ATTITUDES OF REGISTERED NURSES WHO PRACTISE IN ACUTE CARE HOSPITALS IN AN URBAN CENTRE OF MANITOBA TOWARDS WRITING NURSING CARE PLANS

by

I. Donna Meder RN BN

A Thesis
submitted to the
Faculty of Graduate Studies
of the
University of Manitoba
in partial fulfilment of the
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Abstract

The purpose of this descriptive correlational study was to describe the attitudes of general duty, registered nurses (RNs) who practise in acute care settings in an urban Manitoban centre toward writing nursing care plans (NCPs) and their self-reported NCP writing/revising behaviour. The relationship between the identified attitudes toward writing NCPs and the self-reported NCP writing/revising behaviours also was examined. It was anticipated that answers to these questions would assist in determining the degree of acceptability of the nursing care plan (NCP) as a communication tool to practising, general duty RNs and its utility to them. As well it would describe whether the RNs reported writing/revising NCPs as prescribed by both professional nursing and hospital accreditation standards.

A modified version of Shea's (1986) conceptual framework was used. A random sample of 350 general duty RNs was surveyed by telephone using a structured interview schedule. The interview schedule was comprised of a Nursing Care Plan Attitude Scale (Oetker Black, Taunton, Thomas & Krampitz, 1989; Thomas, 1984; Yurchuk, 1976); a self-reported NCP Writing/Revising Behaviour questionnaire; a professional and demographic characteristics questionnaire, and a few open-ended questions.

The use of the nursing process, described as the core methodology of nursing practice, and the documentation and use of a NCP for each patient by the professional nurse have

been incorporated into Canadian professional nursing and hospital accreditation standards (Canadian Nurses Association, 1987; Canadian Council on Health Facilities Accreditation, 1992). The literature reveals that historically the ideological and practical uses of both the nursing process and the NCP have been debated and that NCPs are not written consistently. Continuity of individualized nursing care is jeopardized when the RN is required to document and revise planning in a manner which is deemed ineffective by the RN. In addition, requiring the RN to document a plan of care, in a format that is not used by RNs in a clinical area, is an inefficient use of nursing time.

The results indicated that the RNs had positive attitudes towards writing/revising NCPs; however, NCPs were not written/revised for patients on a regular basis. A weak, positive linear relationship existed between the two variables (r = .2334 p =.01). Over 75% of the RNs used NCPs to help them provide patient care. Qualitative analysis revealed themes related to the RNs' thoughts about the NCP; how they used or why they did not use the NCP as a guide; and information desired on a NCP. Based upon these findings implications for nursing practice, education, research, administration and nursing were discussed.

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acknowledge, posthumously, the encouragement of a wise mother and educator, Bertha McKillop. Learning is indeed a life long venture!

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Chapter 1

INTRODUCTION

Since its introduction in the 1960s, the nursing process has been described as the very core of nursing practice because it was accepted as the methodology for the delivery of individualized nursing care to patients, and was applicable to any nursing situation (Kozier, Erb & Blais, 1992; Oermann, 1991; Shea, 1984b; Yura and Walsh, 1978; 1988. In 1988, Yura and Walsh stated that it was now accepted as the "mode of nursing practice on both the national and international levels" (p.ix). It comprises four or five steps or phases which include (1) assessment, (2) diagnosis, (3) planning, (4) implementation, and (5) evaluation. The four-step description includes diagnosis as the final component of the assessment phase (Kozier et al., 1992; Oermann, 1991). The steps are interrelated, interdependent, and recurrent (Kozier et al., 1992; Kozier, Erb, & Olivieri, 1991; Oermann, 1991; Ziegler, Vaughan-Wrobel, & Erlen, 1986). According to Aspinall and Tanner (1981) "the sequence of steps depicted in the nursing

process reflects the systematic use of problem-solving methods in clinical practice for the purpose of resolving, reducing or preventing health problems, and for promoting the client's adaptation to those problems" (p.1). Tucker (1994) stated that this clinical decision-making framework is the process of nursing care.

The Canadian Nurses Association (CNA) defines nursing as "a dynamic, caring, helping relationship in which the nurse assists the patient to achieve and maintain optimal health" (CNA, 1987,p.iii). The nurse applies nursing and related knowledge to the helping relationship through the use of the nursing process (CNA, 1987). The use of the nursing process is based on the following assumptions: the nursing process is the methodology for providing continuity to individualized nursing care; a written nursing care plan (NCP) is the tangible operationalization of the nursing process; and the use of the nursing process in the practice setting provides a framework for nursing accountability to the patient, to colleagues, to the clinical unit, to administration and to the professional statutory nursing body (Kozier et al., 1992; Shea, 1984b; 1986; Ziegler et al., 1986).

The nursing process has been incorporated into professional nursing associations' standards for practice, education, administration and research (de la Cuesta, 1983). Standard II of the Canadian Nurses Association's Standards

for Nursing Practice was formulated to state that "Nursing practice requires the effective use of the nursing process" (CNA, 1987,p.1). The expansion of Standard II confirms that the registered nurse (RN) is responsible for the communication of the NCP to other nurses and to other health care professionals. The plan for nursing action is based upon identified actual and potential patient problems. These statements imply that a NCP is written for each patient.

The CNA's Nurse Registration/Licensure Examination Committee (1993), in the development of the Blueprint for The Criterion-Referenced Nurse Registration/Licensure Examination, approved a list of 238 competencies which a "beginning nurse is required to possess in order to practice safely and effectively" (p.3). These competencies are to provide the content domain for the examination. Two competencies, labelled very important and important respectively, are that:" the nurse documents the plan of care" (p.24) and "the nurse revises the plan of care as indicated" (p.31) by the evaluation.

As of March, 1994 the Manitoba Association of Registered Nurses' Standards of Nursing Practice: Direct Care Provider state that the RN is to develop a plan of care for each patient and to ensure that the plan is revised. The RN is to plan and provide safe, reasonable care through the use of a problem solving approach (Process Standard I,

MARN, 1994). Prior to the 1994 MARN Standards publication the nursing process was the first of three dimensions upon which the Manitoba Association of Registered Nurses Standards of Nursing Care was based (MARN, 1983). Through the inclusion of the nursing process in the standards it was clearly implied that a NCP would be written for every patient. The 1994 standards do not limit the RN to the use of one problem solving methodology, but do hold the RN responsible and accountable for a plan of care for each patient and the documentation and revision of the plan. The use of the term 'plan of care' rather than NCP also deemphasizes the use of the nursing process as the sole methodology for planning and providing safe, reasonable nursing care. The current study being described was completed prior to the publication of the 1994 Standards and was based upon the 1983 Standards which prescribed the use of the nursing process and the documentation of a NCP for each patient by the professional nurse. Furthermore, a written NCP for each patient is a requirement for hospital accreditation by the Canadian Council on Health Facilities Accreditation (CCHFA, 1992; Shea, 1986) and this plan is to be maintained as a separate document in the patient's clinical record according to CCHFA (1992). This requirement, according to Shea (1986), implies that NCPs "have a basic role to play in the delivery of nursing care" (p.149).

As part of the planning phase of the nursing process the professional nurse, in collaboration with the patient, develops and writes a plan of care based upon the nursing assessment and nursing diagnosis(es) (Kozier et al., 1991; Shea, 1986; Ziegler et al., 1986). The NCP documents nursing's decision making and problem solving processes as well as changes in planning over time (Kozier et al., 1992; McCloskey & Grace, 1990; Shea, 1986). According to Niziolek (1991) it has become "the cornerstone of clinical practice" (p.145).

The format of the prototype written NCP and its storage method may vary from agency to agency. The format usually has categories or columns which denote nursing diagnoses, goals, nursing interventions and outcome or evaluation criteria (Kozier et al., 1992; Oermann, 1991). The NCP may be stored in a central Kardex system, in the patient's chart, in a computer, or in the medical record (Kozier et al., 1992; Oermann, 1991; Ziegler et al., 1986). Regardless of the format or storage system of the NCP, it remains the central source of information about the patient's nursing needs (Oermann, 1991). It contains the details of, and facilitates the organization of, independent and interdependent (or collaborative) meaningful holistic nursing interventions required by the patient (Kozier et al., 1992; Oermann, 1991). Consequently, the written NCP serves as a communication vehicle for nurses in the

direction of individualized nursing care, and aids in the maintenance of continuity in the patient's nursing care (Christensen & Kenny, 1991) because as Christensen and Kenny state "a well-developed plan can prevent the use of time consuming trial and error, avoid duplication of effort, and alleviate costly and timely omissions of care" (p.209). The plan serves as a blueprint for the evaluation of care (Taptich, Iyer & Bernocchi-Losey, 1994). Measurement (evaluation) criteria, the expected outcomes of the specified nursing interventions and hence measures of the quality of the nursing care (Kozier et al., 1992; Oermann, 1991; Shea, 1986) are clearly delineated in the plan. Hodges and Icenhour (1990) claim that evaluation of the process and the outcomes of the nursing care (whether to individuals or to groups) serves to substantiate the effectiveness and to solidify the value of nursing to society. Clearly, a current, well documented, permanent NCP for each patient would assist the nurse researcher in substantiating the effectiveness of nursing interventions. This, in turn, would enhance the profession's ability to demonstrate the impact of nursing interventions on a system wide basis.

Since the introduction of the nursing process and the written NCP into the practice setting, the utility of the written NCP has been diverse and multidimensional. In addition to serving as a communication channel among nurses

to enhance the quality of care and ensure its continuity, the written NCP has served as a guide for: the documentation of patient care; the allocation of nursing resources (staffing and scheduling of nursing care personnel); costing of nursing services through the linkage of patient classification systems with nursing diagnoses and/or independent nursing interventions; the provision of information for accreditation and quality control (Fischbach, 1990; Hinshaw, 1989; Karshmer, 1991; Kozier et al., 1992; McCloskey & Grace, 1990; Oermann, 1991; Shea, 1984a; Sliefert, 1990; Turner, 1991). Clearly, the written NCP is being utilized by nurses and by health care institutions to deal with issues of professional and institutional accountability as well as fiscal responsibility.

In 1987 Henderson stated that the NCP was originally devised as an educational tool and was introduced into the practice arena as a means of demonstrating nursing's autonomous holistic model of care. It was a communication tool which assisted practising nurses to provide continuity to planned, individualized nursing care. Its usefulness in the measurement of the outcomes of nursing care and its effectiveness in the determination of the time required for optimum patient service was and is hailed by nurse educators, nurse administrators, and nurse researchers according to Hodges and Icenhour(1990) and McCloskey and

Grace (1990). McCloskey and Grace (1990) contend that ultimately, the description of these outcomes of nursing care and their cost effectiveness to society will firmly establish the value of nursing's method of clinical service in the health care delivery system of tomorrow. Institutions ought to, and are, linking patient classification systems with nursing care plans (Karshmer, 1991). The NCP is becoming the key 'building block' in patient classification (Karshmer, 1991). In turn, these classification systems are being used to determine nurse staffing needs and to forecast nursing departments' requirements for health care dollars (Hinshaw, 1989; Karshmer, 1991; Shea, 1984b). Additionally, institutions are assuming that the presence of a written NCP is synonymous with the provision of optimal patient care by the nurse (McCloskey & Grace, 1990). Therefore, the written NCP appears to lie at the core of nursing service as well as professional and institutional accountability. The evaluation of nursing care, an ongoing process, determines whether the goals of planned care have been achieved (Kozier et al., 1992). Thus, the measurement of the effectiveness and efficiency of nursing care is closely linked to information documented on the written care plan. McCloskey and Grace (1990) assert that the demonstration of optimal and efficient nursing activity is the newest challenge for nursing. If the written NCP is to serve these identified

needs then it must constitute a current, concise and complete document.

The nursing profession has allocated the responsibility and accountability for writing/revising the NCP to the practising registered nurse (CNA, 1987; MARN, 1987, 1994). The nurse must first write the NCP stating the nursing diagnoses, expected outcomes, and nursing interventions, and then, must utilize the NCP for its identified purposes. The plan is begun following the first contact with the patient and should be readily accessible and kept current (Taptich et al., 1994). Sovie (1989) emphatically wrote that if this does not happen, requiring a written NCP for each patient is a ritual which must cease. The utility of the NCP, as the operationalization of the methodology of nursing, as well as the professional and accreditation standards which require a written NCP as evidence of delivery of high quality nursing care, require scrutiny.

Statement of the Problem

The literature review supports the finding that despite seemingly positive attitudes towards the nursing process, nurses either write incomplete NCPs or fail to write and employ NCPs to organize care (Kerfoot, 1990; Moss,1988; Nolan & Burgoyne, 1990; Shea, 1986; Sovie, 1989; Turner,

1991). According to Brider (1991), McCloskey and Grace (1990), McHugh (1991), and Sovie (1989) more time is spent today trying to get nurses to write or complete care plans and problem lists in order to comply with hospital accreditation requirements and nursing standards than any other activity. Yet, the nursing process and NCP have been accepted, by nursing, as a means of demonstrating nursing's unique role in today's dynamic health care delivery system in addition to being a systematic approach to nursing care. If practising nurses do not totally subscribe to this systematic approach and do not write or revise NCPs for every patient, the nursing process and NCP will serve as vehicles by which nursing can achieve these objectives.

Nursing care plans are written by staff nurses only about 50 percent or less of the time, and of those written, only about 50 percent are actually used by nurses in to help provide care (Shea, 1984b, 1986). Shea (1984b; 1986) also noted that the number of NCPs written increases at audit time. Anecdotal evidence from acute care nurses employed in Manitoba indicates that written NCPs are incomplete, often not current and are frequently perceived as not being important. As recently as 1991, Turner (1991) pointed out that this NCP writing problem will not go away. In a spot-check for written NCPs on patients' charts (N=21) Turner (1991) found that "only 16 (76 percent) had a NCP and only 9 (43 percent) had care plans that used nursing diagnoses"

(p.240). Turner (1991) contended that this lack of written NCPs jeopardizes the hospital's accreditation standing, makes the quality of nursing care questionable, and severely weakens nursing administration's information system foundation. Furthermore, it has been suggested (Koch, 1992; Shea, 1984a) that practising registered nurses do not value the NCP as a necessary tool for the provision of quality nursing care but view it an as administrative tool.

Without a written or current plan of care, the plan cannot be clearly and purposively communicated to all other nurses and health team members, therefore resulting in the compromise of continuity of planned nursing care. In addition, incomplete, outdated, or unwritten plans have the potential for camouflaging the value of nursing's contribution to the promotion of health for Canadians. As well, intended outcomes of the nursing process for the patient, nurse, administration, clinical unit and for nursing as a whole may or may not be realized. Shea (1984a; 1984b) and Turner (1991) alleged that if not documented, these outcomes cannot be purposefully validated. Therefore, in order to enhance and maximize the utility of the NCP as the operationalization of nursing's methodology, the NCP must be scrutinized. The utility of the NCP to the patient, the care giver and the institution must be clearly evident.

According to Brider (1991) and McHugh (1991) evidence of the NCP's usefulness to the nursing practitioner as a

mode of planning and communicating the developed nursing strategies to provide individualized care is limited. If this is so, then one must question why the care plan remains a component of professional and accreditation standards. One must also question how nurses do communicate with each other in order to promote the continuity of individualized care. It may be that nurses are using tools other than the NCP which are serving the purposes for which the NCP was intended.

Appropriate standards or interpretation of the standards must be established so that the nurse is able to provide nursing care based on each patient's needs unencumbered by tools that are ineffective and inefficient. Kerfoot (1991) stated that a major source of dissatisfaction for nurses was bureaucratic regulations that "do not appear from the nurse's perspective to guarantee quality" (p.275). Institutional accrediting standards need to be melded with a nursing system so that the whole makes sense to the nurses, facilitates patient care, and is valued by the institution (Kerfoot, 1990). Nurses need to be key players in the development of these standards.

Clearly, a thorough evaluation of the written NCP is timely. A positive evaluation of a health care innovation/ service/technology requires that the innovation is efficacious, effective and efficient (Tugwell, Bennett, Feeny, Guyatt & Haynes, 1986). Efficacy requires that the

innovation work (Drummond, Stoddart, & Torrance, 1989). Effectiveness mandates the acceptance of the innovation by the parties who will use it, and to whom it will be offered, as well as its practical utility (Drummond, Stoddart & Torrance, 1989). To date, there is a paucity of research regarding the acceptance of the NCP as the operationalization of nursing's methodology or of the NCP writing/revising behaviour of the registered nurse (Shea, 1984b). The lack of consensus between the practising nurse's NCP writing behaviours and nursing practice and administrative standards which require a written NCP for each patient as evidence of the operationalization of the nursing process caused questions to be asked. What are Manitoba nurses' attitudes towards writing/revising NCPs? What are their NCP writing/revising behaviours? What is the relationship between the nurses' attitudes towards NCPs and their NCP writing/revising behaviours?

Purpose of Study

The purpose of this descriptive correlational study was to identify practising, general duty, registered nurses' attitudes towards writing nursing care plans and to describe their self-reported NCP writing/revising behaviours. It was anticipated that answers to these questions would delineate

whether nurses accept the NCP as a useful communication tool and whether nurses write/revise NCPs as prescribed by both professional nursing and hospital accreditation standards.

A further purpose of this study was to determine the relationship or correlation between the two variables. A weak positive or negative correlation between the attitude of nurses towards writing/revising NCPs and NCP writing behaviour would suggest that other variables, for example, in the nurses' work environment or associated with the NCP system, were impacting upon the NCP writing/revising behaviour of nurses. These, in turn, could be studied so as to effect changes that would facilitate the writing/revising of NCPs by nurses.

The description of nurse attitudes, self-reported NCP writing/revising behaviour and the correlation between these variables would facilitate the identification of desired changes required by nursing administration, educators, and clinicians in order to optimize the utility and efficiency of the written NCP. It was possible that this study would also indicate that the written NCP, as currently formatted, was not written and was not a valued adjunct by the practising nurse to the provision of nursing care. The standards may be inefficient and they may not guarantee high quality nursing care. The standards might need revision in order to reflect the current reality of acute care nursing. Further research would be required to determine how nurses

do communicate care plans to each other so that care is individualized and consistent. Furthermore, if the NCP was not written as standards and policies prescribe, nursing administrators would be required to develop means of measuring nursing workload and staffing needs that are more accurate and acceptable to general duty nurses. Lastly, if documented nursing care outcomes are vital to demonstrate the effectiveness and efficiency of nursing care to the health of the community, other means of documenting process and linked outcomes which are acceptable to the practising general duty nurse would be required.

Research Questions

1. What are the attitudes of general duty, registered nurses who practise in acute care hospitals in an urban Manitoba centre towards writing/revising nursing care plans?

2. What are the self-reported NCP writing/revising behaviours of general duty, registered nurses who practise in acute care hospitals in an urban Manitoba centre?

3. What is the relationship between the attitudes of these nurses toward writing/revising nursing care plans and their self-reported NCP writing/revising behaviours?

Definition of Terms

Registered Nurse: "a person who is registered to actively practice nursing. Only active practising nurses can identify themselves as a Registered Nurse (RN)" (MARN, 1991).

Value: "a belief that a specific mode of conduct or state of existence is personally or socially preferable. The intensity of a value often can be measured by how much time and energy the person is willing to expend on it" (McNally, 1990.p.91).

Attitude: the organization of several values, beliefs that predispose an individual to act towards an object in a specific manner (Ajzen & Fishbein, 1977). "What is important or valued and what is seen in a positive light is more apt to be incorporated into one's repertoire of behaviours" (Fitch, Rogers, Ross, Shea, Smith, & Tucker, 1991,p.25).

Nursing Care Plan (NCP): "a written guide that organizes information about a client's health into a meaningful whole; it focuses on the actions nurses must take to address the client's identified nursing diagnosis and meet the stated goals. It is begun on the client's admission to hospital and

ideally is constantly updated and revised throughout the client's hospitalization in response to changes in the client's condition and evaluation of goal achievement" (Kozier, Erb, & Oliveri, 1990, p.215). The steps of the nursing process are recorded on the nursing care plan (MARN Standards as Applied to Nursing Care Plans, 1987).

Standard Care Plan: a prewritten guide for nursing care which is developed,usually through committee consensus and incorporates the agency's standards of practice (Fischbach, 1991). It includes all possible usual nursing diagnoses, interventions, and expected outcomes associated with common medical diagnoses seen on the particular nursing unit (Nichols & Barstow, 1980; Shea, 1984a). It is not individualized until client specific data is added by the nurse (Shea, 1986). It is the situation which is standard, not the patient (Shea, 1984a; 1984b).

Nurse NCP Writing/Revising Behaviour: the initiation of a written NCP for a client upon admission of the client to hospital and/ or the revision of it throughout the client's hospitalization as changes in the client's condition occur.

Conceptual Framework

Shea (1986) developed a conceptual framework, based upon a general systems model, for the study of the use of nursing care plans (Fitch et al., 1991). The framework, developed on the premise that there are multiple variables in a nursing situation which influence the nursing care plan behaviour of nurses, identifies the variables so that they can be manipulated and adapted to promote positive nursing care plan behaviours (Shea, 1986). According to Fitch and colleagues (1991) the nurse and patient participate in an interaction within a patient care environment. The interaction results in outcomes of consequence to the patient, the nurse, the clinical unit, administration, and nursing. The NCP writing/revising behaviour occurs in the interaction (Shea, 1986).

Motivating factors influence behaviour through their influence on modifying factors. The modifying factors may influence both the motivating factors and the desired behaviour. The behaviour includes both the writing of the NCP and the use of the NCP to help provide patient care. In the language of open systems, motivating factors are the input and modifying factors are the throughput. As a result of the writing and using behaviour there are outcomes for the patient, the nurse, the clinical unit, administration and nursing (Shea, 1986). To support this framework linking

attitude to action, Shea (1986) used the 1975 work of Fishbein and Ajzen which points to "a definite correlation between attitudes and beliefs and intent to act" (p.155).

Administrative valuing of nursing's methodology would be demonstrated by its support of the nurse in his/her use of the nursing process. Evidence of this support, according to Shea (1986), would be in the reinforcement received by the nurse from the head nurse (a representative of hospital management) when a NCP was documented and current. In addition, the organization would endeavour to incorporate the time required to write and revise the NCP into the daily administrative responsibilities of the RN. If the nurse knew that the organization, as well as the professional nursing body, supported the use of the nursing process, then professional and organizational valuing of the nursing process and the NCP would be perceived to be congruent by the nurse. Hence, professional values would be reinforced by the organization's, and the nurse's attitude towards writing NCPs would be more positive, resulting in a situation that was more conducive to the writing of NCPs.

There are two assumptions underlying Shea's(1986) framework. The first is that both the writing and the use of the NCP by the professional nurse are the operationalization of the nursing process. The second is that the professional nurse has the appropriate degree of knowledge and skill to use the nursing process.

While the above framework is beneficial in order to view the complexity of the issue, it was modified in order to clarify the factors which were to be investigated in this study. The assumptions remained unchanged.

The desired behaviour or the dependent variable (DV) was the practising registered nurse's NCP writing/revising behaviour. The behaviour of using the NCP to help provide care was separated from the writing behaviour so that writing/revising behaviour could be studied as the sole dependent variable. The desired NCP writing behaviour constituted the initiation of the written NCP for each patient on admission to an acute care facility and its revision over the course of the hospitalization according to the changing needs of the patient. As it documents the nursing care required by the patient, the completed and current NCP facilitates consistent, optimal and individualized nursing care for the patient.

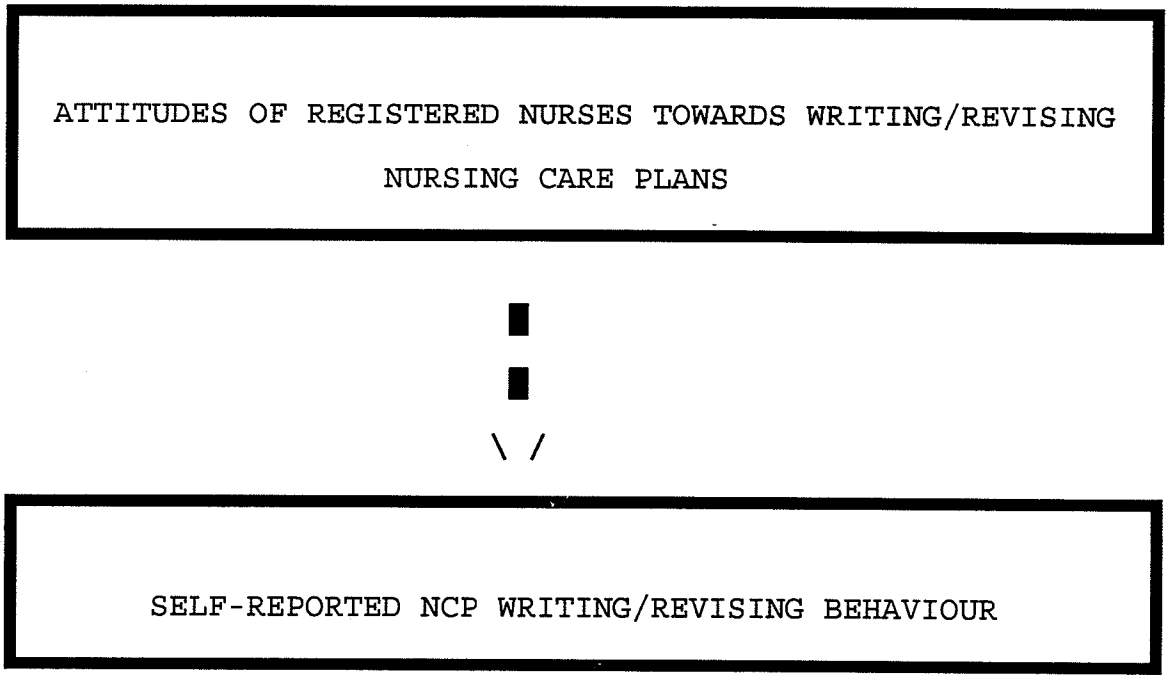
The independent variable (IV) was the nurse's attitude towards writing NCPs. The nurse's attitude toward writing NCPs and his/her use of the nursing process influences the nurse's own NCP writing behaviour (Shea, 1986). If the nurse valued the nursing process as the methodology of nursing then the nurse would have a positive attitude towards writing NCPs to guide and communicate patient care. That is, the nurse would be predisposed to write NCPs (Shea, 1986; Fitch et al., 1991). A negative attitude

towards using the nursing process and writing /revising NCPs to guide and communicate patient care, could predispose the nurse to write/revise fewer or no NCPs, or to inconsistently write/revise NCPs. Consequently, fewer, incomplete or no NCPs would be written/revised.

