on the Construct, Expanding Awareness of Consciousness.

- Professional Education
- Quantity of Experience
- Quality of Experience
- Temporal Perspective
- Professional Identity
- Perceived Global Wellbeing
also generated. The specific hypotheses to be tested in this investigation are as follows:

1) Education has a positive and direct effect upon: a) temporal perspective; and b) professional identity.
2) Quantity of professional work experience has a positive and direct effect upon: a) temporal perspective; and b) professional identity.
3) Perceived quality of professional work experience, defined in terms of perceived goodness of fit between one's values and their actualization in the current work setting, has a positive and direct effect upon: a) temporal perspective; b) professional identity; and c) perceived global wellbeing.
4) Temporal perspective has a positive and direct effect upon: a) professional identity; and b) perceived global wellbeing.
5) Temporal perspective has an indirect and weak positive effect upon perceived global wellbeing via professional identity.
6) Professional education has an indirect and weak positive effect upon perceived global wellbeing via temporal perspective and professional identity.
7) Quantity of professional work experience has an indirect and weak positive effect upon perceived global wellbeing via temporal perspective and professional identity.
8) Perceived quality of professional work experience has
an indirect and weak positive effect upon perceived global wellbeing via temporal perspective and professional identity.

In addition, one research question has been posed and will be addressed in this study as follows: Are there differences in temporal perspective, sense of professional identity, and the goodness of fit between one's ideals and their actualization in the work setting due to the role socialization process?
CHAPTER 2.

LITERATURE REVIEW

Literature related to the conceptual model developed for this study is presented as follows: First, the relevant literature related to the construct, expanding awareness of consciousness, is reviewed. This is followed by a review of the literature relevant to the construct of time because of the strength of the logical theoretical links between the two constructs. The next section will specifically address the concepts of the model, namely, perceived global wellbeing, professional identity, temporal perspective, professional work experience, and professional nursing education.

Consciousness

The conceptual model of this study is based on the construct expanding awareness of consciousness. Consciousness is a holistic phenomenon and is a primary characteristic of mankind which emerges at a certain stage in evolutionary development (Edelman & Mountcastle, 1978). Neurobiologists, neurophysiologists, and neuropsychologists consider consciousness to be a reflection of complex patterns of operation. Deikman (1971) suggests that there are discrete action and receptive modes of consciousness in man. The action mode is associated with: 1) the physiologic "fight or flight" phenomenon; 2) the sympathetic
nervous system; 3) psychological characteristics such as focal attention, object-based formal logic versus sensory responses, and heightened boundary perceptions; 4) beta wave electroencephalographic activity; 5) goal-directed behavior; and 6) the ability to plan for the future. In contrast, Deikman states that the receptive mode is associated with: 1) sensory inputs; 2) the parasympathetic or autonomic nervous system; 3) alpha wave electroencephalographic activity; and 4) diffuse attention and paralogical thought.

Ornstein (1977) also identified two major modes of consciousness. He postulates that they are complementary and not reducible to each other. He defines one mode as being analytic, rational, or verbal which engages in sequential operations. The other mode is defined as being intuitive or spatial and is diffuse in operation. Ornstein postulates that it is only through a holistic approach that considers the confluence of the two modes that awareness of consciousness and its potentials will be realized. Orme (1969) concurs and suggests that integrative functioning of the two modes of consciousness is bound up as awareness.

Tart (1975) proposes that consciousness is best understood as a complex componential system. He proposes that awareness, energy, and structure are interactive components within the human life process. He suggests that although component parts can be studied separately, the parts can only be understood when viewed holistically as a system of patterns. Therefore, an understanding of the life
processes or consciousness requires a holistic approach. Jung (1964) speaks of consciousness as a developmental process. He suggests that the human mind is a multidimensional and integrated pattern of processes of feeling, thinking, sensing, and intuitiveness. James (1961) concurs and suggests that consciousness is a complex phenomenon and elaborates further and states,

Our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different (p. 305).

Capra (1984) suggests that rational or analytic consciousness is derived from experiences with externally-based objects and events in the everyday environment. He further postulates that rational consciousness is an externally generated intellectual system of abstract concepts and symbols and tends to be dominated by a linear, sequential structure in which discrimination, division, comparison, and categorization predominate.

Capra (1984) and Ornstein (1977) concur in their belief that a careful study of Eastern philosophies and religions would increase our understanding about the nature of consciousness. Capra (1984) states that throughout history it has been recognized that the human mind was capable of two kinds of knowledge or thought, commonly associated with the two modes of consciousness. He suggests that these two thought modalities are often expressed as rational versus
intuitive thought and are usually associated with science, conditional or relative truth versus religion or transcendental truth. As mentioned previously in Chapter 1, this is congruent with Bentov’s (1977) discussion of consciousness and the postulated association between intuitive leaps and expanding awareness of consciousness.

The question of consciousness has even been discussed in relation to observations of atomic phenomena (Bohm, 1980). Heisenberg (1958) states, "what we observe is not nature itself, but nature exposed to our method of questioning" (p. 58). And Wigner (1970) states, "it is not possible to formulate the laws of [quantum theory] in a fully consistent way without reference to consciousness" (p. 172). In reviewing the literature on consciousness it becomes apparent that, in addition to the implied close relationship between consciousness and the life process, time is also a closely related construct.

Time

Time ... what is it? Shallis (1983) states "time is...one damn thing after another; an endless succession of events; time is a measure of change, the separation of events; time is a fleeting illusion. Time is" (p. 13). According to Shelley, as quoted in Doob (1971), "time is our consciousness of the succession of ideas in our mind" (p. 5).

Orme (1969) states that time factors are integral, basic components of the life processes and that consciousness or
awareness is time-occupying and appears to move steadily in time. Prigogine (1980) states that time has a wide variety of meanings including time as motion (dynamics), time as irreversibility (thermodynamics), and time as history (biology and sociology). He postulates that time and change are essential variables in problems related to sociocultural evolution and an understanding of man.

Bentov (1977), Capra (1984), Dunne (1927/1958), and Priestley (1964) also comment upon the variety of meanings associated with time and suggest that, when consciousness is viewed as the inseparable totality of the two modes of thought, that a radically different experience of space and time emerges. It now appears that man must grapple with the idea that time is relativistic and inextricably linked to spatial factors.

Zerubavel (1981) suggests that time is best understood as a sociotemporal phenomenon, a socially constructed artifact which is based upon arbitrary social conventions. In other words, time is a major parameter of hidden rhythms of social order. He (1979) further postulates that these rhythms of social order or organizational life have particular moral and cognitive dimensions which reach far beyond simple regulative functions. E. Hall (1984) suggests that time is culture, and although it is the most personal of all experiences, it is not well understood. He states that time is "how people are tied together and yet isolated from each other by invisible threads of rhythm and hidden walls" (p. 3).
Throughout history notions of time have changed (Fraisse, 1963; Fraser, 1966; Leach, 1961; Orme, 1969; Priestly, 1964; & Reigel, 1977). From man's earliest beginnings, time was reconciled according to the movement of the sun or one season turning into another. With the introduction of Newtonian mechanics, the notion of absolute time came to the forefront. Absolute or Newtonian time was conceptualized as being unidirectional, flowing steadily from the past through the present to the future, irrespective of anything else (Capra, 1982).

However, Doob (1971) suggests that past, present, and future are objectively undefinable relativistic terms and that man is forced to live in a subjective or psychological present. Leach (1961) suggests that attempts to represent time will result in one of the following three basic patterns: 1) as a line which is seen as going on and on; 2) as a wheel going round and round; or 3) as a pendulum going back and forth in a discontinuous sequence of repeated oscillations between polar opposites such as night and day. For both Doob and Leach, the time orientations referred to as past, present and future take on meaning only in relation to one another.

According to Einstein's theory of special relativity and successive developments in quantum physics, the only constant in our four-dimensional world is the speed of light (Calder, 1979; Shallis, 1983; Zukov, 1979). Therefore, in order to make sense of everything else, other aspects of the
universe, including time, must be allowed to vary (Capra, 1984). However, time as a research variable is difficult to operationally define and measure.

Time remains an elusive phenomenon of interest (Capra, 1984; Nova, 1980; Reigel, 1977; Schlesinger, 1980; Shallis, 1983; Zerubavel, 1979; Zukov, 1979). It is obvious that people experience life within the context of time. However, time is not simply a contextual backdrop against which other things occur (Moore, 1963; Newton-Smith, 1980). Time is much more than an accounting system determined by an external mechanical source such as a clock. It is a subjective experience or phenomenon that is intricately interwoven into an inseparable whole which always includes the observer in an essential way (Capra, 1984).

The ways in which men subjectively experience time have been classified by a number of scholars (E. Hall, 1984; Zerubavel, 1979, 1981). Zerubavel suggests that the two key dimensions of time are existential/holistic and absolute/linear or Newtonian time. He contends that the way in which a person experiences time is an important element in the way life experiences are perceived. E. Hall (1984) concurs and both authors further suggest that different people subjectively experience time differently.

Experiences of time have changed over the ages as a function of evolution and development. According to Doob, E. Hall, and Zerubavel, different people experience time differently as a result of cultural and social factors.
Doob (1971) states that temporal perspective is a subjective phenomenon because any awareness of it is a personal one which seems to defy complete explanation. Time as it is "felt" or experienced is not easily communicated.

Doob (1971) develops an elaborate taxonomy of time which considers multiple factors which he considers essential to understanding the complex phenomenon of time. He postulates that temporal orientation to past, present, and future is a matter of degree or magnitude and is largely a cultural artifact. He suggests further that temporal orientation develops slowly through socialization. Doob further postulates that as one achieves higher levels of self-awareness (or consciousness) that one begins to feel a sense of continuity to time.

Meerloo (1954) also addresses the subjective relativity of the terms past, present, and future and the subjective nature of time. According to Meerloo however, time sense is more than the ability to measure time (objective time), it is a basic, underlying attribute of human organisms. Meerloo states, "sensed time is a conglomerate of different perceptions and different concepts" (p. 119) and that it must be considered as a whole. In contrast to Meerloo's emphasis, Doob's emphasis on temporal orientation being a "learned" experience is certainly congruent with E. Hall and Zerubavel, who both suggest that professional persons perceive time to be existential or holistic in comparison to non-professionals, or occupational workers, who perceive
time as absolute or linear. They attribute these differences largely to role perceptions and role socialization.

However, because of the elusive and enigmatic nature of the broad construct of time, considerable difficulty in trying to operationally define and measure time as a discrete variable has ensued. According to Ornstein (1969), reported research related to the phenomenon of time dates back to the late 19th century in the field of psychology. Although many studies have been done in the past 100 years, relating time to cultural, sociological, psychological, and physiological variables, there is no obvious unifying perspective which has facilitated cumulative knowledge. Findings and conclusions from studies across disciplines are largely unrelated and have limited generalizability. Therefore, the empirical literature most relevant to temporal perspective as defined in this study will be presented in the following section of this chapter which specifically addresses temporal perspective as an underlying endogenous variable.

In summary, consciousness and time are two essential constructs to consider when developing a holistic model for understanding the life processes. Perceived global wellbeing, professional identity, temporal perspective, professional work experience, and professional nursing education are the specific concepts in the model developed for this study. The relevant literature related to these concepts will be explored in the following sections.
Wellbeing.

Attempts to theoretically clarify and/or operationally define health and wellbeing have been widespread (Baranowski, 1981; Bruhn, Cordova, Williams & Fuentes, 1977; Dunn, 1971; Egbert, 1980; Keller, 1981; Maslow, 1962; McClure, 1982; Newman, 1979, 1983; Schlenger, 1976; Smith, 1981; & World Health Organization, 1947). However, there is a lack of agreement as to what health and wellbeing precisely mean. Therefore, careful analysis is mandated in order to address the question of whether or not health and wellbeing simply represent two different labels for the same concept or two discretely different concepts.

Smith (1981), utilizing the philosophical method of inquiry of critical analysis, suggests that the scope of the model through which any concept is addressed, impacts on its definition. Smith concludes that there are four basic underlying theoretical models which address the concept of health. She demonstrates that the clinical model, the role performance model, the adaptive model, and the eudaimonistic model are of varying scope. It is within the eudaimonistic model that the ideal of health is extended to include a sense of general wellbeing and self-realization or actualization. Furthermore, the eudaimonistic model is oriented toward change, growth, and development and is, therefore, a process model versus a static model.

Newman (1979, 1983) also conceptualizes health as a process. She (1983) states that health must be viewed as the
totality of the life processes which is "a developing awareness of self and environment together with increasing ability to perceive alternatives and respond in a variety of ways" (p. 164). She contends that conceptualizing health and illness as polar opposites along a continuum is inadequate. She (1979) states,

What is needed is a synthesis of the concepts of health and illness. This view is based on Hegel's dialectical process of the fusion of opposites: one state of being unites with its opposite and brings forth a synthesis of the two. Applying this process to health and illness, there is, on the one hand, a condition specified as disease and, on the other hand, its opposite, which will be called non-disease. The fusion of the two concepts brings forth a synthesis, which can be regarded as health (p. 56).

From this passage it is evident that Newman initially equates health with non-disease in juxtaposition to illness which is equated with disease. Unfortunately, she also calls the new synthesized concept which emerges from the dialectical fusion "health." It appears that Newman's use of the label "health" for the broader synthesized concept is equivalent to what most other authors label "wellbeing."

Egbert (1980) and McClure (1982) address the concepts of wellness and wellbeing respectively. Common critical attributes identified by both authors include: 1) a sense of an integrated whole; 2) a purposive and meaningful life; and 3) a sense of harmony or oneness in life and these attributes are congruent with Newman's postulates.

Bruhn, Cordova, Williams, and Fuentes (1977) state that, health is a static or defensive posture, a state of being
along a continuum whereas wellness is a process that continues in time. They state, "...wellness is active; it depends upon a person's initiative and requires a person's action, movement, development, decisions, and value judgments..." (p. 211). They explain that wellbeing or wellness is "a continually evolving and changing process..." (p. 209).

In addition to the debates regarding health and wellbeing, wellbeing has also been variously defined as life satisfaction, happiness, and/or quality of life (Andrews & Withey, 1976; Boulding, 1985; Bradburn, 1969; Campbell, Converse, & Rogers, 1976; Dalkey, 1972; Gurin, Veroff & Feld, 1960; Liange, 1984; & Neugarten, Havighurst, & Tobin, 1961). Brett (1982) states that wellbeing is a wholly subjective construct and can be assessed by asking people to describe how they feel about their lives.

Concurrent with these theoretical discussions has been the recognition that empirical indicators are needed which consider the subjective nature of the concept. Bharadwaj and Wilkening (1977) note that perceived wellbeing is a concept of considerable interest to social scientists and public policy makers. They suggest that there has been a growing concern that objective indicators are inadequate as measures of wellbeing. They state, "...the objective indicators tell us more about quantity than quality of life" (p. 242).

According to the Work in America (1973) report,
discontent among workers at all levels is evident and results from the fact that the workplace has not changed rapidly enough to reflect the changing attitudes, aspirations, and values of workers. Boulding (1985) states that these attitudes, aspirations, and values are associated with a desired quality of life. Landen (1977) suggests that the quality of work has a direct effect upon people's attitudes, perspectives on life, and upon their feelings about themselves. However, the specific nature of the relationship among the concepts is not clear in his theoretical discussion. Based on a synthesis of employee attitude surveys over a 25 year period, Cooper, Morgan, Foley and Kaplan (1979) also show that values among workers were most definitely changing, but, again, the directionality of the influences is not clear.

Kanter (1978) identifies two emerging themes as manifestations of changing social values. Partially in response to the demands of labor unions (Bluestone, 1979), the first theme identified is a concern for jobs as a source of meaning in life. This theme includes the expectation that jobs should provide psychological fulfillment and improvements in the quality of life outside of work.

In fact, the first program directed at "humanizing the workplace or improving the quality of work life" (Fraser, 1981, p. 8) was adopted between the United Auto Workers union and General Motors Corporation as a joint union-management effort in 1973. The second theme
identified by Kanter is a concern for individual rights at work which Yankelovich (1979) suggests is a function of a "new breed" of workers. In response to this new breed of workers, the emphasis on quality of worklife has received considerable attention by both labor and management scholars.

Quality of work life is a multivariate concept which subsumes many dimensions (Mills, 1978). The majority of the dimensions identified by Mills are closely parallel to Schmitt and Bedeian's (1982) "job scope variables," which are defined as having a direct influence on job satisfaction and an indirect influence on life satisfaction via job satisfaction. The dimensions associated with a sense of worth and dignity, as identified by Mills, are closely related to the self-esteem factor identified by Schmitt and Bedeian (1982). Schmitt and Bedeian report that self-esteem has a direct influence on life satisfaction and an indirect influence on job satisfaction via life satisfaction. In summary, success in the workplace is no longer enough to satisfy the desire for self fulfillment and a rich, full life. Yankelovich (1979) states that workers want full employment and full enjoyment - that these two together are reflective of the desired quality of life.

Although many studies have been done purporting to link various situational, organizational and technological work related variables to wellbeing, the reported results are inconclusive. This is due to differences in: 1) assumptions
and theoretical models used to guide the inquiries; and 2) methodologies either in terms of the design, sampling, or data analysis. Broadbent and Gath (1979) suggest that the empirical research done is plagued with being unable to distinguish cause from effect. McMichael (1978) concurs and states that methodologic pitfalls are of greatest concern. Kasl (1978) also criticizes the "plethora of hopeless cross-sectional studies which attack extremely complex issues with the weakest of research designs" (p. 36).

A notable exception was a study reported by Parkes (1982). Parkes (1982) utilized a naturalistic setting that allowed direct comparison of the effects of two different settings (a medical and a surgical nursing unit) on the perceived wellbeing of the same subjects (student nurses). Parkes found that the kind of nursing unit had a statistically significant effect on perceived wellbeing. Perceived wellbeing in her study was defined as positive mental health as measured by standardized psychiatric scales. The data analysis done was based on within subject differences which controlled for many of the confounding effects frequently associated with cross-sectional studies.

A number of studies have also been done in which life and job satisfaction are related. Near, Rice, and Hunt (1980) suggest that inconsistent empirical findings are primarily the result of postulated unidirectional causal hypotheses. However, as mentioned previously, Schmitt and Bedeian (1982) tested a causal model in which they proposed
reciprocal causation between job satisfaction and life satisfaction. They stipulated that life satisfaction was directly determined by marital status, self-esteem, locus of control, and job satisfaction. Job satisfaction, on the other hand, was directly determined by "job scope variables" (p. 807) such as autonomy, skill variety, task significance, feedback, and also life satisfaction. Support for the hypothesized reciprocal relationship between job satisfaction and life satisfaction was validated through two-stage least squares analysis or analysis of linear structural equations, frequently referred to as LISREL analysis.

Andrews and Withey (1976) suggest that, in order to address quality of life, "attention not only to the physical and technological aspects of living but also to how conditions of life are perceived and evaluated by individuals" (p. 23), is necessary. As such, perceived global wellbeing is an empirical indicator of the quality of life or the life processes.

Andrews and Withey (1976) present a conceptual model of wellbeing which emerged from their extensive review of the literature. The major sources of empirical data included in the analyses done by Andrews and Withey included the following: 1) four national sample surveys of adult Americans with sample sizes ranging from 1,072 to 1,433 respondents, each of which used distinct batteries of interview items; 2) a local level midwest survey of 222
adult Americans that used an extensive questionnaire; and 3) reinterviews of 280 respondents of one of the previously mentioned national surveys.

As a result of extensive analyses, Andrews and Withey (1976) conclude that as a phenomenon, wellbeing occurs at several levels of specificity. Individual, specific life concerns may be assessed in terms of both domains and criteria. Domains of life are defined as places, things, activities, people, and roles. Criteria are defined as values, standards, aspirations, or goals and are evaluated in terms of judging what the domains of life afford. Examples of criteria include such considerations as competency, the ability to meet one's needs, fairness of life, and the ability to derive fun or enjoyment in life. The matrix model which resulted from the combined consideration of domains and criteria facilitates a holistic understanding of global wellbeing.

Global indicators were also identified by Andrews and Withey and were found to be comparably as good as a larger battery of individual life concerns in explaining perceived wellbeing. Global indicators are reflective of an assessment of life as a whole. In addition to the extensive modeling analyses reported by Andrews and Withey regarding the global indicators of wellbeing, Withey (personal communication, April, 1985) states that although we don't really know how or why, it is evident that people keep a continually changing mental regression equation in their
minds at all times. He further states that people can and do hold a global perspective of wellbeing in mind and it is a subjective reflection of reality as they experience it. According to results reported by Andrews and McKennell (1980), the empirical global indicators of wellbeing, as measured by the two items called Life 1 and Life 2 met the challenge of assessing both cognitive and affective elements considered to be essential attributes of a global perspective of life as a whole.

Perceived wellbeing of employed nurses, as an indicator of overall life satisfaction, is of considerable concern to nursing administrators and the nursing profession. This concern is predicated on the fact that many authors suggest that job satisfaction is a key to high productivity (Cushman, 1981; Shioji, 1969; Walker, 1983). Walker (1983) conceptually links satisfaction among nurses to the delivery of quality patient care. Hinshaw and Atwood (1984) also suggest that lack of job satisfaction is a continual problem plaguing nursing and impeding the delivery of professional nursing care.

Empirical studies addressing nurses' overall wellbeing are markedly absent in the empirical literature. This may be due to the fact that, even in studies of a narrower scope which address satisfaction, the findings are difficult to interpret due to differences in the stated definitions of satisfaction. There is an obvious lack of agreement as to whether job satisfaction is a unidimensional or
multidimensional concept (Fraser, 1983; Gruneberg, 1979; Herzberg, 1968; Kahn, Wolfe, Quinn, & Snoek, 1964; Pascarella, 1984). Also, the validity of tools purporting to measure satisfaction is difficult to establish. Job satisfaction is usually considered to be an attitude and as such, even if content validity can be reasonably established, construct and criterion validity are more difficult to establish, as suitable behavioral criteria can rarely be adequately specified (Smith, Kendall, & Hulin, 1969).