Professional characteristics such as level and recency of nursing education, area of clinical practice, years of nursing experience, or past history with NCPs may positively or negatively influence the nurse's attitude toward writing/revising NCPs and the NCP behaviour. Similarly nurse demographics may influence the nurse's attitudes towards writing/revising NCPs as well as the NCP behaviour. The modifying force of each of these variables would be amenable to further investigation.

Figure 1

MODEL OF CONCEPTUAL FRAMEWORK FOR STUDYING
ATTITUDES OF REGISTERED NURSES
WHO PRACTICE IN
ACUTE CARE SETTINGS IN MANITOBA
TOWARDS
WRITING NURSING CARE PLANS



Summary and Organization of the Chapters

The first chapter includes the fundamental elements of the study. The problem was stated and its background presented. The purpose and the importance of the study was stated. A conceptual framework and possible interactions of the independent variable on the dependent variable were proposed.

A review of relevant literature and studies in relation to the research questions is presented in chapter two. A summary is presented which relates the literature review to the areas of concern presented in the first chapter. A brief rationale for the study concludes the second chapter.

The third chapter presents the methodology and procedures used in this study. The research design is explained and data collection approaches are presented.

The context of the study and research findings are presented in chapter four. Tables are used to demonstrate and clarify the data.

The fifth chapter presents the discussion and conclusions derived from the findings. The chapter concludes with the presentation of implications of the findings for nursing administration, research, practice, education, and the profession of nursing.

Chapter 2

LITERATURE REVIEW

The purpose of this study was to investigate the attitude of practising RNs toward writing/revising NCPs and their self-reported NCP writing/revising behaviour so as to determine the acceptance of the NCP by the nurses and its utility to them. The relationship between the attitude towards writing/revising NCPs and the self-reported NCP writing/revising behaviour also was explored.

In order to fully explore the issues related to the nursing process and the written NCP, a review of the literature and related studies was undertaken. Their histories; the benefits of and barriers to their use; the debates surrounding their use; nurse attitudes toward the nursing process, the written NCP and to writing NCPs; and studies related to these topics were examined. The following literature review presents a summary of the findings.

History of the Nursing Process and the NCP

Florence Nightingale (cited in Ziegler et al., 1986) stated that the nurse's role included "assessment and intervention according to a plan of care, followed by evaluation" (p.10). Lydia Hall is attributed with being the first to speak of nursing as a process in 1955 according to de la Cuesta (1983), McHugh (1986), and Ziegler et al. (1986). Orlando described the nursing process in detail in 1961 and Yura and Walsh outlined the four step process in 1967 (de la Cuesta, 1983). Nursing diagnosis became a separate fifth step in the process during the early 1970s (Kozier et al., 1991; Ziegler et al., 1986). McHugh (1986) stated that since its development in the late 1960s and early 1970s, the nursing process "has become the primary method and focus of nursing practice" (p.22). One of the main reasons for nursing to employ the nursing process, according to Yura and Walsh (1988), was nursing's own concern for its responsibility to provide quality service.

De la Cuesta (1983), using content analysis of American and British nursing literature and interviews with nurses (British N=29; American N=22), studied the genesis, social context, diffusion, and current state of the nursing process. With its component parts, nursing diagnoses, nursing interventions, and patient outcomes, the process was seen primarily as an educational tool to be used to teach

and explain the practice of nursing as distinct from the practice of medicine (de la Cuesta, 1983; Palmer, 1990; Shea, 1984; Ziegler et al., 1986). It was an ideology of the time when nursing, discontent with the general status of nursing and with the quality of nursing care, was attempting to move toward professional status and demonstrated quality care (Brider, 1991; de la Cuesta, 1983; Palmer, 1990).

The diffusion of the nursing process from the educational arena to the practice arena was enhanced by the movement of the American Nurses Association (ANA) to reform nursing education by incorporating the nursing process, and by the perception that the use of the nursing process had the potential to reform the practice of nursing as well as to improve the level of nurses' job satisfaction (Brider, 1991; de la Cuesta, 1983; Palmer, 1991). Walton (cited in Henderson, 1987) questioned whether the extent to which the nursing process was being hailed was due to its potential as "a means of improving patient care or its potential as a means to raise the status of nurses by increasing their independence, their accountability and responsibility" (p.657). According to Henderson (1987) the fact that the nursing process was based upon the scientific process was reassurance to nurses that nursing did indeed have a scientific base. De la Cuesta (1983) claimed that the rapidity of the diffusion of the nursing process from the educational setting to the practice setting was a most

remarkable sociological phenomenon, and that it achieved a mass resocialization of already practising nurses. However, this claim is challenged by Sheehan's 1991 study which questioned whether nurses had really made the transition, conceptually, from a task-oriented approach to nursing to a nursing process approach since the introduction of the nursing process in the 1970s.

Based upon the fact that this conceptual change would require nurses to restructure their views of nursing knowledge, Sheehan (1991) used grounded theory methodology and a focused interview approach to elicit senior nurses' conceptions regarding the nursing process. Characteristics of the nursing process identified in Sheehan's (1991) literature review were: the elements of assessment, planning, implementation, evaluation and problem-solving as well as the descriptors: holistic; scientific and individualized.

A non-random opportunity sample of 40 tutorial and clinical staff nurses from two English regional health authorities were interviewed by Sheehan. According to Sheehan (1991), the degrees of concordance and discordance between the concepts held by the study interviewees and those identified from the nursing literature raised questions as to whether the study nurses had really restructured their views of nursing knowledge to accommodate the change - or whether the empirical practice setting had

somehow interfered with this accommodation.

Generalizability of Sheehan's study is difficult due to the small non-random sample and the difference in settings (cultural, sociological and economical). However, the study does raise questions about the differences in conceptualization of the nursing process between nurses. Individualization was a universally identified characteristic of the nursing process; holistic was not. Planning, decision-making, negotiation, scientific and problem solving were not identified by all, yet according to Ziegler et al. (1986), the planning process involves decision-making, negotiation, scientific and experiential knowledge to arrive at the product of the planning step, the written NCP. Despite the non-generalizability of Sheehan's (1991) study's results beyond its subjects, one must ask whether the steps of the nursing process are synonymous and inclusive of the practice of nursing in other nursing settings. If the nursing process is not held to be the methodology of nursing by practising nurses then the value of the NCP to the provision of quality patient care could also be suspect. This is especially true in light of the conflicting points of view evident in the literature regarding the utility of the nursing process as the methodology of nursing to the practising nurse.

Rapid structural changes, such as "the expansion of tertiary education, the emergence of the women's liberation

movement, the growth of knowledge in the medical and social sciences, the increase of other health occupations and the rise in the public expectations towards them" (de la Cuesta, 1983, p.367) occurred in American society and in medicine during the 1960s and 1970s. De la Cuesta (1983) voiced the opinion that the nursing process incorporated these changes. To this end, declared de la Cuesta (1983), the use of the nursing process by professional nurses was a professional strategy as well as a means of improving nursing care.

Prior to the use of the nursing process, nursing care had been driven by physicians' written orders based upon specific disease conditions or the medical model (Kozier, et al., 1992; Ziegler et al., 1986). Nursing students, the primary workforce in hospitals during the early 1900s, were taught nursing care by physicians and it was based upon medical case studies (Fischbach, 1990; Hegedus, 1991). Kozier et al. (1992) and Ziegler et al. (1986) stated that intuition and practice wisdom garnered from experience drove nursing interventions, but they were incidental to the care based upon medical orders. Hedegus (1991) outlined that this practice existed from the early 1900s through to the 1940s with some continuation into the 1970s and 1980s.

With the use of the nursing process, independent nursing interventions were purposively delineated (Kozier et al., 1992; Oermann, 1991; Ziegler et al., 1986) and were based upon individual patients' perceptions, feelings, and

responses to illness rather than solely upon the medical model (Kozier et al., 1992; Ziegler et al., 1986). The nursing process, claimed de la Cuesta (1983) and McHugh (1991), with its four or five steps and the NCP, provided nursing with a vehicle by which it could explain its cognitive process. It promised to describe and systemize nursing so that the meaning of nursing could be transmitted not only to the public but to the practitioner, from beginner to expert (de la Cuesta, 1983).

By the 1970's nursing had generally accepted that high quality nursing care would ensue if the nursing process was used as the framework for independent nursing decision making (McHugh, 1991). Shea (1984a) concurred, stating that the written NCP was perceived as an integral part of the process and that it was tangible evidence that the nursing process had been used. Tanner (1986) noted that "by the early 1970s the nursing care plan was being widely adopted by nurse educators as a method of both teaching and evaluating students' use of the nursing process" (p.8). As nursing service had not had experience with anything quite like the systematic nature of the nursing process, the educational tool, being the only NCP format with which nurses were familiar, was added to the existing service communication tool, the kardex (Shea, 1984a). According to Shea (1984a) the use of this educational tool in the practice setting was not necessarily a logical progression.

NCPs developed, according to Kramer (1972), "in response to a highly standardized, mechanistic practice of nursing" (p.30) called team nursing, which utilized the influx of untrained auxiliary workers after World War II (Kramer, 1972; Hegedus, 1991; Ziegler et al., 1986). The written NCP was a team responsibility, to be developed when the team had a patient care conference (Shea, 1984a). The plan, in this situation according to Cuica (1972) provided guidelines for non-professional care givers as well as professional nurses, and as such was a communication tool. The professional nurse was given the responsibility for writing the plan. Some years later NCPs were "recommended for use with any system of nursing organization" (Kramer, 1972, p.30). Kramer (1972) stated that the phrase nursing care plan became a common one in the "nursing vernacular" (p.30).

The incorporation of the nursing process and the written NCP into nursing education and practice standards by the professional associations and hospital accreditation standards (Brider, 1991; McHugh, 1990; Shea, 1984b) gave legitimacy to the idea of using the nursing process as the methodology of clinical nursing practice (Ziegler et al., 1986) and made it mandatory for nursing practice and hence an administrative need (Ciuca, 1972; de la Cuesta, 1983). Yet, a decade after the birth of the nursing process and its incorporation into care standards in North America, de la

Cuesta (1983) found that "the nursing process was not implemented as one would expect from the theoretical prescriptions" (p.368). Both Ciuca (1972) and de la Cuesta (1983) stated that NCPs were neither written on a consistent basis nor were they used as information sources. Furthermore, they (Ciuca, 1972; de la Cuesta, 1983) asserted, when NCPs were written, nursing orders were rarely included and the focus continued to be upon medical diagnoses and orders.

By the 1970s, according to Henderson (1987) and Shea (1984b; 1986), the written NCP had become an integral part of quality assurance programs within hospital nursing departments. Harris (1990) reported that nurses were rewarded for the existence of written plans, but not necessarily for their quality. Nursing care plans were not a permanent part of the patient's record, and nurses did not see the relationship between a written NCP and the patient's welfare (de la Cuesta, 1983; Nolan & Burgoyne, 1990). Clearly, claimed de la Cuesta (1983) NCPs were not valued by nurses or by their health care organizations.

Benefits of and Barriers to the Use of the Nursing Process and the NCP

Over the years nurse authors and researchers have attributed specific benefits to accrue as a result of nurses and nursing using the nursing process and NCPs. As a result of the plan being written specifically for a patient and his/her family, the nursing care for each patient is highly individualized and comprehensive according to Case and Rooney (1982), Christensen and Kenny (1990) and Fletcher and Mulligan (1982). Continuity of this care for each patient also results if the plan is followed by other nurses (Kramer, 1972). Effective communication through a written document, of independent nursing action (diagnoses, expected outcomes and nursing orders) to other nurses and other health care professionals involved in the patient's care benefits the patient and the nurse as duplication or omission of care is prevented according to Case and Rooney (1982). As a result of the comprehensive planning and involvement in both the planning and determination of interventions, Yura and Walsh (1988) postulated, there is improved patient and family satisfaction with nursing care. As well, there is increased nurse satisfaction with the nursing care provided and the process through which the care was devised. The nurse is encouraged to be creative and resourceful in problem solving. Additionally, the plan

enables priorization of care and hence has the potential to decrease the feeling of frustration associated with trial-and-error nursing care. Increased job satisfaction should also result when stated measurable outcomes are achieved as well as from the respect afforded when colleagues follow one's plan. Improved peer relationships, a unifying respect for nursing care by nurses, could ensue as nurses use and discuss plans with their colleagues (Shea, 1984a).

Professional growth for the practising nurse and the student nurse can also be a benefit, according to Yura and Walsh (1988). With the use of the process and the plan nurses can determine and demonstrate the most effective nursing strategies for patients and document it. The NCP guides documentation of nursing care outcomes. As a result of the ability to explicitly demonstrate effective nursing interventions there is the benefit of demonstrating nursing's contributions to patient care to other health care providers and society (Yura & Walsh, 1988). The enhancement of nursing theory through the evidence of autonomous nursing cognition and quantified independent nursing functions would be a benefit according to Shea (1986) and Yura and Walsh (1988). Lastly, improved nursing management information could be a consequence of a well documented, current NCP according to Karshmer (1991). It would facilitate nurse resource decisions, at the unit level as well as at the overall facility and societal level, to be based upon

patient classification systems using nursing diagnoses/ interventions which truly reflect actual patient care situations.

However, in the report of a survey by Shea (1986), the benefits of improved care, organized and directed care, and a means to communicate a plan of care between nurses so as to promote continuity/consistency of care were valued by only 20 percent of a convenience sample (N = 54) of practising nurses in a Canadian hospital. According to Kramer (1972) these benefits are the reason d'être of the NCP and are why NCPs are essential for quality patient care, yet the majority of Shea's (1986) convenience sample of nurses did not value these benefits. De la Cuesta (1983), Kramer (1972), and Shea (1984a) contended that by demanding so many ends or purposes of the nursing process and the written NCP, barriers to its application have been created.

The acute care hospital environment generates many obstacles to the implementation of individualized nursing care via the use of the nursing process according to de la Cuesta (1983), Henderson (1987) and Rosenow (1983). One obstacle is that task assignment, not patient assignment is the focus and because of this a situation is created in which the practising nurse adapts the nursing process to the realities of the work setting. As a result, according to Rosenow (1983), the written NCP may be viewed as unimportant or non-essential by the nurse, and professional values may

succumb to organizational values. The NCP will not be written or used.

An additional barrier, according to Kerfoot (1990), is related to the fact that the NCP is viewed by quality assurance programs as an end in itself. Consequently, the focus is on the process or tasks of care, not on the outcomes of the planned nursing care (Kerfoot, 1990). Furthermore contended de la Cuesta (1983), the method of allocating nursing manpower in health care institutions (larger staff numbers during the morning) reinforces this emphasis on task allocation and on physiological care, and devalues the holistic focus of nursing care. Both Kramer (1972) and Niziolek (1991) argue that by viewing and treating nursing's means of achieving high quality care as an end rather than as a means, health care institutions have been able to define the nurse's role and function according to the institution's needs. Kramer (1972) called this goal displacement, and suggested that it would continue until the individual nurse was made responsible for writing/revising NCPs for a limited number of patients, with the patients and their families, from admission to discharge, and was sanctioned to do so by the hospital. The nurse responsible for the development of the NCP should also be responsible for the periodic evaluation of a random number of the plans (Kramer, 1972; Kerfoot, 1990). Gordon (cited in Ziegler et al., 1986, p.41) asserted that nurses must perceive that

autonomy and accountability are characteristics of the profession before they are able to fully use and realize the benefits of the nursing process in order to plan individualized care with the patient. In fact, Shea (1984a) stated "the reported use and disuse of NCPs reflects nurses' attitudes and feelings of powerlessness. To make a plan implies power, control and authority" (p.159). De la Cuesta (1983) stated that the nurse correctly perceived "accountability through written care plans as a threat to her status amongst colleagues" (p.369) and consequently avoided this threat by not writing NCPs.

The many other barriers to writing NCPs as identified by practising nurses and cited in the literature are: (a) they take too much time away from patient care; (b) they are impractical and are a waste of time as no one uses them; (c) there is a lack of positive reinforcement from nursing administration for the provision of planned, consistent care; (d) the responsibility and accountability for writing or using them is unclear; (e) the NCP is not valued by anyone in the clinical setting - no signature is required, it may be written in ink or pencil, it may or may not be a part of the permanent record; (f) there is no connection seen between the written care plan and actual patient outcomes; (g) the writing of NCPs can be a threat to one's status amongst peers and other health professionals - your knowledge and writing skills are open to criticism and in

addition, may be resented; (h) there is a lack of knowledge on how to write nursing diagnoses; (i) there is no specific time allotted in a nurse's shift to write/revise NCPs or to use them; rather task completion is rewarded; (j) the nurse is conditioned to dislike writing NCPs by the extensive use of complex NCP assignments in nursing school; (k) the nursing 'job' descriptions and evaluations do not entail or reward the use of the nursing process or the writing/ revising of NCPs ; and (l) NCPs are unnecessary for short stay patients; rather individualized Standard Care Plans (SCPs) would be appropriate and cost effective (Brider,1991; de la Cuesta, 1983; Huckabay & Neal, 1979; Kramer, 1972; Leddy & Pepper, 1989; Shea, 1984a; 1984b; 1986; Thomas, 1984; Wesorick, 1990).

De la Cuesta (1983) stated that "the major barrier to the full application of the nursing process concerned the care plans" (p.368). The plans were considered superfluous; an imposed formality by the bureaucracy with no rewards for a good plan; a means of control over the nurse and not beneficial to patient care (de la Cuesta, 1983; Shea, 1984a). According to Shea (1986) other factors which affect the use of the NCP are its location and accessibility; it needs to be close to the place where nursing care is given. When espousing that the NCP be a permanent part of the patient's chart Fischbach (1991) stated that "a copy of the care plan is kept at a convenient, accessible location"

(p.9). De la Cuesta (1983) professed that the theoretical benefits of the nursing process will only be realized when: (a) the content of the nursing process (and NCP) is aligned with a specific use of the nursing process, (b) changes in the structure of the health care system and nurse interactions are made to facilitate the use of the nursing process by nurses, and (c) when nursing and the nurse's role in health care are valued by other health team members, administrators and patients.

The Debate Surrounding the Nursing Process and the NCP

The ideological and practical uses of the nursing process and the written NCP are in conflict according to de la Cuesta (1983) and the literature reflects this controversy. Ideally, a written NCP should help the nurse to provide individualized holistic care to the patient and communicate information to others in order to promote the continuity of the holistic care (Henderson, 1987; Shea, 1984a; 1984b). In addition, if used with nursing theories or models, the nursing process serves to distinguish professional nursing practice from technical nursing practice (Derdiarian, 1990). However, McHugh (1991; 1986) argued that the process is linear and mechanical, "divisible into discrete parts" (McHugh, 1986, p.22), and that a NCP

assures uniform but not quality practice. It assumes that all nurses, given the same data, should develop identical plans of care; that experience and practice knowledge have no part in the process (McHugh, 1991).

The contention that the nursing process is linear has been refuted by several authors. Ziegler et al. (1986) contended that, because each step of the process developed independently of the others, the interrelationship between the steps was difficult to see. The parts of the nursing process are described and taught as sequential steps, but are interrelated and interwoven, with movement back and forth between the steps (Aspinall & Tanner, 1981; Kozier et al., 1991; Kozier et al., 1992; Leddy & Pepper, 1989; Oermann, 1991; Yura & Walsh, 1988). The process is viewed as being dynamic (Kozier et al., 1992); and is not linear (Leddy & Pepper; Ziegler et al., 1986) although it is sometimes portrayed as such in the literature (Oermann, 1991; Ziegler et al., 1986). Others claim that it is the way nurses use the nursing process which determines its linearity. If a rigid sequence of steps is always undertaken to problem solve, then it is linear according to Erickson, Tomlin and Swain (1983). Erickson et al. (1983) claim that if the nursing process is used in an interactive, interpersonal exchange between the patient and the nurse while care is being given there is no linearity. Henderson (1982) argued that if students are taught to think that the

analytic step-by-step process is the nursing process then they will feel guilty and inadequate as graduates when they make a nursing decision using practice wisdom rather than using the nursing process. In addition, practitioners may loose faith in their own planning abilities when the desired outcomes do not result, because they were taught that the 'right' plan results in the desired results (Stevens, 1972). Several authors contend that the nursing process should not be the sole framework for practice (Benner, 1983; Henderson, 1987: 1982; McHugh, 1986) and nurses, stated Stevens (1972) as well as their head nurses and supervisors, must recognize that many approaches exist which have the potential to achieve a desired patient outcome and that there is no one 'right way' to achieve the desired outcome.

If the nurse is empowered to exercise discretionary judgement and expert opinion, a patient care plan can be developed without the linear structure of the process (Niziolek, 1991). According to Niziolek (1991) the current written NCP discourages the use of this discretionary judgement and expert opinion. Benner (cited in Niziolek, 1991) concurred; noting that the NCP "is reflective of the idea that it is possible to capture all that one knows in writing" (p.145). McHugh (1991) claimed that "the nursing process may also limit the practice of the professional and ensure that the cognitive process of nursing remains at a relatively low level" (p.22). Niziolek (1991) extolled the

use of a patient care plan which is developed collaboratively with the patient, is patient centred, flexible, utilizes a multidisciplinary approach, and is outcome driven. Sovie (1989) urged nurses to discard "outdated management tools (such as nursing care plans)" (p.81) in favour of practices that make a difference in patient outcomes. Hinshaw (1990) noted that measures of quality nursing care - standards, sets of value and role expectations, must be redefined by the profession as the nurse's role continues to evolve and change.

Tanner (1986), in an article which explored (a) whether the nursing process accurately reflects the processes by which beginning and competent nurses make clinical judgements, and (b) whether the written nursing care plan was the most effective way to teach clinical reasoning, stated that a few studies had suggested that the linear sequence of thought described by the nursing process was not used by nursing students or clinicians. She also stated that the effectiveness of the NCP as a teaching tool had not been investigated, but did note that there was "accumulating literature and criticism in the opinion literature that the underlying nursing process may not reflect the complexity of thinking needed for clinical judgement" (Tanner, 1986, p.9). According to Tanner (1986) "there is far more to the process of clinical judgement than what has been characterized by the nursing process" (p.9). However, Shea (1984a) stated

that at that time "the nursing process has emerged as the undisputed methodology for the delivery of nursing care (p.145). By 1989, Shea, Rogers, Fitch et al. stated that the nursing process was just that, a process, but that its use had enabled nurses to describe nursing practice, research and theory from a common viewpoint.

Henderson (1982; 1987a; 1987b) had argued that by focusing on independent autonomous nursing interventions the NCP fails to stress the value of nurses participating in a collaborative model of primary health care with other health care professionals and patients/clients. The nursing process and the nursing jargon of today's nursing record "creates a barrier between the giver and receiver of health care" (Henderson, 1987a, p.17). According to Henderson (1987a) the NCP more often than not emphasized psychosocial problems rather than physical problems, and "fails to authorize the nurse to give primary care" (p.17). Therefore, Henderson (1987) felt the nursing process must be modified to promote rather than to impede the goal of the nurses as a provider of primary care.

Henderson (1982; 1987a) and others (Tanner, 1986; Ziegler et al., 1986) argued that the nursing process, by focusing on the scientific, problem-solving cognition of the nurse, belittles the intuitive aspect of nursing care and the practice wisdom gleaned from nursing experience and from nurse experts. In contrast, Oermann (1991) contended that

all three types of nursing knowledge - scientific knowledge, ethics of practice, and "practice-wisdom or knowledge based on intuition, tradition and experience" (p.133) guide the use of the nursing process. Benner (cited in Oermann, 1991) determined that nursing decisions made by nurse experts in the clinical setting are often intuitive based. McHugh (1991), using Benner's five levels of nursing skill proficiency, concluded that the nursing process and the NCP served the Novice and the Advanced Beginner. The Novice needs step by step procedures to follow while the Advanced Beginner, just beginning to discern recurrent, meaningful patterns, needs help in setting priorities (McHugh, 1991). The Competent Practitioner still requires guidance in clinical decisions but the Proficient, and Expert Practitioners perceive situations as a whole and respond to them intuitively and with practice wisdom (McHugh, 1991). Thus, argued McHugh (1991; 1986) and Sovie (1991), when compelled to use the rigid and restrictive nursing process to arrive at nursing practice decisions, the expert and advanced practitioner may be frustrated. Hence, McHugh (1991) propounded that the nursing process should not be the sole framework for nursing practice.

Still others protest that the format of the NCP is not right. Schools of nursing have long emphasized the nursing process as the methodology of nursing practice and the use of the written NCP to teach students how to conceptualize

nursing care and its process (Fischbach, 1991; Mayers, 1978; Shea, 1984; Ziegler et al., 1986). This teaching NCP is a long document detailing the care provided by the student and is used by the teacher to teach the nursing process and evaluate the student's progress in the provision of individualized theory based care (Fitch et al., 1991; Shea, 1984a). It was used by the educator to demonstrate the difference between nursing care and medical care (Palmer, 1990). The prototype NCP now in use in many hospitals, with its columns for nursing diagnoses, interventions and outcome criteria, originated as this educational tool. It is considered by many to be too rigid, too long and too repetitious for the expert nurse to use at the bedside (de la Cuesta, 1983; Mayers, 1978; McHugh, 1986; Shea, 1984a; Wesorick, 1990).

The goal of the NCP in the practice setting is to communicate relevant information about the patient's care, quickly and efficiently, to other team members in order to promote continuous quality care (Mayers, 1978; Shea, 1984a). It is a working document, a written statement of the nursing process as it occurs, and consists of succinct statements which direct and assist in the evaluation of the care (Shea, 1984a). While Shea (1984b) contended that "educational plans should be called nursing care studies instead of NCPs" (p.45), both Mayers (1978) and Shea (1984a) felt the differences which exist in the structure and function of

NCPs used in the educational and service settings need to be recognized and understood. Shea (1984a) felt that nurse educators and administrators were likely unaware of the practising nurse's felt despair at the task of writing NCPs; and that nurse educators and nurse administrators have not taught or provided adequate orientation to the required transition from the educational to service tool.

The traditional form of the NCP in the nursing workplace, and the most frequently used form of NCP today, is the Kardex according to Ferguson, Hildman and Nichols (1987). This tool usually includes an area for physician orders and tests as well as an areas for nursing diagnoses, nursing orders and activities of daily living. Shea (1984a) noted that, since the educational NCP tool was an 'add on' to already existing nursing communication tools on the nursing wards, such as the Kardex, nurses' notes, and change-of-shift report, the NCP "should list priorized nursing diagnoses, expected outcomes and interventions" (p.149). However, Christensen and Kenny (1990) speak of the Kardex as a working form, a "fluid document subject to frequent change" (p.210) and as one to be completed in pencil so that it can be used as a quick, ready reference and can be readily changed. The NCP, on the other hand, according to Christensen and Kenny (1990) should be a part of the patient's permanent record and completed in ink as it is the "key vehicle to nursing care" (p. 210). This

permanent, formal record of a patient's nursing orders and decisions would better communicate the patient's progressive care to other practitioners and facilitate research into effective nursing interventions (Stevens, 1972). It is evident that NCPs and Kardexes are not identical in purpose and yet in the clinical setting the NCP may only be written on a kardex, in pencil, and discarded when the patient is discharged. This is one of the problems of the NCP, and is often stated as a reason that it is not valued by nurses (de la Cuesta, 1983; Henderson, 1987; Shea, 1984a; 1984b; 1986). Whatever the type of NCP, its "rigid format and ambiguous terminology affect the nurse's motivation and creativity in using it" (Shea, 1986, p. 155). Henderson (1982), noted that, as yet, a realistic useful written plan of care has probably not been designed. Sovie (1989) advocated that nurses revolutionize nursing systems such as the NCP and documentation requirements so that the nurse is freed to give high quality patient/family care. She saw the current NCP, based on its apparent disuse by nurses and the time required to write/revise it, as needing to be replaced by a collaborative nurse-physician care plan which would manage episodes of illness.

Shea (1984a) and Sovie (1989) claimed the NCP consumes valuable' hands on' nursing time as well as record space, and that the quality of patient care has not been related to the presence of a written NCP. Conversely, Oetker Black,

Taunton, Thomas, and Krampitz (1989) stated that positive patient outcomes of nursing care do correlate with written NCPs. Sovie (1989) further contended that the NCP should influence the quality of nursing care or the practice of writing/revising NCPs should be stopped. However, evidence of the use of the NCP, and of its usefulness to the nursing practitioner in planning and communicating strategies to provide individualized nursing care is limited (Brider, 1991; McHugh, 1991). Shea (1986) wrote that "no one has yet proved that lack of a written NCP diminished the quality of care or that the presence of a written care plan ensures high quality care" (p.149). In fact, Shea asserted that many patients receive quality care despite the absence or disuse of NCPs. Others (Toptich et al., 1994) contend that today, more than ever, as nurses provide care for more acutely ill patients in a shortened time frame, with fewer resources, a plan of care is essential.

Chiarella (1983) questioned whether the nursing process was a tool or a rule for nurses; and whether the NCP was working for nurses or if nurses were using it properly. Clearly, according to some authors (Harris, 1990; Henderson, 1987; Niziolek, 1991) the written NCP has become an end rather than a means; a control over the nurse's role and function in the hospital setting rather than the nurse's tool to manage continuity in individualized nursing care. Quality of patient care standards, both professional and

institutional, demand that on each shift the nurse use a NCP to guide each patient's care. The NCP is to be written by the nurse and updated as needed (CCHFA, 1991; Turner, 1991; Yura & Walsh, 1974). The Joint Commission on Accreditation of Healthcare Organizations in the United States, partially in response to the lack of consensus on the utility of the prototype NCP to all its purported benefactors, recently revised its nursing standards (Brider, 1991). The prototype NCP which was used in nursing schools is no longer required in the practice setting; the nurse must have a plan of care based on patient needs and document the delivery of that care appropriately on the patient's chart (Brider, 1991; Palmer, 1991). However, Taptich at al. (1994) stated that NCPs remain in existence as other regulatory agencies require them and many nurses feel they are essential.

The practising registered nurse cannot escape from the debate surrounding the value of the NCP. Clearly, according to McNally (1990) there must be congruence between the valuing of the nursing process and NCP by the health care organization, by the nurse, and by the nursing profession for the nurse to be willing to allocate some direct patient care time to documenting nursing diagnoses, interventions, and evaluation criteria on the NCP. In addition, argued Ferguson, Hildman and Nichols (1987), the cost of requiring nurses to document a plan which is not used to promote continuity of quality care is a concern in today's hospital

environment .

To this end the effect of three types of nursing care planning systems on selected patient outcomes was studied by Ferguson, Hildman and Nichols in 1987. If quality patient and nurse outcomes were the result of the writing and the use of NCPs by the nurse, the time (cost) spent preparing a NCP would be worthwhile. Using a pre and post test quasi-experimental design (N= 9 nursing units/each with approximately 85 -100 beds and an average of 28 RNs and Licensed Practical Nurses (LPNs)), these researchers found that the presence or non-presence of written Nursing Diagnoses (ND) and Nursing Orders (NO) on any of the three NCP systems had essentially no significant effect on patient and nurse outcomes. The three NCP systems were: (1) A non-permanent central kardex with dependent nursing functions, basic nursing functions and no NDs or NOs; (2) a non-permanent standardized NCP (SCP) with individualized NDs and NOs on the chart and on a central kardex; and (3) a permanent NCP on the chart with written NDs and NOs. Using data from existing documents and Analysis of Covariance (ANCOVA) to control for other influences on the nurse outcome (length of time required for end of shift report) and patient outcomes (length of stay, number of readmissions within 30 days for the same or related diagnosis, number of nosocomial infections, incident reports related to patient safety, medication or treatment errors by nurses, number of

analgesics administered, acuity level upon discharge) there was no significant difference (p=0.05) among the three purposive experimental groups on the outcome variables. The researchers suggested that ND and NO identification was a cognitive process and that the quality of care was not dependent on their appearance on the written form (Ferguson et al., 1987). Secondly, the authors suggested that the influence of differences in the one step of planning, as measured in this study, on patient outcomes is very minimal, and that it is the sum of the nursing process steps that influences patient and nurse outcome variables. Thus, differences in form of the NCP were not reflected in the outcomes measured in this study (Ferguson et al., 1987). To increase internal validity, the researchers suggested that nurses be surveyed, after a replication study, to determine their self-reported use of the various NCP systems during the study. If the replication study were to support the 1987 findings, Ferguson et al. (1987) suggested that standards requiring a NCP for each patient be reconsidered. "Writing NCPs is a time consuming and, therefore costly activity. Theoretically it is a valuable activity; however, in practice, it may not be necessary" (Ferguson et al., 1987, p.35).

Ferguson et al.'s (1987) study did not describe the demographic characteristics of the nurses on the experimental units. This limits comparability with other

studies on the basis of years of nursing experience, experience with the nursing process and the age of the nurses. Additionally, the focus on the three types of NCP systems within one facility may have influenced the nurses' NCP and care giving actions. This threat to internal validity was noted and addressed by the investigators (Ferguson et al., 1987).

To summarize, the debate surrounding the value of the nursing process and a written NCP to the patient, the nurse, and the other purported benefactors of this methodology centre upon whether the methodology is the only methodology for nursing and whether nurses use it initially in their practice but move on to including other elements such as practice wisdom and intuition. In addition the assumption that the educational format will serve in the practice area may be wrong. The idea that the care plan should be a collaborative health team plan for each patient's episode of illness care in the acute care hospital, kept at the bedside and take different formats in the various speciality areas may be more accurate. One study (Ferguson et al., 1987) found that NCP format made no difference to the outcomes of care measured in their study. Clearly, the debate about the nursing process as the methodology of nursing and the NCP as the operationalization of this methodology is an issue and has been one since the nursing process was introduced in the early 1970s. Practising nurses cannot but help to be

influenced by the debate and the professional obligations to write and revise NCPs for patients on a daily basis may indeed succumb to more pressing priority nursing care issues.

Nurses Attitudes Towards Writing Nursing care Plans

Leddy and Pepper (1989) state that "beliefs about nursing shape the way nurses practice" (p.269). Additionally, according to Ajzen and Fishbein (1977), beliefs, values and attitudes are important cognitive variables which influence behaviour. Consequently, basic values, beliefs, and assumptions provide a meaningful perspective through which the nurse experiences and understands his/her world (McNally, 1990; Fitch et al., 1991).

An attitude constitutes the organization of several values and beliefs which predispose an individual to act towards an object in a specific manner (Ajzen & Fishbein, 1977). According to Fitch et al. (1991) "what is important or valued and what is seen in a positive light is more apt to be incorporated into one's repertoire of behaviours" (p.25). Ajzen's planned behaviour theory (cited in Savage, 1993) posits that attitude towards the behaviour, the cultural perception of the behaviour and the individual's

sense of control over the behaviour lead to an intention to behave in a specific way. According to Savage (1993), although individuals usually behave as they intend, particular circumstances in specific situations may interfere with the intended behaviour being carried out.

An individual's values, although unique to some degree, are usually grounded in the core values of the culture (McNally, 1990). The nurse's professional culture, which values the nursing process and the constant pursuit of high quality patient care, and the bureaucratic culture, in which nursing is practised and which may or may not be perceived by the nurse to value the nursing process, may conflict (Harris, 1990; Hinshaw, 1990). Hinshaw (1990) stated that the two cultures must be seen as valuing the nursing process as the methodology of nursing practice by the practising RN or professional values will succumb to those of the organization. Rosenow (1983) described the organizational needs as providing service to medicine and other professionals. According to de la Cuesta (1983), Leddy and Pepper (1989) and Rosenow (1983), nurses in institutional settings are primarily rewarded for fulfilling these organizational needs and tasks rather than for planning and providing individualized nursing care. According to de la Cuesta (1983) and Hinshaw (1990) this will continue until the organizational culture changes to support nursing's professional values.

Shea (1984a) suggested that the three types of problems commonly associated with the NCP can be related to nurses' attitudes towards the NCP. Shea (1984a) based her premise on the fact that nurses often state that writing NCPs is a waste of time and the messages written on the NCPs seem to have little influence on the behaviour of other nurses. The three problems as identified by Shea (1984a) are: technical problems, language or meaning problems and efficiency problems. Inaccurate or untimely message transmission (technical problems) are linked to the format of the NCP; its components; whether nurses write, use or rarely use the given information; and to the accessability of the NCP (where it is kept). Unclear message transmission (language or meaning problems) results from the use of technical words or jargon. Lastly, if the message fails to influence the behaviour of others positively, the tool has efficiency problems. "A measure of the success of the communication would be the degree to which another person acts as desired or predicted" (Shea, 1984a, p.151).

Huckabay and Neal (1979) studied possible relationships between demographic characteristics of nurses, environmental valuing of the written NCP as evidenced by reinforcement and incentives received by nurses for a well written NCP, and nurses' knowledge and valuing of the process on the behaviour of writing of NCPs. The sample (N=76) from 15 American states was divided into high NCP writers(n = 53;

more than the mean of 3.3 per week) and low NCP writers (n = 23; less than 3.3 per week) on the basis of self-reported writing or revision of NCPs per week. Over 80 percent of the nurses reported unknown or no reinforcement in the way of promotion or salary increase for writing NCPs. However, high NCP writers did report receiving significantly more positive reinforcement from their head nurses (Mann-Whitney U-Test, U=754, significant at 0.05). The high NCP writers were also found to have significantly more knowledge of the necessary learning sets required to write NCPs; reported a higher incentive value on writing NCPs; and were younger nurses who had learned the nursing process in their basic nursing education program. However, despite the fact that 80 percent of the nurses reported the NCP as valuable for a patient with overt physical and/or emotional problems, only 50 percent of them viewed the NCP as valuable in helping the patient adapt to an illness or hospitalization, and only 27 percent reported the NCP as extremely valuable in individualizing care. Despite the fact that 72 percent of the nurses knew that the writing of NCPs was a nursing responsibility and was included in their job description, NCPs were rated as being extremely valuable in evaluating a nurse's performance by only 14 percent of the nurses. The small sample size and no reported method of sample selection do not allow generalization of the study findings. An opinion article by Kramer (1972) noted that "the writing of

a nursing care plan is not reinforced either by other nurses, physicians, directors of nursing, or the evaluation system" (p.32).

Bowman, Thompson,and Sutton (1983) found that a structured inservice education program created positive attitudes towards the nursing process. Nurses on three distinct units of a large teaching hospital in Great Britain (N = 115) which had implemented the nursing process using structured and unstructured staff preparation strategies were surveyed. Nurses on the unit with a structured pre and ongoing inservice program had a statistically significant ($p<0.005$) higher attitude score toward the nursing process than those on the two units with an unstructured introduction of the nursing process. The head nurses of all units were found to have more positive attitudes toward the nursing process, therefore organizational influences as well as continued educational support for staff nurses may have been at play. The effect of structured inservice education programs on actual NCP writing/revising behaviours was not determined in this study. This would have been an interesting dependent variable, and an important one. Did the more positive attitudes toward the nursing process and NCPs result in a NCP being written/revised for every patient?

Building upon the work of Bowman, Thompson and Sutton (1983), Savage (1993) carried out a descriptive study to

measure the attitude of ward based psychiatric nurses (N = 59) towards the nursing process. Although not statistically comparable, Savage did find that the mean attitude score was similar to that found by Bowman et al. in 1983. As the 1993 scores were ordinal, Savage noted that it was difficult to state what a score of 70 out of 100 actually meant. Savage (1993) did find that individual characteristics such as ward, nurse grade and rank, and years on the same ward were not significantly correlated with attitude at the alpha level $\underline{P} = 0.05$. The qualitative data, collected from three respondents with a generally positive attitude toward the nursing process, demonstrated two themes. The staff felt a lack of involvement with the introduction of the use of the nursing process in the clinical area and a lack of maintenance activities to support the positive attitude towards the nursing process and the behavioral changes required for its use on the wards. Savage (1993) concluded that the wide range of attitude scores and the perceived lack of involvement in implementation plus the few maintenance activities had implications for nursing practice within the wards. This study is of interest in that it lends support to the Bowman et al. (1983) study which found significantly higher attitude scores in areas where inservice programs for the nurses on the implementation and use of the nursing process in clinical areas were planned and provided before and after the actual implementation.

The nursing value was supported by a cultural valuing and intended behaviour was supported so that it could become an actual behaviour; the power to behave in a specific manner was with the individual. Savage's (1993) sample demonstrated a slightly lower mean attitude score than Bowman et al.'s (1983). Could this be attributed in part to the perceived lack of cultural valuing of the behaviour or to the effect of a smaller sample size? Bowman et al.'s (1983) sample size (N = 115) was almost two times greater than that of Savage.

Thomas (1984), using a modification of Yurchuk's (1976) Nursing Care Planning Attitude Scale (NCPAS) and a demographic questionnaire, studied the effects of two staffing patterns on rural American registered nurses' attitudes towards writing NCPs. Both the functional pattern group (n = 30) and the primary pattern group (n = 28) were found to hold positive attitudes towards writing NCPs (Thomas, 1984). Using Pearson's product moment correlation coefficient Thomas (1984) found seven nurse characteristics to have statistically significant (p= .0001) relationships with nurses' attitudes towards writing NCPs. These were (a) a negative relationship between attitude and length of time in a particular position, (b) an inverse relationship between attitude and age of the nurse, (c) a positive relationship between attitude and recency of graduation from a nursing school and with higher levels of nursing

education, and (d) a positive relationship between attitude and an emphasis of the nursing process in the nursing education program (Thomas, 1984). Again, NCP writing /revising behaviours were not described. However, the contention that non-common nursing education and socialization backgrounds yield different values and beliefs regarding nursing care which are difficult to reconcile (Weaver, Bynes, Dibella & Hughes, 1991) supports Thomas's finding that more positive attitudes were associated with higher levels of nursing education.

Hildman and Ferguson (1991) studied nurses' attitudes toward the nursing process and written/printed NCPs using a comparative descriptive design and a summated rating scale questionnaire with a Crombach's alpha reliability of 0.74. The sample (N = 60 registered nurses) had a more positive attitude towards the nursing process (mean rating 4.0) than towards the written/printed NCP (mean rating 2.4), and reported using the nursing process in their patient care (mean ranking 4.0) (Hildman & Ferguson, 1991). Interestingly, the findings that "there were no significant differences in attitudes by either nursing education or highest degree earned" (Hildman & Ferguson, 1991, p.45) were in direct conflict to the findings reported by Thomas (1984).

Upon examining the scores for the entire scale, Hildman and Ferguson (1991) found that nurses with one year

or less of experience had "significantly higher scores than those nurses who were employed 10 years or more" (p.45). Thomas (1984) also noted this finding in her study. Hildman and Ferguson (1991) speculated that this was because of recent immersion in the nursing process and NCPs in nursing school and to the more ideal attitudes towards the nursing process held by the less experienced nurses. In light of the other studies one must question whether this significant difference (significance level not reported) is related to the more experienced nurses' use of practice wisdom and intuition in decision making, and the consequent frustration (less positive attitude toward the written NCP) with a method of decision making such as the nursing process. Despite the non-generalizability of the findings due to small sample size, this is yet another investigation which questions the value and effectiveness of the NCP as a communication vehicle to promote continuity of high quality nursing care. These studies have identified some factors which appear to affect nurses' attitudes towards the nursing process and the NCP but they do not describe NCP writing/ revising behaviours or attempt to link attitudes with behaviours.

Shea (1984a) explored registered nurses' feelings and thoughts toward NCPs in four general hospitals in a Western Canadian city. Specifically, Shea (1984a) used a Likert scaled questionnaire to obtain answers to the following

questions: the frequency of NCP use by the nurses, the frequency of the belief that NCPs improve patient care, the frequency that continuity of care is improved, the nurses' feelings towards writing NCPs, where NCPs should be kept on the patient care unit, the components of the NCP, and a semantic differential scale to measure nurses' attitudes towards the NCP. Seventy-nine percent of the convenience sample (N= 313) reported using a NCP in nursing school, but 47 percent reported using them occasionally to never as graduates. Fifty-nine percent reported having mixed or negative feelings to the writing of NCPs. Shea (1984a) reported that NCPs were considered a waste of time by the nurses, were only useful if patients were really sick, and were unnecessary as the "nurse ought to know how to care for patients without writing everything down" (p.154). A possible interpretation of these statements, according to Shea (1984a) is that the nurses felt nurses should know nursing by virtue of being an educated professional nurse and that nursing colleagues who write NCPs do not believe this to be so. Shea (1984a) described this as a problem of interference in the communication process. According to Shea (1984a) collegial interactions and evaluations which are supposedly a part of professional autonomy, are not included in the socialization of nurses as professionals. Hence, nurses do not treat each other as colleagues in a trusting, confident manner.

Despite the fact that 79 percent of the nurses reported using NCPs as students, only 23.6 percent identified the correct components of the NCP (Shea, 1984a). This is an interesting finding in light of Sheehans' (1991) study which suggested that nurses had not restructured their views of nursing knowledge to accommodate the change in nursing practice and questioned whether a factor or factors in the environment prevented the accommodation. It is also interesting from the perspective of Thomas's (1984) and Hildman and Ferguson's (1991) studies which identified that nurses of one year or less experience had significantly more positive attitudes towards writing NCPs.

Twenty six percent of the registered nurses in Shea's (1984a) study agreed that NCPs always enhance patient care while 31 percent agreed that continuity of care was always improved with the presence of a NCP. These low percentages link with the findings that only 19 percent of the nurses used a NCP and almost 60 percent had mixed feelings about the NCP (Shea, 1984a).

Using a oneway analysis of variance (ANOVA) to analyze the semantic differential scale data, Shea (1984a) found that the nurses in two hospitals had statistically significant ($p=0.05$) negative attitudes toward the NCP on 13 of the 14 pairs of bipolar adjectives. These results according to Shea (1984a) "strongly suggest that factors at work in the hospital environment influence the attitudes

nurses have towards NCPs and this may influence the frequency with which they are used" (p.157). The hospitals with nurses who had more positive attitudes towards the NCP "also reported higher usage and belief that NCPs improve care" (Shea, 1984a, p.157).

As noted in Shea's (1984a) study report, the results are limited as "they represent a limited segment of nursing population and the study was exploratory and no effort to correlate the variables was made" (p.157). Further study was recommended to collect information needed to make the NCP the communication tool which it has promise to be. Preliminary results of interviews done by Shea (1984a) with staff nurses in order to determine identifiable variables in institutional and clinical settings which enhance or inhibit the use of NCPs indicated several patterns. Staff nurses, reported Shea (1984a), did not believe that writing NCPs improves care, and were really not sure why they are asked to write a NCP for each patient. Furthermore stated Shea (1984a), staff nurses do not believe that the NCP is a communication tool because no one reads them, but do state that "if used correctly should be the best communication tool on the nursing unit" (p.158). A definition of 'used correctly' was not provided.

These studies, although not generalizable due to small sample sizes and non-random sampling methods, have demonstrated that attitudes towards NCPs are somewhat

positive, and can be made more so through environmental support such as inservice education and reinforcement strategies as well as through emphasis in initial nursing education programs. In contrast, the opinion articles emphasize that the use of long, complex nursing care assignments in nursing school conditions nurses to 'hate' NCPs.

The studies by Bowman et al. (1983), Hildman and Ferguson (1991), Huckabay and Neal (1979), Savage (1993), Shea (1984a) and Thomas (1984), while lending some support to the argument that the nursing process is too rigid for the more experienced nurse who would be in a clinical area longer and would most likely be older than the new graduate, also suggest that other variables such as non-supportive peer group culture or organizational culture were at play. Opinion articles such as those by Henderson (1982; 1987a; 1987b), Kramer (1972) and McHugh (1991) seemed to imply that nursing experience and practice wisdom negate or at least decrease the need for a written plan for care.

Staff nurses' use of and attitudes toward the use of Standard Care Plans (SCP) were studied by Nichols and Barstow in 1980. SCPs very generally outline nursing diagnoses, outcomes and interventions commonly associated with particular medical diagnoses (Nichols & Barstow, 1980; Shea, 1984a), and being very general must be individualized for every patient in order that a detailed plan which can

direct a patient's individualized care results (Shea, 1984a). Questionnaires, exploring the use of SCPs and factors associated with nurses' positive and negative attitudes toward the SCPs, were distributed through head nurses to 520 nurses in a complex of two American acute care teaching hospitals. Of the sample (N = 209), 149 nurses were categorized as having a positive attitude toward the SCP (Nichols & Barstow, 1980). Using Chi square and Pearson's R, the positive attitude towards the use of SCPs correlated with a promotional ladder centred around clinical competence. Forty-nine percent of the nurses reported using the SCPs for all or most of their patients; 51 percent used them for some or few of their patients. The SCPs were used as guides for conditions not usually met on the unit by 54 percent; as plans to be individualized by 51 percent; and for nursing orders by 23 percent of the nurses. Open-ended questions resulted in recommendations to make the SCPs shorter and more accessible for the nurse. These recommendations would support Shea's (1984a) contention that SCPs are not useful plans of care due to their text book generality and to their usual inaccessible (for the nurse) location in a central file on the nursing unit.

Standardized and computerized nursing care plans (CNCP) were thought to be practical solutions to the NCP problem. Harris (1990) used qualitative constant comparative analyses of interviews with staff nurses (N=14 from one community

hospital and 1 pilot staff nurse from another hospital) who had worked with (CNCPs) for a year or less in order to study the perceived meaning of using CNCPs to nurses. She found that CNCPs meant the loss of nursing autonomy, the loss of individualization of care, and the loss of nursing expertise in the planning of nursing care. A CNCP, according to Harris (1990) is only individualized when nurses free text, that is, insert personal patient data into the CNCP. Some nurses felt that the longer free text CNCPs, which were creative, individualized plans, were not encouraged or rewarded by administration; they were too long and took too much time (Harris, 1990). Thus, asserted Harris (1990) the expert nurse's intuitive, context based, gestalt-view was lost to routine, standardized machine driven nursing care. However, claimed Harris (1990), if the organization and management, as a whole, valued NCPs, and were cognizant of the meaning attached to this type of technology to nurses, the implementation of CNCP need not be a threat to nursing autonomy, expertise, and to individualized nursing care.

These studies do indicate that congruence between professional valuing of the nursing process and visible organizational valuing of the nursing process as a means to individualize care does enhance the use of the written NCP by the nurse. Nurse attitudes toward writing NCPs are more positive in environments that support the professional responsibility to use the nursing process, particularly for

those nurses who have learned the process in nursing school. The literature is also suggestive that Tanner's (1986) assertions that the nursing process, as now used, is not completely representative of the thought process involved in making clinical nursing decisions. Additionally, the literature appears to favour Henderson's (1982, 1987) protest that the NCP does not represent the collaborative model that nursing espouses to want to use in order to step into the arena of primary health care as a full participant. However generalizability of the findings is difficult due to the variance in sampling techniques reported, to the use of different research tools, and the increased sophistication in the reporting style of the researchers through the years.

The most recent literature found is the work by Shea (1984a, 1984b, 1986) and by Fitch, Rogers, Ross, Shea, Smith and Tucker (1991). Shea's (1984a, 1984b, 1986) work details possible factors which influence the use of the nursing process and a conceptual framework to study these factors which influence the use of NCPs by professional nurses. Fitch et al. (1991) proposed a multisite collaborative, longitudinal study "to document the impact on nurses, nursing practice and nurse-patient interactions of implementing a nursing conceptual model as the basis for nursing practice within a hospital" (p.23). They use Shea's 1986 conceptual framework. It is postulated that nurses' ideas and attitudes toward the nursing process and NCPs may

shift as a result of utilizing a nursing conceptual framework (Fitch et al., 1991).

Summary

The nursing process, with its component phases of assessment, nursing diagnosis, planning, interventions and evaluation, has been accepted as the methodology of nursing practice in North America since the late 1960s and early 1970s. The NCP, the end result of the planning phase, is purported to be the operationalization of the nursing process. The nursing process, with its phases, was incorporated into the standards for professional nursing education, practice, administration and research. This gave legitimacy to the use of the methodology in the practice setting. However, even in the early 1970s opinion articles appeared in the nursing literature which lamented the fact that nurses did not write/revise NCPs as recommended.