In light of these ongoing debates, and the results and recommendations made by Andrews and Withey (1976), job satisfaction per se is of too narrow scope to be a holistic indicator of consciousness. Instead, the more holistic concept, perceived global wellbeing, as an indicator of expanding awareness of consciousness, will be used in this study.

**Professional Identity.**

Professional identity has most often been addressed by sociologists as a developmental process (Etzioni, 1969; Katz, 1969; Merton, 1958; Pavalko, 1971; Strauss, 1963; Wilensky, 1964). The result of these early theoretical discussions on professional identity was the development of numerous taxonomies or lists of attributes or characteristics which reflect the "essence" of professional identity (Abrahamson, 1967; Carr-Saunders & Wilson, 1934; Goode, 1960, 1969; Greenwood, 1957; Hall, 1968; Moore, 1970; Pavalko, 1971; Styles, 1982a).
With a high degree of consistency, the taxonomies relative to professional identity minimally include the following attributes: 1) specialized education and expertise; 2) autonomy; 3) commitment, and 4) societal responsibility for the maintenance of standards of performance (Strauss, 1963). Pavalko (1971) elaborates upon the basic taxonomic structure and presents a heuristic model for understanding the nature of professionalization, or the process of assuming a sense of professional identity. He states that there are eight underlying criteria in the process of professionalization. Pavalko contends that it is the attainment or lack of attainment of each of these following eight criteria which determines where an occupation is located on the continuum of professionalization:

1) the need for a systematic body of knowledge and theory on which work is based and on which its claim to expertise rests;

2) the need for a social utility such that people in times of crisis turn to professionals who have basic social values relevant to the area of expertise;

3) the need for specified training which allows for the transmission of a systematic body of knowledge (manipulation of ideas and symbols) and not just skills (things, objects and routinized operations);

4) the desire to best serve their clients rather than being motivated by personal self-interests for monetary gain;
5) the need for autonomy to first, organize collectivities in order to control matters related to all members, as well as allowing for self regulation and control by individual practitioners;
6) the need for a sense of long term commitment on the part of individual members;
7) the need for a sense of common identity and destiny with shared values and norms; and
8) a code of ethics which serves as a normative system to assure clients and society of the highest level of performance.

Freidson (1972), Johnson (1972), Klegon (1978), Larson (1977), Hall (1982), Roth (1974), and Styles (1982a, 1982b) indicate that the early taxonomic focus is extremely limiting and can not be readily translated into useful middle-range theories. Hall (1982) concludes that middle-range theories of influence and power would be more fruitful. Hall (1982) states that there is nearly,

...consensus that power is the critical defining characteristic. Power provides a profession with the capacity to have legislation passed which protects its areas of practice. Power provides the capacity to establish agreed-upon credentials. Power provides the capacity to demand and receive reasonable levels of compensation (p. 13).

Styles (1982b) also suggests that power is a critical attribute underlying any theoretical discussion of professionalism. She states,

...the clarion call of the new professionalism is that in an intensely complex, highly political, uncertain
age, power does not come from viewing ourselves as an autonomous, self-contained, closed system, but from reaching out to all segments of society for support and validation (p. 25).

However, Styles (1982a) wisely cautions us that before one "can turn outward with vigor and positive effect" (p. 4) in terms of power and influence strategies, one must be secure in one's professional identity.

Hardy and Conway (1978) and Styles (1982a) suggest that a sense of professional identity must be predicated upon an explicit belief or value system, a manifesto or a social contract. Although this underlying belief is reflected in numerous empirical studies done under the rubric of a role conception model (Corwin, 1961; Corwin & Taves, 1962; Dreessen-Kinney, 1985; Habenstein & Christ, 1955; Ketefian, 1981, 1985; Minehan, 1977; Pieta, 1976), their usefulness is questionable. The validity of the common trichotomization of role conception into bureaucratic, professional, and service role conceptions is highly suspect in terms of construct validity.

It is critical that the ideologic basis of nursing's professional identity provides the general direction for professional policy and action (Styles, 1982a). Therefore, it is imperative that any attempt to study, define, and measure professional identity be based on the explicit belief or value system of the reference group. As such, a notable exception is found in the work of Miller and Polentini (Miller, personal communication, February 20, 1985).
Miller and Polentini have developed a tool with face or content validity, which may be used to measure professional identity, which is based on the 19 characteristics of a professional practice climate in a nursing department as outlined by the Task Force on a "Nursing Practice Climate - A Professional Model" and expanded upon in the American Nurses' Association (ANA) publication, *Standards for Organized Nursing Services* (1982). The Miller and Polentini tool is reflective of all the dimensions of professional practice as suggested by the ANA *Code for Nurses* (1976), the ANA *Standards of Nursing Practice* (1973), State nurse practice acts, and the recommendations of the Joint Commission on the Accreditation of Hospitals. Because the Miller and Polentini tool has been developed only recently, no empirical studies have been reported in the literature regarding the reliability of the tool. However, such studies are critically important because, as Styles states, professional policy and action must be predicated upon the ideologic basis of nursing's professional identity.

In summary, the Miller and Polentini tool appears to have great promise in regard to being a valid and reliable tool to measure professional identity. The ideologic basis underlying the tool is the explicit belief and value system of the professional nursing association, the American Nurses' Association, and as such will be utilized in this study. Professional identity is believed to be an indicator of the highly abstract construct, expanding awareness of
consciousness. Additionally, professional identity is conceptualized as being of narrower scope than perceived global wellbeing, as it focuses on just those characteristics relevant to "work life" versus life in general.

Temporal Perspective.

Attempts to theoretically define time are abundant in the literature. Temporal perspective, temporal experience, temporal orientation and temporal perception are just four of the terms found in the literature and it appears that the theoretical and operational definitions given to the terms differ from one study to another.

Temporal orientation or temporal experience has most frequently been defined either in terms of duration (length of experience) or perception of the speed of time. However, even in relation to duration there are differences in theoretical definitions. Many scholars suggest that the estimation of time as it is passing (concurrent measure) is different than the recollection of a past time or experience and its estimated duration (Bentov, 1977; Meerloo, 1954; Wallis, 1962; Capra, 1984). This problem is further compounded when the durational experience is conceptualized as a subjective, internal phenomenon, but is then anchored to an external, mechanical, objective measure of time, such as the amount of time elapsed on a precision instrument.

Durational perception is extensively examined in relation to the effects of variables which alter the
internal state of a person. Physiologic changes (e.g. biochemical, hormonal, and metabolic) are associated with changes in perceptions of the speed of time (Alderson, 1974; Fischer, 1967; Goldstone, 1967; Hoagland, 1933; & Isenberg, 1986). These studies generally support the notion that internal, physiologic changes determine in part one's perception of the speed of time passing. An increase in perception of time passing more quickly is usually associated with increased metabolic activity or body temperature. It is hypothesized that an individual's internal clock is "faster" than a mechanical, external clock resulting in inner time units being shorter than external units with the resultant subjective experience of time flying.

Newman (1972, 1976, 1982) and Tompkins (1980) both address perceived duration and its relationship to movement. Both researchers associate perceived duration with the increased expenditure of energy (muscular activity) which is required when subjects experience a change in preferred rate or ability to walk. These studies suggest that the relationship between time perception and movement is not solely a subjective one, but may result secondary to an internal process of muscular activity.

Temporal experience has also been related to a wide range of environmental variables such as time of day (Stephens & Halberg, 1965) and sensory stimuli (Ornstein, 1969; Smith, 1975, 1979). Additionally research on temporal
experience, as it is related to and/or derived from developmental psychological theories are prevalent. In these studies, temporal experience is usually defined as orientation to past, present, and future.

Bonier and Rokeah (1957) found that people who are highly dogmatic give more future oriented responses than persons scoring low on dogmatism. Teahen (1958) related high achievement and high optimism to people who are more future oriented than to low achievers. McClelland (1961) also found that high achievers more often speak in terms of future tenses than low achievers when taking the Thematic Apperception Test. Shybut (1970) noted that college students demonstrating high ego strength are able to tolerate longer waiting periods in instances of delayed choice preferences than low ego strength students. In addition, Shybut found that those students with high ego strength have a more extended median time perspective.

Knapp and Garbutt (1958, 1965) relate time imagery to the achievement motive utilizing the Time Metaphor Test which they developed. The Time Metaphor Test is a 25 item tool consisting of metaphors commonly used by poets and authors to describe time. They found that high achievers prefer time images which are dynamic over naturalistic images of time. Their study was done on a college age population. Wallach and Green (1961) relate the subjective speed of time to activity. They found that age appears to be an important intervening variable in that older subjects
describe time as passing more swiftly than younger subjects. Their subjects ranged in age from 18-20 years in the younger group and in the older group the median age was 71 years. They found that the importance which time has for an individual is a function of age. They conclude that age was the crucial determinant of the subjective speed of time and not activity level as originally hypothesized.

Orme (1969) and E. Hall (1984) both utilize a case study methodology and address the relationship between speed of time perception and culture. Additionally, Leshan (1952) related time orientation to social class. He concludes that, based on child-rearing practices and the greater time span of the action in stories told by children of three social classes, that there are differences in time orientations between lower-lower class, lower class, and middle-class children. Cottle (1976) did a number of different studies and suggests that perceptions on time may differ qualitatively because of underlying psychological factors. Meerloo (1954) discusses a study done by Cohen in 1949 which addresses unemployment. Cohen postulates that unemployment can destroy one's time sense because the rhythm of work is lacking and rhythm is time. Cohen states that a daily wage results in a daily time orientation and that by manipulating the wage time span one can manipulate one's time sense. Obviously, there is not clear consensus on whether time perception is an inherent psychological factor or a manipulatable factor. However, based on the works of
E. Hall, Zerubavel, and Cohen, there appears to be some support for the notion of temporal perception as a "learned" phenomenon.

Age and time perception has been addressed by many nurse researchers, including Fitzpatrick (1975), Fitzpatrick and Donovan (1978), Johnston (1980), and Rawnsley (1977). Fitzpatrick (1975) found that in general, the tendency of subjects in a fairly homogeneous, healthy adult population was to overestimate temporal intervals when comparing a subjective estimate to the actual passage of external time. Fitzpatrick and Donovan (1978) note that institutionalized aged subjects are more past oriented in comparison to non-institutionalized aged subjects who are more present oriented. Fink (1957) also found that institutionalized aged tend to focus on the past. Johnston (1980) found that temporal perceptions show a consistent directional trend across the life-span. The population studied by Johnston consisted of essentially healthy adults between the ages of 18 to 90 years of age. Rawnsley (1977) reports that future time orientation decreases with age.

Time perception is also associated with a wide variety of psychiatric variables (Edelstein, 1972; Meerloo, 1954; Orme, 1969). Fitzpatrick (1980) found that suicidal individuals seem to place more emphasis on the extended present or relatively immediate future, such as may be defined in terms of hours or days, than on the present "now." These individuals express negativity about the
present and rate their happiness as low. Time seems to pass neither rapidly nor slowly as reported by the subjects.

Ference (1979) and Moore (1981) address the relationship between temporal perception and cognitive variables, namely creativity traits and perceptual complexity of long term storage of information in memory, respectively. Schorr (1982) postulates that dominance of the action mode of consciousness is related to a future time orientation based on the assumption that a future time orientation is associated with object-based formal logic and goal-directed behaviors versus sensory characteristics. However, this hypothesis was not supported by the empirical data. Schorr concluded that additional research was needed which considers the affective mode of consciousness and the affective aspects of temporal orientation.

The ability to draw conclusions from the myriad of individual studies reported in the literature is quite limited. This problem is due, in part, to the confusion of subjective time experiences being measured via objective external means. Generalizability is further limited by the nature of the sampling procedures used and a fairly consistent lack of replication studies. Of additional concern is the lack of consistency of use of instruments to get at subjective notions regarding temporal perceptions or experiences. Fitzpatrick (1980) nicely summarizes the present situation:

Analysis of previous research on temporal experiences indicates that terminology, methodology and
comparability are complex. The various terms used in the literature include time perception, time estimation, overestimation of time, underestimation of time, time sense, time focus, time attitudes, time flow, temporal perspectives, temporal orientation, and temporal extension. The methodologies and the definitions utilized are very different. The problems are intensified when one attempts to distinguish subjective experience of time as a characteristic of the individual and understanding of linear time, or clock time (p. 150).

Based on the review of the literature, temporal perspective as previously defined in this study is a holistic concept which addresses time sense as a subjective phenomenon. Temporal perspective is defined in terms of a preference for an existential/holistic perspective versus an absolute/linear perspective. This conceptualization of temporal perspective is different than other definitions found in the literature. An absolute temporal perspective is associated with object-based formal logic or the dominance of the action mode of consciousness. In contrast, an existential temporal perspective is associated with paralogical, religious, or intuitive thought (Bentov, 1977; Capra, 1984; Dunne, 1927/1958; Leach, 1961; Meerloo, 1954). Therefore, the dominance of the receptive or intuitive mode of consciousness is implied. The dominance of this mode of consciousness is believed to be an indicator of higher levels of consciousness than is a dominance of the action mode (Bentov, 1977; Capra, 1984; E. Hall, 1984).

Professional Work Experience.

Professional work experience is a complex highly abstract concept which must consider both quantity and perceived quality of professional nursing work experiences.
Most frequently, nursing work experience has been defined simply as the quantity, amount, or length of experience as a licensed, registered nurse. This is inadequate though as a holistic indicator because it addresses only one underlying dimension of the highly abstract concept of work experience. Various attempts to define the subjective nature of nursing work experience in terms of qualitative aspects have primarily been based on a role conception model (Corwin, 1961; Corwin & Taves, 1962; Davis & Olesen, 1964; Habenstein & Christ, 1955; Ketefian, 1981, 1985; Kramer, 1974; Kramer & Baker, 1971; Minehan, 1977; Pieta, 1976; Smith, 1964). However, the construct validity of the commonly cited trichotomous role conception model is highly suspect. This model suggests that the nature of nursing or work experience can be defined in terms of the following role conceptions: 1) a service-humanistic-traditional calling; 2) a bureaucratic loyalty orientation; or 3) a professional orientation in which the nurse's loyalty is to "the profession" and transcends any particular employing institution's rules and regulations.

Although the nature of nursing work experience has remained an elusive concept and has not been clearly defined, it has been repeatedly associated with job satisfaction/dissatisfaction, turnover, and incentives for nurse employment (Carlsen & Malley, 1981; Cassells, Redman, & Jackson, 1986; Deets & Froebel, 1984; Hinshaw & Atwood, 1984; McCloskey, 1974; Slavitt, Stamps, Piedmont, & Haase, 1984;
"Professionalism" appears to be a critical factor relative to defining nursing work experiences (Deets & Froebe, 1984; Wandelt, Hales, Merwin, Olson, Pierce, & Widdowson, 1980). However, considerable work is still needed to clearly explicate the specific variables which contribute most to the professionalism factor (Deets & Froebe, 1984) and a qualitative definition of nursing work experience.

A review of the management literature clearly indicates that work experience is not a simple entity in and of itself, but a complex interrelationship of tasks, roles, responsibilities, interactions, incentives, and rewards. Additionally, considerable attention has been focused upon workers' attitudes and perceptions toward work and the workplace (Herzberg, 1966; Herzberg, Mausner & Snyderman, 1959; Homans, 1961; House & Rizzo, 1972; Likert, 1961; Locke, 1969, 1976; Mayo, 1933/1960; Porter, 1961a, 1961b, 1962, 1963a, 1963b; Roethlisberger & Dickson, 1939; Smith, Kendall, & Hulin, 1969). Locke (1976) suggests that one of the most efficacious ways to study jobs or work experiences is in terms of the value which a person ascribes to the various components. He states that values are subjective and are standards in a person's conscious or subconscious mind which one desires, wants, or seeks to attain through one's work. As such, quality of work may be defined as a function of value attainment (Herzberg, Mausner, & Snyderman, 1959; Likert, 1961; Locke, 1969, 1976; Porter, 1961a, 1961b, 1962, 1963a, 1963b).
Therefore, perceived quality of work experience in this study is defined in terms of the goodness of fit between one's values/beliefs and the degree to which those values are perceived to be actualized in the current work setting. The goodness of fit is an indicator of the perceived quality of the work experience. Greater amounts of discrepancy are associated with perceptions of a lack of quality in the current work setting.

**Professional Nursing Education.**

Professional nursing education is the formal process whereby one is initially exposed to the scientific knowledge base, clinical practices, and the reference group’s norms and values. As a formal process, it is attained via a program of higher education in nursing. A baccalaureate degree in nursing is recognized by the American Nurses’ Association as the entry level of professional education in nursing. Professional nursing education in this study is minimally defined by current enrollment in the junior year of an accredited, generic baccalaureate program in nursing.

Extensive support for the requirement of specialized education and expertise, as an essential, distinguishing attribute of any profession, is found in the literature (Abrahamson, 1967; Carr-Saunders & Wilson, 1934; Goode, 1960, 1969; Greenwood, 1957; Hall, 1968; Moore, 1970; Pavalko, 1971; Styles, 1982a). Further support for the baccalaureate degree as the foundation of a professional education is also found in the literature (American Nurses’
Association, 1965; Etzioni, 1969; Katz, 1969; Pavalko, 1971). Pavalko aptly states that there is the need for a systematic body of knowledge and theory, which includes the manipulation of symbols and ideas, upon which practices are based and upon which claims to expertise rest. It is not enough to simply have specialized training which focuses on skills and routinized operations. Therefore, the baccalaureate degree is conceptualized to represent the entry level of professional nursing education in this study.
CHAPTER 3

METHODOLOGY

This ex post facto study was designed to identify and describe the relationships among the study variables of perceived global wellbeing, professional identity, temporal perspective, professional work experience, and professional education. A priori hypotheses were derived from the synthesized conceptual model developed to guide this study and were tested using statistical modeling techniques. Additionally, the research question raised in this study was tested utilizing the statistical techniques of analysis of variance and related post hoc analysis.

The chapter is organized as follows: First, sampling considerations and characteristics of the study sample are presented. This is followed by the section on the research design employed and causal modeling considerations. Following is the discussion of the instruments utilized and the identification of the specific empirical indicators selected to measure the variables of the model. The data collection procedures used and human subjects considerations are presented in the next section. The chapter closes with a discussion of the data analysis techniques utilized, including analysis of variance and causal analysis (path analysis).

Sampling

Initial attempts were made to contact Deans or Directors
of 10 baccalaureate and/or master programs in two Midwestern states. Two Deans or Directors indicated that they would be unable to cooperate in contacting potential subjects. One school was already involved in a number of research projects involving their students and recent graduates. Another Dean indicated an interest in contacting potential students but was precluded from doing so in a timely manner due to inadequate human resources. Of the 10 schools approached, eight (80%) participated in the initial sampling step, providing access to the pool of subjects for this study. Four of the schools facilitated access to current generic and recent generic baccalaureate nursing graduates and four schools facilitated access to current and recent master nursing graduates. All of the programs were accredited by the National League for Nursing. Therefore, the intended target population, to which results may be generalized, is students and recent graduates from National League for Nursing accredited generic baccalaureate and master programs in nursing.

A convenience sample of voluntary subjects was drawn from six cohort groups, which varied student/graduate status, years of professional nursing education, and indirectly, years of professional work experience following licensure as a registered nurse. The cohort groups were specified as follows:

1) current status in the junior year of a generic baccalaureate program (0.5 years of professional
nursing education, in addition to a minimum of 14 years of previous formal education);
2) status as a May-June 1985 generic baccalaureate graduate (2 years of professional nursing education, in addition to a minimum of 14 years of previous formal education);
3) status as a 1983 generic baccalaureate graduate (2 years of professional nursing education, in addition to a minimum of 14 years of previous formal education);
4) current status as a first year masters student (0.5 years of professional graduate nursing education, in addition to a minimum of 16 years of previous formal education);
5) status as a May-June 1985 Masters graduate (2 years of professional graduate nursing education, in addition to a minimum of 16 years of previous formal education); and
6) status as a 1983 Masters graduate (2 years of professional graduate nursing education, in addition to a minimum of 16 years of previous formal education).

The voluntary participation of the subjects was secured through a two-stage mailing process. The Deans or Directors agreed to contact all students in the stipulated cohort groups to invite them to consider participation in the study. The initial contact to the students/graduates through the Deans/Directors was necessitated by State laws which precluded the release of student's names and addresses
directly to the researcher. A double postcard format (Appendix A), informing the students of the study (card 1) and a return card addressed to the researcher indicating their willingness to be contacted further about the study (card 2), was developed and made available to the Deans/Directors for this initial mailing.

Through the cooperation of the Deans/Directors, 1051 postcards were mailed to students informing them of the study. Of this accessible pool, 735 (70%) fell into the three baccalaureate student cohort groups with the remaining 316 (30%) in the three master student cohort groups. Twenty three cards (2%) were returned as undeliverable as addressed. From the final accessible pool of 1028 deliverable postcards, 387 respondents (37.6%) contacted the researcher via return postcard indicating their interest in learning more about the study, of which 210 (54%) were from the three baccalaureate cohort groups and 177 (46%) were from the three master cohort groups. All of these respondents were then contacted via mail by the researcher. Of the 387 respondents to whom the questionnaire and cover letter were mailed, 282 returned completed questionnaires. However, based on the eligibility criteria, only 260 were eligible for inclusion in the final study sample, due to the fact that 22 of the respondents in the current junior year student cohort group were, in fact, not generic baccalaureate students, but rather registered nurse completion students. Therefore, the final study sample of
260 represents a 71.2% response rate of the 365 eligible subjects. The rate of response data is summarized in Table 1. The specific characteristics of the sample for this study are summarized in the following section.

**Characteristics of the Sample.** The stratification plan for this study was intended to allow the researcher to explore anticipated differences between cohort groups in terms of temporal perspective, perceptions of the quality of work experiences, and professional identity due to the role socialization process. As discussed previously, role socialization is a complex process and is influenced by both formal educational experiences and actual work experiences. Although it was not possible or necessary to strive for an equal number of subjects per cohort group, a minimum of 30-40 subjects per strata was desirable in order to do the intended statistical analyses. Forty (15.4%) of the subjects were current junior baccalaureate students (cohort group 1), 47 (18%) were May-June 1985 baccalaureate graduates (cohort group 2), 54 (20.8%) were 1983 baccalaureate graduates (cohort group 3), 40 (15.4%) were current first year master students (cohort group 4), 40 (15.4%) were May-June 1985 master graduates (cohort group 5), and 39 (15%) were 1983 master graduates (cohort group 6). These sample sizes do not differ significantly from chance, \( \chi^2 (5, N = 260) = 4.14, p > .10. \)

The sample \( (N = 260) \) for this study was composed of 250 (96.4%) females. This is reflective of the expected gender
<table>
<thead>
<tr>
<th>Source of Subjects</th>
<th>Initial mailing of postcards</th>
<th>Postcards returned to researcher requesting more information and questionnaire</th>
<th>Completed Questionnaires returned to researcher</th>
<th>Questionnaires which met sampling criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sent</td>
<td>Returned by Post Office as undeliverable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A - baccalaureate program</td>
<td>286</td>
<td>4</td>
<td>78</td>
<td>54</td>
</tr>
<tr>
<td>B - baccalaureate program</td>
<td>72</td>
<td>6</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>C - baccalaureate program</td>
<td>179</td>
<td>0</td>
<td>57</td>
<td>40</td>
</tr>
<tr>
<td>D - baccalaureate program</td>
<td>198</td>
<td>8</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>E - master program</td>
<td>46</td>
<td>0</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>F - master program</td>
<td>117</td>
<td>1</td>
<td>73</td>
<td>47</td>
</tr>
<tr>
<td>G - master program</td>
<td>116</td>
<td>0</td>
<td>71</td>
<td>44</td>
</tr>
<tr>
<td>H - master program</td>
<td>37</td>
<td>4</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>1051</td>
<td>23</td>
<td>387</td>
<td>282</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>260</td>
</tr>
</tbody>
</table>
distribution within the nursing profession. One subject did not indicate his/her gender on the returned questionnaire. Based on the sampling inclusion and exclusion criteria, the sample population was stratified into six cohort groups as defined previously. The stratification and gender distribution of the sample into the six cohort groups is summarized in Table 2.

Subjects ranged in age from 21 to 54 years with a median age of 29 years. As was expected, the median age for each of the cohort groups differed, ranging from 22 years for the current generic junior baccalaureate students (cohort group 1) to 39 years for cohort group 6, the 1983 masters graduate group. The age distribution of the sample is summarized in Table 3.

The data regarding initial licensure as a registered nurse is represented in Table 4. As was expected, by definition, not one of the current generic junior baccalaureate students was licensed as a registered nurse. Although for all three of the baccalaureate cohort groups it was expected that licensure would follow their graduation from the generic program, one exception was noted. One subject in the 1983 baccalaureate cohort group originally obtained her license as a registered nurse in 1969 when she completed a diploma program in nursing.

With the stipulated stratification plan, the three baccalaureate cohort groups had an almost perfect causal relationship between years of nursing education and years of
Table 2  Stratification of Sample and Gender Distribution

<table>
<thead>
<tr>
<th>Strata</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - current junior generic baccalaureate students</td>
<td>0</td>
<td>40</td>
<td>40</td>
<td>15.4</td>
</tr>
<tr>
<td>2 - May-June 1985 baccalaureate graduates</td>
<td>2</td>
<td>45</td>
<td>47</td>
<td>18.0</td>
</tr>
<tr>
<td>3 - 1983 baccalaureate graduates</td>
<td>4</td>
<td>50</td>
<td>54</td>
<td>20.8</td>
</tr>
<tr>
<td>4 - current, first year master students</td>
<td>2</td>
<td>38</td>
<td>40</td>
<td>15.4</td>
</tr>
<tr>
<td>5 - May-June 1985 master graduates</td>
<td>0</td>
<td>40</td>
<td>40</td>
<td>15.4</td>
</tr>
<tr>
<td>6 - 1983 master graduates</td>
<td>1</td>
<td>37</td>
<td>39(^a)</td>
<td>15.0</td>
</tr>
</tbody>
</table>

\(^a\)Includes one respondent who failed to indicate gender
### Table 3  Age Distribution of Sample by Cohort Group

<table>
<thead>
<tr>
<th>Cohort group #</th>
<th>Range</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Current generic junior baccalaureate students</td>
<td>21 - 39</td>
<td>22</td>
</tr>
<tr>
<td>2 - May-June 1985 baccalaureate graduates</td>
<td>23 - 43</td>
<td>24</td>
</tr>
<tr>
<td>3 - 1983 baccalaureate graduates</td>
<td>25 - 45</td>
<td>26</td>
</tr>
<tr>
<td>4 - current, first year master students</td>
<td>24 - 53</td>
<td>32</td>
</tr>
<tr>
<td>5 - May-June 1985 master graduates</td>
<td>25 - 53</td>
<td>33</td>
</tr>
<tr>
<td>6 - 1983 master graduates</td>
<td>24 - 54</td>
<td>39</td>
</tr>
<tr>
<td>Cohort Group #</td>
<td>Range</td>
<td>Median</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------</td>
<td>--------</td>
</tr>
<tr>
<td>1 - current junior generic baccalaureate students</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>2 - May-June 1985 baccalaureate graduates</td>
<td>1985</td>
<td>1985</td>
</tr>
<tr>
<td>4 - current, first year master students</td>
<td>1956-1984</td>
<td>1979</td>
</tr>
<tr>
<td>5 - May-June 1985 master graduates</td>
<td>1955-1983</td>
<td>1976</td>
</tr>
</tbody>
</table>
By definition, current generic junior baccalaureate students have had no professional work experience, as they are not yet licensed to practice as registered nurses. Cohort group 2, the Spring 1985 generic baccalaureate graduates could have a maximum of 10 months of experience as a graduate/registered nurse, in that the data for this study were gathered within the 10 month period following Spring 1985 graduation dates. Cohort group 3, the 1983 baccalaureate graduates, could have a maximum of 34 months of experience as a registered nurse. For the master student/graduate cohort groups, no attempt was made to control for persons who may have obtained their original nursing education in a diploma or Associate degree program. All participants in the study did have a baccalaureate degree prior to beginning their masters program in nursing. However, the baccalaureate degree may not have been in nursing. The actual ranges of experience as a registered nurse for all of the cohort groups is summarized in Table 5. The range of experience in cohort group 3 was expected to range up to a maximum of 34 months; however, the actual range went up to 56 months. As noted previously, a single subject had been licensed as a registered nurse in 1969 and had practiced for 22 months following licensure. She subsequently left nursing to raise a family and returned to a generic baccalaureate program after a 10 year hiatus from nursing practice. Therefore, she was eligible for inclusion in the sample based on her status as a graduate from that program.
<table>
<thead>
<tr>
<th>Strata</th>
<th>Range of experience expressed in months</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - current junior generic baccalaureate students (n = 40)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2 - May-June 1985 baccalaureate graduates (n = 47)</td>
<td>1 - 10</td>
<td>6</td>
</tr>
<tr>
<td>3 - 1983 baccalaureate graduates (n = 54)</td>
<td>12-32, 56</td>
<td>28</td>
</tr>
<tr>
<td>4 - current first year master students (n = 40)</td>
<td>16 - 245</td>
<td>55</td>
</tr>
<tr>
<td>5 - May-June 1985 master graduates (n = 40)</td>
<td>7, 32-175</td>
<td>80</td>
</tr>
<tr>
<td>6 - 1983 master graduates (n = 39)</td>
<td>6, 28-312</td>
<td>107</td>
</tr>
</tbody>
</table>
The types of institutions in which the subjects are currently employed as registered nurses or placed for their current junior year student practicums are represented in Table 6. The sample consisted of 203 (78.4%) currently employed subjects. All of the junior students (n=40) were currently placed in a patient care environment for their student practicum experience. Of the gainfully employed group, 137 subjects (67.5%) stated they worked an average of 40 or more hours per week. An additional 37 subjects (18.2%) worked on the average 24 to 38 hours per week. Twenty-two subjects (10.8%) worked fewer than 24 hours per week. Eight subjects (3.9%) did not indicate the average number of hours worked per week. The 40 junior students all reported being in the clinical setting less than 24 hours per week. The 16 subjects who were not currently employed included three 1985 baccalaureate graduates (cohort group 2), three 1983 baccalaureate graduates (cohort group 3), six of the current first year master students (cohort group 4), two 1985 master graduates (cohort group 5), and two 1983 master graduates (cohort group 6). Additionally, of the 203 employed subjects, 164 (80.8%) indicated that they were employed in patient care environments. All of the other employed respondents (n=39) indicated that they were employed in nursing education settings.

Research Design

An ex post facto or causal-comparative research design (Kerlinger, 1973; Polit & Hungler, 1983) was used in this survey study. Ex post facto research does not allow one to
<table>
<thead>
<tr>
<th>Cohort Group</th>
<th>Acute Care over 250 beds</th>
<th>Acute Care 100-250 beds</th>
<th>Acute Care under 100 beds</th>
<th>Home Health Care</th>
<th>Public Health VNA</th>
<th>Combined Community Care</th>
<th>Extended Care</th>
<th>Disability Services</th>
<th>Psychiatric Combined Program</th>
<th>Psychiatric Services</th>
<th>LPN</th>
<th>AA</th>
<th>Generic BSN/MSN</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - current generic</td>
<td>28</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>junior baccalaureate students</td>
<td>(71.8%)</td>
<td>(15.4%)</td>
<td>(5.1%)</td>
<td>(2.6%)</td>
<td>(5.1%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - May-June 1985</td>
<td>28</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>baccalaureate graduates</td>
<td>(59.6%)</td>
<td>(21.3%)</td>
<td>(2.1%)</td>
<td>(4.3%)</td>
<td>(2.1%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - 1983</td>
<td>31</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>baccalaureate graduates</td>
<td>(57.4%)</td>
<td>(16.7%)</td>
<td>(1.9%)</td>
<td>(5.6%)</td>
<td>(1.9%)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - current, first year master students</td>
<td>19</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(47.5%)</td>
<td>(7.5%)</td>
<td>(5.0%)</td>
<td>(7.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - May-June 1985</td>
<td>15</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>master graduates</td>
<td>(37.5%)</td>
<td>(10.4%)</td>
<td>(2.5%)</td>
<td>(5.0%)</td>
<td>(2.5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 - 1983</td>
<td>18</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>master graduates</td>
<td>(46.2%)</td>
<td>(7.7%)</td>
<td>(2.6%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Types of Institutions in Which Subjects are Employed as Registered Nurses or Placed for Junior Year Student Practicums
test causality with the same rigor which is applied to experimental research because the researcher does not have manipulative control of the independent variables. However, such causal-comparative designs do allow the researcher to demonstrate or infer functional relationships among the variables of interest (Kerlinger, 1973; Polit & Hungler, 1983). In fact, the causal-comparative design is further strengthened in this study by the a priori hypotheses derived from the conceptual model.

**Causal Modeling Considerations.** In developing a causal model, a number of conceptual issues emerge. The primary issues are as follows: 1) the meaning of the term "causal;" and 2) the selection of empirical indicators for the underlying concepts or variables.

Causality is a highly complex topic because of metaphysical and epistemological differences among philosophers of science (Cook & Campbell, 1979; Feigl & Brodbeck, 1953; Hempel, 1966; James, Mulaik, & Brett, 1982; Laudan, 1977). Bertrand Russell (1953) aptly sums up the controversy and states,

"...the word "cause" is so inextricably bound up with misleading associations as to make its complete extrusion from the philosophical vocabulary desirable...the reason physics has ceased to look for causes is that, in fact, there are no such things. The law of causality ...is a relic of a bygone age, surviving, ...because it is erroneously supposed to do no harm (p.387)."

Although there are no logical guarantees about the nature of the world, causality, as a probabilistic notion, is an important concept to retain.
Malinvaud, as quoted in Bielby and Hauser (1977) simply states, "A model is the formal representation of the notions that we have about a phenomenon" (p. 137). Asher (1976) further elaborates and suggests that a causal approach to theorizing is a valuable heuristic device. He states,

Thinking causally about a problem and constructing an arrow diagram that reflects causal processes may often facilitate the clearer statement of hypotheses and the generation of additional insights into the topic at hand (p.8).

As such, causal modeling has become a popular heuristic and analytic tool among social scientists (Asher, 1976; Bentler, 1980; Bielby & Hauser, 1977; Blalock, 1964, 1982, 1984; Cook & Campbell, 1979; James, Mulaik, & Brett, 1982; Pedhazur, 1982; Simon, 1957). However, many scholars, including Blalock (1984), point out that there are problems of considerable significance between the identification of complex theoretical constructs in reality and the practical obstacles encountered when trying to collect empirical data as indicators of them. The selection of empirical indicators for the underlying concepts, frequently referred to as latent concepts or variables, is a critical issue related to measurement theory.

Bentler (1980) states,

...a latent variable is a variable that an investigator has not measured and, in fact, typically cannot measure. Latent variables are hypothetical constructs invented by the scientist for the purpose of understanding a research area; generally there exists no operational method for directly measuring these constructs. The constructs are related to each other in certain ways as specified by the investigator's theory (p. 420).

As suggested by Bentler, the essential first step in causal
modeling and, ultimately, causal analysis, is the specification of measurable indicators derived from the underlying, theoretical constructs/concepts. Therefore, the following section of the chapter will discuss the instruments and empirical indicators selected for use in this study.

Instruments

The data collection tool for this study was a three-part self-report questionnaire (Appendix C) consisting of 109 items. Part A includes general background information including educational and professional work experience data. Additionally, the two item index of global wellbeing, derived from the work of Andrews and Withey (1976) appears in this section of the questionnaire. Part B is a measure of temporal perspective as measured by the 25-item Time Metaphor Test developed by Knapp and Garbutt (1958). Part C is a measure of professional identity as measured by the 50-item index developed by Miller and Polentini (Miller, personal communication, September 18, 1985). Figure 3 summarizes the variables of the study. The hypothesized paths, directionality, and the specific empirical indicators used in the study are also depicted in order to facilitate an understanding of the description of the instrument.

Perceived Global Wellbeing. Perceived wellbeing was measured utilizing the two-item index of perceived global wellbeing suggested by Andrews and Withey (1976). As reviewed in the previous chapter, Andrews and Withey (1976)
Figure 3  Model with Perceived Global Wellbeing as the Criterion Variable.

1. Professional Education
   - Yrs of prof. nsg ed.

2. Quantity of Experience
   - Length of exp. as a licensed R.N.

3. Quality of Experience
   - Goodness of fit index (Summated Scale A - Scale B items)

4. Temporal Perspective

5. Professional Identity

6. Perceived Global Wellbeing
   - Scale A of Miller & Polentini tool
   - Index of Wellbeing (Life 3)

Time Metaphor Test
and Withey (personal communication, April, 1985) suggest that the global indicators of perceived wellbeing, called Life 1, Life 2, and Life 3 are quite robust, even when considering the simplicity of the measures. Therefore, the two-item index of global wellbeing developed by Andrews and Withey was used in this study. This index consists of two items (Life 1 and Life 2) which are identically worded as follows: "How do you feel about your life as a whole"? Subjects indicate their response on a seven-point "Delighted - Terrible" scale. The scaling is reversed for the two items. In other words, for the Life 1 item the scale goes from 1- Terrible to 7- Delighted, and for the Life 2 item, from 1- Delighted to 7- Terrible. The later item is then reverse scored and added to the Life 1 item and averaged to yield the score of the Life 3 item. The "Delighted - Terrible" scale is an ordinal rating scale. However, for the purposes of data analysis, it was treated as an interval measure with possible scores ranging from 1 - 7. The Life 1 and Life 2 scores are summed and averaged to produce the Life 3 item. Therefore, possible scores on the Life 3 item ranged from 1 - 7 with an interval of 0.5.

The evaluation of people's perceptions about life as a whole is problematic as there are no clear and directly observable phenomena that can serve as criterion measures. As such, criterion validity cannot be established for the indicators of global wellbeing proposed by Andrews and Withey; however, based on their extensive analyses, the
global indicators of perceived wellbeing are considered to have adequate face or content validity. Additionally, Andrews and Withey (1976) address the issue of construct validity in considerable depth and report very promising results based on extensive measurement modeling techniques done.

Most measurements in the social sciences, as a result of being measures of indirectly observable phenomena, are reflective of three types of influences, namely, valid variances, correlated error variances, and unique residual effects (Cronbach & Meehl, 1955; Guilford, 1954). Andrews and Withey (1976) report that based on... applying a complex measurement model to overlapping subsets of data, it was discovered that the method of assessment had far more to do with the validity and error components of the resulting measures than did the particular aspect of life that was being assessed. The measures with the highest validities resulted from the Delighted—Terrible, Faces, and Circle Scales. These methods produced single-item measures with validities estimated at about .8 (variance composition: 65 percent valid variance, 8 percent correlated error variance, 27 percent residual variance)...from these figures one can estimate that a three- to five-item index combining several measures obtained by the more valid methods could achieve a validity of about .9...While not perfect, such figures suggest that the more valid methods are capable of producing measures with more than enough validity to be useful social indicators (p. 216).

Andrews and Withey also acknowledge that there are other important criteria for evaluating measurement methods as follows: 1) the form of the distribution they produce; 2) the ease of use; and 3) the incorporation of explicit labels for each category of the scale. They conclude, based on the analyses done on four national surveys, that the
"Delighted - Terrible" scale produced a better spread or distribution of responses. They state that this scale was developed, in part, because of the suspected weaknesses associated with the commonly utilized seven-point satisfaction scale. The "Delighted - Terrible" scale is also easy to use and comprehension of the categorical labels does not appear to be problematic.

The reliability of the Life 1 and Life 2 items, when separated from one another on a questionnaire by a number of items which allow for 10 - 20 minutes of lapsed time, is a reasonable indication of test-retest reliability. According to Andrews and Withey (1976), the test-retest reliability coefficients from the four national surveys ranged between .61 to .71. They also state, "the reliability of these measures can also be considered from the perspective of the percent of respondents who gave similar answers to the two questions (p. 192)." They report that in the national survey data, 92 - 93% of the respondents provided either an identical or immediately adjacent response to Life 2, as they had for Life 1. In fact, 52-54% of the responses were identical. Therefore, for the purposes of this study, the Life 3 measure was considered to have sufficient validity and reliability to justify its use as the empirical indicator of perceived global wellbeing.

In addition to the validity and reliability issues regarding measurements, Andrews and Withey also address four general parameters which have an impact on the design of any
measuring instrument as follows: 1) the substantive interests of the investigator; 2) the amount of interviewing time that is practical and realistic in terms of available human resources and financial resources; 3) the precision desired; and 4) the method of data collection to be used. These parameters were carefully considered in the decision to utilize the Life 3 measure as the empirical indicator of perceived global wellbeing in this study. Because the present investigation was concerned with perceptions of global wellbeing as a holistic indicator of the construct, expanding awareness of consciousness, the decision to use the Life 3 measure is justified.

Another important consideration in the present survey research endeavor was the amount of time that it would take a subject to complete the study questionnaire, because subjects were voluntary participants who were asked to give of their time freely. Andrews and Withey (1976) state that, based on representative samples of American adults, the average response time per item using a consistent response scale is approximately 12 to 15 seconds. Therefore, in less than a minute a measure of perceived global wellbeing was obtained. Andrews and Withey (1976) recommend that the Life 1 and Life 2 items be separated so that approximately 20 minutes of elapsed time occurs between the two items. Therefore, the Life 1 measure was included at the beginning of Part A of the questionnaire (Appendix C) and the Life 2 measure at the end of Part A of the questionnaire used in
this study. The use of the two-item index, which results in the arithmetic computation of the Life 3 item, was also important because multi-item indices result in gains in measurement precision (Kerlinger, 1973; Polit & Hungler, 1983).

Based on the current data set, the test-retest reliability coefficient between the Life 1 and Life 2 items was .95. The percentage of respondents who gave identical responses to the two items was 89%. The percentage of respondents who gave either the identical response or the adjacent response was 99%. The distribution of responses in the present data set are skewed toward the "Delighted" end of the scale. For both the Life 1 and Life 2 items, the range of scores was distributed from 2 (or 6) - "Unhappy" to 7 (or 1) - "Delighted" with the modal response being 6 (or 2) - "Pleased". For the two items, the range of responses that fell at or below the midpoint of 4 - "Mixed, About Equally Satisfied and Dissatisfied", was 32 to 34 out of a possible 260 responses.

Professional Identity. Professional identity was measured in this study by the multidimensional tool developed by Miller and Polentini. This tool was developed as part of the University of Maryland Measurement of Clinical and Educational Nursing Outcomes Project. According to Miller (personal communication, February 20, 1985), the tool is "based on the characteristics of a professional practice climate in a nursing department as
outlined by the Task Force on a "Nursing Practice Climate - A Professional Model" and expanded upon in the American Nurses' Association (ANA) publication, *Standards for Organized Nursing Services* (1982). Conceptually the tool is reflective of all the dimensions of professional practice as suggested by the ANA's 19 characteristics of a professional practice environment, the ANA *Code for Nurses* (1976), the ANA *Standards of Nursing Practice* (1973), State nurse practice acts, and some additional recommendations from the Joint Commission on the Accreditation of Hospitals (Miller, personal communication, February 20, 1985).

As developed by the authors, the instrument contained 100 questions whereby each of 50 different items is presented twice, utilizing two similar five point Likert scales. The first 50 items on the tool address the multiple characteristics which constitute one's idealized professional values or sense of professional identity. These same 50 items are then repeated and the respondent is instructed to indicate the degree to which these characteristics are present in the reality of the practice environment. Subdimensions of the scales, based on face or content validity, were identified by Miller as shared governance, autonomy, standards of nursing practice, ethics, nursing administrative responsibilities, and mandates as promulgated by the Joint Commission on the Accreditation of Hospitals.