The nursing process and NCP were also incorporated into hospital accreditation standards. A care plan for every patient became a necessary item for quality assurance programs. Opinion articles still appear which question the value of the nursing process and incomplete or out of date NCPs to patient care, and whether the nursing process and NCP are truly representative of the nurse's clinical

decision making process. In addition, it is argued that the health care institution, by mandating that each patient have an updated written NCP, has made the NCP an end in and of itself rather than a means for the nurse to ensure individualized high quality patient care.

Few reported studies have been conducted to evaluate the effectiveness of the NCP for the patient or for the nurse. Those that have been done do not demonstrate that the written NCP makes a significant difference to patient care, and according to non-scientific surveys and opinion articles, this is what the practising nurse knows. A few studies have examined nurses' attitudes towards the nursing process, writing NCPs and the NCP. The format of the NCP does not appear to make a significant impact on the nurses' attitudes towards writing NCPs nor upon patient outcomes. Positive reinforcement from head nurses and the provision of structured inservice education programs to help staff nurses write NCPs appear to result in more positive attitudes towards writing NCPs. At this time only one Canadian nurse researcher has examined nurses' attitudes and other factors related to the writing of nursing care plans. Shea's (1984a) study was limited to four hospitals in one large Canadian city, used a convenience sample, and was exploratory in nature. Shea (1984a, 1984b, 1986) claimed that institutional factors impact strongly upon nurses' attitudes towards writing NCPs and upon actual NCP

writing/revising behaviour. Shea (1984a) did not explore nurse NCP writing/revising behaviour nor did she attempt to correlate attitudes and behaviours. Huckabay and Neal's (1979) study to describe NCP writing behaviours found that even the nurses with high NCP writing behaviours did not meet the standards' expectations of a NCP for every patient and that they reported more positive reinforcement from head nurses than did the low NCP writers.

The aim of the current study was to determine nurses' attitudes towards writing/revising NCPs and their actual self reported writing/revising behaviours. In addition, the correlation, if any, between the dependent and independent variables was to be determined. If nurses have positive attitudes and write NCPs as the standards imply they should, then the assumption can be made that this health care technology (the NCP) is acceptable to the providers of nursing care and that the standards depict appropriate nursing thought and behaviour.

This current descriptive correlational study being described was timely in that nursing in Canada was becoming very much aware of the fact that nurses must be proactive in determining cost effective nursing activities. If the NCP, as presently used, was not perceived to be an effective tool to the user (the nurse) and was perceived as having little impact on the quality of nursing care provided to the patient then it may well be that requiring a NCP for every

patient is not an efficient use of nursing time. Nursing may be required to examine and change its own professional standards as well as influence examination and revision of hospital accreditation standards. Nurse practitioners and administrators will need to further evaluate the NCP in light of other purported benefits of the written NCP. They may need to examine their patient care information needs and to devise useful formats for the communication of the nursing care to meet these identified needs.

Chapter 3

RESEARCH DESIGN AND PROCEDURES

Research Design

This study was designed to investigate the attitudes of RNs, who practise in acute care centres in Winnipeg, Manitoba toward writing/revising NCPs, and their self-reported NCP writing/revising behaviour. Relationships between these two variables were to be described and correlations determined. A descriptive correlational survey design allows the variables of interest to be identified and described as they occur naturally, and their relationships to be examined (Brink & Wood, 1989). Shelley (1984) described this type of study as a descriptive, simple correlational design as it includes only two variables, attitude and behaviour, as they occur within one group of subjects.

The literature search performed for this study yielded no study that described the mean attitude of practising RNs

working in urban Manitoba acute care hospitals toward writing NCPs or their self-reported NCP writing/revising behaviour. In addition, no study was located that determined the correlation between the NCP attitude and NCP writing/revising behaviour with this same population. Basic descriptive knowledge about the research variables has been acquired through a few qualitative and quantitative studies in various geographic locations of the world (Bowman et al., 1983; De la Cuesta, 1984; Huckabay & Neal, 1979; Savage, 1993; Thomas, 1984).

A modification of Shea's (1986) framework to study the use of nursing care plans by the practising RN provided the conceptual framework for the study. Shea's (1986) conceptual framework proposed possible relationships between nurses' attitudes towards writing NCPs and their NCP writing/revising behaviours. Hence, a descriptive correlational design was appropriate as this design implies that a conceptual framework that supports the possibility of relationships among the variables has been proposed (Brink & Wood, 1989).

By describing the mean attitude of nurses towards writing/revising NCPs and the mean NCP writing/revising behaviour of the nurses, this study also portrayed urban Manitoba RNs' acceptance of nursing standards and hospital accreditation standards which require nurses to write a NCP for each patient. Hence, by determining the mean nurse

attitude towards writing/revising NCPs and the mean NCP writing/revising behaviour of Manitoba nurses this study also partially answered the evaluative question of whether the policies which require the nurse to write a NCP for each patient are effective in the real world. Do the practitioners report that they accept and comply with them? Thus the study could also be described as evaluative (Drummond et al., 1989; Polit & Hungler, 1991).

The independent variable is not manipulated in a survey design, (Brink & Wood, 1989), therefore, control, in the form of investigator regulation of the research variables, was achieved through the use of valid and reliable instruments, sample selection procedures, and data analysis. The descriptive correlational design also requires that the plan, by which the investigator will maintain control during data collection and analysis, be described before beginning the study (Brink & Wood, 1989). This was done.

The study was retrospective as it examined the variables as they occurred and have occurred, not as they will occur. The data were collected at one point in time, analyzed, described and examined for significant relationships. This cross-sectional data collection met the requirement for a descriptive correlational design. According to Brink and Woods (1989), as external validity or generalizability is the major concern of the correlational study, the best sample for this type of study is a large

random sample. In order to be able to generalize any relationships discovered as a result of the data analysis to the population in a descriptive correlational study the sample must be representative of the population (Brink & Wood, 1989). Thus a large probability sample was required to meet generalizability requirements.

Sample

Sampling is the process of selecting a portion of the population of interest to represent the population (Polit & Hungler, 1991). The objectives in selecting a sample for a descriptive correlational investigation are to have a high degree of representativeness and to minimize bias and error (Brink & Wood, 1989). Bias and error decrease and statistical significance of the findings increases as the sample size increases (Brink & Wood, 1989).

The population of interest included all active practising general duty RNs employed in Manitoba acute care hospitals on a full time, part-time, and casual basis. According to the standards set by the Canadian Council on Health Facilities Accreditation (CCHFA, 1992) and the Manitoba Association of Registered Nurses (MARN, 1987), these general duty nurses plan patient care daily, and are required to write and revise NCPs to communicate that

planning.

The accessible nurse population for this investigator was composed of general duty RNs who practise in two large tertiary care centres and five community hospitals within an urban Manitoba setting. By limiting the sample to RNs in one urban geographic area the investigation became more feasible and was more practical in terms of time, accessability, costs, and personal energy for the investigator.

To be eligible for inclusion in this sampling frame the nurse had to be a general duty nurse currently registered as an active practising member of MARN. Additionally, the nurse had to be listed on the 1993 MARN membership list as being employed on a full time, part time or casual basis in an acute care hospital within the designated urban geographic area of Manitoba.

A randomized sample of general duty RNs who practised within an urban Manitoba centre's acute care hospitals allowed the investigation to meet the descriptive correlational design requirement for external validity by way of a large probability sample. In a random sample all combinations of individuals in the population or accessible population have an equal chance or probability of being included in the actual sample (Blalock, 1979; Polit & Hungler,1991). A large sample size enhances the probability that the attributes of the sample agree with those of the

population (Polit & Hungler, 1991). Polit and Hungler (1991) state that "with the use of an appropriate sample size and sampling plan the researcher can be reasonably sure that the sample is representative of the accessible population, and that the accessible population is representative of the target population" (p.269).

The sample was obtained from a sampling frame of 3613 nurses who were registered with MARN effective January, 1993 as active practising, general duty nurses in acute care facilities within the city of Winnipeg, Manitoba. After the proposed study gained approval from the University of Manitoba Faculty of Nursing Ethical Review Committee (Appendix A) and approval from the MARN Board and Research Committee (Appendix B) this membership list was obtained from the MARN. A representative sample size large enough to account for a 20 percent non-response rate was estimated to number 350 nurses (J.Sloan, personnel communication, March 12, 1992). A simple random probability sample from this sampling frame was determined by using a table of random numbers and, as the population consisted of 3613 individuals, selecting the random numbers from four adjacent columns. The first element or case in the sample was the first number between 0001 and 3500 that appeared. A number was only used once in the assignment procedure. This method was convenient and efficient and also met the requirement for external validity of a descriptive correlational design

as described by Polit and Hungler (1991). Replacement, using the same random number procedure, was used when a no response or refusal to participate was encountered. In this manner a sample of 350 participants was achieved. This sample was surveyed by telephone.

Instrumentation

Descriptive designs usually involve both qualitative and quantitative data collection techniques, whereas correlational designs employ quantitative methods only (Brink & Wood, 1989). The survey design requires a highly structured data collection method. What information is wanted and how it will be collected must be specifically stated at the design phase. The data collection design must provide objective and easily quantifiable data. The subjects must know of their subject status prior to the data collection (Polit & Hungler, 1991).

The data collection for this descriptive correlational survey employed the use of a structured interview schedule, and a telephone survey. The structured data collection tool consisted of closed-ended questions generating quantitative data, and a few open-ended questions generating qualitative data. The qualitative data were designed to enrich the quantitative findings by providing some in-depth data about

the variables as the respondents perceived them. The structured survey within the interview schedule asked direct questions of the participants, was designed to be easy to administer and analyze due to its format and pre-coding of the questions, and required approximately 20 minutes of the respondent's time. These aspects of the survey also favoured the correlational descriptive study requirements for quantifiable data, the respondents' requirement for minimal time cost to complete the questionnaire (Crosby, Ventura, & Feldman, 1989; Polit & Hungler, 1991), and the telephone survey method's requirement for a time limit of 20 to 30 minutes (Blankenship, 1977; Kinnear & Taylor, 1987; Shelley, 1984; Williamson et al., 1982).

The telephone survey method, using a structured interview schedule, offers several advantages such as higher completion rates and a higher response rate, over the mailed, self-administered questionnaire (Blankenship, 1977; Hash, Donlea, & Walljasper, 1985). It also offers more control to the investigator so that the responses are truly those of the respondent, rather than a response based on discussion with others (Williamson et al., 1982). However, the telephone interview, like the self-administered questionnaire, does place limitations on the depth of the responses through the use of closed -ended questions according to Hash et al. (1985) and Polit and Hungler (1991). Open-ended questions which allowed the respondents

greater depth in some responses were used to counter this potential disadvantage.

Three short, structured questionnaires were utilized in the interview schedule: a Self-reported Nursing Care Plan Writing/Revising Behaviour Questionnaire (Appendix C), a Nursing Care Plan Attitude Scale (NCPAS) (Appendix D), and a Professional and Demographic Characteristic Questionnaire (Appendix E). There were two main concerns with the order of the questionnaires in the interview schedule: first, social desirability response bias, as a result of the respondent having answered the NCPAS initially, could affect the responses to the NCP Writing/Revising Behaviour questions; and secondly, according to Herzog and Buchman (1981), late placement of a scale in the interview schedule could influence responses to the items in that scale. To decrease the potential for social desirability response bias to affect the responses to the NCP Writing/Revising Behaviour questions as a result of the nurse having responded to the NCPAS first, two interview schedules were developed and used in the survey. Interview schedule one (Appendix F) had the NCP Writing/Revising Behaviour questions first, followed by the NCPAS and then the professional and demographic characteristic and open-ended questions. Interview schedule number two (Appendix G) had the NCPAS first, followed by the NCP Writing/Revising Behaviour Questionaire and then the professional and

demographic characteristic and open-ended questions. The ordering of the two main questionnaires in the interview schedules also assisted in controlling for late placement of either of the scales in the questionnaire. When a respondent agreed to participate a schedule was taken randomly from one of two batches of the schedules. The schedules had previously been placed in each of the batches in alternating order and face down. It was hoped that the random selection of either survey one or two from either of the batches, would also counter any tendency for social desirability bias or fatigue from influencing the respondents answers.

Rapport between the interviewer and respondent was established through an informal approach commencing with general questions of a neutral nature before progressing to questions of a more sensitive nature which may lend themselves to social desirability bias as suggested by Blankenship (1977), Jagger (1982), Kinnear and Taylor (1987) and Williamson et al. (1984). Despite the ordering of the questionnaires, the respondents' reported NCP writing/ revising behaviours may have been influenced by a social desirability bias and the self-reported NCP writing behaviours may not reflect true NCP behaviours. Assurance of anonymity for the respondents and of confidentiality of their responses hopefully encouraged frankness in the responses (Polit & Hungler, 1991). A characteristic of the

telephone interview is frankness of response (Blankenship, 1977) as there is reduced interviewer bias due to the absence of face-to-face contact during the interview (Hash et al., 1985).

The NCP Writing/ Revising Behaviour Questionnaire

The NCP Writing/Revising Behaviour questionnaire (Appendix C), consisted of four items developed by the investigator. The first identified whether the nurse reported using SCPs or hand written NCPs. If the nurse reported using SCPs, items two and three relating to the NCP were skipped; and conversely if SCPs were not used, items two and three were completed. Items two and three formed a 5-point summative Likert type scale to describe whether the nurse reported initiating writing individualized NCPs for patients on admission to hospital or unit, and if the nurse reported revising NCPs as required by changes in patients' conditions. This summative scale, with a maximum positive score of 10, was designed to determine a mean NCP writing/ revising behaviour. The five point Likert scale limits the alternatives for the respondents in a telephone interview according to Shelley (1984) and provided interval level data. Additionally, this questionnaire determined whether SCPs, if used, were individualized and to what extent, and

whether the SCP or NCPs were more likely to be modified or written/revised on any particular nursing shift. The reliability of this scale, using Pearson's Product-Moment Correlation test (Shelley, 1984), was determined as part of the analysis of the study data.

The Nursing Care Plan Attitude Scale (NCPAS)

The NCPAS (Appendix D) was modified from Yurchuk's summated scale by B. Thomas (1984) and was refined by Oetker Black, Taunton, Thomas, and Krampitz (1989). Permission to use this modified scale was requested from Dr. R. L. Taunton (Appendix H) and was granted by B. Thomas (Appendix I). The NCPAS is a 30 item 5-point Likert type scale (strongly agree- strongly disagree) questionnaire. The various dimensions of attitude toward planning and writing nursing care plans for nursing care reflected in the NCPAS are: perceived value of planning to the individual nurse and others such as head nurse, physician (16 statements), conditions such as time and patient load under which planning/writing would take place (one statement); responsibility for planning (three statements); individual confidence in ability to plan (three statements); and types of patients for whom planning is necessary (seven statements) (J. Thomas, 1984). Summated scales make it more

possible to finely discriminate among respondent's different points of view and this makes the scales quite powerful (Brink & Wood, 1989; Polit & Hungler, 1991).

The acquiescence response set bias associated with Likert type scales can be somewhat off set by using negatively and positively worded items (Brink & Wood, 1989; Polit & Hungler, 1991). Upon inspection, the NCPAS had almost an even number of positively and negatively worded items. The NCPAS was designed to produce a maximum positive attitude score of 150 (Thomas, 1984). The amount of time required to complete this written questionnaire was about 10 -15 minutes (Thomas, 1984).

A secondary analysis of the Thomas (1984) data was conducted by Oetker Black, Taunton, Thomas and Krampitz (1989) to determine the scale's content validity, item evaluation, explore its dimensionality and reassess its internal validity. Support was found for Thomas's (1984) high degree of internal consistency using Crombach's Alpha statistic (0.934708) (Oetker Black et al., 1989). Content validity, well above the criterion of 90 percent at 97.5 percent, was found by calculating the average congruency percentage across expert raters for the total scale (Oetker Black et al., 1989). The twelve strongest items "based on their contribution to the usability of the scale and potential to elicit responses across the agree-disagree continuum were revised to change the intensity of the

modifiers within the individual items, an approach recommended by Deaton, Glasnapp and Poggio" (Oetker Black et al., 1989, p. 93). This enhanced the quality and usability of the scale (Oetker Black et al., 1989). This improved scale was used for this investigation.

The Professional and Demographic Characteristic Questionnaire

The professional and demographic characteristics questionnaire (Appendix E), developed by the investigator, was designed to describe specific characteristics of the respondents. The descriptors related to the respondents': unit of clinical practice; years of experience in the clinical practice area; employment status (fulltime, parttime, casual, unemployed); basic nursing education; highest nursing education level; recency of basic and highest nursing education; years of nursing practice; where the introduction to nursing process and NCPs occurred; the nurse's experience with writing NCPs as a RN; the age of the nurse and whether the nurse used the NCP to help provide nursing care. These professional and demographic factors have been found to be significantly related to nurse attitude toward writing/revising NCPs in several studies (Shea, 1984a, 1984b, 1986; Thomas, 1984). Additionally,

these data were used for statistical comparisons with regard to the independent and dependent variables.

To capture additional factors related to RNs' NCP attitude and behaviours and to validate those being assessed a few open-ended questions were asked (Appendix J). To promote ease, accuracy and completeness of response to the questions, the questionnaires were designed so that there was uniformity in question format and response alternatives (Williamson et al., 1982). The instructions were clear and concise in order to minimize cost in time and effort to complete the survey. These are known positive motivators for the potential respondents to participate (Crosby, Ventura,& Feldman, 1989).

Data Collection Procedure

The data were collected by means of a telephone survey of a random sample of RNs from the sampling frame obtained from the MARN. According to Shelley (1984) and Willianson et al. (1982) the telephone survey method provides an accurate, representative, and cost-effective option to face to face interviews or mailed surveys. For clarity, the data collection procedure is discussed under two distinct headings, each having specific implications in the telephone survey. Firstly, the methodology of the actual telephone

survey is discussed. Secondly, the preparation of the interviewer(s) for the actual interview, using the structured interview schedule, is addressed.

The Telephone Survey

The sampling frame consisted of names, telephone numbers and addresses, from the 1993 MARN membership list, of the general duty registered nurses who nursed in acute care hospitals within the geographic urban centre. The possible random selection of nurses from the list with unlisted and non-working lines was dealt with in the following manner: if a name listed in the sample had no listed number the name was discarded and a new one drawn to replace it; if a number was dialed and a none working line reached, that number and name were discarded and replaced with another drawn in the manner described in sample selection. If the nurse no longer worked in an acute care facility within the city, or nursed in a facility outside of the designated geographic area the nurse was told that only nurses who did work in acute care facilities within the urban centre were being surveyed. Appreciation was expressed to the nurse for being willing to participate and the call was terminated. Another name was randomly drawn from the sampling frame to replace the nurse just described.

If the time for the initial interview call was not convenient, then a call back was arranged at a mutually agreeable time and this was noted on the interview schedule. At the call back the interviewer again identified herself, briefly explained the study and its significance to nursing and the respondent, and then proceeded with the interview by asking the nurse to respond to the questions.

If there was no answer to the first call attempt or the line was busy, further calls were be made to the same number to a maximum of three calls as recommended by Blankenship (1977). A call was terminated if there was no answer after the fourth ring as it has been demonstrated that this is an efficient number (Blankenship, 1977). Activation of telephone answering machines, usually on the fourth ring, was treated as a no response and no message was left. If no answer was achieved by the third call attempt, another name was selected to replace the no answer name. This protocol was followed until the required sample size was achieved. The three call attempts occurred at different times of the day based on the fact that nurses work 12 and eight hour shifts. The first attempt was usually made in the early evening. If no answer occurred on the first call, the second was made the next day in the mid-morning. The third call, if required, was usually made in the afternoon of the second day. If, on the first call, the respondent nurse was unavailable, the family member was asked to identify a

possible good time to call and speak with the nurse. This time was noted on the interview schedule and the call made. If the nurse refused to participate in the survey, the interviewer was instructed to thank her for her attention, to note any reason given for non-participation on the interview schedule so as to estimate result biases based on sample characteristics (Polit & Hungler, 1991; Shelley, 1984) and to complete the call. The investigator was assisted by a research assistant in making the calls and conducting the interviews in order to minimize interviewer fatigue and possible resultant data biases (Shelley, 1984). Although it was proposed that the survey would be completed within four weeks, it actually took a 45 day period of time between June 2, 1993 and July 29, 1993 to complete. There were eight days in which no dialings were attempted.

When the subject nurse was contacted, the interview schedule was followed exactly as it was written so as to provide standardization and decrease possible response error due to variability on the part of the interviewer (Collins, Given, Given, & King, 1988). In addition, each interviewer completed, as much as was possible, the call-back appointments made by herself so that each respondent interacted with only one interviewer. This is recommended by Frasure-Smith (1987) so as to avoid interviewer effects. If it was not possible for the original surveyor to make the call back the second surveyor made the call at the

designated time and explained that the original surveyor was unable to make the call and then the schedule was followed as indicated previously.

Interviewer Preparation

The goal for the interviewer is to function as an impartial data collector by maintaining consistency in the interview techniques to ensure that reliable data are obtained (Collins et al., 1988; Shelley, 1984; Williamson et al., 1982). To decrease the possibility of interviewer bias the interviewer had to be thoroughly familiar with the goals of the investigation and the interview schedule as well as the terms used in the questionnaire. The interviewer followed the interview schedule exactly. The schedule had specific guidelines and reminders interspersed throughout it to enable the interviewer to obtain uniform, reliable interpretable data (Blankenship, 1977; Fowler, 1988; Williamson et al., 1982). In addition, the researcher and research assistant (the interviewers) reviewed and discussed the instructions for the interviewers (Appendix K) so that all aspects of the actual telephone interview were understood. The interview was role played so that the interview procedure and schedule were familiar and the interviewers were comfortable with them. During this role

play the importance of a neutral tone of voice for the interviewer was emphasized. As well, to maintain ethical integrity of the investigation, the need for confidentiality of responses and anonymity for the respondents was emphasized during the preparation. The schedule was also assessed for ease of administration, time required for administration, and potential interviewee questions so that standard methods could be established to handle them. Timing the interview over several role playing situations it was found the survey took an average of 20 minutes to conduct.

The extent to which departures could be made from the interview schedule was discussed as well as how to manage the verbatim recording required in the open-ended questions. Additionally, debriefing meetings were held between the investigator and the assistant on a daily basis throughout the investigation so as to discuss concerns and identify solutions. In this manner standardization of the interview process was achieved.

Protection of the Rights of Human Subjects

To ensure that this investigation did not breach fundamental ethical principles in the research process the following safeguards were employed. Approval was sought and

obtained from the Ethics Committee of the University of Manitoba Faculty of Nursing and from the MARN Research Committee as well as the MARN Board. This approval was communicated to the participants during the introduction to the telephone survey. All participants were provided with a brief description of the study and with the investigator's name and phone number in order to enable the participants to contact the investigator with any questions concerning the study. The respondents were asked to give about 20-25 minutes of their time to complete the questionnaire and were advised of their right to refuse participation or to withdraw from participation at any time during the interview. Participation was voluntary and the interviewer was instructed to not coerce the respondent in any way to become a participant. Consent to participate was indicated by voluntary verbal agreement to participate and this constituted informed consent.

Confidentiality of responses was guaranteed to all participants during the introduction to the survey. The research assistant was obligated to maintain this confidentiality. It was explained that completed questionnaires would be stored in a locked filing cabinet to which only the investigator had access. Once the data had been coded and analyzed, and the study completed, the nurses' names and telephone numbers were removed from the questionnaires. The questionnaires are stored in locked

files for a period of 7-10 years as recommended by the Medical Research Council (K. Chalmers, personal communication, April 12, 1993).

Participant anonymity also was maintained. The introduction to the survey indicated that the respondent's name was obtained from the MARN membership list. As required by MARN's policy, the sampling frame was secured in the locked filing cabinet. The list was not duplicated, and unused membership material was returned to the MARN when the thesis was approved. As a further precaution, only the nurses' first names and telephone numbers were listed on the interview schedule. These identifiers were deleted from the surveys before being stored for the 7-10 years.

The research assistant only had access to the nurses' first names and telephone numbers as listed on the interview schedules and was requested to keep this information confidential. During the investigation these schedules were stored in the locked filing cabinet. The respondents were informed that should this study be published, individual responses would not be identifiable as only grouped data would be reported. The respondents were also informed that when completed, a bound copy of the thesis would be in the University of Manitoba library, and that an abbreviated report would be submitted for possible publication in the Nurscene, the monthly newsletter of the MARN.

The study did not deviate from the original project as

approved by MARN and the Ethics Review Committee of the Faculty of Nursing, University of Manitoba. The participants were at no physical or psychological risk as a result of participating in the study. Furthermore, no attempt was made to deceive the participants in any way.

Assumptions

The assumptions underlying this study were those presumed by the conceptual framework developed by H. Shea (1986). They were: that both the writing and the use of the NCP by the professional nurse are the operationalization of the nursing process; and that the professional nurse has the appropriate degree of knowledge and skill to use the nursing process. In addition, it was assumed that the measurement instruments and interview schedule would provide valid and reliable data for this investigation. The use of the telephone survey method, it was assumed, would provide responses which were truly those of the respondents rather than being influenced by social desirability bias or by discussion of the item with others before answering.

Chapter 4

RESEARCH FINDINGS

The context of the study and results of the data analysis are presented in this chapter. Many of the responses to the open-ended questions alluded to the provincial health care environment in which the nurses were working during the time the telephone surveys were conducted. In addition several nurses refused to participate in the survey because of their perceptions related to the context. Therefore, before the data analysis is presented, a brief description of the context of the study is described.

Context of the Study

On May 14, 1992, the Minister of Health, Manitoba Government announced a two year action plan entitled Quality Health for Manitobans: The Action Plan. This plan would

reform the provincial health care system to provide more effective health care in appropriate settings for Manitobans. The plan was to preserve Medicare and its five founding principles as defined by the 1984 Canada Health Act while providing a health care system that Manitobans could afford. It proposed a shift from costly hospital care to community based care and was to emphasize health promotion and illness prevention rather than focusing on illness care (Manitoba Health, 1992).

The two large teaching hospitals within the urban Manitoba centre of interest and with the most expensive in-hospital costs, had an immediate closing of 240 beds. In the fall of 1992 a further 122 beds were closed in one of these hospitals and 47 obstetrical beds were transferred from this hospital to community hospitals; 50 pediatric beds were closed in community hospitals and pediatric services were centralized in one teaching hospital; 39 surgical beds in a teaching hospital were closed for an enhancement of a outpatient day surgery operation in the same facility; and by July 1993 a further closure of 48 surgical beds in a community hospital had taken place (Lett, 1993). The survey telephone interviews were conducted from June to July of 1993, just one year into the health reform actions.

As a result of the bed closures fewer nurses were needed. Consequently RNs from all the acute care facilities within the urban centre experienced the effects of the

downsizing and many of the respondents made reference to the uncertainty of their nursing positions. The affected nurses could apply to vacant positions in other areas of the respective hospital or could "bump" someone junior to them on the seniority list. The climate was one of not knowing where changes were to take place next or whose nursing position would be deleted next. Nurses employed within these hospitals were bumped and found themselves in new clinical areas where they had little expertise and were expected to provide safe nursing care. The hospitals, using new patterns of staff mix, were supplementing the decreased number of nursing staff with nursing assistants in an effort to curb rising hospital costs (MARN, 1993). According to Blegan, Gardiner and McCloskey (1992) this experimentation with different staff mixes was not too unlike other acute care hospitals in North America. Many of the respondents alluded to these happenings while answering the survey questions. Two refused to participate because of "health care reform" and "paranoia".

Nursing opportunities in Manitoba and Canada remained limited from November 1992 to February 1993 according to a Memorandum issued by the Nursing Practice Consultant of the Canadian Nurses Association (Nield, 1993). Dyck (1993) reported that the environment was unsettled; there seemed to be no plan to the reform and employed nurses were losing or afraid of losing their positions as well as experiencing

increased workloads. Many respondents reported they felt that, as a result of the decreased staffing and increased acuity of patients' conditions, there was no time to give anything but very basic nursing care.

Data Analysis

Data analysis was achieved through the use of descriptive and inferential statistics. The descriptive analysis of research question two, the self-reported NCP writing/revising behaviour is presented prior to that for research question one, the nurses attitudes towards writing/revising NCPs. The analysis of the NCP Writing/ Revising Behaviour questionnaire created a variable describing the format of care plan used by the respondents in their respective clinical areas. This variable, called Pattern, was used throughout the analysis of all three research questions. Hence it is described first so as to facilitate clarity in describing and interpreting the findings to all three research questions. To aid the interpretation of the findings and enhance clarity, tables and graphs depicting the data are presented throughout the data analysis. The data analysis is presented using the following headings:

1. Data analysis procedures.

2. Reliability data.
3. A summary of the professional and demographic characteristics of the sample.
4. The respondent's self-reported Nursing Care Plan Writing/Revising Behaviour
5. The respondent's attitudes towards writing nursing care plans as measured on the Nursing care Plan Attitude Scale (NCPAS).
6. The relationship between the attitudes of the respondents towards writing NCPs and their self-reported writing behaviours.
7. A summary of the responses to the open-ended questions.
8. A summary of the findings.

Data from the completed interview schedules were coded using a code book which was developed by the investigator, and the coded responses were entered on a computer database and then analyzed using the SPSS/PC+ Statistical Package for the Social Sciences (Norusis, 1990). Descriptive and inferential statistical procedures were used to derive answers to the three research questions. Throughout the presentation of the data analysis tables and graphs are used to lend clarity to the presentation.

Responses to each of the professional characteristic and demographic questions were summarized, using descriptive statistics appropriate for the data. In response to

research question number one, the scores of the Nursing Care Planning Attitude Scales (NCPAS) were summed and described by using descriptive statistics.

The mean NCPAS score and standard deviations were determined for each of the demographic and professional characteristics. In addition, the mean NCPAS score was determined for the total sample. Likert scales, although ordinal level, can be treated as interval level according to Polit and Hungler (1991). This was done. It was proposed that in summing the Likert scale, missing data would receive the average of the other scores for that particular questionnaire (Williamson et al., 1982); however this was not necessary as the interviewers recorded responses to each item in the schedule. The NCPAS mean score also was determined for the different NCP Behaviours as identified by research question two using the NCP Writing/Revising Behaviour scale.

The respondents' self-reported NCP writing/revising behaviour, research question number two, was described, using appropriate descriptive statistics. It was determined whether the respondents worked with SCPs, NCPs or with neither in their respective clinical practice areas. If the SCP was used the respondent was asked whether it was modified and to what extent. If the NCP was used it was ascertained to what extent the respondent usually initiated writing the NCP upon the patient's admission to the unit and

to what extent the NCP was revised as the patient's condition changed. The mean NCP Writing/Revising Behaviour was determined for the respondents who reported using the NCP in their clinical practice area. In addition, the NCP Writing/Revising Behaviour mean was calculated and described for each of the professional and demographic characteristics for the Pattern NCP nurses.

In response to research question three, the degree of linear association between the overall NCPAS mean and the overall NCP Writing/Revising Behaviour mean for those who reported having the NCP Writing/Revising Behaviour, was determined and described using Pearson's product moment (Pearson r) correlation coefficient statistic. This required interval level data, and assumed that the distribution was normal and that the association was linear (Shelley, 1984). As recommended by Shelley (1984) a scatter diagram, on which the summed scores for the NCPAS were plotted on the X axis and the summated scores for the NCP Writing/Revising Behaviour were plotted on the Y axis plot, was used to determine whether the two measures were linearly related. In addition, percent of variance was determined for the correlation in order to evaluate the strength of the association between the dependent and independent variables. As the relationship was linear, it was desirable to use parametric tests to describe the relationship as these tests have more power associated with them than nonparametric

tests (Polit & Hungler, 1991).

In order to investigate the strength of the association between the professional and demographic characteristics and the mean attitude and the mean behaviour respectively, several inferential statistical tests were carried out. The mean NCPAS scores for the total sample (N = 350) were determined by the levels of the professional and demographic variables as well as for the item which asked whether the respondent used the NCP to help provide patient care (Appendix L). The mean NCP Writing/Revising Behaviour for the respondents who reported the behaviour was similarly determined by the levels of the professional and demographic characteristics as well as for the item which asked whether the respondent used the NCP to help provide patient care (Appendix M). As many of the professional and demographic characteristics had more than two categories and were of interval measure, the test of difference or association used to determine whether there was a significant difference between the means by the levels of the characteristics was the analysis of variance test (ANOVA) or the one-way ANOVA. In cases of dichotomous response items, a Difference of Means test was used as the ANOVA is not appropriately used with this level of data (Shott, 1990). The level of statistical significance was 0.05. As a significant ANOVA F ratio indicates only that the population means are probably not equal but does not pinpoint where the differences are,

Scheffé's S post hoc comparison test was used to determine which level of the independent variable was significantly different from the other. According to Norusis (1990) and Shelley (1984), this test is a conservative test for pairwise comparison of means as it requires larger differences between the means than do most other methods. The assumption of equal variances required by the Scheffé's S test was first met through the use of Cochran's C Test and the Bartlett-Box F Test, both univariate tests of homogeneity (Shelley, 1984). Both assume equal variances; the obtained levels of significance must reach the .05 level (Shelley, 1984). The Eta Squared correlation coefficient (Eta^2) was used to determine the magnitude of effect or percentage of variance accounted for by the independent variable on the dependant variable when a significant difference was found using the analysis of variance (Shelley, 1984).

The content of the qualitative open-ended questions was analyzed for themes. The frequency of responses in each theme was presented. These findings were used to provide richness and depth to the quantitative findings.

The internal consistency of the NCPAS was determined by using Crombach's alpha. The results were compared to those found by Oetker Black, Taunton, Thomas and Krampitz (1989). A Difference of Means test was used to determine whether there was a significant difference between the overall mean

NCPAS score and the overall mean NCP Writing/Revising Behaviour score secured from each of the two versions of the interview schedules. A significant difference could indicate systematic bias as a result of the structure of the survey or due to interviewer affects.

Reliability Data

The internal consistency of the NCPAS for the sample used in this study was determined through the use of Crombach's Coefficient Alpha. The reliability coefficient was 0.886. This coefficient was less than Thomas's (1984) alpha coefficient of 0.935 for the same scale, but was above the 0.800 measure required by a mature scale (LoBiondo-Wood & Haber, 1990). Thus it was sufficiently high to assure confidence in the use of the scale and the resultant data.

The NCP Writing/Revising Behaviour scale consisted of two summed Likert-type items as described in chapter three. The reliability of this scale was determined through the use of Pearson's product-moment correlation test. Pearson's r measured .68 $p < 0.001$ between the two items. This denoted a fair but positive symmetric linear association between the two items which made up this scale.

The Difference of Means test, done on the NCPAS mean scores ($N = 350$) as well on the NCP Writing/Revising

Behaviour mean scores for those who reported the behaviour (n = 184), indicated there was no significant difference at the .05 level between the two versions of the interview schedules. As described in chapter 3, the two scales had been systematically alternated on the two schedules so as to decrease any possible bias associated with late placement in the schedule or social desirability factors. This finding of no significant difference between scores on the two versions of the interview schedules also indicated that researcher bias did not systematically affect the responses. The reliability data are presented in Table 1.

Table 1

Reliability Data

Scale	Measure/Test	Result
NCPAS (N = 350)	Crombach's Alpha	.886
NCPWrit/Revis Behaviour (n=184)	Pearson's r	.6867
NCPAS (N=350) (Survey #1, #2)	Difference of Means test	NS
NCPWrit/Revis Behaviour (n=184) (Survey #1, #2)	Difference of Means test	NS

Note: (α = .05)

Description of the Sample

The total population identified by the 1993 MARN membership list as being active, practising general duty nurses in acute care settings within the city of Winnipeg, Manitoba numbered 3,613 nurses. Of these, 1598 (44.2%) nurses were listed as employed full time; 1687 (46.7%) as part time; 2 (0.06%) as 'unspecified' and 326 (9%) as casual or seasonal.

At the completion of the survey it was determined that a total of 632 names had been randomly drawn in order to obtain the 350 completed surveys. Two hundred and eighty-two (44.6% of the 632) nurses to whom telephone calls were made did not participate in the study for a number of reasons: 87 refused to participate; 38 did not have working lines, were reported as having moved, required long distance calls or had unlisted numbers with MARN; 10 did not meet the sampling criteria as they did not nurse in acute care facilities within the stated geographic area and 147 nurses were not contacted after three dialings or there was no answer at the previously established appointed calling time. Table 2 represents the reasons given by the 87 nurses who refused to participate.

Table 2

Refusal to Participate Reasons

Reason	Frequency	Percent
Going on summer holidays	12	13.8
Clinical area does not use NCPs	12	13.8
Felt uncomfortable doing survey	10	11.5
Not a convenient time; could not predict a better time	29	33.3
Not interested/ rather not do	21	24.2
Deceased	1	1.1
Negative feelings about NCP	2	2.3
TOTAL	87	100.0

The 12 nurses who refused to participate because they did not use NCPs in their clinical areas reported the clinical areas to be: the Recovery Room (n = 2); Labour & Delivery (n = 3); Emergency (n = 1); Outpatient Surgery (n = 1); Operating Room (n = 1); IV Therapy (n = 1); not specified (n = 3). Reasons given, by the nurses, for being uncomfortable doing the survey were: "health care reform paranoia", "too personal", "don't do surveys", and "uncomfortable doing a survey over the phone." Thirty-one (35.6%) of the 87 nurses who refused to participate nursed in community hospitals; 55 (63.4%) in teaching hospitals and for 1 (1.0%) place of work was missing from the sampling frame. Employment status and gender for the 87 nurses were: 39 (44.8%) employed full time; 44 (50.6%) part time; 4 (4.6%) casual and 85 (97.7%) were female while 2 (2.3%) were male.

The Sample's Demographic and Professional Characteristics

The responses of the 350 respondents to the professional and demographic questions of the questionnaire are summarized in the following text. In order to reflect the responses to the question regarding the clinical practice or speciality area of nursing work, the categories were expanded so as to separate Labour and Delivery from Ante and Post Partum care, and the Operating Room and Recovery Room from Intensive Care. The clinical practice or speciality area included in each were: Surgery (general surgery, medical and surgical nurse float pool, orthopedics, urology, outpatient day surgery, angiography); Medicine (palliative care, nephrology, oncology, organ transplantation, rehabilitative medicine, dialysis, ambulatory care, geriatrics and psychogeriatrics, IV therapy); Obstetrics and Gynecology (Obs/Gyne)(ante and post natal, obstetrical outpatient clinics, gynecology); Pediatrics and Neonatology (newborn nursery, neonatal ICU, pediatric burn unit, pediatric RR); Psychiatry (general and emergency psychiatry); Intensive Care (ICU) (medical and surgical ICU, cardiac ICU, combined ICU/Emerg., ICU/RR, pediatric ICU, Step Down Unit); Emergency (emergency and Emergency/ Observation units); operating room (OR) and recovery room (RR) (adult and pediatric, cardiovascular RR); and Labour and delivery (L & D). Table 3 represents the

distribution of the sample of 350 nurses by these nine categories of clinical practice ranked in descending order. The largest numbers of respondents were from the areas of medicine and surgery with 79 and 68 nurses respectfully. The smallest number of respondents (n = 10) was from the area of psychiatry. Two of the seven acute care facilities do not have specific designated psychiatric units.

Table 3

Sample Distribution by Area of Nursing Clinical Practice

Rank Ordered

Clinical Area	Number of Nurses	Percent
Medicine	79	22.6
Surgery	68	19.4
Intensive Care	49	14.0
Pediatrics & Neonatology	41	11.7
OR & RR	34	9.7
Obstetrics & Gynecology	32	9.1
Emergency	19	5.4
L & D	18	5.1
Psychiatry	10	2.9
TOTAL	350	100.0

Using data from the sampling frame, it was determined that 214 (61.1%) of the 350 respondents nursed in acute care teaching hospitals within the specified urban geographic area; 119 (34.0%) nursed in acute care community hospitals and 17 (4.9%) had this data missing.

The greatest number of nurses (n = 180) reported they were employed on a part time basis in the hospitals while four reported that they were unemployed at the time of the study. Table 4 depicts the distribution of the sample by

employment status.

Table 4

Sample Distribution by Employment Status

Employment Status	Number of Nurses	Percent
Part time	180	51.4
Full time	136	38.9
Casual	30	8.6
Unemployed	4	1.1
TOTAL	350	100.0

The sample was comprised of 344 (98.3%) females and 6 (1.7%) males and they ranged in age from 21 years or younger to fifty plus years. The modal age group (n = 135) was the 31-40 years of age group. Table 5 represents the distribution of the sample by age.

Table 5

Sample Distribution by Age

Age Category	Number of Nurses	Percent
21 years or less	1	0.3
22 - 30 years	101	28.9
31 - 40 years	135	38.6
41 - 50 years	94	26.9
51 + years	19	5.4
Total	350	100.0

The number of years of practise as a registered nurse for the respondents ranged from less than 1 year (n = 5 or 1.5%) to 37 years (n = 1 or 0.3%) with the actual range being 36 years. The average years of nursing experience as a registered nurse for the sample was 11.8 years with a SD

of 7.95; the median was 10 years and the mode was 3 years. However, once five year categories were developed, the modal category for years of experience as registered nurses became 5 - 9.9 years. The distribution was positively skewed; the greater the number of years of practise as a registered nurse the fewer the number of observations. Table 6 represents the sample distribution by years of nursing experience as registered nurses.

Table 6

Sample Distribution by Years of Nursing Experience as RNs

Years of RN Nursing Experience	Number of Nurses	Percent
< 1 year	5	1.4
1 - 4.9 years	74	21.1
5 - 9.9 years	86	24.7
10 - 14.9 years	60	17.1
15 - 19.9 years	52	14.9
20 - 29.9 years	61	18.3
30 - 39.9 years	9	2.7
Total	350	100.0

The reported years of nursing experience in the clinical area categories for the 350 respondents ranged from less then one year to 30 years with the actual range being 29 years. The mean was 8.06 years of nursing experience with a standard deviation (SD) of 6.319; the median 7 years and the mode 3 years. The distribution is positively skewed: the greater the number of nursing experience years in the clinical area, the fewer the number of observations. A summary of this data is presented in Table 7.

Table 7

Sample Distribution by Years of Nursing Experience in Nursing Clinical Practice Area

Yrs. of Experience	Number of Nurses	Percent
< 1 year	24	6.9
1 - 4.9 years	118	33.7
5 - 9.9 years	91	26.0
10 - 14.9 years	51	14.6
15 - 19.9 years	41	11.7
20 - 30 years	25	7.1
Total	350	100.0

The majority of the respondents (n = 323) reported that their basic nursing education program had been a diploma program, with several of these nurses reporting that their initial nursing education program had been that for practical nursing or psychiatric nursing before the diploma program had been undertaken. The highest level of nursing education attained or being attained by the respondents ranged from the initial diploma program for registered nurses to a master of nursing degree. Several nurses reported they had a Bachelor of Arts degree rather than a baccalaureate degree in nursing. The highest level of nursing education categories were changed to reflect the responses given by 49 of the respondents who indicated they had or were taking a post diploma certificate program. Three hundred and nine had completed their highest nursing education while 41 indicated they were in the process of taking their higher level of nursing education and would be completed by the year 2000. Table 8 reflects the sample

distribution by initial nursing education as well as by highest level of nursing education. It also indicates whether the highest level of education had been completed or was in progress at the time of the survey. The highest level of nursing education was coded as completed if the respondent indicated that the education program was to be completed in 1993.

Table 8

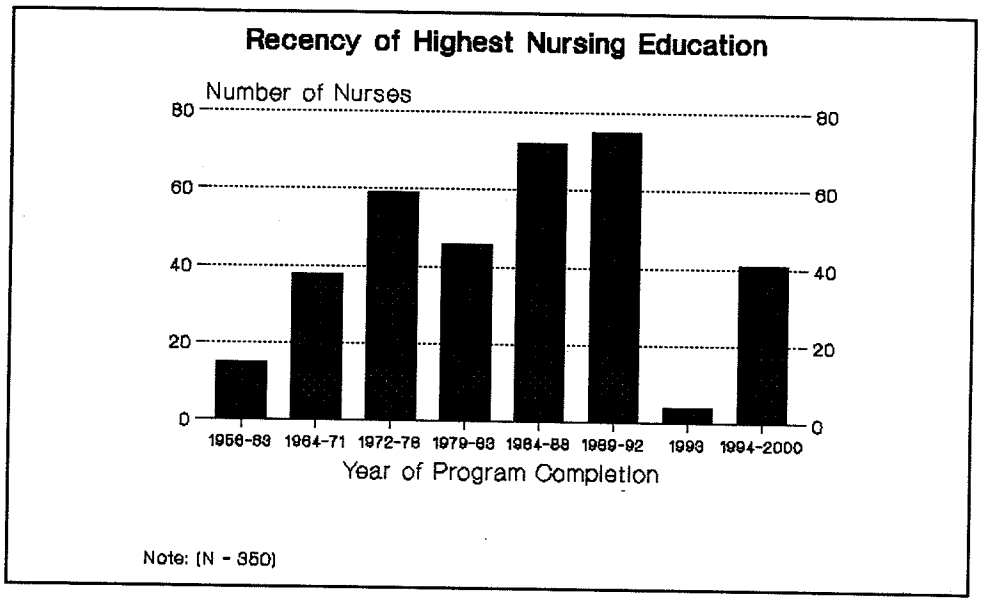
Sample Distribution by Initial & Highest Level of Education

Level of Education	Initial	Highest	Completed	In Progress
Diploma	322	226	226	-
BN	28	28	28	-
RN BN	-	46	7	39
Post RN Cert.	-	49	47	2
MN	-	1	1	-
TOTAL	350	350	309	41

The average length of time that had elapsed since the completion of the highest level of nursing education for the sample, whether it was a diploma nursing, baccalaureate, post RN BN, post diploma nursing certificate or a master of nursing program, was 12.3 years. The actual range of length of time that had elapsed since completion of the highest level of nursing education was from having completed the program 37 years ago to having completed within the year of 1993. The median was 10 years and the mode 3 years, indicating a positively skewed distribution with fewer

observations of the highest level of nursing education being completed in the more recent years. Figure 2 indicates the recency of the highest level of nursing education for the respondents.

Figure 2



The introduction to the nursing process and NCP for 299 of the respondents had been in their initial nursing education program. Continuing formal education had provided an introduction to the nursing process and nursing care plans to the least number (n = 9) of the respondents. Table 9 depicts where the nurses reported to have initially learned about the nursing process and how to write NCPs.

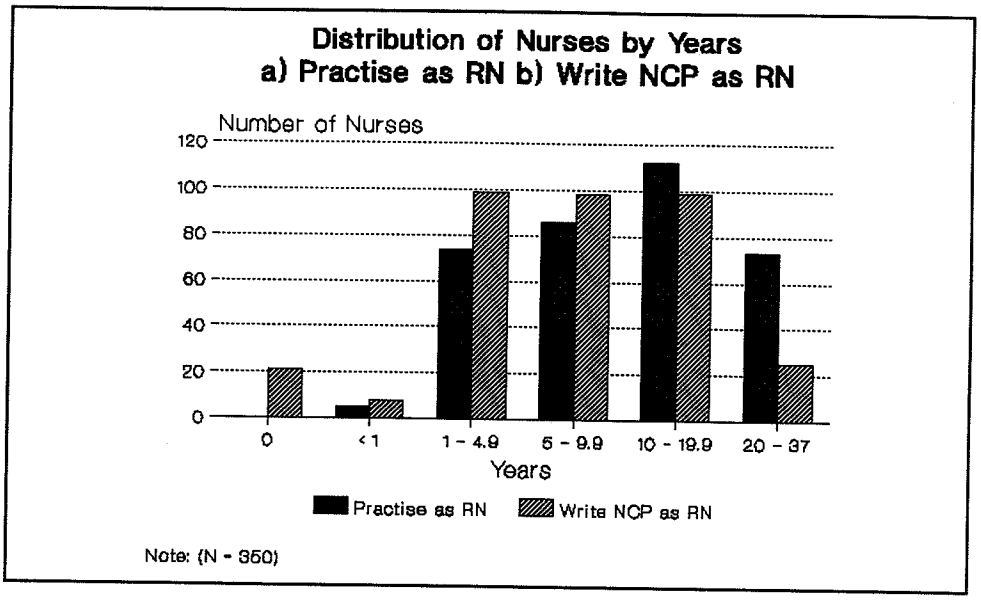
Table 9

Distribution of the Sample by Where They Received Initial Education in Nursing Process & Writing NCPs

Introduction to NCP	Number of Nurses	Percent
Initial program (Diploma & BN)	299	85.4
Inservice at the workplace	37	5.0
Workshops	5	1.4
Formal Continuing Education	9	2.6
Total	350	100.0

The number of years that the 350 respondents had been writing NCPs ranged from less than 1 year to 30 years with the actual range being 29 years. The mean was 8.45 years of experience writing NCPs as registered nurses with a standard deviation of 6.24; the median 7 years and the mode 5 years. The distribution was positively skewed; the greater the number of years of experience writing NCPs as registered nurses, the fewer the number of observations. Sixty percent or 209 of the nurses reported writing NCPs for the total number of years they had practised. Figure 3 depicts the distribution of the nurses by the number of years they had been writing NCPs as registered nurses with the number of years they have been practicing as registered nurses. As Figure 3 demonstrates, the nurses with more years of practise as a registered nurse reported they had written NCPs for fewer years than they had practised.

Figure 3



As Figure 3 also depicts, there were 21 nurses who reported that they had never written NCPs as registered nurses. The 21 respondents had from 3 to 16 years of nursing experience in the clinical areas of surgery, medicine, obstetrics and gynecology, intensive care, emergency, operating and recovery rooms, and labour and delivery.

The respondents reported writing/revising NCPs more regularly (n = 123) on the night shift. Many of the respondents stated that there was more time to carry out this activity during the night despite the fact that there was less actual interaction with the patient during the night. The next shift in which NCPs were more regularly

written/ revised was days. When asked if they used NCPs to help them provide patient care 267 of the 350 respondents indicated they did so; 83 indicated they did not. Table 10 demonstrates the distribution of the sample by the shift in which NCPs were reported as being more regularly written /revised.

Table 10

Distribution of Sample by Shift NCPs Regularly Written/Revised

Shift NCP Written/Revised	Number of Nurses	Percent
Days	90	25.7
Evenings	38	10.9
Nights	123	35.1
NA (do not write/revise)	52	14.9
Equal on all shifts	46	13.1
Missing data	1	.3
Total	350	100.0

As Table 10 depicts, 52 nurses indicated they did not write/revise NCPs on any shift. These 52 nurses reported having from less than one year to 25 years of nursing experience in the clinical areas in which they practised. The largest number of the 52 nurses had from 1- 4.9 years of clinical experience in their particular clinical areas. Fourteen of the 52 nurses reported they had never written NCPs as registered nurses while 38 reported they had written NCPs from 1 to 21 years as registered nurses.

Scale Response Patterns

Self - Reported NCP Writing/Revising Behaviour Scale

Summary of Response Patterns to Individual Items

Research question two asked "What are the self-reported NCP Writing/Revising Behaviours of general duty, registered nurses who practise in acute care hospitals in an urban Manitoba centre ?" The NCP Writing/Revising Behaviour Scale items were designed to determine whether the respondents used SCPs or written NCPs or no SCP and no NCP on their nursing units. The items also described the writing/ revising behaviour of those who used NCPs plus the frequency with which, for those who used them, SCPs were modified for individual patients.

The first item asked " Do you use a standard care plan at your place of work ?" One hundred and sixty -six of the respondents reported they used SCPs in their clinical area and 184 reported they did not. The 184 nurses, slightly more than 50% of the respondents, who stated they did not use SCPs in their clinical area were asked to estimate the frequency with which they wrote and revised NCPs. Of the 184 nurses who said 'No' to using SCPs in their clinical area, 41 reported initiating writing NCPs upon the patient's admission to the nursing unit and revising it as the patient's condition changed 0% of the time, that is, they

did not use NCPs or SCPs. The remaining 143 nurses reported NCP Writing/Revising Behaviours for some or 100% of the time. Thus three patterns of NCP Writing/Revising Behaviour were identified. Pattern SCP was defined by the 166 nurses who responded 'Yes' they did use SCPs in their clinical areas. Pattern No SCP No NCP was defined by the 41 nurses who said 'No' to both using SCPs and writing/revising NCPs. Pattern NCP was defined by the 143 nurses who reported 'No" to the use of SCP but did report NCP writing/revising behaviours. The Pattern variable was the NCP format reported used by the respondents in their respective clinical areas in response to the survey questions. Table 11 depicts the sample's distribution by the NCP Behaviour Pattern variable.