However, the instrument as used in this study, is
presented as a 50 item tool with two response columns (Part C, Appendix C). Subjects are instructed to first complete Scale A (the first column of Part C, Appendix C), where they indicate their professional belief about the value of each item. Subjects are instructed to circle the number in the first set of five-point Likert scales, ranging from 1- "Unimportant" to 5- "Extremely Important", the score most appropriate for them. They are instructed to then respond to the same 50 items, if they are currently employed in a patient care environment, or in the case of junior students, if they are having a clinical practicum experience in a patient care environment. The instructions for Scale B (the second column of Part C, Appendix C) are to evaluate each item as to the degree to which the characteristic is present within their clinical work/student practicum environment. A similar Likert scale is used with a range of 1- "Minimally Present" to 5- "Maximally Present.

The range of points on each of the two subscales of the tool (Scale A and Scale B) is based on a summative score ranging from 50 - 250. The summated Scale A score is indicative of one's sense of professional identity. Therefore, it was used in the present study as the empirical indicator of professional identity. The summated Scale B score, which is indicative of the degree to which the characteristics are perceived to actually be present in the practice environment, is used in this study, not as an indicator of professional identity, but rather in the
computation of the empirical indicator of perceived quality (goodness of fit) of the present work experience, and will be discussed more fully in the following section on professional work experience, defined in terms of quality.

Examples of items from the questionnaire include:
"Registered nurses have access to decision-making regarding practice issues at the unit level;" "The registered nurse has control over the quality of care given to patients;" "Nursing practice is adaptable to the needs of the patient’s family;" "The Department of Nursing provides a forum for exploration of ethical issues;" and "Planning of budget reflects variable levels of patient needs."

Due to the fact that the Miller and Polentini tool is in an early stage of development, there are no reported validity and reliability data on the tool in the literature. However, based on the content validity of the tool, as established by a panel of nursing experts (Miller, personal communication, September 28, 1985), the tool appears to be a singular and notable exception to the measurement issues related to professional identity, as discussed in the previous chapter. Therefore, based on its content validity, it was selected for use in the present study. However, additional validity and reliability analyses were done as part of this investigation. In order to further assess the validity of the tool, a factor analysis was done to establish its construct validity. The factor analysis done as part of the present study did, in
fact, confirm the multidimensional nature of the instrument. Therefore, the use of the tool was further justified. However, specific recommendations regarding the tool and its construction will be addressed later, in terms of implications and recommendations for future study.

Reliability studies done with the present data set, in order to establish the internal consistency of the subdimensions, are quite promising. Cronbach’s alphas were computed to determine the internal consistency of the overall 50-item scales (Scale A and Scale B) and for each of the subscales as identified by Miller. As shown in Table 7, Scale A, which is the measure of one’s sense of professional identity, has a reliability coefficient of .93 for the overall 50-item scale. The alpha coefficients for the subscales of Scale A ranged from .50 for the two-item ethical index to .90 for the 29-item index based on standards regarding nursing administrative responsibilities. For Scale B, which is the measure of the degree to which the characteristics of a professional practice environment are perceived to be present in the reality of the workplace, the overall alpha for the 50-item index is .96, as shown in Table 8. The reliability coefficients for the subscales on Scale B ranged from .57 for the two-item ethical index to .94 for the 29-item index based on the standards for nursing administrative responsibilities.

According to Miller, the subdimension identified as
<table>
<thead>
<tr>
<th>Subdimension Scales</th>
<th>Alpha Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Commission mandates</td>
<td>NA*</td>
</tr>
<tr>
<td>Ethics (2 items)</td>
<td>.50</td>
</tr>
<tr>
<td>Autonomy (6 items)</td>
<td>.66</td>
</tr>
<tr>
<td>Shared governance (8 items)</td>
<td>.71</td>
</tr>
<tr>
<td>Standards of practice (7 items)</td>
<td>.78</td>
</tr>
<tr>
<td>Standards regarding nursing administrative responsibilities</td>
<td>.90</td>
</tr>
<tr>
<td>Total Scale A (50 items)</td>
<td>.93</td>
</tr>
</tbody>
</table>

*Note that by definition the one item which specifically addressed recommendations of the Joint Commission for Accreditation of Hospitals is not a subscale.*
Table 8  **Professional Identity Scale B Alpha Coefficients**

<table>
<thead>
<tr>
<th>Subdimension Scales</th>
<th>Alpha Coefficients</th>
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</thead>
<tbody>
<tr>
<td>Joint Commission mandates</td>
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<td>Ethics (2 items)</td>
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<tr>
<td>Autonomy (6 items)</td>
<td>.82</td>
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<td>Shared governance (8 items)</td>
<td>.86</td>
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<td>Standards of nursing practice (7 items)</td>
<td>.90</td>
</tr>
<tr>
<td>Standards regarding nursing administrative responsibilities (29 items)</td>
<td>.94</td>
</tr>
<tr>
<td>Total Scale B (50 items)</td>
<td>.96</td>
</tr>
</tbody>
</table>

*Note that by definition the one item which specifically addressed recommendations of the Joint Commission for Accreditation of Hospitals is not a subscale.*
addressing recommendations put forth by the Joint Commission for the Accreditation of Hospitals is a single item. However, by definition this can not be considered to comprise a legitimate subscale. It is also important to note that, in general, the increase in the alphas for the subscales, as well as for the overall 50-item indices, is associated with the increasing number of items which comprise the indices.

Intercorrelations of subscale scores on Scale A for the present data set, shown in Table 9, indicate weak to moderate correlations among the subdimensions. The range of correlations was .21 to .65, with a median correlation of .39. Intercorrelations of subscale scores on Scale B, for the present data set, shown in Table 10, also indicate moderate correlations among the subdimensions. The range of correlations was .37 to .73, with a median correlation of .61.

In summary, based on the content or face validity of the Miller and Polentini tool and the additional validity analyses done with the present data set, the tool was considered to be a valid measure of professional identity, as conceptually defined in this study. Also, based on the internal consistency of the subdimensions, as identified by Miller, and the moderate intercorrelations among the majority of the subscales, the tool was considered to be a reliable measure of professional identity. As previously stated, Scale A scores are considered to be the empirical
<table>
<thead>
<tr>
<th>Subdimension Scales</th>
<th>Ethics</th>
<th>Autonomy</th>
<th>Shared Governance</th>
<th>Standards of Practice</th>
<th>Standards regarding nursing administrative responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Commission</td>
<td>.27</td>
<td>.26</td>
<td>.21</td>
<td>.36</td>
<td>.37</td>
</tr>
<tr>
<td>mandate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics</td>
<td>.35</td>
<td>.35</td>
<td>.53</td>
<td>.54</td>
<td>.54</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.50</td>
<td>.39</td>
<td>.65</td>
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<td></td>
</tr>
<tr>
<td>Standards of Practice</td>
<td></td>
<td></td>
<td>.34</td>
<td></td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.60</td>
</tr>
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</table>
### Table 10  Mean Inter-scale Correlations - Professional Identity Scale B

<table>
<thead>
<tr>
<th>Subdimension Scales</th>
<th>Ethics</th>
<th>Autonomy</th>
<th>Shared governance</th>
<th>Standards of practice</th>
<th>Standards regarding nursing administrative responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Commission Mandate</td>
<td>0.37</td>
<td>0.46</td>
<td>0.45</td>
<td>0.48</td>
<td>0.53</td>
</tr>
<tr>
<td>Ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.53</td>
<td></td>
<td>0.49</td>
<td>0.60</td>
<td>0.64</td>
</tr>
<tr>
<td>Shared governance</td>
<td></td>
<td>0.73</td>
<td></td>
<td>0.66</td>
<td>0.72</td>
</tr>
<tr>
<td>Standards of practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.69</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.70</td>
</tr>
</tbody>
</table>
indicator of professional identity as defined in this study. Scale B scores are also utilized, not as a measure of professional identity, but in the calculation of the empirical indicator of the quality of the professional practice work environment.

**Professional Work Experience.** Professional work experience is defined as a complex concept which must consider both quantity and perceived quality of the experience. Quantity of experience is simply defined as length of experience as a licensed, registered nurse, as expressed in number of months. In this study, this continuous variable ranged from 0 to 312 months (26 years). Perceived quality of experience, however, is a more complex notion, and is defined as the perceived goodness of fit between one's values and perceptions about their degree of presence in the work/practicum setting. Therefore, perceived quality of professional work experience as defined is hypothesized to be positively correlated with an existential temporal perspective, professional identity and perceived global wellbeing.

The actual scoring of the goodness of fit index results in absolute real values between 0 to 200. The lower the number, the better the fit. Likewise, higher scores are indicative of a poor fit or large discrepancy between one's ideals and one's perceptions of their actualization in the workplace. As stated previously, both of the subscales of
the professional identity tool were used in the computation of this discrepancy score. However, because only those subjects employed in, or placed in, a patient care environment could complete Scale B, discrepancy scores could only be calculated for a subset of the sample.

A Porter scaling technique was used, which allowed the researcher to determine discrepancy scores between the idealized values and the degree to which the characteristics are perceived to be present in the practice environment. The Porter scaling technique was originally developed by Porter (1961a, 1961b, 1962, 1963a, 1963b) in order to measure satisfaction of needs fulfillment among lower levels of management personnel. The general format and instructions for completing Porter's instrument is as follows:

On the following pages will be listed several characteristics or qualities connected with your management position. For each such characteristic, you will be asked to give three ratings:

a. How much of the characteristic is there now connected with your management position?

b. How much of the characteristic do you think there should be connected with your management position?

c. How important is this position characteristic to you? (Porter, 1962, p. 376).

Responses to each of these questions were recorded on a seven-point Likert scale, ranging from 1 to 7, where low scores represented minimal amounts, and high scores maximal amounts.

In addition to the direct measurements of magnitude for each of the three questions ("is;" "should;" and "importance"), indirect measures of discrepancy between the
three can be obtained. This indirect measurement approach is considered to be advantageous, as it is more difficult for the respondent to manipulate a multiple response set of discrepancy scores toward a socially desirable response (Porter, 1962; Roberts & Feetham, 1982).

Therefore, in the present study, a modified Porter scaling technique was used, utilizing the five-point Likert scale selected by Miller and Polentini. The summated discrepancy score, which is indirectly calculated by subtracting the scores from Scale B (what "is" in reality) from the Scale A scores (what one believes about the "value"), is considered to be an empirical indicator of perceived quality in patient care work settings. Of the original sample, 16 of 260 subjects indicated that they were not currently employed in any setting and an additional 33 subjects indicated, by their lack of responses to Scale B, that they did not consider their present employment to be in patient care environments. Therefore, a discrepancy score could only be calculated for a subset of 209 subjects. Summated scores closest to 0 indicate a good fit or a minimum of discrepancy or a positive perception of quality. Summated scores farthest from 0, up to a maximum of 200, are indicative of a high degree of discrepancy or a more negative perception of quality.

**Temporal Perspective.** Temporal perspective was measured by the **Time_Metaphor Test (TMT)** as developed by Knapp and Garbutt (1958). As previously discussed, the **TMT** appears to
be a holistic measure which addresses the implied functional relationship between an absolute/linear and existential/holistic temporal perspective.

The TMT (Part B, Appendix C) consists of 25 metaphors which are considered to be literary or poetic descriptions of time and which were derived from collections of quotations, anthologies, and other sources. The metaphors are believed to represent three different notions of time, identified by Knapp and Garbutt (1958) as dynamic/hasty time, naturalistic/passive time, and humanistic time. Examples of metaphors falling into the dynamic/hasty cluster include: "a fast moving shuttle," "a speeding train," and "a fleeing thief." Examples of metaphors falling into the naturalistic/passive cluster include: "budding leaves," "drifting clouds," and "a vast expanse of sky." Examples of metaphors falling within the humanistic cluster include: "a tedious song," "an old man with a staff," and "an old woman spinning." Three metaphors did not clearly fall within any of the clusters, but Knapp and Garbutt (1958) indicate that, "a bird in flight" is between the dynamic/hasty and the naturalistic/passive clusters, "a stairway leading upward" between the humanistic and naturalistic/passive clusters, and "marching feet" between the humanistic and dynamic/hasty clusters.

Reports on the use of the Time_Metaphor_Test in the literature seemed promising but confusing. There are differences in the ways in which the metaphors are
introduced to subjects. Knapp and Garbutt (1958) and Wallach and Green (1961) emphasized the "appropriateness of the metaphor as a satisfying image of time" for the respondent. In contrast, for example, Ference (1979) modified the directions and emphasized how closely the metaphors "resembled time moving in the respondent's life."

Scoring has also differed. Knapp and Garbutt (1958) and Johnston (1980) relied on rank ordering of all 25 metaphors into 5 categories with the 5 most appropriate or satisfying items being ranked "1," on down to the 5 least appropriate metaphors being ranked "5." Wallach and Green (1961) added weights to the metaphors. Ference (1979) asked respondents to select only their top five choices and determined their scores from the weightings previously determined by Wallach and Green.

Reliability and validity data are as confusing as the directions and scoring methods used. However, the independent factor analyses reported by Knapp and Garbutt (1958) and Wallach and Green (1961) indicated stability of the instrument over time as well as over items. The authors of the tool report the results of the unrotated factor analysis which they did utilizing the centroid method of computation. This resulted in the extraction of two factors. However, when plotted on coordinates representing the two factors, three distinct clusters emerged. The dynamic/hasty cluster and the naturalistic/passive clusters, were, in fact, opposite ends of a single continuum or
factor. As identified by Knapp and Garbutt, the humanistic cluster, which is associated with involvements with humans, emerged as a second factor.

Validity studies done on the TMT with the present data set were quite supportive of the original centroid factor analysis done by Knapp and Garbutt and repeated by Wallach and Green, in regard to the first factor. According to Rummel (1970), the centroid technique of factor analysis was historically the most popular procedure for computing a factor matrix by hand. The centroid technique is regarded to be a mathematical approximation of the more computationally laborious principal axis procedure. Therefore, the principal axis factoring extraction technique of SPSS-X (1986) was done on the present data set. The results of the extensive analyses done are very promising. The humanistic cluster, as identified by Knapp and Garbutt, originally loaded on a separate, second factor. Although a second factor did emerge with the present data set, it did not appear to be as congruent with Knapp and Garbutt's results. However, the functional relationship between the dynamic/hasty and naturalistic/passive clusters as opposite ends of a single continuum (factor 1), was confirmed by the present data set. Based on the strength of the theoretical notion that absolute/linear time and existential/holistic time are functionally related along a single continuum, the validity of the first factor was of primary concern. Therefore, the results support the use of the TMT as an
empirical indicator for the variable, temporal perspective.

Utilizing the original factor analysis reported by the authors, a set of subscales was created and tested for internal consistency. The dynamic/hasty and naturalistic/passive subscales each contained seven items and the humanistic subscale contained eight items. Cronbach’s alphas were computed for each of the subscales, with alphas ranging from .15 for the eight-item humanistic subscale to .64 for the naturalistic/passive subscale to .75 for the dynamic/hasty subscale. Of interest was the fact that, for the humanistic subscale, the deletion of the single item, "a devouring monster," resulted in an increase in the overall alpha to .35. This represents an increase of .24, an amount greater than the overall alpha for the original eight-item index. This finding was of particular interest because, in the present data set, this metaphor clearly loaded with the metaphors which comprised the dynamic/hasty (absolute/linear) cluster. For the other two subscales (dynamic/hasty and naturalistic/passive), the deletion of any one item did not result in any significant differences in the alpha coefficients. Based on the extensive validity analyses done on the present data set, new subscales were created for the dynamic/hasty cluster, which is believed to be associated with absolute/linear time, and the naturalistic/passive cluster, thought to be associated with existential/holistic time. Each of the new subscales contains five metaphors out of the original seven
identified by Knapp and Garbutt as falling within that particular cluster. The metaphors for the new subscales had factor loading scores of at least .4. Again, of particular interest, is the metaphor, "a devouring monster," which clearly loaded with the dynamic/hasty cluster and not the humanistic cluster suggested by Knapp and Garbutt.

The new absolute/linear subscale to emerge consisted of the following metaphors, presented in decreasing order of factor scores: "a fast, moving shuttle;" "a speeding train;" "a devouring monster;" "a fleeing thief;" "a galloping horseman;" "a whirligig;" and "marching feet."
The last metaphor, "marching feet," which had a factor loading score of .4, had been identified by Knapp and Garbutt as falling between the original dynamic/hasty and humanistic clusters. The new existential/holistic subscale to emerge consisted of the following metaphors, again presented in decreasing order of factor scores: "drifting clouds;" "a quiet, motionless ocean;" "a vast expanse of sky;" "budding leaves;" and, "the Rock of Gibraltar."

Reliability coefficients (Cronbach's alphas) were then computed for the new subscales. The absolute/linear subscale had an alpha of .81 and the existential/holistic subscale .72. These reliability coefficients are higher than the alphas on the original subscales, as would be expected, based on their construction as a result of the validity analyses done with the present data set. Also, because of the ipsative nature of the scaling technique used and the functional relationship between opposite ends of a
between opposite ends of a single continuum, the correlation between the two new subscales was $-.82, p < .0001$, which was somewhat higher than the correlation of the original subscales which was $r = -.78, p < .0001$.

For the present study, respondents were instructed to rank order the 25 metaphors into groups of 5. They were instructed to select the five most satisfying images of time and indicate them by circling a score of "5." Then they were instructed to select the next five most satisfying images and assign a score of "4." This process was continued until the subject had identified the five least satisfying images of time, by assigning them the score of "1." However, because the absolute/linear and existential/holistic clusters are believed to be opposite ends of a single continuum, the metaphors comprising the absolute/linear subscale were reverse coded and added to the scores for the metaphors in the existential/holistic cluster, resulting in a single summative score consisting of 12 elements. The resultant summative score is such that, a higher score is indicative of an existential/holistic temporal perspective, which is believed to be reflective of an expanded awareness of consciousness. The possible range of scores is 21 to 51. Because the factor analyses used to form the new subscales are logical and replicate previous findings, they provide evidence of construct validity. The internal consistency of the subscales and their high intercorrelation support their reliability as a single
measure. Therefore, their use in constructing the empirical indicator of temporal perspective used in this study is justified.

Professional Nursing Education. Professional nursing education in this study is an ordinal variable. The ordinal categories are as follows: 1) 0.5 years of professional nursing education at the undergraduate level plus 2 years of formal higher education; 2) 2 years of professional nursing education at the undergraduate level plus 2 years of formal higher education; 3) 0.5 years of professional nursing education at the graduate level plus minimally, 4 years of formal higher education; and 4) 2 years of professional nursing education at the graduate level plus minimally, 4 years of formal higher education. This ranking of the categories was necessitated by the fact that not all of the master programs in nursing, from which the sample was drawn, required a baccalaureate degree in nursing as an entry requirement. Excluding the 40 subjects who were currently in their junior year of a generic baccalaureate program, 96.8% \( (n=213) \) of the remaining 220 subjects indicated that they had a baccalaureate degree in nursing. Only 2 subjects \( (<1\%) \) indicated that they did not have a baccalaureate degree in nursing. For five subjects \( (<2\%) \) there were missing data.

Data were also collected on whether or not the baccalaureate program was a 2 + 2 curriculum, with basic liberal arts in the first two years of college, followed in
the junior and senior years by nursing classes. Unfortunately, there was a considerable amount of missing data to the questions regarding this (Appendix C #27 - 29) and so the data could not be used. However, based on the fact that 253 subjects (97.3%) indicated they had a baccalaureate degree in nursing, or were presently enrolled in a generic baccalaureate program in nursing, professional nursing education was treated as a continuous variable with a range from 0.5 years (current junior baccalaureate students) to 4 years of professional nursing education (masters graduates).

Data Collection Procedures

Upon receipt of the return postcard (Appendix A), the cover letter of introduction (Appendix B) and the study questionnaire (Appendix C) were mailed to interested participants. The cover letter included statements regarding the subject's rights to confidentiality and anonymity, the right to refuse to participate and withdraw at anytime without explanation, and the right to have questions answered at anytime. Subjects were asked to complete the questionnaire within two weeks of receipt and return it by mail to the investigator in the enclosed stamped self-addressed envelope. Subjects were advised that the return of the questionnaire constituted their informed consent to participate in the study.

Human Subjects Considerations

Current guidelines put forth by the U.S. Department of
Health and Human Services regarding human subjects considerations allowed exemption from a written consent because the research involved only a survey procedure and the following conditions were met: 1) subjects were healthy persons who voluntarily agreed to participate; 2) the research did not deal with sensitive aspects of behavior or controversial topics; and 3) responses were coded such that subjects could not be identified. Also, because the investigator had no direct affiliation with any of the cohort groups in the sample, any element of status coercion was minimized.

Subjects who participated in the study had their responses kept in total confidentiality and anonymity. Questionnaires contained no names. All completed questionnaires were coded according to a participant generated six digit number. The study had essentially no risks to subjects. There were also no direct benefits to the subjects, but the value of the research in its contribution to understanding the relationships among the variables and its potential implications in terms of contributing to nursing management science was considered to be reasonable grounds upon which to proceed.

Data Analysis

Questionnaires were mailed to subjects between late November, 1985 and January, 1986. Data were received back by the researcher between December, 1985 and early February, 1986. Data reduction and analysis were facilitated through
computer analysis using the Statistical Package of the Social Sciences (SPSS-X) available on the Michigan Terminal System through Wayne State University. Additional data analysis to test the deductively derived causal model developed for this study was done using the Interactive Path Analyzer (IPA) program developed by the Office of Survey Research and Statistical Studies at Princeton University (1971) as modified by Wayne State University to operate on the Michigan Terminal System.

Model and Hypothesis Testing. According to many nursing scholars, the role of models in theory development is both a logical theoretical and methodological process with the goal of clarifying and/or testing relationships (Bush, 1979; Carper, 1978; Chinn & Jacobs, 1978; Hinshaw, 1984; Jacobs & Huether, 1978; Munro & Sexton, 1984; Stember, 1985; Walker & Avant, 1983). The testing of simultaneous equation models or path analysis (Duncan, 1975; Goldberger & Duncan, 1973; Heise, 1975; Land, 1969) is a statistical method for model and hypothesis testing, and was the method of data analysis in this study.