Table 11

Distribution of Sample by NCP Behaviour Pattern

NCP Behaviour Pattern	Number of Nurses	Percent
Pattern SCP	166	47.4
Pattern NCP	143	40.9
Pattern NO SCP NO NCP	41	11.7
Total	350	100.0

In order to determine the frequency with which each Pattern of NCP Behaviour was observed in the clinical settings as reported by the respondents, a crosstabulation of Pattern by Clinical area was done. Table 12 depicts the frequency of use for the Patterns of NCP Behaviour by

clinical areas as reported by the respondents.

Table 12

Pattern of NCP Behaviour by Clinical Area

Clinical Area	Pattern			
	NCP Freq	SCP Freq	No SCP No NCP Freq	Row Total
L & D	3	7	8	18
Surgery	24	38	6	68
Medicine	51	27	1	79
Obs/Gyne	10	20	2	32
Pediatrics/ Neonatology	13	28	0	41
Psychiatry	6	3	1	10
ICU	18	27	4	49
Emergency	8	5	6	19
OR & RR	10	11	13	34
Column Total	143	166	41	350

Written NCPs were reported as the tool used most frequently in the clinical areas of medicine, psychiatry and emergency. SCPs were reported as being used more frequently than other formats in the areas of surgery, obstetrics and gynecology, pediatrics and neonatology, and intensive care units. Neither a SCP or a NCP were reported as being used most frequently in Labour and Delivery or the operating room and recovery room areas.

Of the 166 nurses in Pattern SCP, 164 indicated they did modify the SCPs for individual patients; 2 did not. When asked to estimate the frequency with which the SCPs were modified, the 164 nurses indicated the following: the greater number (n= 60 or 17.1%) reported modifying or individualizing the SCPs for their patients 1% - 33% of the

time; 24 (6.9%) reported that they modified the SCPs 100% of the time; and three indicated they modified the SCP 0% of the time.

Thirty-one of the Pattern NCP nurses (n = 143) reported they always initiated writing the NCP upon the patient's admission to their nursing area. The larger number of the NCP writers (n = 65) initiated writing NCPs on the patient's admission 1% to 33% of the time, and more than half the NCP writers (n = 87) initiated writing the NCP from 0 - 66 % of the time. Revisions to NCPs as required by changes in the patients' nursing care were reported as being made 100% of the time by 30 of the 143 respondents who wrote NCPs; 54 revised NCPs as required from 1% to 33% of the time. Table 13 summarizes the distribution of the sample according to the reported Pattern; the percentage of time that the SCP was reported as being modified; the percentage of time the NCP was reported as being initiated upon the patient's admission to the nursing unit and the percentage of time the NCP was revised as the patient's condition changed.

Table 13

Distribution of the Sample by the Reported Pattern and the Writing/Revising Behaviours

Pattern	Time Frequency of the NCP Writing /Revising Behaviour				
(Number of Nurses)	0%	1-33%	34-66%	67-99%	100%
SCP Pattern (n = 166)					
Modify SCP	5 (3%)	60 (36.1%)	45 (27.1%)	32 (19.3%)	24 (14.5%)
No SCP No NCP Patt'n (n = 41)					
Initiate	41 (100%)				
Revise	41 (100%)				
NCP Pattern (n = 143)					
Initiate on Admission	8 (5.6%)	65 (45.5%)	18 (12.6)	21 (14.7%)	31 (21.6%)
Modify NCP as Required	0 (0%)	54 (37.7%)	27 (18.9%)	32 (22.4%)	30 (21.0%)

Note: (N = 350)

By combining the Pattern No SCP No NCP (n = 41) with the number from Pattern SCP who reported they did not modify the SCP (n = 5) for individual patients, there was a total of 46 respondents who indicated they had no writing/ revising/modifying behaviour on the NCP Behaviour Scale. This number contradicts the number who reported that they did not write/revise/modify NCPs/SCPs during any shift (n = 52) and also the 21 who reported they had never written NCPs as registered nurses.

Upon further exploration, it was determined that of the

52 nurses, 3 reported being in clinical areas which used NCPs, 10 worked in clinical areas which used SCPs and 39 reported being in areas which used neither. Despite the declaration that NCPs were not written any shift, the 13 NCP and SCP nurses did report some writing/revising/modifying behaviours.

In addition, of the 21 respondents who reported never having written NCPs as registered nurses, 3 reported that NCPs were used in their clinical area; 3 that SCPs were used; and 15 reported that neither NCPs or SCPs were used. All six of the NCP and SCP nurses reported some writing/ revising/modifying behaviour despite the fact that they reported they had never written NCPs as a registered nurse.

NCP Writing/Revising Behaviour Summed and Mean Scores

The possible range of scores for the 143 nurses in the Pattern NCP on each item was 1 to 5, where 1 represented no writing/revising behaviour and 5 represented a writing/ revising behaviour of 100%. The optimal score for the scale was 10. This would be the score if the nurse reported always initiating a NCP upon a patient's admission to the unit and always revising the NCP as required by changes in the patient's situation. This is the score that would be obtained if the nursing standards and hospital accreditation standards were fully observed. Those who had a summated

score of 2 on the scale had no writing/revising behaviour and became the Pattern No SCP No NCP group.

Individual summed scores on the scale for the 143 NCP writers ranged from 3 to 10. The largest number of nurses (n = 44) had a summed score of four. Seventeen of the 143 in the Pattern NCP reported a behaviour of 100% on both initiating and revising the NCP and had a summated score of 10, the maximum score on the scale. Of the 143 nurses in Pattern NCP, 126 or 88.1% reported NCP writing/revising behaviours that were less than the desired 100% of the time writing/revising behaviour and achieved summated scores which ranged from 3 to 9 on the scale. Table 14 depicts the scores achieved on the NCP Writing/Revising Behaviour Scale by the 143 Pattern NCP nurses.

Table 14

NCP Writing/Revising Behaviour Scores for the NCP Pattern

NCP Behaviour Summated Score	Number of Nurses	Percent
10	17	11.9
9	11	7.6
8	13	9.1
7	22	15.4
6	21	14.7
5	12	8.4
4	44	30.8
3	3	2.1
Total	143	100.0

The mean NCP Writing/Revising Behaviour for the 143 Pattern NCP respondents was derived by calculating the mean

of the summed values for the responses to the two 5 point Likert type questions asking about the percentage of time the nurses initiated writing NCPs and revised the NCPs. The maximum possible mean score was 10; the mean score for the 143 respondents in the Pattern NCP was 6.2797 and the SD was 2.1375.

The NCP Writing/Revising Behaviour mean scores for the Pattern NCP were determined by clinical area and by whether the nurses reported using the NCP to help provide nursing care. Table 15 depicts the Pattern NCP nurses' (n = 143) Writing/Revising Behaviour mean scores by the reported clinical areas and by whether the NCP was reported as being used by the nurse to help provide nursing care.

Table 15

Pattern NCP

NCP Writing/Revising Behaviour Mean Scores By Variables: Clinical Area and Whether Use NCP to Help

Variable	Number	Mean	SD
Pattern NCP	143	6.2797	2.1375
L&D	3	7.0000	2.6458
Surgery	24	5.6667	1.8337
Medicine	51	6.4706	2.1010
Obs & Gyne	10	5.4000	1.3499
Peds & Neonat	13	6.4615	2.1454
Psychiatry	6	6.6667	2.1602
ICU	18	6.7222	2.3962
Emergency	8	6.6250	2.5036
OR & RR	10	5.9000	2.8460
Use NCP to Help: YES	117	6.5470	2.0865
NO	26	5.0769	1.9783

Note: (n = 143)

All groups except for the OR & RR group, with a mean less than 6.0000 had a standard deviation less than 2.0000 indicating that there was less variance in the reported level of NCP behaviour for the specific areas; the reported behaviour level was more common than not in the area. The area with the highest mean had only 3 respondents in the group and had the second highest standard deviation indicating there was considerable variability in the reported behaviours amongst the 3 nurses. All groups had a mean score below 10 which was the maximum mean score.

Nursing Care Plan Attitude Scale

The Nursing Care Plan Attitude Scale (NCPAS), modified from Yurchuk's (1975) summated scale by Thomas (1984) and refined by Oetker Black, Taunton, Thomas and Krampitz (1989), was used to derive answers to the first research question. It asked "What are the attitudes of general duty nurses who practise in acute care hospitals in an urban Manitoba centre towards writing/revising nursing care plans?" The NCPAS is a 30 item 5 point summated Likert type scale. The possible range of scores on each scale item is 1 to 5, where 5 represents strongly agree, 1 represents strongly disagree and 3 representing uncertain. The negatively worded item responses were reversed, that is, 5

represented strongly disagree and 1 represented strongly agree. The maximum score on this scale is 150 and indicates a positive attitude; the minimum score is thirty (Thomas, 1984). As well as providing a summated score this scale also reflects various dimensions of attitude toward planning and writing nursing care plans (Thomas, 1984).

The data analysis for this scale summary is addressed under the following headings: (1) summary of response patterns to individual NCPAS items and (2) the NCPAS summated scores for the 350 respondents as well as the NCPAS mean scores by various independent variables.

Summary of Response Patterns to Individual NCPAS Items

The statement with which most respondents agreed (n = 345) and the fewest disagreed (n = 2) stated that 'planning helps to coordinate patient care'. This statement yielded the fewest uncertain (n = 3) responses and had no strongly disagree responses. The statement which had the second highest number of agree and strongly agree responses (n = 335) stated that 'planned care improves patient care'. This statement had the second lowest uncertain responses (n = 8) and disagree responses (n = 8). The respondents were almost equally divided between agree (n = 168) and disagree (n = 148) with 42 uncertain responses on the statement that 'Writing NCPs takes too much of the nurse's time'. The

statement with which most disagreed (n = 303) stated that 'NCPs are not valuable'. Twenty-four agreed and 23 were uncertain about the value of the NCP. The statement 'NCPs sometimes are a delusion' received the greatest number (n = 55) of uncertain responses while the statement 'I expect to spend a minimum amount of time writing NCPs' received the second highest number (n = 51) of uncertain responses. The greatest spread between strongly agree (n = 137) and strongly disagree (n = 2) occurred in response to the item that stated 'Written planning is an important professional responsibility'. The statement 'I feel confidant of my ability to plan individualized nursing care' received 332 agree and strongly agree responses; 'I would like to be able to write better NCPs received 260 agree responses and 289 disagreed with the statement 'Developing NCPs for my patients poses no intellectual challenge for me'.

Response patterns to the individual items were categorized using the individual item means. These response patterns were: Category A - Item Means ≥ 4; Category B - Item Means ≥3 - <4; Category C - Item Means <3. Items in Category A were given high scores by a greater number of the respondents indicating greater agreement than disagreement with the items. Category A has items with relatively small standard deviations which also indicated that there was more agreement on the items amongst the respondents.

Category B responses indicated a trend to diversity in

opinion amongst the respondents about the items. The negatively worded items in this category had a higher score as most disagreed with the item, but, as many also agreed with them, the item mean score approached 3.0, the 'uncertain score'. The somewhat larger standard deviations for these items also indicated the tendency to diversity in opinion regarding the items. A score of three on an individual item was a neutral score, one of uncertainty. Larger standard deviations indicated a wider range of dispersion in the responses to the particular item.

Category C response means indicated a pattern of agreement by the respondents with a negatively worded item . Both items in this category were statements from the NCPAS's 16 attitudinal and perceived value dimension statements. Tables 16 to 18 demonstrate the NCPAS response pattern categories as described.

Table 16

NCPAS Category A - Item Means ≥4 Rank Ordered

STATEMENT	Means Rank Ordered	SD
13.Planned Care Improves Patient Care	4.26	.617
7.Written planning is an important professional responsibility	4.257	.755
32.Planning helps to coordinate patient care	4.18	.449
19.I feel very confidant about my ability to plan individual care.	4.163	.556
12.NCPs are not valuable.	4.071	.835
14.NCPs are vital to patients who are chronically ill.	4.229	.706
26.NCPs are vital to patients who are critically ill with medical conditions such as myocardial infarction.	4.114	.763

Table 17

NCPAS Category B - Item Means ≥3 - <4 Rank Ordered

Statement	Means Rank Ordered	SD
20. Nurses should assume more responsibility for planning as well as giving care.	3.98	.827
9. Setting patient priorities doesn't really help me in writing NCPs.	3.98	.853
10. Employer should set aside time to do NCP.	3.96	.998
8. Each of my patients needs a NCP.	3.9	1.048
18. Continuity of Nursing care depends upon written NCPs.	3.9	.872
28. Once patients are up ad lib they do not need a NCP.	3.9	.533
11. Most nurses place too much emphasis on planning nursing care.	3.897	.686
24. Short term patients cannot benefit from skilful planning of nursing care.	3.886	.697
21. Evaluation of nursing care is easier with a NCP.	3.85	.857
27. Developing NCPs for my patients poses no intellectual challenge for me.	3.797	.788
33. I find it very satisfying to develop individualized plans of care.	3.76	.846
34. Patients who are convalescing from surgery without complications don't really need NCPs.	3.751	.748
23. Skilled nurses do not need to rely on NCPs.	3.7	.884
35. Nursing administrators should encourage the writing of NCPs as much as other aspects of care.	3.687	.856
36. I would like to be able to write better NCPs for my patients.	3.674	.884
25. There is little need for NCPs when there is good communication on a unit.	3.65	.862
16. Writing NCPs is more appropriate for students than staff nurses.	3.6	.945
31. With NCPs patients receive more individualized care.	3.646	.886
17. Head Nurse should reward the writing of NCPs as much as other aspects of patient care.	3.56	.975
22. Writing NCPs is more important to nurse educators than to other nurses.	3.3	1.013
29. I expect to spend a minimum amount of time writing NCPs.	3.3	.943

Table 18

NCPAS Category C - Item Means <3 Rank Ordered

Statement	Means Rank Ordered	SD
15.Writing NCPs takes up too much of my time.	2.8	1.133
30.Nursing care plans sometimes are a delusion.	2.8	.965

In summary, the individual item scores of the NCPAS indicated that a greater number of the 350 nurses agreed that: planning helps to coordinate patient care; planned care improves patient care; NCPs are valuable; writing NCPs is an important professional responsibility; NCPs are vital for the chronically and critically ill; they were confidant of their NCP writing abilities despite encountering some problems in doing so; and they wanted to be able to write better NCPs. Despite the high agreement with these statements the 350 respondents were most uncertain about whether NCPs were a delusion and whether one should expect to spend a minimum amount of time writing NCPs.

The Summated NCPAS Scores

The maximum summated individual score for the NCPAS was 150, with the minimum score being thirty. The NCPAS mean for the sample of 350 nurses was 113.7429 with a standard deviation of 12.1456. This mean score was lower than those for either the primary nurse group (n=27 X=126.62 SD=11.39)

or the functional nurse group (n=30 X=123.23 SD=13.14) found by Thomas in 1984 using the same scale.

Upon inspection of the individual summated scores there were eight extreme lower scores between 69 and 84. The individual summated scores ranged from 69 to 140 with the actual range being seventy-one. The distribution was negatively skewed indicating that a greater number of the NCPAS summated scores were in the higher range. Mean scores are, however, influenced by extreme higher or lower scores (Shelley, 1984). The semiquartile range or the range of the middle 50% of the summated scores was between 107.00 and 122.00; this range contained the overall NCPAS sample mean of 113.7429. After removal of the extreme lower scores, the trimmed mean (5%) was 114.1857 for the NCPAS (N = 350).

Thomas (1984) used the 3.0 neutral point on the scale or 90 points of the maximum 150 points as a score above which indicated a positive attitude towards writing NCPs. In the current study 336 respondents had scores above 90; 202 had scores above the mean. Thus the current NCPAS mean score for the sample of 350 respondents can be described as being more positive than negative towards NCPs and writing/revising NCPs.

The NCPAS summated scores and mean scores were determined for the three Patterns of writing behaviour. The NCPAS mean score for the Pattern NCP (n = 143) was 114.8112 with a standard deviation of 12.0649. The summated scores

in this Pattern ranged from 73.000 to 140.000 with the actual range being 67.000. The NCPAS mean score for the Pattern SCP (n = 166) was 114.8494 with a standard deviation of 11.3611. The scores in this Pattern ranged from 78.000 to 140.00 with the actual range being 62.000. The two Patterns have similar mean scores but Pattern NCP has a greater standard deviation and a larger actual range indicating greater dispersion amongst the respondents in regard to the items.

The NCPAS mean score for the Pattern No SCP No NCP (n = 41) was, at 105.5366, lower than both other Pattern means and had the highest standard deviation (SD = 12.6374) of the three Patterns. The summated scores ranged from 69.000 to 125.000 with the actual range being 56, the smallest range for all three Patterns. Table 19 details the NCPAS mean scores for the Behaviour Patterns. The NCPAS mean score was positive for the 350 nurses. The Pattern No SCP NO NCP nurses had a lower NCPAS mean score, but it was above 90, the neutral score.

Table 19

NCPAS Mean Scores and Standard Deviations

	Number	Mean	Std Dev
Total Sample	350	113.7429	12.1456
Behaviour Pattern			
Pattern SCP	166	114.8494	11.3611
Pattern No SCP No NCP	41	105.5366	12.6374
Pattern NCP	143	114.8112	12.06

Note: (N = 350)

The mean NCPAS scores were determined for the levels of clinical area and for the item which asked whether the respondent used the NCP to help provide nursing care. Table 20 presents the NCPAS mean scores for the reported clinical areas and for the question which asked whether the NCP was used by the respondent to provide care.

Table 20

NCPAS Mean Scores By Clinical Area and Whether Use NCP to Help

Variable		Number	Mean	SD
L&D		18	107.6111	12.2960
Surgery		68	113.1765	10.4666
Medicine		79	117.0633	11.8801
Obs & Gyne		32	112.2813	12.1635
Peds & Neonat		41	117.3171	9.9510
Psychiatry		10	122.3000	9.0683
ICU		49	109.6327	13.1350
Emergency		19	112.2632	13.5722
OR & RR		34	111.7059	13.2288
Use NCP to Help	YES	267	116.6816	10.1270
	NO	83	104.2892	13.2881

Note: (N = 350)

The lowest mean scores were found for the group that

reported they did not use the NCP to help provide care and for the 'L & D' group, with the 'ICU' group having the third lowest score. The 'ICU' and 'No to using NCPs to help provide care' groups also had standard deviations which indicated disagreement or diverse opinions about the NCP within these two groups. The most stable groups in regards to their NCPAS mean scores were from the clinical areas of Pediatrics/Neonatology and Psychiatry with standard deviations of 9.9510 and 9.0683 respectively. All groups had mean scores above 90 which was the neutral score.

The Relationship Between Attitude Towards Writing NCPs and the Reported NCP Writing/Revising Behaviour

Research question three asked "What is the relationship between the attitudes of the nurses towards writing/revising NCPs and their self-reported NCP writing/revising behaviour?" Of the 350 respondents, 143 reported having NCP Writing/Revising Behaviours greater than two on the summated scale and became the variable Pattern NCP. As the respondents were not unanimous in their use of SCPs or NCPs and as Pattern NCP was the only Pattern group to have both the summated NCPAS and summated NCP Writing/Revising Behaviour Score, the discussion of the relationship between the attitude towards writing NCPs and the reported writing/

revising behaviour only involved the data from this group.

Descriptive statistics were employed to first explore for possible associations between attitudes to writing NCPs and self-reported NCP writing/revising behaviours for the Pattern NCP group of respondents. A correlation analysis test was then used to determine whether the values of the NCPAS were related to the values of the self-reported NCP Behaviour Scale for the 143 nurses included in Pattern NCP.

The NCPAS mean score for the Pattern NCP (n = 143) was 114.8112 with a standard deviation of 12.0649. The NCP Writing/Revising Behaviour scale mean score for this same group was 6.2797 with a standard deviation of 2.1375. The NCPAS mean scores and NCP Writing/Revising mean scores were determined by clinical areas reported by the Pattern NCP respondents and are depicted in Table 21.

Table 21

NCPAS and NCP Writing/Revising Mean Scores by Clinical Area

Clinical Area	Number	NCPAS Mean	SD	NCP Write/ Revise Mean	SD
L & D	3	109.6667	12.7410	7.0000	2.6458
Surgery	24	112.0833	10.0214	5.6667	1.8337
Medicine	51	116.3333	12.3704	6.4706	2.1010
Obs/Gyne	10	115.1000	9.9493	5.4000	1.3499
Peds/Neonat	13	120.0000	7.1880	6.4615	2.1454
Psychiatry	6	123.6667	10.0731	6.6667	2.1602
ICU	18	109.3333	12.8658	6.7222	2.3962
Emergency	8	118.3750	15.0137	6.6250	2.5036
OR & RR	10	109.8000	14.4668	5.9000	2.8460

Note: (n = 143)

The NCPAS mean scores, when ranked from high to low, ranged from a high of 123.6667, SD 10.0731 for Psychiatry (n = 6) to a low of 109.3333, SD 12.8658 for ICU (n = 18) with the middle mean score being 115.1000, SD 9.9493 for Obs/Gyne (n = 10). The highest NCPAS mean score area had a NCP Behaviour mean score of 6.6667, SD 2.1602 while the lowest had a NCP Behaviour mean score of 6.7222, SD 2.3962. The NCPAS mean scores and NCP Behaviour mean scores did not appear to vary in any related manner. The NCPAS scores were above the neutral score of 90 and the NCP Behaviour mean scores indicated that NCPs were not always initiated upon the patients' admission to the clinical area and were not always revised as the patients' conditions changed.

The NCPAS mean scores were determined for the levels of the summated NCP Writing/Revising Scores for the Pattern NCP and are depicted in Table 22. An increase in the scores on the Writing/Revising Behaviour was generally met by an increase in the NCPAS mean scores with the exception of the Behaviour score of level 10 which demonstrated a decrease in the mean NCPAS score. The largest group (n = 44) by summated NCP Writing/Revising score, had the fourth highest NCPAS mean score (X = 112.7045) and a SD of 12.888 which indicated some variability about the mean. This group had the second lowest summated Behaviour score; four out of a possible ten, which indicated the following combination of behaviours: initiating and revising 1-33% of the time;

initiating 0% of the time and revising 34-66% of the time; or initiating 34-66% of the time and revising 0% of the time. The group with the highest attitude score (n = 11) had a lower SD which indicated a greater tendency towards a common positive attitude towards writing/revising NCPs yet had summated Behaviour scores of 9 out of a possible ten. The group with the maximum Behaviour score (n = 17) had the second highest NCPAS mean score and a higher standard deviation indicating that there was less agreement on the NCPAS items in this group. The group with the most stability in regard to the NCPAS had a NCPAS mean score of 117.3846 and a SD of 6.4231. This group had a greater tendency to agreement on the NCPAS items and had a summated NCP Behaviour score of 8 out of a possible ten, indicating that the NCP was initiated 34-66% of the time by 1, 67-99% by 10 ,100 % of the time by 2 and revised 34-66% of the time by 2, 67-99% by 10, and 100% of the time by 1 nurse.

Table 22

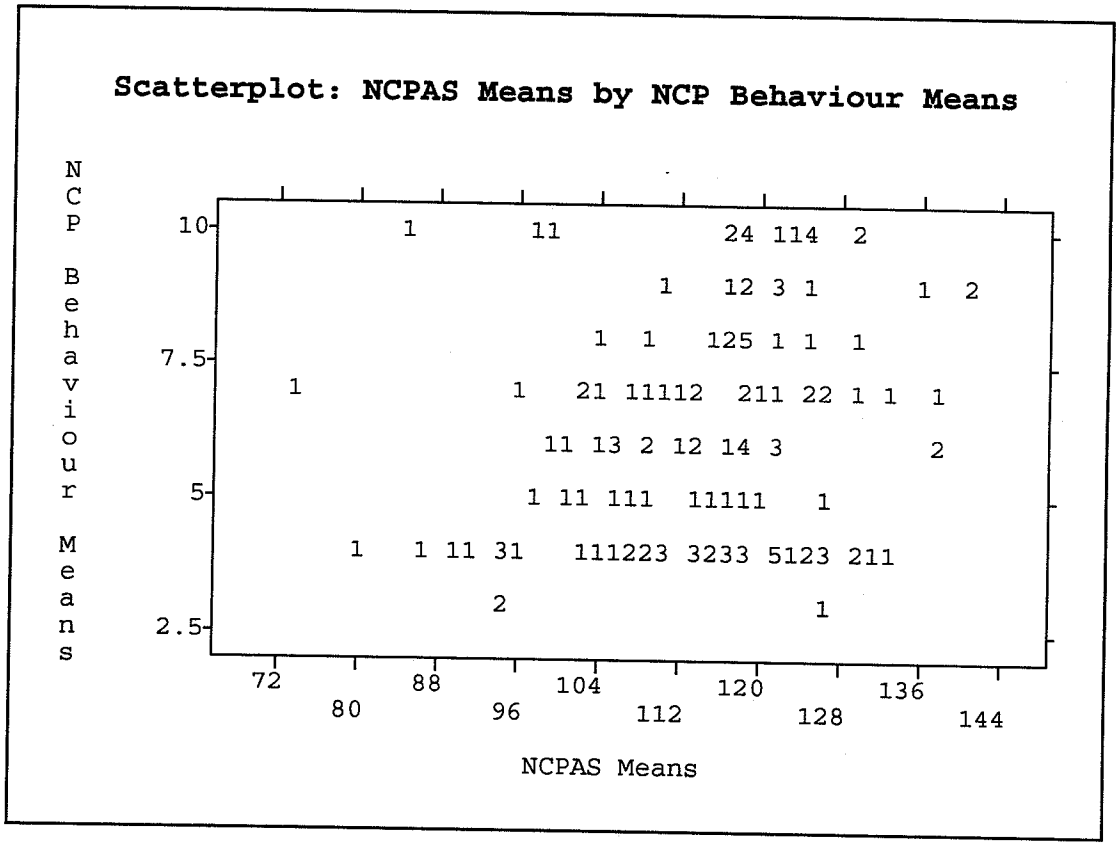
NCPAS Mean Scores by NCP Writing/Revising Scores

Number	NCP Wr/Revis Score (Maximum Score= 10)	NCPAS Mean	SD
3	3	105.3333	17.8979
44	4	112.7045	12.8888
12	5	110.8333	8.7991
21	6	114.5238	10.3326
22	7	114.6818	14.1771
13	8	117.3846	6.4231
11	9	124.3636	9.9426
17	10	117.1176	12.1392

Note: (n = 143)

The Pearson product-moment correlation test was used to describe the nature and magnitude of the association between the NCPAS mean score and the NCP Writing/Revising Behaviour mean score for the Pattern NCP. An assumption of the Pearson product-moment correlation coefficient is that the variables are associated in a linear way; that is, if all the data points were plotted on a graph they would approximate a straight line (Shelley, 1984; Shott, 1990). Figure 4 demonstrates the scatterplot developed.