Path analysis is used to distinguish between direct and indirect effects among variables and as a means of verifying true relationships from spurious ones. Path analysis is essentially a statistical method of decomposing and interpreting linear relationships among a set of variables. Based on the assumption of at least a weak causal ordering among the variables and the assumption that the
relationships among the variables are causally closed (Duncan, 1966; Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975; Wright, 1960), path coefficients can be estimated from the bivariate correlation coefficients computed from observational data (Cook & Campbell, 1979) based on the hypothesized cause and effect relationships of the variables in the model.

Path analysis allows the researcher to determine whether or not observed correlations are consistent with the underlying theoretical model (Munro & Sexton, 1984) through the utilization of conventional multiple regression techniques and a set of structural equations. In brief, when the variances among variables are expressed in standardized forms ($Z = 1.0$), the computed path coefficients are identical to partial regression coefficients (betas). In this study, the recursive model and specific hypotheses were tested utilizing the Interactive Path Analyzer (IPA) computer program (Office of Survey Research and Statistical Studies, 1971). Path coefficients between directly, causally linked variables, residual paths (error items), and $R$-squared terms (explained variance) were computed. The indirect paths, or mediated causal relations proposed in a model, result in correlation components which are equal to the product of the path coefficients of the links that connect them (Cook & Campbell, 1979). Therefore, the indirect path coefficients were then hand calculated based on the computer generated direct path coefficients. In
summary, the specific a priori hypotheses of this study were
specifically tested through the computation of path
coefficients and the overall model was tested and the amount
of variance explained by the model was determined.

Lastly, in order to address the additional research
question in this study, the statistical technique of
analysis of variance (ANOVA) was also used. Pedhazer (1982)
states, "The expression "analysis of variance" is well
chosen. It epitomizes the basic nature of most data
analysis: the partitioning, isolation, and identification
of variation in a dependent variable due to different
independent variables (p. 3)." Analysis of variance is
utilized to test the significance of differences between
means. ANOVA decomposes the total variability of a set of
data into two components, namely the variability resulting
from the independent variable and all other variability,
such as individual differences and measurement
unreliability. The variation between groups is contrasted
with variation within groups to yield a univariate F-ratio
statistic. If the differences between groups is large
compared to random fluctuations within groups, then it is
possible to establish the probability that the difference in
the dependent variable is related to the group differences.
Additionally, a posteriori or post hoc analyses of variance
were done utilizing the Newman-Keuls' procedure (Holm &
posteriori contrast tests, or post hoc analyses, are
systematic procedures for comparing all possible pairs of
group means and specify exactly where there are significant
differences between the means of pairs of groups.
CHAPTER 4
RESULTS

The conceptual model of this study posited relationships among the variables of professional nursing education, quantity and perceived quality of work experience, temporal perspective, professional identity, and perceived global wellbeing. Additionally, the research question raised, "Are there differences in temporal perspective, professional identity, and perceptions of quality of work experiences due to the role socialization process?" was examined.

Therefore, in the reporting of results, the chapter is organized as follows: 1) discussion of the a priori hypotheses and causal model which were tested utilizing the statistical technique of path analysis; and 2) discussion of the research question which was tested using the statistical method of analysis of variance and the related a posteriori or post hoc technique.

Model_and_Hypotheses_Testing

The model and a priori hypotheses were tested utilizing path analysis. Since path analysis is based on the intercorrelations among the bivariate relationships in the model, Table 11 summarizes these findings in terms of the Pearson Product Moment correlation coefficients computed. The conceptual model tested in this study is depicted in Figure 4. The hypothesized direction of the causal relations among the variables are represented by
Table 11  Intercorrelations Among the Bivariate Variables in the Conceptual/Causal Model

<table>
<thead>
<tr>
<th></th>
<th>Years of Education</th>
<th>Length of Experience</th>
<th>Perceived Quality of Work - Goodness of Fit</th>
<th>Temporal Perspective</th>
<th>Professional Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Experience</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Quality of Work - Goodness of Fit</td>
<td>.23</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporal Perspective</td>
<td>.05</td>
<td>.08</td>
<td>-.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Identity</td>
<td>.22</td>
<td>.24</td>
<td>.33</td>
<td>.11</td>
<td>.056</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Global Wellbeing (Life 3)</td>
<td>-.06</td>
<td>-.03</td>
<td>-.18</td>
<td>.11</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 4  Path Model with Perceived Global Wellbeing as the Criterion Variable.

Where: $p_{y,x}$ is the pathway between variables $y$ and $x$.

$r_{x,x}$ is the correlation between exogenous variables.

$R_y$ is the unexplained, uncorrelated error term.
unidirectional arrows extending from the different independent or exogenous variables of education, quantity, and perceived quality of the work experience to the dependent, or endogenous, variables of temporal perspective, professional identity, and perceived global wellbeing. Also, the sign of the relationship is specified.

The variables are numbered and the direct paths between endogenous and exogenous variables or endogenous and endogenous variables are identified using the lower case letter p, followed by two numbers. The numbers represent the postulated relationship between the variables, with the causally prior variable number listed last. For each direct pathway, a path coefficient ($p_c$), representing the relationship between the variables, is computed. The path coefficients are computed, utilizing multiple regression analysis techniques, from the bivariate correlations which are decomposed into direct and indirect terms through a series of structural equations. Essentially, a path coefficient is computed such that the direct exogenous, or causally prior variable, is regressed on the variable in the model that it is believed to predict or causally affect (Magoon, 1978; Munro & Sexton, 1984; Pedhazur, 1982).

The correlations among the exogenous variables are identified by the lower case letter r followed by the numbers of the exogenous variables. The ordering of these numbers is arbitrary because these correlations are assumed to be determined by causes outside of the model and the
directionality of these relationships are not specifically addressed in the model, as indicated by the double-headed arrows between the exogenous variables. Also, since it is never possible to explain the total variance of a variable, the residual variables (error terms) are introduced to indicate the effect of variables which have not been included in the model. These are indicated by the terms labeled R4 and R5. Because the different variables in the model are conceptualized as measuring discrete concepts, the residuals are assumed to be uncorrelated with each other.

The discussion of the results of the testing of the a priori hypotheses within the model follows. It is important to note that although path analysis results in the computation of direct and indirect path coefficients, the issue of statistical significance is not raised and levels of significance are, most often, not computed (Magoon, 1978). Therefore, statistical significance is not discussed relative to the individual hypotheses which follow. However, the presentation of results will end with a brief discussion on statistical significance and model testing in terms of the overall explained variance.

Hypothesis 1. Education has a positive and direct effect upon: a) temporal perspective; and b) professional identity. The path coefficient computed for the relationship between education and temporal perspective (p 4, 1) was .004 with a standard error of + .08. The path
coefficient for the direct relationship between education and professional identity (p 5, 1) was .06 with a standard error of ± .08. The signs of the hypothesized causal relationships were supported; however, the strength of the relationships was very weak.

**Hypothesis 2.** Quantity of professional work experience has a positive and direct effect upon: a) temporal perspective; and b) professional identity. The path coefficient computed for the direct relationship between quantity of experience and temporal perspective (p 4, 2) was .08 (± .08). The path coefficient for the direct relationship between quantity of experience and professional identity (p 5, 2) was .13 (± .08). Again, the hypotheses were only weakly supported.

**Hypothesis 3.** Perceived quality of the current professional work experience, defined in terms of goodness of fit, has a positive and direct effect upon: a) temporal perspective; b) professional identity; and c) perceived global wellbeing. The path coefficient for the direct relationship between perceived quality and temporal perspective (p 4, 3) was computed to be -.03 (± .06). The path coefficient for the direct relationship between perceived quality and professional identity (p 5, 3) was computed to be .29 (± .07). The path coefficient for the direct relationship between perceived quality and perceived global wellbeing (p 6, 3) was computed to be -.16 (± .07). Again, the hypotheses were very weakly supported. It is
important to note that the negative path coefficients are due to the scoring of the index which is the empirical indicator of the quality of the present work experience (goodness of fit). The negative path coefficients computed do not negate the postulated positive relationships between the variables in the hypotheses.

**Hypothesis 4.** Temporal perspective has a positive and direct effect upon: a) professional identity; and b) perceived global wellbeing. The path coefficient for the direct relationship between temporal perspective and professional identity \( p(5, 4) \) was computed to be \(.10 \pm .06\). The path coefficient for the direct path between temporal perspective and perceived wellbeing \( p(6, 4) \) was computed to be \(.10 \pm .06\). Again, the stipulated relationships are supported, but only weakly.

**Hypothesis 5.** Temporal perspective has an indirect and weak positive effect upon perceived global wellbeing via professional identity. As stated previously, the indirect path coefficient is calculated by multiplying together the values of the direct path coefficients involved. The indirect path coefficient was therefore calculated by multiplying together the computed path coefficients between perceived global wellbeing and professional identity \( p(6, 5; \rho_c = .09) \) and professional identity and temporal perspective \( p(5, 4; \rho_c = .10) \) which resulted in an indirect path coefficient of \(.01\). Again, the stipulated relationship was supported but very weakly.
Hypothesis 6. Professional education has an indirect and weak positive effect upon perceived global wellbeing via temporal perspective and professional identity. The indirect path coefficient was again calculated by multiplying together the direct path coefficients between perceived global wellbeing and professional identity (p 6, 5; pc = .09), professional identity and temporal perspective (p 5,4; pc = .10), and temporal perspective and education (p 4,1; pc = .004), which resulted in an indirect path coefficient too negligible to compute (pc < .0001). In this regard, one would have to state that the hypothesis was not supported.

Hypothesis 7. Quantity of professional work experience has an indirect and weak positive effect upon perceived global wellbeing via temporal perspective and professional identity. The indirect path coefficient was calculated by multiplying together the direct path coefficients between perceived global wellbeing and professional identity (p 6, 5; pc = .09), professional identity and temporal perspective (p 5,4; pc = .10), and temporal perspective and quantity of work experience (p 4, 2; pc = .08) which resulted in an indirect path coefficient of pc < .001 which would also have to be regarded as too negligible to support the hypothesis.

Hypothesis 8. Perceived quality of professional work experience has an indirect and weak positive effect upon perceived global wellbeing via temporal perspective and professional identity. The indirect path coefficient
between perceived global wellbeing and perceived quality was calculated as follows: the direct path coefficient between perceived global wellbeing and professional identity (p 6, 5 (pc = .09) was multiplied by the path coefficient for professional identity and temporal perspective (p 5, 4 pc = .10), and multiplied again by the path coefficient for perceived quality and temporal perspective (p 4, 3 pc = -.03), which resulted in an indirect path coefficient of -.03. Therefore, this hypothesis was weakly supported. It is again important to note that the negative indirect path coefficient is due to the scoring of the perceived quality index and not a change in the hypothesized sign of the relationship among the variables.

Model Testing. The overall fit of the empirical data to the model is addressed in path analysis in terms of the multiple R-squared or explained variance. In this study it is clear that R⁴ (.99) and R⁵ (.92), the unexplained, uncorrelated error terms, far outweighed the explained variance of .04. Figure 5 summarizes all of the results discussed thus far. From a theoretical perspective the implication of such a low percentage of explained variance is that the empirical data did not overwhelmingly support the a priori causal model. This issue, however, will be discussed in depth in the following chapter.

Darlington (1968) addresses the lack of attention to statistical significance in most path analysis computer software programs and argues that statistical significance,
Figure 5  Path Model Results with Perceived Global Wellbeing as the Criterion Variable.

Where: $p_{y,x}$ is the pathway between $y$ and $x$.

$r_{x,x}$ is the correlation between exogenous variables.

$R_y$ is the unexplained, uncorrelated error term.
although overlooked, is meaningful. Therefore, in order to address this oversight in the IPA computer program, a stepwise multiple regression analysis was done with Life 3 (perceived global wellbeing) as the dependent or criterion variable. However, none of the predictor variables were significant and they failed to meet the criteria to be entered stepwise into the equation. Therefore, a multiple regression analysis was done, using forced entry. With the forced entry multiple regression technique, the predictor variables are entered one at a time, in order of decreasing tolerance, but are treated as a single block for statistical computations. The $F$-ratio statistic computed was $1.74, p = .13$. Therefore, statistical significance was not reached. Table 12 summarizes the results of the forced entry multiple regression analysis.

Research Question

Are there differences in temporal perspective, the goodness of fit between one's values/beliefs and their perceived actualization in the current work setting, and one's sense of professional identity due to the role socialization process? Subjects were stratified into cohort groups, as specified previously, in order to test for differences. The results of the three analyses of variance are summarized in Tables 13 to 15. The $F$-ratio statistic ($F = .45, p = .816$) for temporal perspective did not reach significance. The $F$-ratio for perceived quality or goodness of fit by cohort group did reach significance ($F = 6.96; p <$
Table 12  Forced Entry Multiple Regression Analysis with Perceived Global Wellbeing as the Criterion Variable

<table>
<thead>
<tr>
<th></th>
<th>Multiple R</th>
<th>R-Square</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.24</td>
<td>0.06</td>
<td>1.03</td>
</tr>
</tbody>
</table>

Analysis of Variance

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>143</td>
<td>9.35</td>
<td>1.87</td>
<td>1.74</td>
<td>.13</td>
</tr>
</tbody>
</table>

n = 149 (secondary to listwise deletion of missing data)
Table 13  Univariate Analysis of Variance for Temporal Perspective

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5</td>
<td>250.21</td>
<td>50.04</td>
<td>.45</td>
<td>.816</td>
</tr>
<tr>
<td>Within groups</td>
<td>228</td>
<td>25592.92</td>
<td>112.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>233</td>
<td>25844.13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Group Means and Standard Deviations

<table>
<thead>
<tr>
<th>Cohort Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>37.5</td>
<td>34.81</td>
<td>40.10</td>
<td>38.14</td>
<td>38.69</td>
<td>40.00</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>10.58</td>
<td>10.54</td>
<td>11.94</td>
<td>10.71</td>
<td>9.15</td>
<td>9.96</td>
</tr>
</tbody>
</table>

n = 233
Table 14  **Univariate Analysis of Variance for Goodness of Fit**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5</td>
<td>32925.03</td>
<td>6585.01</td>
<td>6.96</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Within groups</td>
<td>205</td>
<td>194044.71</td>
<td>946.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>226969.74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Group Means and Standard Deviations**

<table>
<thead>
<tr>
<th>Cohort group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>48.97</td>
<td>59.63</td>
<td>67.58</td>
<td>87.90</td>
<td>79.08</td>
<td>62.80</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>24.11</td>
<td>30.23</td>
<td>29.05</td>
<td>28.27</td>
<td>35.84</td>
<td>40.35</td>
</tr>
</tbody>
</table>

n = 210
### Table 15  Univariate Analysis of Variance for Professional Identity

<table>
<thead>
<tr>
<th>Professional Identity</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5</td>
<td>4424.53</td>
<td>885.51</td>
<td>3.49</td>
<td>.005</td>
</tr>
<tr>
<td>Within groups</td>
<td>240</td>
<td>60848.58</td>
<td>253.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>245</td>
<td>65276.11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cohort group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>216.05</td>
<td>217.83</td>
<td>218.25</td>
<td>226.25</td>
<td>224.41</td>
<td>226.81</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>16.62</td>
<td>17.92</td>
<td>15.84</td>
<td>14.76</td>
<td>16.75</td>
<td>12.45</td>
</tr>
</tbody>
</table>

n = 246
There was a curvilinear trend between group means on the index of perceived quality with increasing discrepancy between ideals and reality across all of the baccalaureate cohort groups, peaking with cohort group 4, (current first year master students) and then decreasing for cohort group 5 (1985 master graduates) and cohort group 6 (1983 master graduates). The F-ratio for professional identity was 3.49, p = .005 which was also significant. There was essentially a positive, linear trend between group means on professional identity with the exception of cohort group 4 (current first year master students). This group demonstrated an exceptionally higher mean score on professional identity than any of the baccalaureate groups and one of the other master groups.

Post-hoc analyses were then done utilizing the Newman-Keuls' procedure for the two dependent measures, perceived quality or goodness of fit and professional identity which had significant F-ratio statistics. The findings of the post hoc analyses between all pairs of group means for the two dependent measures which reached significance are summarized in Tables 16 and 17. On the professional identity measure (Table 16), group 4 (current first year master students) differed significantly from both group 1 (current generic junior baccalaureate students) and group 3 (1983 baccalaureate graduates), with group 4 (current first year master students) having the higher mean score. The findings on perceived quality (Table 17)
Table 16  Post Hoc Analysis of Variance of Professional Identity Utilizing the Newman-Keuls’ Procedure

<table>
<thead>
<tr>
<th>Mean</th>
<th>Cohort group</th>
<th>Professional Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>216.05</td>
<td>1 - Current junior generic baccalaureate students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 40)</td>
<td></td>
</tr>
<tr>
<td>217.83</td>
<td>2 - May-June 1985 baccalaureate graduates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 47)</td>
<td></td>
</tr>
<tr>
<td>218.25</td>
<td>3 - 1983 baccalaureate graduates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 54)</td>
<td></td>
</tr>
<tr>
<td>226.25</td>
<td>4 - current first year master students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 40)</td>
<td></td>
</tr>
<tr>
<td>224.41</td>
<td>5 - May-June 1985 master graduates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 40)</td>
<td></td>
</tr>
<tr>
<td>226.81</td>
<td>6 - 1983 master graduates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 39)</td>
<td></td>
</tr>
</tbody>
</table>

n = 246
p = .05
Table 17  Post Hoc Analysis of Variance of Perceived Quality (Goodness of Fit) Utilizing the Newman-Keuls' Procedure

<table>
<thead>
<tr>
<th>Mean</th>
<th>Cohort Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.97</td>
<td>1 - Current junior generic baccalaureate students (n = 40)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59.63</td>
<td>2 - May-June 1985 baccalaureate graduates (n = 47)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67.58</td>
<td>3 - 1983 baccalaureate graduates (n = 54)</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>87.90</td>
<td>4 - current first year master students (n = 40)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79.08</td>
<td>5 - May-June 1985 master graduates (n = 40)</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62.80</td>
<td>6 - 1983 master graduates (n = 39)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

n = 210
p = .05
indicated that groups 3 (1983 baccalaureate graduates), 4 (current first year master students), and 5 (1985 master graduates) all differed significantly from group 1 (current generic junior baccalaureate students). The current generic junior baccalaureate student group perceived the best fit between their ideals and reality as reflected by the lower mean score. Group 5 (1985 master graduates) also differed significantly from group 2 (1985 baccalaureate graduates) with group 5 (1985 master graduates) perceiving more discrepancy (or a poorer fit) between ideals and reality as reflected in a higher mean score. Group 4 (current first year master students) also significantly differed from groups 2 (1985 baccalaureate graduates) and 3 (1983 baccalaureate graduates), and 6 (1983 master graduates). Group 4 (current first year master students) had the highest mean score of any of the groups indicating they perceived the most discrepancy between ideals and reality, or the poorest fit.

An additional multivariate analysis of variance was done addressing the specific subscales identified by Miller (personal communication, February 20, 1985) as comprising the professional identity index. Three of the six subscales contributed significantly to the multivariate analysis: the Joint Commission mandate ($F = 2.46, p = .034$), the seven-item index of standards of practice ($F = 3.08, p = .01$), and the 29-item index of standards regarding nursing administrative responsibilities ($F = 4.88, p < .0001$).
Wilks' lambda was the overall multivariate statistic computed and it was significant ($F = 2.26, p < .0001$). Table 18 summarizes these results.

Post hoc analyses of variance were then done utilizing the Newman-Keuls' procedure and are summarized in Tables 19 and 20. The significant $F$-ratio for the subscale, Joint Commission mandates, failed to be upheld in post hoc analysis. No two groups were significantly different at the .05 level of significance. For the subscale, standards of practice, cohort group 4 (current first year master students) differed significantly from groups 2 (1985 baccalaureate graduates) and 3 (1983 baccalaureate graduates). Cohort group 4 (current first year master students) had the highest mean score on this subscale which indicates they placed more value or importance on standards of practice than the other groups. Examination of the subscale, standards of nursing administrative responsibilities, indicated that cohort groups 4 (current first year master students), 5 (1985 master graduates), and 6 (1983 master graduates) each differed significantly from cohort group 1 (current generic junior baccalaureate students). These findings indicate that all of the master cohort groups had higher mean scores than the current, generic junior baccalaureate students (cohort group 1). Additionally, cohort group 4 (current first year master students) had a significantly higher mean score than groups 2 and 3, the other two baccalaureate cohort groups.
Table 18  **Univariate and Multivariate Analyses of Variance for the Professional Identity Subscales**

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Cohort Group 1</th>
<th>Cohort Group 2</th>
<th>Cohort Group 3</th>
<th>Cohort Group 4</th>
<th>Cohort Group 5</th>
<th>Cohort Group 6</th>
<th>df</th>
<th>F</th>
<th>Wilks' Lambda (Overall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Commission on Accreditation of Hospitals mandate (1 item)</td>
<td>M 4.39</td>
<td>M 4.61</td>
<td>M 4.61</td>
<td>M 4.75</td>
<td>M 4.71</td>
<td>M 4.79</td>
<td>5,235</td>
<td>2.46*</td>
<td>2.26**</td>
</tr>
<tr>
<td></td>
<td>SD 0.84</td>
<td>SD 0.58</td>
<td>SD 0.46</td>
<td>SD 0.44</td>
<td>SD 0.46</td>
<td>SD 0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics (2 items)</td>
<td>M 8.81</td>
<td>M 8.50</td>
<td>M 8.57</td>
<td>M 8.98</td>
<td>M 9.06</td>
<td>M 8.97</td>
<td>5,235</td>
<td>1.98</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD 1.12</td>
<td>SD 0.93</td>
<td>SD 1.26</td>
<td>SD 0.95</td>
<td>SD 0.87</td>
<td>SD 1.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy (6 items)</td>
<td>M 26.94</td>
<td>M 27.62</td>
<td>M 27.58</td>
<td>M 28.03</td>
<td>M 27.86</td>
<td>M 28.12</td>
<td>5,235</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD 2.10</td>
<td>SD 2.34</td>
<td>SD 1.98</td>
<td>SD 1.84</td>
<td>SD 1.96</td>
<td>SD 1.82</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Shared Governance (7 items)</td>
<td>M 35.58</td>
<td>M 35.64</td>
<td>M 36.29</td>
<td>M 35.76</td>
<td>M 37.09</td>
<td>M 36.55</td>
<td>5,235</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD 3.04</td>
<td>SD 2.89</td>
<td>SD 2.29</td>
<td>SD 2.32</td>
<td>SD 2.63</td>
<td>SD 3.09</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Standards of practice (8 items)</td>
<td>M 32.27</td>
<td>M 30.82</td>
<td>M 30.88</td>
<td>M 32.72</td>
<td>M 32.06</td>
<td>M 32.09</td>
<td>5,235</td>
<td>3.08**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD 2.48</td>
<td>SD 3.13</td>
<td>SD 3.40</td>
<td>SD 2.55</td>
<td>SD 3.06</td>
<td>SD 2.52</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Standards of nursing administrative responsibilities (29 items)</td>
<td>M 121.35</td>
<td>M 123.84</td>
<td>M 124.51</td>
<td>M 130.34</td>
<td>M 128.73</td>
<td>M 130.76</td>
<td>5,235</td>
<td>4.88**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD 11.47</td>
<td>SD 11.31</td>
<td>SD 10.23</td>
<td>SD 9.59</td>
<td>SD 10.82</td>
<td>SD 8.67</td>
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<td></td>
</tr>
</tbody>
</table>

n = 241
*£ < .05
**£ ≤ .01
<table>
<thead>
<tr>
<th>Mean</th>
<th>Cohort Group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>32.24</td>
<td>1 - current junior generic baccalaureate students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(n = 40)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.82</td>
<td>2 - May-June 1985 baccalaureate graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 47)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.72</td>
<td>3 - 1983 baccalaureate graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 54)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.72</td>
<td>4 - current first year master students</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
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<tr>
<td></td>
<td>(n = 40)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.99</td>
<td>5 - May-June 1985 master graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 40)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>32.18</td>
<td>6 - 1983 master graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n = 39)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

n = 241

p = .05
Table 20  Post Hoc Analysis of Variance of the Subscale, Standards of Nursing Administrative Responsibilities, Utilizing the Newman-Keuls' Procedure

<table>
<thead>
<tr>
<th>Mean</th>
<th>Cohort Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>121.66</td>
<td>1 - current junior generic baccalaureate students (n = 40)</td>
</tr>
<tr>
<td>124.84</td>
<td>2 - May=June 1985 baccalaureate graduates (n = 47)</td>
</tr>
<tr>
<td>124.63</td>
<td>3 - 1983 baccalaureate graduates (n = 47)</td>
</tr>
<tr>
<td>130.34</td>
<td>4 - current first year master students (n = 40)</td>
</tr>
<tr>
<td>128.46</td>
<td>5 - May-June 1985 master graduates (n = 40)</td>
</tr>
<tr>
<td>130.76</td>
<td>6 - 1983 master graduates (n = 39)</td>
</tr>
</tbody>
</table>

n = 241
p = .05
In summary, based on the path analysis done, all of the a priori hypotheses addressing direct effects (hypotheses 1 to 4) and two of the hypotheses addressing indirect effects (hypotheses 5 and 8) demonstrated positive relationships as were predicted. The strength of the relationships were, however, quite weak. The remaining two hypotheses addressing indirect relationships (hypotheses 6 and 7) resulted in path coefficients less than .001 and were therefore considered to be too negligible to support the hypothesized relationships. In addition to the testing of the specific hypotheses, the overall fit of the empirical data to the deductively derived model was weak. The total amount of variance explained by the model was only 4.8. Lastly, in order to address the debated issue of statistical significance and its role in path analysis, a forced entry multiple regression analysis was done. This analysis indicated that the total amount of explained variance did not reach statistical significance.

In regard to the anticipated cohort differences, the measures of professional identity and perceived quality of the current work setting did demonstrate some significant differences. And, in fact, the statistically significant differences were of adequate strength to be upheld by post hoc analysis which demonstrated more precisely where the groups differed. For the measure of temporal perspective, there were no significant group differences.
CHAPTER 5
DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

This study was designed to test the substantively stipulated model derived deductively from the holistic construct, expanding awareness of consciousness, utilizing the statistical technique of path analysis. Although a number of a priori hypotheses were postulated as a way of testing particular aspects of the model, the discussion in this chapter will focus more upon the fit of the empirical data to the overall model and its underlying concepts.

The conceptual model developed for this study was based on the construct of expanding awareness of consciousness. Perceived global wellbeing was conceptualized as an empirical indicator of broad scope of the underlying construct, expanding awareness of consciousness. Perceived global wellbeing was defined as a holistic indicator which considers self and environment as a totality, an inseparable whole. Professional identity, on the other hand, was also defined as another empirical indicator of the construct expanding awareness of consciousness, but was an indicator of narrower scope. Professional identity was conceptualized as focusing on just those characteristics relevant to "professional work life" versus life in general. Through the dynamic interplay between theorizing, conducting research, and careful consideration of the empirical
findings and the knowledge of hindsight, it is now apparent that the model developed to guide this study was poorly conceived as a model of perceived global wellbeing. Its focus was narrowly restricted to factors believed to have definite effects upon professional identity, a "work life" variable and no consideration was given to the multitude of other variables believed to have an effect on perceived global wellbeing. As proposed, however, the findings of this study, in terms of the relatively small amount of variance explained by the model purporting to predict perceived global wellbeing, were highly congruent with the results reported by Andrews and Withey (1976), Cantril (1967), and Campbell, Converse, and Rogers (1976).

Andrews and Withey (1976) did extensive modeling analyses on the relationships between individual life concerns and feelings about life-as-a-whole, or perceived global wellbeing. Based on the data from three national surveys (previously discussed in Chapter 2), they found similar trends across all of the studies. Of particular interest was the relationship between a 1-item job concern measure and Life 3, the measure of perceived global wellbeing. The correlation coefficients ranged from .23 to .37. However, the strongest relationships overall were between concerns relevant to personal wellbeing and global wellbeing, which ranged from .51 to .61. These findings corroborate Cantril's (1967) general observations which are based on research done in the United States and 12 other
countries. Although Andrews and Withey's findings for specific individual concerns are not completely consistent with Cantril's, the relationship of job concern to overall wellbeing was supported. Andrews and Withey (1976) also report additional results pertaining to a 5-item job index and its relationship to perceived global wellbeing (Life 3). They found that the multi-item job index explained 3 to 5% of the variance in perceived global wellbeing. They state,

A surprise comes ... where we find feelings about job seeming to play a relatively small role. Given the large amount of time most employed people spend at their jobs, and the widespread belief that work roles are important to the people who fulfill them, one might have expected job concerns to show more relationship to Life 3, even after holding constant the effects of other predictors (p. 125).

Because they were sufficiently surprised by the low position or explanatory power of job concerns to perceived global wellbeing, they conducted a series of subanalyses to further explore the matter. A subpopulation analysis was done only with employed males because there were insufficient numbers of employed females to support a parallel analysis. They found that job concerns accounted for approximately 3 to 4% of the explanatory power in the Life 3 measure. They state,

Although there were not enough employed women in our sample to support a parallel analysis for them, various other analyses suggest that feelings about job would show even less impact on feelings about life-as-a-whole for employed women then they had for employed men (p. 129).

The results of this current investigation indicate that job concerns, in fact, account for 4% of the explained variance
in Life 3 and this finding is based on a sample of 96.4% women.

Based on the empirical findings and the conceptual clarity gained through the research process, the inadequacies of the proposed model as a model of perceived global wellbeing are now apparent. Of equal importance and clarity now is the realization that the model should more accurately be described as a model with predictive value relative to the development of a sense of professional identity as an indicator of wellbeing in the work place, not of global wellbeing. Therefore, a new model is proposed and an initial, partial testing of this model will be discussed at the end of this chapter. However, the immediately following discussion will more specifically address each of the concepts in the original model and issues regarding them. First, the exogenous or independent variables of professional education, quantity, and perceived quality of professional work experience will be discussed. This will be followed by a discussion of the endogenous or dependent variables of temporal perspective, professional identity, and perceived global wellbeing.

Professional Education. Professional education in this study was defined as the formal process whereby one is exposed to the scientific knowledge, the clinical practices, and the reference group's norms and values via a formal program of higher education in nursing. The baccalaureate degree represents the entry level or initial exposure to
professional education in nursing. An underlying assumption of this study was that National League for Nursing accredited programs would be highly similar in terms of curricular matters and outcomes and that subjects from a number of different programs could be treated as a single unit. This may or may not be a valid assumption and further exploration is indicated. Although all of the programs which provided access to students and graduates were NLN accredited, there may well be differences in the focus, emphasis, or placement of various courses in the nursing curriculum which might result in differences between student/graduate groups from the different programs. However, due to the size of each of the cohort groups (39-54 subjects), it was not possible to test for differences between subjects affiliated with the different programs. In order to determine if, in fact, the different nursing programs had different influences on their students, these subsample sizes would have to be increased three to four fold. Therefore, further large studies are indicated to support intragroup comparisons on the dependent variables.

The formal process of professional education is a complex process which considers exposure to scientific knowledge, clinical practices, and the reference group's norms and values. As such, it is almost impossible to separate the formal process of education from the more abstract process of role socialization. For the nursing students, the reference group to which they are exposed is
an amalgam of both nurse educators and practicing nurses, with a wide variety of different educational and experiential backgrounds. Therefore, the influence of the reference group's norms and values upon students cannot be disregarded.

Due to the nature of the educational process, the geographic locale of the schools and the sites for clinical placements may influence one's perceptions of the reference group's norms and values. In this study, one of the baccalaureate programs was in the state's largest county and metropolitan area with all clinical placements in the urban area. One other baccalaureate program, although in the same general metropolitan area, had its clinical placements in more suburban areas. The remaining two baccalaureate programs were in more rural parts of the state. The four master programs were also located in different geographical areas in two different Midwestern states and so the reference group's norms and values may have differed. Therefore, in future studies it would be worthwhile to collect data regarding the demographic characteristics (e.g., formal educational background, length of experience, and continuing educational activities) of the nurses employed in the institutions which are the sites for student practicum experiences.

There may also be differences in the reference group's norms and values when students are exposed to faculty who teach in schools of nursing where the baccalaureate is the
only nursing degree offered (two of the four programs in this study) versus the first nursing degree offered. In addition to possible differences in faculty mix (doctorally vs. masters prepared faculty), there may also be differences in one's perceptions of the reference group's norms and values due to the interactions between beginning baccalaureate students and graduate students who may be perceived as being an integral part of the reference group.

In addition, the possible confounding influence of other formal higher educational programs should be considered. Although an attempt was made to control for the possible confounding influence of other formal higher educational programs, the control was only reasonably achieved relative to the three baccalaureate cohort groups in this study. Subjects included in these groups were either current generic junior baccalaureate nursing students or 1983 or 1985 generic baccalaureate graduates. As a whole, the mean ages of these groups (refer back to Table 3) indicated that it was unlikely that the subjects had also been matriculated in any other formal higher educational process. In the present study, subjects were asked to indicate all levels of education they had completed (Appendix C, item # 35). However, the responses to this question were very confusing and there was a great deal of missing data. For example, although 217 out of 260 subjects (83.46%) indicated they had a nursing baccalaureate degree in response to item #27 (Appendix C), only 80 subjects (36.86%) indicated that they
had completed the sophomore year of a baccalaureate nursing program. It appears that subjects did not check all appropriate responses, but simply the highest degree attained. Therefore, any attempt to control for or analyze the influence of other formal higher educational programs on the subjects in this study was thwarted by an excessive amount (over 50%) of missing data. In the future, perhaps a series of forced-answer questions would result in a better data set.

Additionally, it may be advantageous to expand the study sample to include diploma and associate degree nurses so that the influence of different types of educational programs could be assessed. By limiting the sample in the present study to university educated nurses (current students and recent graduates), a restrictive range of variance, due to the homogeneity of the sample, may have been imposed. Also, the possible influence of continuing educational activities, in contrast to formal, higher educational programs, should be considered relative to the more abstract process of role socialization.

Professional Work Experience. Professional work experience was defined in this study as an abstract holistic concept which considered both quantity and perceived quality of work experiences. Quantity of professional work experience was defined in this study as the total number of months of employment since licensure as a registered nurse. Although this appears to be fairly straightforward, one
might argue that licensure as a registered nurse is not a sufficient condition to be synonymous with "professional" work experience. In other words, length of experience as a licensed registered nurse is not identical to length of professional work experience. For the purposes of this study, however, length of experience as a registered nurse was considered to be a valid and reliable measure of length of professional work experience. One cannot completely ignore the underlying, essentially philosophical, argument that there may, in fact, be qualitative differences in "professional" work experiences which should be considered in the determination of an index number specifically for length of professional work experience. It is the contention of this author that the argument is not a substantive one in regard to quantity or length of experience, but rather the perceived quality of the experience.

The specific attention to perceived quality of work experience in this study is regarded as a distinguishing feature of the study and a missing element in most other studies reported in the literature. In this study, the perceived quality of work experience was defined as the goodness of fit between one's values/beliefs and the degree to which those same values are perceived to be actualized or present in reality in the current work setting, utilizing the Miller and Polentini tool. However, this measure was limited to patient care environments. This definition,
although a critical first step in the right direction, does not entirely capture the complexity of the underlying attribute of quality. The empirical indicator of quality selected for use in the present study does not provide any understanding of the notion of perceived quality of prior experiences or perceived quality in nursing positions not directly associated with patient care environments (e.g., nursing education). However, the influences of prior or different nursing work experiences cannot be discounted as having theoretical significance relative to the development of a sense of temporal perspective and professional identity.

Additional empirical indicators of perceived quality of work over one's entire career may be necessary if the highly abstract and complex concept is to be adequately measured. However, a number of thorny issues arise in regard to the measurement of perceptions over an extended time period. The threat of history certainly becomes a real issue. Can people accurately recall and report perceptions of past events? Will people tend to respond in socially desirable ways? There certainly is a considerable body of psychological literature which suggests that, as a means of dealing with unpleasant past experiences, one tends to forget or sublimate negative feelings. This is an issue which demands careful consideration.

Additional possible confounding influences must also be considered relative to perceived quality of either present
or past experiences. The specific expectations of persons in any position in an institution and their ability to satisfactorily meet those expectations are likely to influence their perceptions of the overall quality of the experience. Research based on cognitive dissonance theory (Festinger, 1957) seems to suggest that in order to minimize perceived dissonance one of two events may occur. People may unconsciously alter their values or beliefs in a downward direction to minimize the perceived discrepancy or they may overinflate their perceptions about the "goodness" of the situation to be more closely aligned with their values. Additionally, Locke (1976) and Morishima (1986) suggest that a "value-percept" model must address both intrinsic and extrinsic components as interactive phenomena. Intrinsic rewards are those associated with performance and the accomplishment of duties or the content of the work itself (Morishima, 1986). On the other hand, extrinsic rewards, "...are mediated by an agent other than the individual (e.g., the organization) contingent on performance or accomplishment of a task (Morishima, 1986, p.81)." These include rewards such as pay and promotion. Therefore, the issue of economic benefits (salary and benefits) and economic security is another extremely important consideration which demands further study.

Freidson (1972) and Hall (1982) both suggest that the capacity to demand and receive reasonable levels of compensation is an essential underlying attribute of any
profession. As such, the possible confounding influence of economic benefits paid to professionals employed in institutions must be assessed. Although this discussion is clearly beyond the scope of the present study, the issue remains that some statistical control over intrinsic and extrinsic factors such as specific types of jobs held and hierarchical position in the organization, types of institutions worked in over the course of one's career, and salary and benefits received, would lend additional insight, clarity, and strength to the issue of the measurement of perceived quality.

All of the concepts in the deductively derived study model are regarded as process variables versus outcome variables. As previously stated, expanding awareness of consciousness is an ongoing developmental life process. Professional identity is more narrowly defined as a developmental "work life" process. Perceived global wellbeing is also a process variable as defined by Andrews and Withey. As such, the impact of one's perceptions regarding the quality of the present work setting are likely to be the most significant in influencing the endogenous process variables in the conceptual model. Therefore, despite the many possible confounding issues and the abstractness of the underlying attribute of perceived quality, the measure of perceived quality as defined in this study was considered to be a valid and reliable measure for initial analysis.
A final consideration relative to perceived quality is whether or not it is causally antecedent to professional identity. A direct, recursive link was posited in this study; however, the possibility of a nonrecursive relationship should be considered in future research. As defined in this study, perceived quality is a measure of the goodness of fit between one's ideals and one's perceptions of reality and so the integrality of the link between the concepts of perceived quality and professional identity should be explored in future research.

Temporal Perspective. As defined in this study, temporal perspective was measured utilizing a revised scoring format of the Time Metaphor Test (Knapp & Garbutt, 1958). The validity of the measure for assessing the hypothesized functional relationship between an absolute/linear temporal perspective and an existential/holistic temporal perspective along a single continuum was confirmed. However, upon more careful and studied reflection, although the metaphors on the clusters do differentiate between the notion of time as a unidirectional (absolute/linear) experience versus an all encompassing, surrounding, multidimensional experience (naturalistic/passive), the emphasis on contrast in speed appears to be an overriding one. Modifications to the original instrument are indicated so that the quality of speed is minimized or eliminated but the functional relationship preserved. Also, because of the advances in
physics over the past thirty years and the changing concepts of absolute space and absolute time and the recent recognition of the concept of space-time, new metaphors of time should be considered.

The critical underlying issue of conceptual clarity, operationalization, and measurement of variables demands careful attention. Smith (1984) and Sanders (1986) both suggest that the multidimensional structure of time experiences has not been adequately evaluated and translated into meaningful measures. Sanders (1986) suggests that meaning is the most complex, elusive, and least understood of the dimensions of time. She further states that meaning is, "...the qualitative, nonchronological nature of personal time experience" (p. 179). Clearly, the operationalization and accurate measurement of the concept temporal perspective is a difficult one and further work in this area is indicated.

The lack of a clear pattern of relationship between temporal perspective and cohort group status, a measure of relative position along the occupational-professional continuum, may in part be due to this lack of conceptual clarity. However, one must also consider whether or not the stipulated sampling plan in this study resulted in too homogeneous a population for true differences or variability in temporal perspective to be discernable. It is possible that a sample of all university educated students and graduates is too homogeneous for differences along a
temporal perspective continuum to emerge in relationship to occupational-professional status. Despite the conceptual congruence in the works of E. Hall (1984) and Zerubavel (1981) and the suggestion that occupational and professional persons perceive time differently, there are no reported empirical findings which are clearly supportive of this premise. Therefore, additional studies with less restrictive sampling plans which include diploma and associate degree nurses (students and graduates) should be done. Also, in order to more clearly test this postulate, a study should be designed, using an obvious known groups sampling plan and the statistical technique of discriminate function analysis as a way of confirming the hypothesized relationship between temporal perspective and occupational-professional status.

**Professional Identity.** Professional identity was defined as a multidimensional concept and is reflective of the internalization of a reference group's norms and values. It was measured utilizing Scale A of the tool developed by Miller and Polentini. Due to the fact that the tool was in an early stage of development, there were no reported validity and reliability data in the literature. However, based on the strength of the face or content validity of the tool it was used in the present study, as it promises to be a singular exception to the outdated, trichotomous (service, bureaucratic, professional) role conception approach toward professional identity.
A number of issues related to the reliability of the tool must be considered. Although the possible range of scores on the tool is 50-250, with the present data set, the actual range was much more restricted (174-250). The precise cause of this restricted range is not easily discernable based only on the findings of the present data set. Three of the many possible explanations include a ceiling effect secondary to a response set bias in which scores always approach the maximum values, social desirability, or a sampling plan which resulted in too homogeneous a sample, thereby restricting possible variation.

Response set is defined as "the general tendency to respond to ... questionnaire items in a particular manner, irrespective of their content" (Carmines & Zeller, 1979, pp. 65-66). This is a distinct possibility when all items are worded in a similar manner, or when a number of different items believed to represent the same underlying subdimension are presented in a sequential order. Both of these issues are relevant to the tool used to measure professional identity in the present study. All of the 50 items on the tool developed by Miller and Polentini (Appendix C, Part C) are worded in a similar and positive manner, a fact that raises the related concern of social desirability in response set bias. Also, the items believed to represent different subdimensions are clustered together rather than randomly placed throughout the questionnaire. For example,
the eight-item index of shared governance identified by Miller (personal communication, February 20, 1985) consists of the first eight items on the tool.

The restricted range of scores in the present data set must be carefully considered secondary to the response set bias and the issue of social desirability. A response set bias in terms of who voluntarily responded to the postcard and who completed the questionnaire must be carefully considered. It may be that only persons who positively perceived of themselves as professionals responded to the questionnaire. An interesting finding with the current data set was the fact that the single item on the professional identity index (Scale A) which was most strongly correlated to the total score on Scale A ($r = .64$) was the item which read as follows: "Nursing research is supported and facilitated by nursing administration" (Appendix C, Part C, #33, column A). This suggests that a person with a high sense of professional identity values nursing research and may therefore, be willing to participate in research activities. In contrast, one may speculate that a person with a low sense of professional identity does not value research and therefore, did not chose to participate in this study.

However, based on only the findings of the present data set, it is not possible to draw any definitive conclusions regarding the restricted range of scores. It may well be that the sampling design in the present study resulted in a
highly homogenous sample and that the restricted range is, in fact, an accurate reflection of the sample and not an indication of a ceiling effect. Additional studies utilizing the Miller and Polentini tool are needed so that the reliability of the tool can be determined. A study in which the nursing educational backgrounds of subjects was unrestricted and included diploma, associate, baccalaureate, master, and doctoral students and graduates should be conducted. Also, rather than collecting data on students already actively involved in their chosen educational programs, data should be collected prior to actual interaction with the faculty. This would provide some degree of control over what may be an "intense indoctrination effect" on the development of a sense of professional identity due to the present educational involvements.