Figure 4



The scatterplot, using the NCPAS mean scores on the X axis and the NCP Behaviour mean scores on the Y axis, demonstrated a positive linear relationship with a poor fit between the mean scores of the two scales. There was much variability along the line.

As the two variables were linearly related, although with poor fit, and of interval measure, the assumptions required to conduct Pearson's product-moment correlation coefficient test were met (Shelley, 1984). The relationship between the two variables for the Pattern NCP (n = 143) was a weak positive linear relationship ($\underline{r}$ = .2334 $\underline{p}$ =.01 1-tailed significance). This low correlation coefficient indicated that the data points did resemble a straight line but it also indicated that there was much variability in the closeness of the points to the line. The percentage of variance shared by the two variables or measure of the magnitude of effect between the two variables was ($\underline{r}^2$x 100) 5.45 percent. This was interpreted to mean that if all the factors which impact upon nurses' attitudes towards writing NCPs and all the factors which impact upon the NCP Writing/ Revising Behaviours were known, 5.45% of them would be common to both variables and 94.55% would not be common to both variables.

Associations Between NCPAS Mean and NCP Writing/Revising Mean and Professional and Demographic Characteristics

It was proposed that, if a linear relationship and positive correlation were found between attitude towards writing NCPs and self-reported NCP writing behaviour, that the strength of the association between the professional and demographic characteristics and the NCPAS mean for the total sample (N = 350) and the NCP Behaviour mean for those who wrote and revised NCPs, the Pattern NCP respondents (n = 143), would be determined. This was done as a positive linear association was found.

Associations Between NCPAS Mean and Professional and Demographic Characteristics

The NCPAS mean scores and standard deviations for the 350 nurses by the levels of the professional and demographic characteristic variables (Appendix L) were computed as the initial step in this analysis. An analysis of variance or one-way ANOVA was used to determine whether there was a significant difference between the means by the levels of each of the independent variables. If a significant difference was found the Eta Squared correlation coefficient was used to determine the magnitude of effect or percentage

of variance accounted for by the independent variables. Scheffé's S post hoc comparison test was then used to locate the actual difference between pairs of the means for the independent variables. Scheffé's S test's assumption of homogeneity in variances was determined through the use of Cochran's C test and the Bartlett-Box F test.

Using the ANOVA procedure it was determined that there was a significant difference at the 0.05 level between the attitude mean scores of the levels of clinical area (F ratio stat = 3.4979 df 8,341 p=.0007). Eta² was .0758 or, 7.58% of the variance in attitude scores was related to the independent variable clinical area. The other variables found to have significant differences between the Attitude means by variable levels at the 0.05 level, using ANOVA, were Pattern; number of years practised as a RN; and highest level of nursing education attained. Table 23 depicts the analysis of variance and Eta Squared results for NCPAS mean scores by the levels of the independent variables.

There was no significant difference found between the NCPAS mean scores by the levels of the independent variables: number of years experience in the clinical area, the employment status of the nurse, the recency of the highest nursing education, the number of years of experience writing NCPs as an RN, and the age of the nurse. No further analysis was carried out for these variables.

As the variables, basic nursing education and whether

the nurse used the NCP to help provide patient care provided dichotomous data, the test used to analyze variance was a Difference of Means test. Basic nursing education had a F statistic of 5.1599 df 1, 348 p .0237; whether the nurse used the NCP to help variable's F statistic was F = 81.0341 df 1, 348 p=.0000. Both, being significant at the 0.05 level, indicated that the differences in the NCPAS mean scores for the two levels of these variables were beyond chance expectation.

Table 23

Results of ANOVA Using NCPAS Mean Scores by Levels of Pattern, and Professional & Demographic Characteristics

VARIABLE	Analysis of Variance df	F stat	p	Signif	Eta^2
Pattern	2,347	11.2216	.0000*	S	.0607
Clinical Area	8,341	3.4979	.0007*	S	.0758
Yrs in CL Area	5,344	1.2777	.2730	NS	.0182
Employ Status	3,346	.8022	.4933	NS	.0069
High Nrsg Ed	4,345	2.7315	.0291*	S	.0307
Recency High Ed	3,346	1.2818	.2805	NS	.0110
Yrs as RN	2,347	3.2047	.0418*	S	.0181
Yrs Write NCP	2,326	2.4319	.0895	NS	.0147
Where Learned	2,346	.7425	.5273	NS	.0064
Age of Nurse	4,345	1.2711	.2810	NS	.0145

Note: (N = 350 α=0.05 *Significant at 0.05 level)

The diploma basic education NCPAS mean was 113.1167, SD 12.2499 and the baccalaureate basic education NCPAS mean was 118. 7143, SD 9.7405. The magnitude of effect, as determined by Eta^2, for the basic nursing education by NCPAS mean scores, was small, 1.46 or 1.5%, but was significant at

the .05 level. The NCPAS mean score for those who used the NCP to help provide care was 116.6816, SD 10.1270; for those who did not use the NCP to help it was 104.2892 with a SD of 13.2881. The magnitude of effect, as determined by Eta^2, on the dependent variable, attitude, by whether the NCP was used to help was 18.89%; that is, 18.89% of the variance in NCP attitude scores was related to whether the NCP was used by the respondents to help provide nursing care.

In order to locate the specific differences between the NCPAS means which were found to be significantly different through the use of ANOVA, Scheffé's S post hoc test was used. The univariate tests, Cochran's C Test and the Bartlett-Box F Test both had a level of significance greater than 0.05; thus the hypothesis of equal variances could not be rejected. The NCPAS means by years of experience as an RN did not meet the assumption of equal variances required for Scheffé's S test until the data was transformed and attitude was ranked. The results of the Cochrans C and Bartlett-Box F Tests are presented in Table 24.

Table 24

Tests of Homogeneity of Variances

Variable	Cochrans C	Bartlett-Box F
Pattern	.503	.609
Clinical Area	.733	.451
# Years Practised as RN	.577	.503
Highest Level of Nrsg Ed	.184	.202

The Scheffé's S Test indicated that there was a significant difference in the NCPAS mean scores (α = .05) between the following pairs of the variable Pattern: between Pattern No SCP NO NCP and Pattern SCP; and between Pattern No SCP No NCP and Pattern NCP. However, Scheffé's post hoc test indicated that there were no significant differences between any two groups of the independent variables clinical area, highest level of nursing education, and the number of years of practice as an RN on the NCPAS mean score at the 0.05 level. The effect size, as determined by Eta^2, of any of these variables on the DV, attitude, was therefore of dubious value.

In summary, there were significant differences between levels of the independent variables Pattern, basic nursing education and whether the nurse used the NCP to help provide nursing care on the mean NCPAS score.

Associations Between NCP Writing/Revising Behaviour Means and Professional and Demographic Characteristics

The NCP Writing/Revising Behaviour mean scores and standard deviations for the 143 nurses in the Pattern NCP were categorized by the levels of the professional and demographic characteristic categories as well as by whether the respondent reported using the NCP to help provide patient care (Appendix M). As the items basic nursing

education and whether the respondent used NCPs to help provide nursing care yielded dichotomous responses, a Difference of Means test was used to determine any difference. Basic nursing education had a F statistic of 0.5538 df 1, 348 p=.4580 indicating that there was no significant association between the Behaviour mean and basic education variable.

The variable whether the NCP was used to help provide nursing care had a F statistic of 10.7529 df 1, 348 p=.0013, indicating that there was a significant difference between Behaviour means for this variable. The nurses who reported using the NCP to help provide nursing care had a significantly higher (α =0.05) NCP Behaviour group mean than those who did not use the NCP to help provide care. The magnitude of effect, as determined by Eta^2 was 7.09%; that is, 7.09% of the variance in NCP Behaviour scores was related to whether the NCP was used by the respondents to help provide nursing care.

A one-way ANOVA was used to determine whether there was a significant difference between the means by the levels of the remaining demographic and professional variables. If a significant difference was found the Eta Squared correlation coefficient was used to determine the magnitude of effect or percentage of variance accounted for by the independent variables. Table 25 depicts the results of the ANOVA, whether the difference between means was significant at the

0.05 level, and the Eta Squared Value.

As demonstrated in Table 25, the only significant difference in NCP Behaviour means at the 0.05 level was found for the levels of employment status reported by the 143 nurses. The NCP Behaviour means for the full time, part time and casual nurses in the group of nurses who reported writing/revising NCPs are depicted in Table 26.

Table 25

Results of ANOVA Using NCP Writing/Revising Behaviour Means by Levels of Professional & Demographic Characteristics

VARIABLE	Analysis of Variance df	F stat	p	Signif	Eta²
Clinical Area	8,134	.7392	.6568	NS	.0423
Yrs in CL Area	5,137	.6533	.6595	NS	.0233
Employ Stat.	3,139	2.9279	.0359*	S	.0594
High Nrsg Ed	4,138	.5084	.7296	NS	.0145
Recency High Ed	3,139	.5466	.6512	NS	.0117
Yrs as RN	2,140	.0838	.9196	NS	.0012
Yrs Write NCP	2,140	1.0050	.3688	NS	.0147
Where Learned	2,140	1.5423	.2175	NS	.0216
Age of Nurse	4,138	.3562	.8394	NS	.0102

Note: (α=0.05 n=143 *Significant at 0.05 level)

Table 26

NCP Writing/Revising Behaviour by Levels of Employment Status

Employment Status	Behaviour Mean	SD	Cases
Casual	7.0000	2.5226	12
Full Time	6.7333	2.0819	60
Part Time	5.8088	2.0389	68
Unemployed	5.0000	1.7321	3

Note: (n=143)

Scheffé's S Test demonstrated that, at the 0.05 level, there was a significant difference between the NCP Behaviour mean for the nurses employed full time and the nurses employed on a part time basis. The proportion of variance accounted for by the employment status on the dependent variable NCP Behaviour as determined by Eta^2 was 5.94 percent.

In summary, the only variables found to have a significant differences ($\alpha = 0.05$) between NCP Behaviour means were whether the NCP was used to help provide nursing care and the employment status of the nurse. Full time nurses had a significantly different NCP Behaviour mean from the part time nurses.

Responses to Open Ended Questions

Using content analysis methodology, the responses to the open - ended questions were transcribed, reviewed and then sorted into general categories. The inductive formulation of the general themes was based on the thoughts and feelings expressed by the respondents. The units of analysis were the respondents' verbal phrases or sentences used to express their thoughts to the specific question. The categories and related themes which were derived were separate entities and included all responses for the

particular question being discussed.

The categories and related themes are presented for each of the open ended questions. Examples of responses are provided for each theme. As a respondent may have identified more than one theme in the response to a particular question, frequency counts were done by counting the number of times a particular theme was vocalized by the respondents (N = 350), and are presented in tabular form.

Expressed Thoughts About the NCP

Question 5 asked that the respondent identify the first thought when the term NCP was heard and then subsequently to identify a second thought. The categories and themes were developed based upon combined first and second thoughts as none were exclusively identified as pertaining only to the first or second thought. However, as the first thought was a spontaneous response to the question and the second thought allowed some cognition or reflection before answering, the respondents' first and second thoughts were coded separately. Thus the frequency counts on the themes are reported for the first thought, the second thought and for the combined first and second thought.

The respondents' first or second thoughts, upon hearing the term NCP, fell into three clear general categories: the respondents' way of seeing or understanding of the term NCP

(combined frequency = 271); secondly, the respondents' expressed feelings in response to the stimulus 'NCP' (combined frequency = 166); and thirdly, the perceived utility of the NCP to the respondent (outcomes of the written NCP for the nurse) and to the provision of nursing care within nursing contexts (combined frequency = 271).

The Respondent's Way of Understanding the Term NCP

The two themes which arose from the nurses' way of seeing or understanding of the NCP were the nurse's: personal description of a NCP (combined frequency = 179); and a description of the properties or component parts of the NCP (combined frequency = 72).

Personal description.

The NCP was described as: a "working plan of care"; "excessive paperwork at the expense of nursing care"; "part of the professional nurse's job"; a way "to identify specific needs above the ordinary routine ones that are expected for patients"; "long written plan with nursing diagnosis"; "basic to nursing, but with experience becomes a thought process and don't think of it as a NCP"; "guidelines for nursing care"; and as "a plan for a patient who stays in hospital for more than 8 hours".

Properties of the NCP.

The following properties were attributed to the NCP: "has (doesn't have) nursing diagnoses"; "is individualized"; "needs constant updating"; "is concise" and "is inaccurate, incomplete and not up to date, must do own assessment despite having a NCP".

Expressed Feelings in Response to the Stimulus 'NCP'

Feelings expressed in relation to the NCP were mainly linked to its utility and have been identified as positive, mixed and negative. The combined frequency for this category was 166, with 106 nurses expressing this as the first thought and 60 expressing this as a second thought.

Positive feelings.

The main positive feeling expressed was that the NCP "if written, helped with the continuity of care". The NCP was seen as a "good learning tool" and as "basic to nursing and becomes a thought process".

Mixed feelings.

Examples of the mixed feelings expressed were: "effective if kept up to date, but a deterrent to care if not kept up to date", "I hate them but use them", "important but wish there was an easier way", "idea of writing them is

fine, but you cannot write it all and do the work", and "sometimes irrelevant - nurse knows goals and approaches".

Negative feelings.

The negative thoughts associated with the term NCP were: "useless in the real world", "nursing diagnosis - double talk"; "a joke! no one reads them, no time to do"; "too long to read or to update, and cause resistance"; "NCPs which include everything like all the basic stuff that a professional nurse should know are an insult to the professional nurse" and "all nurses hate NCPs". Other first or second thoughts upon hearing the term NCP related to four dimensions of the utility of the NCP to the nurse.

Utility of NCP to Respondents

The four dimensions of utility the respondents identified were: the uses for the NCP and issues related to the uses (combined frequency = 90); its effectiveness in specific clinical areas or the nursing context within which the NCP is used (combined frequency = 27); issues related to the writing of a NCP and using it (combined frequency = 102); and lastly the usefulness of the various NCP formats (combined frequency = 52).

Uses of the NCP and related issues.

The NCP was used as a tool: "to priorize, organize and guide patient care"; "to communicate patient care between nurses and/or between nurses and other care team members; to promote continuity of care; and "to provide a standard of care". NCPs were most useful to part time and float nurses. Issues related to the use of a NCP ranged from "NCP only gets done at accreditation time", "lose points on an audit if problems not listed"; to "useful in long term care area".

The effectiveness of the NCP in clinical practice.

The NCP was "not realistic" in clinical areas such as emergency, critical care, labour and delivery, recovery room "where the patient stay is short and there are rapid changes in the patients' conditions". They were not used in the operating room. NCPs were "good for long term care patients and in situations such as palliative care".

Issues related to the writing and use of NCPs.

NCP writing and utility issues were related to the time commitment required to write and maintain (update) the NCP as opposed to the time required to provided hands-on nursing care. Thoughts expressed were: "too long and no time to write, especially with decreased number of nurses in areas today"; "could be communicated more effectively verbally"; "not specific enough, often only one or two

things written"; "must use management terms"; "initiated by administration and certification requirements, need doesn't come from general duty nurses"; "no time to develop SCPs or money to do so" and "take too much time for any benefit they provide".

Usefulness of NCP formats.

Thoughts about the tool format were: "SCP is a standard to use, but do not consult it as know it after a while, but is useful if different medical diagnosis than is usually seen on the ward"; "SCP has every possible outcome, is too long to read and use"; "a different format that takes less time would be helpful"; "format should give brief, concise information about patient care that is truly individual and beyond the basic unless it is very important"; "focus guides charting"; "focus not useful in psychiatry"; "SOAP charting is better than NCP";"Protocols & Standards useful, especially when developed and revised by the nurses themselves" and "NCP is purposeful, identifies patient concerns whereas kardex identifies tasks". Table 27 summarizes the first, the second and combined thoughts to this first question.

Table 27

NCP Thought Themes by 1st, 2nd and Combined Response to 'What is your first thought upon hearing the term NCP?'

Theme	1st Thought Freq.	2nd Thought Freq.	Combined Freq.
Way of Understanding			
Personal Description	155	24	179
Properties of NCP	51	21	72
Feelings			
Positive Feelings	19	27	46
Mixed Feelings	44	14	58
Negative Feelings	43	19	62
Perceived Utility			
Uses of NCP	50	40	90
Nursing Context of Use	12	15	27
Writing/Revising Issues	56	46	102
Usefulness NCP Tool Format	24	28	52
No thought	6	150	156

Note: (N = 350). More than one theme may have been identified by each respondent.

As depicted in Table 27 the most frequent 'first' and 'combined thought' expressed was the nurse's personal description of a NCP. Issues related to the writing and revising of NCPs became the second most frequent 'first thought' and the third most frequent 'combined thought'. The second most frequent 'combined thought' was no thought about the term NCP.

Question six asked the nurse to identify whether the NCP was used to help provide nursing care; 267 or 76.3% responded yes and 83 or 23.7% stated they did not. Of the 267 nurses who reported using NCPs to help provide patient

care, 144 were from the Pattern SCP, 6 from No SCP No NCP and 117 from Pattern NCP. Table 28 represents the sample distribution (N = 350) by whether the NCP was used to help provide nursing care by the Behaviour Pattern.

Table 28

Sample Distribution by Whether Use NCP to Help Provide Care by Behaviour Pattern

Use NCP to Help	Behaviour Pattern Frequency			
	NCP	SCP	No SCP No NCP	Total
Yes	117	144	6	267
No	26	22	35	83
Total	143	166	41	350

Note: (N = 350)

The respondents were next asked to identify, thinking of an average day providing nursing care, how the NCP was used; or if not used, if there was any particular reason for not using NCPs when providing care.

How the NCP Was Used to Help Provide Nursing Care

The NCP was identified as a source of information for nurses about the patient, the patient's family and home situation, and about the reason for hospitalization. Within this general theme related to how the 267 nurses used the NCP to help them provide nursing care, the responses were further analyzed to reveal six elements related to the use

of the NCP. These were: information sought and used by the nurse (n = 102); nursing context in which the NCP was used (n =76); NCP tool format used and desired (n = 71); how the NCP was used (n = 194); problems with NCP use (n = 39) and the benefits of using a NCP (n = 72). As more than one element related to the main theme may have been identified by a respondent, the frequency with which each element is reported is the total number of times it was stated by the respondents. Table 29 represents the distribution of the respondents who used the NCP (n = 267) by the elements related to how the NCP was used.

Table 29

Frequency of The Response 'Elements' to The Question 'How Do You Use The NCP to Help You Provide Nursing Care?'

How NCP Used Response 'Elements'	Frequency of Element
Information Sought & Used	102
Nursing Context for Use	76
Tool Format Used & Desired	71
How NCP Used	194
Problems with NCP Use	39
Benefits of NCP Use	72

Note: (n = 267; More than one element may have been identified by a nurse)

Information sought and used by the nurse.

The nurses sought specific information about the patient's condition - "about the past and present history", about "current concerns", "psychosocial as well as physical

problems", "teaching concerns" and "specific treatments." The nurses wanted "individualized information at a glance with quick access" and "not on three kardex pages - too long and don't get turned over to be read." The respondents "looked for brief, current information about the patient and care; there is no time to read if not brief."

When NCP was used during a nursing shift.

The nurses identified that the NCP was "read at the beginning of a shift; before and after verbal report; and before seeing the patient in order to help plan the day." It was also "used throughout the day as a reference so as to organize and direct nursing care" and "revised later in the shift when charting." A 'float' nurse who went from unit to unit as needed stated she "read the assigned patient's NCP as soon as she went to each new unit."

Format of tool used and/or desired.

The SCP was useful with "unfamiliar situations, special procedures, medications, treatments; but not the ordinary as should know this due to many years of nursing experience or by virtue of professional education." The SCP was "used for common problems" in an ICU.

The NCP was used with "own notes for the routine". The NCP was at the bedside and "really useful and patient's family can read it." The NCP was "particularly useful in

psychiatry for consistency" and "included family members in palliative care."

A "mental NCP was used as there was no time to write one in acute care short stay setting." Verbal communication was used and a NCP was started "only if patient stays." "ICU uses kardex plus doctors' orders, nursing diagnoses do not enter into it." It was reported that "standards of care were used in lieu of a NCP, therefore minimum standards were maintained" and a "NCP was not necessary." SOAP and Focus charting were "excellent."

How the NCP was used.

The NCP was used " as a guide for the patient's individualized plan for the day", to "guide, to set priorities for the patient and for the nurse's patient workload", "for patient teaching", to evaluate care", "to guide focus charting"; to" promote continuity of specific nursing interventions"; and "to guide shift report." The NCP was "used as a communication tool for unique problems specific to the patient other than routine ones " and was individualized through nursing diagnoses." The "SCP kardex had a place for modifications and nursing orders: this was used as a starting point and modified as required"; "SCP was always revised." The NCP was " rarely revised, rely on someone else's plan."

Problems with the use of NCPs.

A nurse who worked as a 'float' nurse reported that "NCPs are infrequently available in writing, I wing it or go to another staff member, but then its not standard "; "if not written takes time to get information and float doesn't have this time"; " when go to a new area first use kardex, if information not there have to ask staff and this isn't effective." Other identified problems were: "not always accurate or current"; "chart with NCP in it not always accessible"; "NCP separate from the kardex and no time to read both"; " no time to write in emergency'; " ICU - changes occur often and would require much writing, but not necessary as one nurse for one patient"; "each nurse may have a different idea"; "interventions, goals often not written in kardex and no time to look in the chart." Another respondent posed the question "if the NCP is written properly it promotes consistency and continuity in care - how do we change?"

Benefits of using the NCP to provide care.

The part time, casual and 'float' nurses identified that the NCP was very useful for "assignment changes", "helps to know what to do as do not see the patients regularly and do not have to repeat what has already been done", and was "especially useful for short stay patients and rapid changes in the patient's condition." It was

"important for new staff nurses as they could learn hospital routines." Another said that "general duty nurses were highly dependent upon the NCP."

The NCP helped the nurse to "sort out individual need for moms and babes"; "to get an idea about patient problems, but still need to do own assessment in OR"; "focus helped in areas of high turnover"; " to provide consistency in approach for difficult patients." The NCP "saves time and frustration if up to date, otherwise have to check it out with other staff"; "enhances communication between nurses" was not "particularly useful in short stay areas such as RR, OR, Emergency, L&D, Dialysis and outpatients as stay was too short"; and " the NCP gives immediate important information for nurses with increased patient loads."

The nurses who stated they did not use the NCP to help them provide nursing care were asked if they would share their reason for not using a NCP to help them.

Reasons for Not Using NCP When Providing Nursing Care

Of the eighty-three nurses who reported that they did not use the NCP to help them provide nursing care, 22 were from Pattern SCP, 26 from pattern NCP and 35 from Pattern No SCP No NCP. These nurses who stated they did not use NCPs to help them provide patient care were asked if they could briefly explain their answer or if there was any special

reason for not using NCPs. The first response theme identified was that the NCP was inappropriate in the specific clinical environment. Three specific factors were identified related to this theme: no time to write NCPs (n = 22); clinical area does not use NCPs (n = 24) and nurse factors (n = 27).

The second theme, more useful alternate tools were used, identified the following alternate tools as being used: forms specific to the clinical area (n = 35); verbal reports (n = 15); mental NCP (n = 15); kardex (n = 7) and focus charting (n = 2). The third general theme arising from this question was an expressed need for a nursing communication tool for communicating specific patient care information (n = 14). The respondents identified patient information perceived as being vital for patient care that should be on the NCP. These themes and related factors are listed in Table 30. As depicted in Table 30 the most frequent reason given for not using the NCP to help provide patient care was that the forms specific to the clinical area were used; the second was nurse related factors and the third that the NCP was not used in the clinical area in which the respondent nursed.

Table 30

Distribution of Response Themes to Why NCP Not Used

Response Themes	Frequency of Theme
NCP was inappropriate in the specific clinical environment	
No time to write NCPs	22
Clinical Area doesn't Use	24
Nurse Factors	27
Better Alternate Tools	
Forms Specific to Area	35
Verbal Reports Used	15
Mental NCP Used	15
Kardex Used	7
Focus Charting Used	2
Need for a Nursing Communication Tool	
Information Used	14

Note: (n = 83; a respondent may have identified more than one theme)

NCP Inappropriate in the Clinical Area

The NCP was an inappropriate tool to use to help provide patient care due to three factors: there was no time to write the NCP; the clinical area didn't use NCPs and nurses' perceptions of their value.

No time to write.

The respondents reported that "high patient acuity", "short patient stays and high turnover", "rapid changes in the patient's medical condition" made the written NCP an impractical tool in many clinical areas. The NCP was

written if the patient stayed longer than eight hours.

Clinical area doesn't use NCPs.

The respondents also identified that "there was no room for the NCP on the chart", that "the doctor writes on the chart and the nurse records the treatment", and "the unit has specific charting so that even if the patient comes to the unit with a NCP it is not used." Respondents reported they did not use NCPs in the OR, RR and that "there is no time to read them in ICU."

Nurse factors.

The nurse related reasons for not using NCPs to help provide nursing care ranged from "an experienced nurse in the clinical area only needs special patient problems and interventions stated, otherwise it is an insult to the skilled nurse in the area" to "NCPs are not up to date and you need accurate information". Some did not use NCP as "NCP too long with all possibilities and care is similar for all patients" and " NCPs were not consistent with everyone's opinion of patient needs, what one considers important another doesn't."

Alternate Tools Used Rather Than NCP

Forms specific to area.