An additional issue to consider relative to the tool used to measure professional identity is the high correlation (.96) between the 29-item subscale of nursing administrative responsibilities and the total 50-item index. Based on the factor analysis done on the present data set, the multidimensional nature of the tool was confirmed; however, the factors that emerged were somewhat different than those identified by Miller. Six factors emerged in the present data set which seem to reflect subdimensions of values and beliefs. These may be identified as follows: 1) scholarship (which included items
addressing collaboration, research, evaluation, and education); 2) individual autonomy or individual competence; 3) standards of practice; 4) autonomy of the Department of Nursing; 5) shared governance; and 6) management information systems which included items addressing general information systems and patient classification systems. Based on this factor analysis, a total of 38 items had factor loading scores greater than .3 which, according to Carmines and Zeller (1979), is a reasonable standard. Also, the factors to emerge consisted of a minimum of four items to a maximum of 10 items. A revised, shortened format of the instrument, with random sorting of items comprising the various subscales across the total instrument, and the rewording of some items so as to avoid a response set tendency are indicated. All of the issues related to the reliability of the professional identity tool cannot be addressed by the present data set alone (such as the effect of alternate wording of items). Therefore, additional analyses and further studies are clearly needed.

**Perceived Global Wellbeing.** A number of concerns relative to the measurement of perceived global wellbeing arose. The validity and reliability of the Life 3 measure had been determined to be adequate to justify its use as an empirical indicator in this study. However, the failure of the measure to roughly replicate the normal distribution reported by Andrews and Withey (1976) deserves some attention. In the present study, subjects reported a higher
sense of perceived wellbeing than expected, with 85.8% of the respondents indicating that they felt "Mostly Satisfied", "Pleased", or "Delighted" about life as a whole. Only 14.2% of the subjects indicated that they felt "Mixed - About Equally Satisfied and Dissatisfied", "Mostly Dissatisfied", "Unhappy", or "Terrible" about life as a whole. In and of itself, there is no reason to doubt the validity and reliability of the measure, but it is clear that in the present study sample there was a restricted range of variability. Overwhelmingly, the subjects in this study perceived life as a whole favorably and this may be due to a number of factors. The homogeneity (and therefore lack of variability) among the study subjects may be a result of the sample of participants who voluntarily chose to respond to the postcard and questionnaire. It may be that only persons with a positive perception of global wellbeing chose to participate in this study. This possibility is certainly congruent with the findings of many studies addressing "burnout." Quite frequently, the hypothesized negative relationships among a variety of "burnout" study variables have failed to be confirmed by the empirical data. This may be due to the fact that the very persons most likely to be negatively impacted are the one's who chose not to voluntarily participate in research activities. The decision to not participate has been associated with physical fatigue (lack of energy) and/or emotional fatigue (lack of interest). This possible type of
Figure 6  Alternative Path Model with Professional Identity as the Criterion Variable.

Where: $y,x$ is the pathway between $y$ and $x$.

$r_{x,x}$ is the correlation between exogenous variables.

$R_y$ is the unexplained, uncorrelated error term.
Figure 7  Initial Partial Testing of Alternative Model with Professional Identity as the Criterion Variable.

Overall Explained Variance = .15

Where: $p_{y,x}$ is the pathway between $y$ and $x$.

$r_{x,x}$ is the correlation between exogenous variables.

$R_y$ is the unexplained, uncorrelated error term.
response set bias results in truncated ranges and has a direct and minimizing effect on computed correlations and may well be an issue in the present study. However, the possibility exists that the truncated range phenomenon may also be an accurate reflection of perceived global wellbeing in the accessible and target populations of this study. Unfortunately, there are not enough empirical data to determine which of the preceding explanations are more likely. Additional studies which utilize less restrictive sampling plans would be helpful in clarifying this issue.

The conceptual and measurement issues relative to all of the concepts in the original model have been discussed. At this time, based on the conceptual clarity gained through the research process, an additional model of professional identity, as an indicator of "work life wellbeing" is presented in Figure 6. This new model is essentially a truncated version of the original model, with professional identity as the dependent or criterion variable and with perceived quality of experience considering both intrinsic and extrinsic factors. All of the previously hypothesized pathways leading to the criterion variable are intact. Figure 7 summarizes the initial, partial testing of the new causal model. Based on the limitations of the present data set, it was not possible to test the hypothesized pathways between extrinsic work factors (e.g., salary and benefits) and the dependent variables of temporal perspective and professional identity (depicted as dashed lines in Figures 6
and 7). The path coefficients which could be computed were based on the same bivariate correlations between the variables as presented previously in Table 11.

The hypothesized direct paths are as follows: 1) temporal perspective and professional identity ($p_{5,4}$); 2) perceived quality/goodness of fit and professional identity ($p_{5,3}$); 3) quantity of experience and professional identity ($p_{5,2}$); 4) education and professional identity ($p_{5,1}$); 5) perceived quality/goodness of fit and temporal perspective ($p_{4,3}$); 6) quantity of experience and temporal perspective ($p_{4,2}$); and 7) education and temporal perspective ($p_{4,1}$).

The correlations between the exogenous variables are: 1) quantity and quality of experience ($r_{3,2}$); 2) education and quality ($r_{3,1}$); and 3) education and quantity ($r_{2,1}$). The three indirect paths are: 1) education mediated by temporal perspective as a predictor of professional identity ($p_{4,1} \times p_{5,4}$); 2) quantity mediated by temporal perspective as a predictor of professional identity ($p_{4,2} \times p_{5,4}$); and, 3) perceived quality mediated by temporal perspective as a predictor of professional identity ($p_{4,3} \times p_{5,4}$).

The computed path coefficients in and of themselves are still weak, but the total variance explained by this new model is 15%. Again, as a means of addressing the issue of statistical significance, which was not computed by the path analysis program utilized, a multiple regression analysis (stepwise) was done with professional identity as the dependent or criterion variable. The $F$ statistic computed
was 5.1, \( p < .0001 \). Table 21 summarizes the findings of the multiple regression analysis. These results are clearly more promising. In fact, statistical significance was achieved and with the conceptual clarity gained through the research process, the alternative model of professional identity is regarded as having substantial theoretical significance, even without specific consideration of extrinsic economic factors.

The discussion thus far has been organized in relation to the concepts or variables in the path model and the goodness of fit of the empirical data to the overall model. However, additional analyses were done in order to address the research question posed in this study. And these findings proved to be helpful in further explicating the nature of the relationships among the variables in the model. As noted previously in Table 11 and summarized in Table 22, the bivariate correlations among the three exogenous variables were all statistically significant, \( p < .005 \). Additionally, the bivariate correlations between each of the exogenous variables and professional identity, the dependent, criterion variable, were significant, \( p < .0001 \). Also, the bivariate correlation between temporal perspective and perceived global wellbeing was statistically significant, \( p = .05 \). Although the majority of the bivariate correlations are weak (\( .11 \) to \( .33 \)), they demonstrate great promise in substantively supporting the deductively derived conceptual model of this study. As
Table 21  Stepwise Multiple Regression Analysis with Professional Identity as the Criterion Variable

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable Entered</th>
<th>Multiple R</th>
<th>R-Squared</th>
<th>Overall F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Goodness of Fit Index</td>
<td>.29</td>
<td>.087</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Length of Experience</td>
<td>.35</td>
<td>.119</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporal Perspective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Years of Education</td>
<td>.36</td>
<td>.133</td>
<td>5.10</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

n = 149
Table 22  Summary of Significant Intercorrelations Among the Bivariate Concepts/Variables in the Overall Path Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Years of Education</th>
<th>Length of Experience</th>
<th>Perceived Quality of Work-Goodness of Fit</th>
<th>Temporal Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Experience</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; .0001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Quality of Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work-Goodness of Fit</td>
<td>.23</td>
<td>.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; .0001</td>
<td>p = .005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Identity</td>
<td>.22</td>
<td>.24</td>
<td>.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>p &lt; .0001</td>
<td>p &lt; .0001</td>
<td>p &lt; .0001</td>
<td></td>
</tr>
<tr>
<td>Perceived Global</td>
<td></td>
<td></td>
<td></td>
<td>.11</td>
</tr>
<tr>
<td>Wellbeing (Life 3)</td>
<td></td>
<td></td>
<td></td>
<td>p = .046</td>
</tr>
</tbody>
</table>
previously discussed, the weak bivariate correlations and the even weaker path correlation coefficients, in which spuriousness has been partialed out, are likely to be secondary to sampling limitations in this study.

The sampling plan in this study resulted in a fairly homogeneous sample with a more restricted range of responses than anticipated relative to the dependent variable measures. Although the measure of temporal perspective failed to support any cohort group differences, it is important to note that the direct path coefficients between temporal perspective and the other endogenous variables in the models proposed are, in fact, of comparable strength to some of the other direct path coefficients between the exogenous and endogenous variables. Clearly, further refinements in the measurement of temporal perspective are indicated. However, even as measured in this study, temporal perspective did contribute to the overall explained variance in the models and therefore cannot be discounted as having some theoretical significance. The testing of alternative models which did not include temporal perspective were not done. However, such testing may, in fact, prove to be helpful in more clearly understanding the nature of the relationships among the study variables.

The results reported in Chapter 4 indicate that it is possible to differentiate between people in terms of a sense of professional identity based on cohort group differences. As stated earlier, the deliberate decision to stratify the
sample into cohort groups was a way of testing for anticipated differences due to the highly complex role socialization process. The post hoc analysis of professional identity (Table 16) indicates that current first year master students differed significantly from current junior baccalaureate students and 1983 baccalaureate graduates. As previously stated in Chapter 3, the majority of the current first year master students indicated that they were also concurrently employed. Although further analyses are needed, these findings suggest that neither educational status alone nor gainful employment alone is enough to explain the cohort group differences and that, in fact, it may well be the interaction of the two conditions in the role socialization process that is most critical to the development of a sense of professional identity.

The post hoc analysis of perceived quality also lends some interesting insight to further research which may be fruitful. As shown previously in Table 17, perceived quality of work experience was curvilinearly related to cohort group status. Current junior baccalaureate students who are inexperienced as registered nurses in the actual workplace perceive the best fit between their ideals and the degree of perceived actualization. In other words, they perceive the least amount of discrepancy. Recent baccalaureate graduates have somewhat greater discrepancy scores; more distant baccalaureate graduates have even greater discrepancy scores. Current master students then
perceive the greatest amount of discrepancy which is indicative of a perception of a lack of quality in the workplace. The discrepancy scores then begin to fall off with the 1985 masters graduates and even more so with the 1983 masters graduates.

Further analyses are necessary in order to establish the substantive significance of these findings. An important issue which must be addressed is the precise nature of the relationship between the Scale A and Scale B scores which are used to derive the empirical indicator of perceived quality in this study. A low discrepancy score could result from two very different qualitative phenomena; namely, minimal differences between high values and a high degree of perceived actualization in the workplace or minimal differences between low values and a low degree of perceived actualization. Similarly, high scores can result from either high value and low actualization, or low value and high perceived actualization. These clearly represent distinctively different qualitative phenomena. In the present data set, the mean scores on Scale A (values) were generally higher than Scale B scores (perceived actualization).

The increasing discrepancy scores with distance from the baccalaureate degree may reflect Kramer's (1974) notion of "reality shock." Current master students clearly perceive the most discrepancy which may have motivated them to return to school. Then it appears that, with additional schooling,
there are changes in the types of roles and positions one has, presumably in relation to new expanded opportunities available to nurses with master's degrees. Many interesting questions begin to emerge. Unfortunately, these questions are beyond the scope of this study, but may be helpful in guiding future research efforts. Some of these questions are as follows: Is the perceived discrepancy a motivating factor behind one's decision to return to school? And what happens if the discrepancy does not result in a return to school? Are there a significant number of disgruntled and conflicted nurses in the workforce? And what effect might this have on the quality of patient care? Or does marked discrepancy/conflict not have any direct impact on the quality of patient care because it instead leads to attrition out of nursing completely?

Further studies are needed in order to address not only the sampling limitations discussed, but also the need to consider the effects of extrinsic factors on perceived quality of work experiences. Despite the need for further research, the Miller and Polentini tool demonstrates great promise in regard to past problematic measurement issues related to professional identity (Scale A) and also as a measure of perceived quality in patient care environments. These findings alone are of major theoretical significance because nursing has been plagued for far too long by empirical studies premised on a trichotomous (service-bureaucratic-professional) role conception model of questionable validity.
Conclusions and Recommendations

As in all research endeavors, it is through the interplay between theory and empirical data that the greatest gains will be achieved. Although more work is needed relative to the models of perceived global wellbeing and professional identity, which were partially tested in this study, this study represents a significant small step along that integrated pathway of theory-building and theory-testing. Theory development and research endeavors focused upon issues of substantive significance to the profession of nursing are as important as issues of relevance to the clinical practices or discipline of nursing. This study reports upon the development of conceptual models of perceived global wellbeing and an alternative model of professional identity (theory-building) which are clearly relevant to the continuing recognition of nursing as a professional discipline.

To be recognized by society as a profession carries with it certain rights and responsibilities. The use or exercise of power is one such responsibility. Hall (1982) states:

...power provides a profession with the capacity to have legislation passed which protects its areas of practice. Power provides the capacity to establish agreed-upon credentials. Power provides the capacity to demand and receive reasonable levels of compensation (p. 13).

However, Styles (1982a) wisely cautions us that before we can turn outward with vigor and positive effect in regard to the exercise of power, we must be secure in our own
professional identity. She (1982a) further suggests that the ideologic basis of nursing's professional identity must provide the general direction for professional policy and action.

Although additional studies are needed to adequately determine the validity and reliability of the Miller and Polentini tool, the findings of cohort group differences in this study do indicate that previous problems related to the measurement of the abstract concept of professional identity have been addressed. With this as a foundation, we are now one small, and more secure, step closer toward the identification of professional policies and actions which we have a professional responsibility to address.
APPENDICES

A: Double Postcard Format
B: Cover Letter of Introduction
C: Study Questionnaire
APPENDIX A:

Double Postcard Format
TO: Junior year generic BS students, newly admitted MS students, and
generic BS and MS graduates of 1983 and 1985

FROM: Office of __________________________________________

Phyllis Brenner, a doctoral candidate in nursing at Wayne State University is conducting a study on professionalism and perceived wellbeing. This study has been approved by the WSU Committee for the Protection of the Rights of Human Subjects and the appropriate persons here at ________________.

If you would like to be considered as a potential subject for this study which will involve the completion of a mailed questionnaire, anticipated to take 30 minutes to complete, please indicate this on the attached card to be returned directly to Ms. Brenner. A sample will be drawn from all those who return the attached card and who meet the initial sampling criteria. Therefore, it is important that you answer all of the questions on the return postcard.

CARD 1

I am interested in being contacted as a subject for the study on professionalism and perceived wellbeing.

(1). I am a:  
   ____ current generic junior year BS student  
   ____ newly admitted MS student  
   ____ 1983 generic BS graduate  
   ____ 1985 generic BS graduate  
   ____ 1983 MS graduate  
   ____ 1985 MS graduate

(2). I am currently a:  
   a) ____ licensed RN and have a diploma or AD degree as my first 
      nursing degree  
   b) ____ licensed RN and have a BS as my first nursing degree  
   c) ____ not applicable, baccalaureate student currently

Name: _________________________________________________________________________

Address: _______________________________________________________________________

City, State, Zipcode ____________________________________________________________

CARD 2
APPENDIX B:

Cover Letter of Introduction
Dear Interested Research Volunteer,

Thank you for the interest you have shown in my research study. I do appreciate your return of the postcard sent to you by your school of nursing. As you will recall, I am conducting a research study on professionalism and perceived wellbeing in relation to education, professional work experience, and time sense. Therefore, the sample for this study will consist of current generic baccalaureate and master's students and recent generic baccalaureate and master's graduates. This research study is being conducted as part of my doctoral studies in nursing at Wayne State University.

Although the study has been approved by the appropriate committee at your school of nursing, the decision to participate is entirely yours. Your decision will in no way effect any aspect of your present or future affiliation with your school of nursing. In fact, neither your school of nursing nor I will be aware of the identity of those who decide to participate as all of your responses will be anonymous and will be coded according to the personal code number to be developed by you as part of the attached questionnaire. If at any time after returning the questionnaire you wish to withdraw from the study, you may do so by calling me and indicating your personal code number.

If you agree to participate in this study, you are asked to complete the enclosed questionnaire. It is expected that this will take you approximately 30 minutes. After completing the questionnaire, please place it in the attached self-addressed stamped envelope and drop it into the mail as soon as possible. This return via mail insures your anonymity.

No specific benefits to you as a subject are anticipated. Also, no perceived risks or discomforts are anticipated to be associated with this project. However, your cooperation is most valuable and would be greatly appreciated!

If you have any questions concerning this study, please feel free to phone me at my home. Your return of the completed questionnaire constitutes your informed consent to participate. If you elect not to participate, please return the blank questionnaire in the attached envelope. If possible, please return the questionnaire within 5-7 days of its receipt. Your continued participation is greatly appreciated.

Sincerely,

Phyllis S. Brenner, R.N., M.S.
Detroit, MI
(313)
APPENDIX C:

Study Questionnaire
Please note that the numbering on the following questionnaire is not always sequential. Do not concern yourself with this. This is necessary to facilitate computer coding which will be done for data analysis.
I have read and understand the description of this study and my rights as a subject as stated in the preceding cover letter. I further understand that the return of this questionnaire constitutes my informed consent to participate.

FOR THE PURPOSES OF CODING ALL DATA, A PERSONAL CODE NUMBER FOR EACH RESPONDENT IS DEVELOPED IN THE FOLLOWING MANNER:

In spaces 1 and 2 below, please insert the day of your birth (these nos. should be entered as 01, 02, 03...31, utilizing __ & __).

\[ \begin{array}{c}
1 \\
2 \\
\end{array} \]

In spaces 3 and 4 below, please insert the last two digits of your Social Security Number.

In spaces 5 and 6 below, please insert the last two digits of your phone number.

PERSONAL CODE NUMBER

\[ \begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 & 6 \\
\end{array} \]

As you can see, this number is easy for you to produce, but does not reveal your identity.

PART A:
Please complete responses to the following items. Please answer in the order listed.

1. What is your gender?
   1 _____ Male
   2 _____ Female

2. In what year were you born?  19___

3. How do you feel about your life as a whole?
   1 _____ Terrible
   2 _____ Unhappy
   3 _____ Mostly Dissatisfied
   4 _____ Mixed (about equally satisfied and dissatisfied)
   5 _____ Mostly Satisfied
   6 _____ Pleased
   7 _____ Delighted
4. Please indicate the type of institution which you consider to be your current primary employer. (Make only 1 check mark)
   a. not applicable
      1 ___ not currently employed (Please skip directly to Page 7)
   b. acute care hospital (check only 1 size)
      1 ___ over 250 beds
      2 ___ 100-250 beds
      3 ___ under 100 beds
   c. community health agency (check only 1 type of service)
      1 ___ home health care
      2 ___ public health
      3 ___ combined services
   d. extended care facility
      1 ___
   e. industry (occupational health nursing)
      1 ___
   f. out-patient mental health agency (check only 1 type
      1 ___ developmental disabilities program
      2 ___ substance abuse program
      3 ___ half-way house/group home
      4 ___ crisis clinic
      5 ___ combined services
   g. school of nursing (check only 1 type of program)
      1 ___ LPN program
      2 ___ RN diploma
      3 ___ AD program
      4 ___ LPN or AD Registered Nurse completion program
      5 ___ generic BS program
      6 ___ BS/MS program
   h. other (please specify)

5. Please specify the area of clinical focus if you are currently employed in an acute care hospital.

6. If you are employed please answer the following question. Considering your present employment situation, what factors contributed most to your decision to work in this position?
If you are currently employed in a practice environment, please answer the following questions on this page. If employed primarily as a nurse educator, please answer the questions on page 4. If not currently employed as an RN, please resume answering the questions beginning on page 7.

REMEMBER, ONLY NURSES CURRENTLY EMPLOYED PRIMARILY IN A PRACTICE ENVIRONMENT ARE TO ANSWER THE FOLLOWING QUESTIONS ON THIS PAGE.

7. Circle the number which is most appropriate.

In the practice environment, to what degree is the following characteristic present?

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Minimally Present</th>
<th>Maximally Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Nurses have individual accountability for the care of their patients.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>b. The registered nurse has control over the quality of care given to patients.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>c. Registered nurses exert influence on day-to-day operations.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>d. Registered nurses integrate theory with practice.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

8. Please write the precise job title of your primary, current employment situation in the space provided.

__________________________________________________________________________

9. On the average, how many hours per week are you currently employed on a regular basis?

____________________ average # of hours per week
(please specify #)

10. On the average, how many days per week are you currently employed on a regular basis?

____________________ average # of days per week
(please specify #)

11. Have you always worked essentially the same # of hours in this position?

1 ___ Yes
2 ___ No

NURSES CURRENTLY EMPLOYED IN PRACTICE ENVIRONMENTS ARE TO PROCEED DIRECTLY TO PAGE 5.
16. In the educational environment, to what degree is the following characteristic present? Circle the number which is most appropriate.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Minimally Present</th>
<th>Maximally Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Nurse educators have individual accountability for the instruction of their students.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>b. The nurse educator has control over the quality of instruction given to students.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>c. Nurse educators exert influence on day-to-day operations.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>d. Nurse educators integrate theory with practice.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

17. Please write the precise job title of your primary, current employment situation in the space provided.

------------------------------------------------------------------------------------------------------------------

18. On the average, how many hours per week are you currently employed on a regular basis?

__________________________ average # of hours per week

(please specify #)

19. On the average, how many days per week are you currently employed on a regular basis?

__________________________ average # of days per week

(please specify #)

20. Have you always worked essentially the same # of hours in this position?

1 ___ Yes

2 ___ No

NURSES CURRENTLY EMPLOYED AS EDUCATORS ARE TO PROCEED DIRECTLY TO PAGE 6.
REMEMBER, ONLY NURSES CURRENTLY EMPLOYED IN PRACTICE SETTINGS ARE TO ANSWER QUESTIONS ON THIS PAGE.

12. If you answered "yes" to #11, proceed directly to #13. If you answered "no" to #11 then please complete the following as indicated for your current position. (Ex. If you worked 40 hours per week for 1 yr. but now work only 16 hrs. per week and have been part time for 9 months you would indicate the following:

Ex: _____ 12 ____ (# of months) at _____ 40 ____ (hours per week)
    _____ 9 ____ (# of months) at _____ 16 ____ (hours per week)

   ____ (# of months) at _______(hours per week)
   ____ (# of months) at _______(hours per week)

13. Is your current position your first position since graduation?
   1 _ _ Yes
   2 _ _ No

14. Was your current position a preferred position at the time you accepted it? (vs. the only position available to you at the time)
   1 _ _ Yes
   2 _ _ No

15. If you answered "yes" to #14 skip to Page 7. If you answered "no" to #14 above, please answer the following questions

If your current position was not your preferred position in terms of clinical area of practice and/or type of institution and/or job position, please specify on the line provided the preferred clinical area of practice and/or type of institution, and/or job position. (Please specify all that are applicable to you)

-------------------------------------
preferred clinical area of practice

-------------------------------------
preferred type of institution

-------------------------------------
preferred job position

PLEASE PROCEED DIRECTLY ON TO PAGE 7.
REMEMBER, ONLY NURSES CURRENTLY EMPLOYED AS EDUCATORS ARE TO ANSWER QUESTIONS ON THIS PAGE.

21. If you answered "yes" to #20, proceed directly to #22. If you answered "no" to #20 then please complete the following as indicated for your current position. (Ex. If you worked 40 hours per week for 1 yr. but now work only 16 hrs. per week and have been part time for 9 months you would indicate the following:

Ex: ___12___ (# of months) at ___40___ (hours per week)
___9___ (# of months) at ___16___ (hours per week)

________________________

___5___ (# of months) at ________ (hours per week)
___5___ (# of months) at ________ (hours per week)

22. Is your current position your first position since graduation?
1 ___ Yes
2 ___ No

23. Was your current position a preferred position at the time you accepted it? (vs. the only position available to you at the time
1 ___ Yes
2 ___ No

24. If you answered "yes" to #23 skip to Page 7. If you answered "no" to #23 above, please answer the following questions

If your current position was not your preferred position in terms of area of teaching and/or type of institution and/or job position, please specify on the line provided the preferred area of teaching and/or type of institution, and/or job position.
(Please specify all that are applicable to you)

-----------------------
preferred area of teaching
-----------------------
preferred type of institution
-----------------------
preferred job position

PLEASE PROCEED DIRECTLY ON TO PAGE 7
ALL RESPONDENTS SHOULD ANSWER THE FOLLOWING QUESTIONS. IF A QUESTION IS NOT APPLICABLE TO YOU, PLEASE INDICATE THIS BY CHECKING "NOT APPLICABLE."

25. In what year did you graduate from your nursing baccalaureate program?
   ____ not applicable
   19____ (specify year)

26. Please list the school from which you obtained your BS degree

   -----------------------------------------------
   Please specify

27. Was your baccalaureate nursing program a 2 + 2 program? In other words, did you have 2 years of liberal arts courses followed by 2 years of nursing classes?
   1 _____ Yes
   2 _____ No

28. Did you have any nursing classes during your sophomore year?
   1 _____ Yes
   2 _____ No

29. List all nursing classes and the number of credits you had during your sophomore year of college (leave blank if not applicable to you).

   -----------------------------------------------
   Course Name                           Credits
   -----------------------------------------------
   Course Name                           Credits
   -----------------------------------------------
   Course Name                           Credits
   -----------------------------------------------
   Course Name                           Credits

30. If currently enrolled in a master's in nursing program, in what year did you begin your master's program?
   ____ not applicable, not enrolled now
   19____ (specify year)
31. In what year do you expect to graduate from your master's in nursing program?

- - - not applicable, not enrolled in a master's program now

19 - - (specify year)

32. In what year did you graduate from your master's in nursing program?

- - - not applicable, never enrolled or currently enrolled

19 - - (specify year)

33. From which school are you currently pursuing or have you obtained your master's degree in nursing?

-----------------------------------------------

34. In what year did you become a licensed R.N.?

- - - not applicable

19 - - (specify year)

35. What levels of education have you completed?
(Please check all that apply - please read carefully)

1 - - - sophomore year of baccalaureate nursing program

2 - - - baccalaureate program in another discipline

3 - - - master's program in another discipline

4 - - - doctorate in another discipline

5 - - - Diploma in nursing

6 - - - AD in nursing

7 - - - baccalaureate program in nursing

8 - - - master's program in nursing

9 - - - some doctoral work in nursing
36. Starting with your present position, please complete the following table for each different nursing job title/position you have held since your graduation from your baccalaureate nursing program. If not presently employed in nursing, skip down to II. and complete as appropriate.

<table>
<thead>
<tr>
<th>Date of Employment</th>
<th># of months full-time</th>
<th># of months part-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>(specify month and year)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **CURRENT POSITION:**

a) Is this position in a patient care environment?

1 ____ YES (if so, please answer questions immediately below)  

PLEASE CIRCLE THE MOST APPROPRIATE ANSWER

b) In the practice environment, to what degree is the following characteristic present?

1. Nurses have individual accountability for the care of their patients.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

2. The registered nurse has control over the quality of care given to patients.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

3. Registered nurses exert influence on day-to-day operations.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

4. Registered nurses integrate theory with practice.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

2 ____ NO (if an educational vs patient care setting, please answer the questions immediately below)  

PLEASE CIRCLE THE MOST APPROPRIATE ANSWER

b) In the educational environment, to what degree is the following characteristic present?

5. Nurse educators have individual accountability for the instruction of their students.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

6. The nurse educator has control over the quality of instruction given to students.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

7. Nurse educators exert influence on day-to-day operations.  
   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5

   - Minimally Present  
   - Maximal Present  
   - 1 2 3 4 5
II. POSITION JUST PRIOR TO CURRENT POSITION  
(first prior position):

a) Was this position in a patient care environment?

1_____ YES (If so, please answer questions immediately below)

PLEASE CIRCLE THE MOST APPROPRIATE ANSWER

b) In the practice environment, to what degree is the following characteristic present?

1. Nurses have individual accountability for the care of their patients.

   Minimally  Present  Maximally
   1  2  3  4  5

2. The registered nurse has control over the quality of care given to patients.

   Minimally  Present  Maximally
   1  2  3  4  5

3. Registered nurses exert influence on day-to-day operations.

   Minimally  Present  Maximally
   1  2  3  4  5

4. Registered nurses integrate theory with practice.

   Minimally  Present  Maximally
   1  2  3  4  5

b) In the educational environment, to what degree is the following characteristic present?

5. Nurse educators have individual accountability for the instruction of their students.

   Minimally  Present  Maximally
   1  2  3  4  5

6. The nurse educator has control over the quality of instruction given to students.

   Minimally  Present  Maximally
   1  2  3  4  5

7. Nurse educators exert influence on day-to-day operations.

   Minimally  Present  Maximally
   1  2  3  4  5


   Minimally  Present  Maximally
   1  2  3  4  5

c) Indicate by a check mark the single best reason why you changed positions.

1_____ better position

2_____ moved

3_____ personal educational plans

4____ other (please specify) ___________________________________
III. SECOND PRIOR POSITION:

a) Was this position in a patient care environment?
   1. YES (if so, please answer questions immediately below)
   2. NO (if an educational vs patient care setting, please answer the questions immediately below)

PLEASE CIRCLE THE MOST APPROPRIATE ANSWER

b) In the practice environment, to what degree is the following characteristic present?

1. Nurses have individual accountability for the care of their patients.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

2. The registered nurse has control over the quality of care given to patients.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

3. Registered nurses exert influence on day-to-day operations.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

4. Registered nurses integrate theory with practice.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

5. Nurse educators have individual accountability for the instruction of their students.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

6. The nurse educator has control over the quality of instruction given to students.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

7. Nurse educators exert influence on day-to-day operations.
   Minimally  Present  Present
   Maximally  1 2 3 4 5

   Minimally  Present  Present
   Maximally  1 2 3 4 5

c) Indicate by a check mark the single best reason why you changed positions.

1. better position
2. moved
3. personal educational plans
4. other (please specify)
IV. THIRD PRIOR POSITION:

a) Was this position in a patient care environment?

1. YES (if so, please answer questions immediately below)

PLEAS E CIRCLE THE MOST APPROPRIATE ANSWER

b) In the practice environment, to what degree is the following characteristic present?

1. Nurses have individual accountability for the care of their patients.
   Minimally  Present  Maximally
   1  2  3  4  5

2. The registered nurse has control over the quality of care given to patients.
   Minimally  Present  Maximally
   1  2  3  4  5

3. Registered nurses exert influence on day-to-day operations.
   Minimally  Present  Maximally
   1  2  3  4  5

4. Registered nurses integrate theory with practice.
   Minimally  Present  Maximally
   1  2  3  4  5

c) Indicate by a check mark the single best reason why you changed positions.

1. better position
2. moved
3. personal educational plans
4. other (please specify)


**FOURTH PRIOR POSITION:**

a) Was this position in a patient care environment?

_1_ YES (if so, please answer questions immediately below)

**PLEASE CIRCLE THE MOST APPROPRIATE ANSWER**

b) In the practice environment, to what degree is the following characteristic present?

1. Nurses have individual accountability for the care of their patients.
   
   | Minimally | Maximally |
   | 1 2 3 4 5 |

2. The registered nurse has control over the quality of care given to patients.
   
   | Minimally | Maximally |
   | 1 2 3 4 5 |

3. Registered nurses exert influence on day-to-day operations.
   
   | Minimally | Maximally |
   | 1 2 3 4 5 |

4. Registered nurses integrate theory with practice.
   
   | Minimally | Maximally |
   | 1 2 3 4 5 |

c) Indicate by a check mark the single best reason why you changed positions.

_1_ better position

_2_ moved

_3_ personal educational plans

_4_ other (please specify) ____________________________________________________________________
37. Is your current nursing position salaried or an hourly-rated job?
   1 _____ salaried
   2 _____ hourly
   3 _____ other, __________________________
         please specify

38. Are you required to use a timeclock at your current place of work?
   1 _____ Yes
   2 _____ No

39. If you answered "yes" to the question preceding, how do you use the timeclock?
   1 _____ only at beginning and end of shift
   2 _____ at beginning of shift, at beginning and end of meal break, at end of shift
   3 _____ other, __________________________
         please specify

40. How likely is it that you will be working for your current employer one year from now?
   1 _____ very likely
   2 _____ somewhat likely
   3 _____ not at all likely

41. If you answered "not at all likely" to the question above (#40)
    please specify anticipated reason for leaving:

42. Please respond to the following question without referring back to any previous items.
    How do you feel about your life as a whole?
   1 _____ Delighted
   2 _____ Pleased
   3 _____ Mostly Satisfied
   4 _____ Mixed (about equally satisfied and dissatisfied)
   5 _____ Mostly dissatisfied
   6 _____ Unhappy
   7 _____ Terrible
PART B

Time is an aspect of our experience of which we are all in some degree and in different ways aware. Below are listed 25 phrases which might be employed by a poet or writer to symbolize his sense of time. I should like you to read through this list of phrases and then indicate before each how appropriate you think this phrase is in evoking for you a satisfying image of time. First select the five phrases that seem to you most appropriate and before each phrase circle the number "5". Then pick out the next five most appropriate phrases and before them circle the number "4". Continue this process until you have circled the number "1" before the five least appropriate phrases in your opinion.

5 4 3 2 1  a large revolving wheel
5 4 3 2 1  a whirligig
5 4 3 2 1  a road leading over a hill
5 4 3 2 1  budding leaves
5 4 3 2 1  an old man with a staff
5 4 3 2 1  a bird in flight
5 4 3 2 1  a fast moving shuttle
5 4 3 2 1  a winding spool
5 4 3 2 1  a speeding train
5 4 3 2 1  a quiet, motionless ocean
5 4 3 2 1  a burning candle
5 4 3 2 1  a stairway leading upward
5 4 3 2 1  a dashing waterfall
5 4 3 2 1  a spaceship in flight
5 4 3 2 1  wind-driven sand
5 4 3 2 1  an old woman spinning
5 4 3 2 1  drifting clouds
5 4 3 2 1  marching feet
5 4 3 2 1  a vast expanse of sky
5 4 3 2 1  the Rock of Gibraltar
5 4 3 2 1  a fleeing thief
5 4 3 2 1  a devouring monster
5 4 3 2 1  a tedious song
5 4 3 2 1  a string of beads
5 4 3 2 1  a galloping horseman
PART C

The purpose of the following questions is to obtain your opinions regarding the following: 1) the value of the following characteristics to you; and 2) the degree to which the characteristic is present within the Department of Nursing, if you are currently employed in a patient care environment. It is important that you answer each question. Do not omit any questions.

Please read the following characteristics and give your opinions. For each characteristic circle the number in the first column which you believe to be most reflective of your professional beliefs. Remember, there are no right or wrong answers. It is your individual opinion that is important to this study.

Then, in the second column, circle the number which you believe to be most reflective of the degree to which the characteristic is present within the Department of Nursing if you are presently employed in a patient care environment. Again, there are no right or wrong answers. It is your individual opinion that is important to this study.

<table>
<thead>
<tr>
<th>My professional belief about the value of the characteristic:</th>
<th>To what degree is the characteristic present within the Department of Nursing: (Answer only if currently employed in a patient care environment):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Registered nurses have access to decision-making regarding practice issues at the unit level.</td>
<td>Unimportant</td>
</tr>
<tr>
<td>2. Registered nurses have access to decision-making regarding practice issues at the departmental level.</td>
<td>Unimportant</td>
</tr>
<tr>
<td>3. Registered nurses have access to decision-making regarding management issues at the unit level.</td>
<td>Unimportant</td>
</tr>
<tr>
<td>4. Registered nurses have access to decision-making regarding management issues at the departmental level.</td>
<td>Unimportant</td>
</tr>
<tr>
<td>5. There is a shared responsibility between the institution and the individual nurse for development and maintenance of practitioner competence.</td>
<td>Unimportant</td>
</tr>
</tbody>
</table>
6. A collaborative approach to patient care promotes collegial relationships between health care professionals.

7. Nurses have individual accountability for the care of their patients.

8. Staff activities result in a sense of accomplishment.

9. Nursing practice is goal directed and based on the nursing process.

10. Nursing practice is adaptable to the needs of the patient.

11. Nursing practice incorporates the use of nursing diagnosis.

12. Nursing practice is adaptable to the needs of the community.

13. Nursing practice is adaptable to the needs of the patient’s family.

14. Patient care assignments are commensurate with the qualifications of nursing personnel.

15. The patient is included in the evaluation of outcome achievement.

16. The patient’s family is included in the evaluation of outcome achievement.

My professional belief about the value of the characteristic:

<table>
<thead>
<tr>
<th>Unimportant</th>
<th>Extremely Important</th>
<th>Minimally</th>
<th>Maximally</th>
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<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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</tbody>
</table>

To what degree is the characteristic present within the Department of Nursing? (Answer only if currently employed in a practice environment)

<table>
<thead>
<tr>
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<th>Extremely Important</th>
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<th>Maximally</th>
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<tr>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
17. The philosophy of the Department of Nursing reflects the ethical obligations* of the profession necessary for quality of nursing care.

*(Ethical obligations: e.g., patient confidentiality, human dignity, concerns for uniqueness of the patient without regard to social, economic, or health biases.)

18. The Department of Nursing provides a forum for exploration of ethical issues.

19. Planning of budget reflects variable levels of patient needs.

20. Planning of budget reflects requisite levels of staff competence.

21. There is regular evaluation of staff utilization to improve the quality of care.

22. Utilization of staff reflects concern for cost containment.

23. Nursing management information systems are used to develop the quality of care.

24. The compensation system for registered nurses recognizes educational preparation.

25. The compensation system for registered nurses recognizes prior professional experience.

26. The compensation system for registered nurses recognizes level of professional competence.

---

My professional belief about the value of the characteristic:

<table>
<thead>
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<th>Extremely Important</th>
<th>Minimally Important</th>
<th>Maximally Important</th>
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<tbody>
<tr>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

To what degree is the characteristic present within the Department of Nursing: (Answer only if currently employed in a practice environment)
27. The compensation system for registered nurses recognizes the length of service to the institution.

<table>
<thead>
<tr>
<th>My professional belief about the value of the characteristic:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what degree is the characteristic present within the Department of Nursing: (Answer only if currently employed in a practice environment)</td>
</tr>
<tr>
<td>Unimportant</td>
</tr>
<tr>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

28. Performance evaluation of the registered nurse focuses on professional competencies.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

29. Nurses receive administrative support in their role as patient advocates.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

30. A joint practice committee promotes collegial relationships between physicians and nurses.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

31. Provisions are made for regular nurse-to-nurse consultation within the hospital.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

32. Provisions are made for nurse-to-nurse consultation between this institution and outside agencies.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

33. Nursing research is supported and facilitated by nursing administration.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

34. A system is in place to monitor the process and outcomes of nursing practice.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

35. A system is in place to evaluate the process and outcomes of nursing practice.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

36. Continued formal nursing education is supported by nursing administration.

| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |

37. Nursing administration participates fully, by title and action, in top-level administrative decision-making.

<p>| Unimportant | Extremely Important | Minimally | Maximally |
| 1 2 3 4 5 | 1 2 3 4 5 |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Unimportant</th>
<th>Extremely Important</th>
<th>Minimally</th>
<th>Maximally</th>
</tr>
</thead>
<tbody>
<tr>
<td>38. The Division of Nursing has sufficient autonomy to assume accountability for the quality of nursing practice.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. The Division of Nursing has sufficient autonomy to be able to assume accountability for the outcomes of nursing care.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. Registered nurses effectively recommend decisions concerning admission, placement, and discharge of patients.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. There is a system to enhance the competencies of nurses through promotion strategies.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. Effective around-the-clock services are available to support the practice of nurses.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. There is a plan to enhance the competencies of nurses through continuing education programs.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. As a member of the health care team, the registered nurse influences the patient's treatment program.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. The registered nurse has control over the quality of care given to patients.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. Registered nurses exert influence on day-to-day operations.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. Those in leadership positions of an organized nursing service must be educationally prepared at the graduate level.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Questionnaire Responses

<table>
<thead>
<tr>
<th>Question</th>
<th>的程度</th>
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</thead>
<tbody>
<tr>
<td>My professional belief about the value of the characteristic:</td>
<td></td>
</tr>
<tr>
<td>To what degree is the characteristic present within the Department of Nursing? (Answer only if currently employed in a practice environment)</td>
<td></td>
</tr>
<tr>
<td>48. Nursing Management information systems are used in the operations of the department.</td>
<td></td>
</tr>
<tr>
<td>Unimportant</td>
<td>Extremely Important</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>49. Registered nurses are free to try new patient care techniques.</td>
<td></td>
</tr>
<tr>
<td>Unimportant</td>
<td>Extremely Important</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>50. Registered nurses integrate theory with practice.</td>
<td></td>
</tr>
<tr>
<td>Unimportant</td>
<td>Extremely Important</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Thank you for completing this questionnaire. If you would like to receive a summary of the results of the study, please enclose a stamped self-addressed envelope with the completed questionnaire or mail a stamped self-addressed envelope to me under separate cover requesting the study results.
REFERENCES


Blalock, H. M., Jr. (1964). Causal inferences in


Cottle, T. J., & Klineberg, S. L. (1974). *The present of


Psychiatric Nursing and Mental Health Services, 18(1), 9-12.


construction in nursing. Norwalk, CT: Appleton-Century-Crofts.


ABSTRACT

TEMPORAL PERSPECTIVE, PROFESSIONAL IDENTITY, AND PERCEIVED WELLBEING

by

PHYLLIS S. BRENNER

December, 1986

Advisor: Virginia Cleland
Major: Nursing
Degree: Doctor of Philosophy

Theory development efforts directed toward both the discipline and profession of nursing are critically important. To address a number of issues and questions relevant to the profession of nursing, a synthesized conceptual model based on the construct of expanding awareness of consciousness was derived from the works of Bentov, Hall, Newman, and Zerubavel. Additionally, the new Miller and Polentini tool of professional identity was tested. The specific problem statement of this study was: What are the relationships among the concepts of professional education, quantity and quality of work experience, temporal perspective, professional identity, and perceived global wellbeing?

The ex post facto design utilized a convenience survey sample of current baccalaureate and master students and recent graduates of both levels of programs. Eight a priori hypotheses and one research question derived from the causal model developed for this study were tested. Path analysis
and analysis of variance were the analysis techniques used. Multiple regression analysis was also done to test for statistical significance of the causal model.

Six of the hypotheses were weakly supported. The overall fit of the empirical data to the model of perceived global wellbeing was weak (4%). Although statistical significance was not achieved, these results replicate findings from large national surveys of perceived global wellbeing reported by Andrews and Withey. Differences among student and recent graduate cohorts relative to professional identity and perceived quality of the current work setting were demonstrated.

Through the dynamic interplay between theory, research, consideration of the empirical data, and the knowledge of hindsight, an alternative model of professional identity was posed and tested. The results of the alternative model accounted for 15% of the variance, thereby providing greater theoretical and statistical significance.

Although the bivariate correlations and path coefficients among the study variables were weak, this is probably due to the homogeneous study sample which resulted in truncated ranges on several variables. Further studies are needed to address the possible sampling and measurement limitations in this study. Additionally, careful consideration must be given to the influence of extrinsic factors (e.g., salary and benefits) on the development of a sense of professional identity.
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