Protocols, standards for care, policy and procedure manuals, SCPs and SCP books were identified as the common alternate tools used to guide nursing care. These were used in conjunction with charting formats such as flowsheets, nursing assessment sheets which had been developed by the nurses in the clinical area. In order to communicate with other nurses "RR uses flow chart and sometimes a phone call to the wards plus may write a note" "Obstetrics writes hourly progress notes but no room for psych-social problems."

Verbal reports.

One to one verbal reports between nurses, reported as being used by many ICU, emergency and other short stay area nurses, "eliminated the need for NCP as there was no loss of information." Mental NCPs were used by many as "no time to write" due to " staff cutbacks" and "fast pace."

The kardex.

The kardex "communicates current problems and actions, gives all required information on it, no nursing diagnoses and NCP not written."

Focus charting.

Focus charting "guides care and charting." Focus "gives diagnosis and what you did rather than what is expected. This is better - less writing."

The Need for a Nursing Communication Tool

The respondents expressed a need for a means of communicating specific patient care information.

Specific patient information desired.

The information to be communicated related to the following: "patient's current problems and interventions, not nursing diagnoses", "reason for admission, mobility status, medications as these have implications for patient safety during anesthesia",and "individual problems and specific workable interventions." One respondent stated that "need some form of NCP at the bedside as have one to one patient care and cannot leave the bedside; have tried to develop this tool but no luck so far."

Summary of the Findings

The three research questions were explored using descriptive statistics; analysis of variance tests such as Difference of Means and one-way ANOVA; and the Pearson

product moment correlation test. A scatterplot was developed, using the NCPAS means scores on the horizontal axis and the NCP Behaviour mean scores on the vertical axis, in order to reveal the type of association between the two variables. The Pearson product-moment correlation coefficient was used to quantify the strength of the association between these two variables once it was determined that the points did cluster about a straight line, although with a poor fit. In order to determine the magnitude of effect through the use of the ANOVA test, the correlation coefficient Eta^2 test was used. Post hoc comparison tests were used to find the location of specific significant differences between levels of the independent variable as identified by the ANOVA test.

In response to the first research question it was found that the respondents reported a NCPAS mean score which was positive, greater then the neutral score of 90, towards the planning and writing of NCPs. There were eight extreme lower individual scores between 69 and 84; the maximum reported individual score was 140.

Responses to the second research question determined that there were three patterns of self-reported NCP writing/revising behaviour: Pattern NCP,defined by the nurses who reported writing/revising NCPs; Pattern SCP, defined by the nurses who reported using SCPs; and Pattern No SCP No NCP, defined by the nurses who reported using

neither SCPs or NCPs. The mean NCP writing/revising behaviour for the Pattern NCP was 6.2797 SD 2.1375. The maximum Writing/Revising Behaviour mean score, representing the behaviour required by nursing standards, was 10.0.

Research question three sought to determine whether there was a relationship between attitude towards writing/revising NCPs and the self-reported NCP writing/revising behaviour. The association between the NCPAS mean score and the NCP Writing/Revising Behaviour mean score for the Pattern NCP (n = 143) was a weak, positive linear association as demonstrated by the scatterplot and the Pearson correlation coefficient. The percentage of variance shared by the two variables was 5.45 percent.

Associations between the demographic and professional characteristics and the total samples' attitude towards planning and writing NCPs and the Pattern NCP Writing/Revising Behaviour were explored. Significant differences between NCPAS means were found at the 0.05 level and verified for the following independent variables: Pattern, basic nursing education and whether the nurse reported using the NCP to help provide nursing care. Significant differences between the NCP Writing/Revising Behaviour mean score for the Pattern NCP (n = 143) were found at the 0.05 level and verified for the following independent variables: employment status, full time and parttime status, and whether the nurse reported using the

NCP to help provide nursing care.

The open-ended questions provided some insight into the respondents' thoughts about the personal meaning of the term NCP and how the NCP was used to help provide nursing care or reasons for not using the NCP to help provide nursing care.

Measures of reliability indicated that the two scales used in the survey were reliable for usage and the results of their analysis could be applied with some confidence to the participants in the study.

Chapter 5

DISCUSSION, CONCLUSIONS AND IMPLICATIONS

A discussion of the research findings in relation to the research questions, the literature review and the theoretical framework is presented in this final chapter. Conclusions drawn from the research findings are presented. Implications for the nursing profession, nursing practice, administration, education and research are outlined.

Discussion

The purpose of the study was to describe the degree of acceptability of the NCP as a communication tool to practising general duty, registered nurses and its utility to them. It was also to describe whether nurses reported writing/revising NCPs as prescribed by professional nursing and hospital accreditation standards. In addition, the study was designed to determine whether any relationship

existed between attitudes towards writing NCPs and NCP Writing/Revising Behaviour.

The nursing process is said to represent the methodology for the delivery of individualized nursing care to patients, and is applicable in any nursing situation (Kozier, Erb & Blais, 1992; Oermann, 1991; Shea, 1984b; Yura & Walsh, 1988). One step in the nursing process is planning. Planning includes the acts of planning and then communicating the plan to other health team members, particularly other nurses who will be providing direct patient care for that particular patient. This communication of nursing diagnosis, expected outcomes and specific independent and interdependent nursing interventions for a patient is said to enhance the continuity of planned care for the patient (Christensen & Kenny, 1991; Taptich et al., 1994). Since the adoption of the nursing process as the methodology of nursing, the plan has been documented on a form called the nursing care plan which has designated spaces for pertinent data, nursing diagnoses, interventions and expected outcomes. This NCP, according to Hegedus (1991), then guides, for a particular patient, subsequent nursing care, its evaluation and its documentation. Although the nursing process has been a part of nursing education and practice since the mid 1960's, a review of the nursing literature has revealed that, despite generally positive attitudes towards the nursing process,

NCPs have been disused by nurses, not written, or, if written, were incomplete or often inaccurate (Shea, 1984b; 1986; Sovie, 1989; Taptich et al., 1994; Turner, 1991).

The research questions were directed to describe general duty registered nurses' attitudes towards planning and writing NCPs; to describe their self-reported NCP writing/revising behaviour and to determine what relationship, if any, existed between these two variables. A random sample of 350 general duty acute care RNs was interviewed by telephone using a structured interview schedule composed of the NCPAS as modified by Oetker Black and colleagues (1989), a NCP Writing/Revising Scale, professional and demographic characteristic questions plus a few open-ended questions. The findings are discussed under the following headings: The Nursing Care Plan Attitude Scale, the NCP Writing/Revising Behaviour Questionnaire and the associations.

The Nursing Care Plan Attitude Scale

The mean NCPAS score for the total sample indicated that an overall positive attitude towards planning and writing NCPs was held by the 350 respondents. The mean score, while lower than those found by Thomas (1984) using the same scale, was well above the neutral point on the

scale. The current sample, being almost seven times larger than Thomas's combined samples, and from random clinical areas of seven different acute care hospitals rather than two, was likely more heterogeneous and would thus have greater variability amongst the responses. Thomas (1984) reported the lowest individual score to be 77, with the highest being 149: whereas the current lowest score was 69 with seven other low scores between 69 and 84, and the highest was 140, 9 points less than Thomas's highest individual score. The current NCPAS mean score would be influenced by the general overall lower scores. The lower NCPAS mean score may indicate that the NCP was not highly valued by all the general duty RNs interviewed and that attitudes towards writing/revising NCPs have changed in the nine year time period since Thomas's 1984 study. Other reasons for the lower attitude score may have been (1) the changes experienced in the nursing environment of all Manitoba acute care hospitals as a result of health care reform activities; (2) the actual deletion of nursing positions; (3) the 'bumping'; (4) the changes in staffing patterns; (5) the general concerns about the quality of patient care in the reforming environment as expressed by the respondents, (6) the expressed feelings towards the NCP and (7) the expressed reasons for using or not using the NCP. Also, as discussed later, by focusing only on the nurses' attitudes toward the one behaviour, writing NCPs,

one negates all the other factors which impinge upon behaviour.

The finding, that the general duty registered nurses surveyed have positive attitudes towards the planning and writing NCPs is in concordance with the findings in studies by Bowman, Thompson and Sutton (1983), Nichols and Barstow (1980), Savage (1993), and Thomas (1984). In contrast, Shea (1986) reported that frequently nurses had negative or mixed feelings towards writing NCPs whereas Hildman and Ferguson (1991) found that their sample of nurses had a more positive attitude towards the nursing process than towards the writing of NCPs. They hypothesized that NCPs may be appropriate for nursing education, but not for nursing practice. De la Cuesta (1983) proposed that the nursing process and NCP had provided nursing education with a vehicle by which the practice of nursing could be explained to the learner. That the NCP was not appropriate for nursing practice was in fact stated by several respondents in the current study. They stated that requiring the professional graduate nurse to write basic nursing interventions on the NCP, similar to the work required of the student nurse, was an insult to the professional nurse. Respondents thought that the graduate nurse should know the basics by virtue of being a graduate. The respondents reported they wanted patient specific, concise, current independent and interdependent nursing concerns on the NCP;

not the detailing of every possible concern as required on the nursing school NCP. Nursing diagnoses were not frequently reported as essential information required on the plan. They stated "it becomes a thought process." One respondent stated "the NCP is a waste of time except for individual problem areas and specific workable interventions." Others contended that the traditional NCP was not a useful tool in their specific area because the patient's stay was very short and illness acuity level was high; whereas respondents in longer term care areas noted that the NCP was a useful tool. Shea (1986), in discussing the NCP as a communication tool for practising nurses, contended that the working document is vastly different from the teaching tool, and it was the teaching tool that had been and is incorporated into the existing practice tools.

Shea's (1986) unmodified conceptual framework depicted nurses' attitudes towards using NCPs as one of the modifying factors on the NCP using behaviours. 'Using' was defined as writing, revising and using the NCP as a guide for care. The modifying factors can have a direct influence on the behaviours, or can indirectly influence them through motivating factors. The motivating factors could be nurses' valuing of the nursing process or beliefs that the use of a NCP will enhance nursing care and that this methodology of nursing is valued by nursing administrators and by nurses in general.

That the present sample valued the planning and communication of the plan through its documentation was evident in the degree of consensus with the statements that stated planning and documentation of the plan is an important professional responsibility which promotes continuity of planned care for both acutely and chronically ill patients. The valuing was also evident in first thoughts about the NCP such as "it's basic to nursing care" and "it's a guide to nursing care". Hence it could also be construed that the nurses believed that the use of the NCP would enhance patient care. This positive valuing of the NCP by the individual nurse would lead one to believe that NCPs would be written and revised as required by changes in the patient's condition. However, in light of other responses such as "it's a joke - no one reads them" or "it's a waste of time" one must question whether the verbalized valuing is the result of social desirability bias. The respondents while clearly agreeing that planning was essential to nursing care, were equally clear about the writing of NCPs being a delusion. This divergence in responses may indicate that practising nurses value planning but that the nursing process and NCP are not efficient tools in the actual practice of nursing.

That all nurses or nursing administrators were perceived, by the respondents, as valuing the NCP as a nursing communication tool was not readily apparent.

Responses such as , "initiated by administration and certification requirements, need doesn't come from general duty nurses", and "no time to write or money given to develop" reflect the respondents' perceptions of the valuing of nursing's communication tool - by colleagues and nursing administration. Administrative valuing would be evident in the head nurses providing acknowledgement for a current, comprehensive plan and in the provision of plan documentation/revision time. According to Shea (1984a) the discordance between the RNs' positive valuing of the nursing process for planning and the use of the NCP and the RNs' perceptions of colleagues and nursing administrators valuing of the nursing process would make the behaviour less likely to be carried out.

As more respondents agreed than disagreed that time should be set aside to do the NCP and that head nurses should encourage the writing of NCPs as much as other aspects of nursing care it could be argued once again that administrative valuing of the NCP was not readily apparent to the respondents. According to Fitch and colleagues (1991) when time is an issue one should "examine the environment to see if the administrative and auxiliary support needed for nurses is actually in place" (p.17). A common response was that there was no time to give care and to write NCPs too. The respondents reported that the decrease in RN positions, as a result of health care reform

action in their clinical areas, had made lack of time for writing/revising NCPs even more of a problem. NCPs were reported as being written/revised by more nurses during the night shift than any other shift. There was more time on nights; however there was little interaction with the patient. The respondents also agreed that nurses should spend more time planning and writing NCPs than they do now, however many also questioned whether too much time was spent on the activity now and whether the NCP was a delusion. The uncertainty as to whether the NCP was a delusion and whether too much time was spent on this activity could be attributed to the presence of factors in the nursing environment which were creating this uncertainty. These factors in turn, had the potential to modify the intended NCP behaviour. The doubts about the value of the NCP could also be expressed if the use of the nursing process and the NCP was perceived by the nurses to actually limit their practice to basic nursing. The doubts expressed by the respondents also had the potential to modify the intended NCP behaviour.

The problem of no time might be overcome through the development of greater confidence in ability to define and write nursing diagnoses and expected outcomes through environmental support such as continuing education in the workplace according to Daws (1988). The time required to document nursing diagnoses and expected outcomes would decrease as the nurse became more proficient in defining and

writing them. It is of interest to note that nursing diagnoses were not frequently cited as being important patient specific information to have on care plans.

Perceptions that the NCP "was effective if kept up to date but a deterrent to care otherwise"; "(NCPs are) unnecessary paperwork, waste of time - no one reads/ duplication" and "nursing diagnosis was double talk" were expressed. Was the delusion related to: absolute lack of planning time as a result of patient acuity and fewer nurses; or, a NCP format that did not meet the nurses' patient care communication needs in the specific clinical areas; the nurses' discomfort with stating nursing diagnoses, expected outcomes and individual interventions; or the nursing process not being totally reflective of nursing practice ?

Frequent properties of the NCP identified in the respondents 'first thoughts' were: individualized, assessment, planning, implementation and evaluation. Sheehan (1991) found these to be common properties ascribed to the nursing process, of which the NCP is one outcome, in the literature and by a sample of nurse clinicians and tutors. However, other common characteristics identified in the literature but with some degree of discordance by Sheehan's sample such as decision-making, negotiation and scientific, were seldom identified first thoughts in the present study. Sheehan (1991) asked if nurses had made the

transition from task-based care to nursing theory-based care. In the present study the majority of the nurses, having learned the use of the nursing process in nursing school, were socialized into a nursing role that involved the use of the nursing process and a written NCP. The greatest number of respondents had completed their highest level of nursing education within the past decade and would have learned the content for the process within those basic programs. This same time period saw the integration of nursing conceptual models into nursing delivery systems within some acute care hospitals (Shea, Rogers, Ross et al., 1989). Would the question be more appropriate if it asked, as Sheehan (1991) did, were there factors present in the nursing environment that interfered with a nursing theoretical approach to nursing? Or, should it ask, as Tanner (1986) did, whether the nursing process and NCP do reflect the totality of nursing practise?

Many of the respondents felt that planning was a professional responsibility and head nurses should not have to reward nurses for this behaviour. They also questioned the word 'reward' - "what does this mean?" One interpretation of the question could be that the respondents had difficulty associating the usual interpretation of the word 'reward' with providing nursing care and that nurses do not perceive themselves as receiving recognition from nursing administrators or nursing colleagues for exemplary

plans or care. According to Attridge and Callahan (cited in Lindsay & Attridge, 1989) support and recognition by colleagues was the item most highly associated with a quality work environment by nurses. Several respondents made the comment that other nurses did not follow a written plan because they did not agree with it. No one mentioned discussing plans of care with colleagues. According to Shea's 1986 framework, collegiality would be a motivator for the behaviour of writing NCPs. It is of interest that only one nurse stated that the writing/revising of NCPs should be a criterion on nurses' yearly performance evaluations. This would support a finding by Huckabay and Neal (1979) that few nurses reported the recognition of their NCP behaviours on a performance evaluation as important; yet, according to Shea (1984a) this has the potential to be evidence of environmental valuing of, and hence, a modifying factor on NCP writing behaviours.

Ferguson, Hildman and Nichols (1987), on finding that care plan format made no difference on patient outcomes, theorized the no difference could have resulted from the fact that determining nursing diagnoses and orders is a cognitive process based on education and practice experience, and that patient outcomes are influenced by the sum of the process steps rather than the actual presence of nursing diagnoses and orders on a written plan of care. This finding lends support to McHugh's (1986) thesis that

the NCP serves the novice or advanced beginner but may frustrate the advanced and expert practitioner who has practice wisdom. Evidence of the frustration would be evident in responses such as "find them insulting, no one trusts you to give nursing care" and "novices are not in critical care." Benner's work (1983) describes the advanced beginner as a nurse in the same or similar settings for at least three years. That nurses with less than one year and with one to four years of nursing experience had the highest attitude mean scores of all categories of this variable also lends support to this thesis as does the fact that years of experience as a RN was significantly associated with attitude.

While there was no significant difference between groups on attitude mean by years of experience, the attitude mean score did decrease with the greater number years of nursing experience. Over half the respondents, having from 5 to 30 years of experience in the clinical area, would be classified, according to Benner (1983), as advanced and expert practitioners. This provides further support for their stated frustrations with the NCP. Kataoka-Yahiro and Saylor (1994) suggest that the nursing process and the resulting NCP do not adequately portray the concepts and processes involved in making nursing clinical judgements. Hildman and Ferguson (1991) and Thomas (1984) also found that attitudes towards NCPs decreased as the years of

nursing experience increased. Hildman and Ferguson (1991) speculated that the recency of a nursing education program in which the nursing process was taught and used, and the more idealistic attitude towards NCPs were reasons for the higher score. However, recency of highest education was not significantly associated with attitude in the present study.

A reason given for writing NCPs was "the nursing audit depends on them." That audit points were lost when a NCP was incomplete was an expressed first thought. Were audit scores a reward for completed and current NCPs? As Krammer (1972) asked, has the nursing goal for the NCP been replaced by an institutional goal? Has the means for communicating planned patient care become an end as Kramer (1972) suggested? Giovannetti, Reid, Buchan, Ratner and Bay (cited in Forchuk & Kirkpatrick, 1991) found that only 7% of 1085 nurses considered that the current audit system was a good measure of nursing care provided on their units. According to Raatikainen (1994) the valuing of the NCP as an audit tool rather than as a tool to enhance nursing practice could be construed as a lack of control by general duty nurses. This perceived lack of control by nurses over actual nursing practice would then dissuade the nurses from carrying out the behaviour (Shea, 1984a).

That the NCP was not an appropriate tool in short stay clinical areas was evident from responses such as "the NCP is good for long term care but not for short term stay

patients" and "no time to write and needs constant updating especially in short stay area." A motivating factor for the NCP writing behaviour, according to Shea (1986), is that the nurse believes the use of the NCP is appropriate and will enhance nursing care. The SCP was the pattern used more frequently in short stay areas, specifically not for admission day surgery, surgery, intensive care units, obstetrics and gynecology, intensive care units, pediatrics and neonatology. Patients in all these areas were described as usually having a very short hospital unit stay and rapidly changing, acute conditions. Respondents from these areas stated that there was "no time to do (the NCP), especially long and short term goals due to short length of stay", "not practical in emergency - no time to write due to fast pace and urgency" and " no time to read in ICU, besides one nurse to one patient and use verbal report." The lower NCPAS mean scores of the nurses in the short stay clinical areas would substantiate that writing/revising NCPs was not perceived to be a valuable or necessary nursing activity in these areas. Many of the nurses in other short stay areas such as the operating room, recovery room, labour and delivery, and to a large extent in emergency rooms, reported that other, more effective communication strategies such as area-specific protocols and flow charts and nurse-to-nurse verbal communication were employed in these areas. The concern is that as a communication channel the standard

protocol or expected action to be taken in a particular situation only sends part of the message (Shea, 1984a). They are not individualized, nor are they usually kept on each patient's chart - posing yet another barrier to effective communication (Shea, 1984a).

The nurses were confident of their planning ability, desired to write better NCPs and agreed they were challenged by the process of planning care. The confidence may have generated from the fact that a majority of the respondents had learned to use the nursing process and to write NCPs in their initial education program and over half had been writing NCPs for the total number of years they had been practising as registered nurses. However, some indicated the more recent graduates were more comfortable with nursing diagnosis statements and that there was little assistance available to the nurse who was not comfortable with them. The discomfort and perceived lack of assistance (evidence of administrative valuing) would be modifying factors in the nursing environment according to Shea (1986). According to Forchuk and Kirkpatrick (1991) nurses want comfortable tools. With a forecast for an increased use of nursing diagnoses along with protocols and expected outcomes combined with key collaborative interventions for a patient's hospital stay (Iyer, 1991) nurses will need to become comfortable with nursing diagnoses. Bowman and colleagues (1983) found that continuing education on the NCP

in the workplace promoted positive attitudes towards planning and writing NCPs. Savage (1993) found that nurses wanted to be involved in the implementation of NCP tools and in maintenance activities. Several nurses volunteered that the unit's general duty nursing staff had been or was involved in developing and/or revising their NCP tool and that this consultation was beneficial in the development of useful NCP formats for their areas.

The agreement with the valuing statements, and indeed with all the NCPAS statements to which a nurse knows should be answered in a specific way as a result of nursing role socialization may have been due to social desirability bias despite the interviewers' adherence to the structured interview schedule and the fact that there was no significant difference between the two orders of the survey on the NCPAS means. The interviews were conducted only after permission was obtained from the potential respondents and anonymity for them and confidentiality for their responses was assured. The fact that the interviewees were called at their homes and were called by their first names may have made them wary of answering the questions. Their responses may have been less candid and agreement with the valuing statements may have resulted. Of the 87 who refused to participate in the study two nurses indicated they had "negative feelings about the NCP" and 12 indicated they did not use NCPs in their clinical area.

The NCP Writing/Revising Behaviour Questionnaire

The average overall positive attitude towards planning and writing NCPs would indicate, using Ajzan's (cited in Savage, 1993) theory of planned behaviour, that the nurses were predisposed to write/revise NCPs as part of the planning/evaluative phases of the nursing process. This, however, was not found. Neither NCPs or SCPs were reported written/revised/modified by the nurses as the use of the nursing process would prescribe. That nurses do not consistently write/modify care plans has been documented in the literature since the NCP was first introduced into the practice setting (de la Cuesta, 1983; Shea, 1984a, 1986). Sovie (1989) hypothesized that the noncompliance with the standards for writing/modifying care plans is the practising nurse's demonstration that the care plans now used are not necessary for quality patient care. As discussed, the NCP format and whether nursing diagnoses and orders were on the format have been found to not make a difference to patient outcomes (Ferguson, Hildman & Nichols, 1987). In the current study the information wanted was not nursing diagnoses or orders, but specific, succinct information about the patient's present unique concerns, both physiological and psychological; independent priorities and interdependent medications and treatments.

Clearly, the positive attitude may have led to an

intent to behave but did not result in the behaviour required by the standards. The intent to behave may have been influenced more by the mixed and negative beliefs and feelings expressed about the NCP by a number of the respondents. Attitudes, according to Shea (1986), could influence or be influenced by values and beliefs held by the nurse about the efficacy of the NCP to enhance nursing care. Hence, the finding that positive attitudes did not lead to the desired behaviours lends support to Shea's (1986) hypothesis that there are many variables which impact on the nurse's intent to write/revise NCPs.

Contrary to opinion articles and research findings that NCPs may be written but not used (Brider, 1991; de la Cuesta, 1983; Huckabay & Neal, 1979; Kramer, 1972; McHugh, 1991; Shea, 1986) the present study indicated while NCPs were not usually individualized and revised, over 80% of the Pattern NCP nurses reported using the NCP to help them provide patient care while 87% of the Pattern SCP nurses and 15% of the Pattern No SCP No NCP nurses also reported this behaviour. That is, over 75% of the total sample reported they used the often non-individualized not revised plans as tools to help them provide patient care. This response may have been the result of social desirability bias as the nursing process has been the central framework of nursing education for at least 25 years. However, the respondents did state a NCP was an information tool they consulted on at

least a daily basis to "coordinate care, to promote continuity and short term evaluation of care."

The problem arises in that the information used may not have been complete or current - and hence would put both the patient and the nurse at risk. The nurses' main comment was that NCPs are not specific enough, and are not current or have incomplete information. Some wrote and used the plans to help provide care but with some scepticism - "not everyone agrees with the plan and may not follow it." Taptich et al. (1994) noted that the provision of care based on incomplete or inaccurate information "may cause the patient to lose confidence in the nurse's ability to deliver appropriate care" (p.9). Additionally, continuity of individualized patient care is jeopardized when the nurse is required to document and revise planning in a manner which is deemed ineffective by the nurse. The low level of NCP writing/revising behaviour by practising nurses also is problematic for those who believe that the nursing process is the methodology of nursing and that the NCP is the operationalization of the nursing process (Shea, 1984a). The lower reported writing/revising behaviours, from nursing administration's viewpoint, coupled with the high usage whatever the format is also problematic. NCPs which are not written/revised provide inaccurate baseline information for a nursing management information system. Additionally, if not written or modified, yet used to help provide patient

care what is the effect on patient care or on the nurse? Clearly these questions need to be answered, for requiring the nurse to document a plan, in a format that is not used by the nurse, is an inefficient use of nursing time.

Many of the nurses reported they used a mental NCP rather than taking the time to write one. According to Shea (1984a) the response "lack of time" also suggests that interference of message transmission has occurred. No message threatens continuity of planned care. If a 'mental' NCP has potential for positive health care outcomes it remains with the one nurse unless purposely communicated in some form to other nursing care providers. Turner (1991) stated that the ideal of providing "quality, holistic patient care demands that every nurse working with the patient have the opportunity to know the patient's plan of care" (p.242). Should the form of the message be verbal or written? Which form is appropriate in which clinical area? Whose purpose will it serve? Nursing's - as a communication tool for individualized care or administration's - as a tool for assuring quality care has been given and for determining staffing needs?

Koldjeski (1993) contended that nurses in the various clinical areas apply the nursing process at different levels. It may be that each level of application needs a different plan communication tool. Hinshaw (1990) stated that the constant evolution occurring in the nurse's role

requires ongoing evaluation of the standards and sets of value and behaviour expectations of the role so that quality care can continue to be delivered.

The need for an effective but different nursing communication tool was evident. The nurses' responses identified that many of the current NCPs were not effective or efficient. In the acute care hospital the nurses wanted succinct information that was easily accessed by the bedside nurse about the patient's background, present condition, new medical orders and related tasks, teaching needs and response by patient and family, primary focuses and daily activities.

Henderson (1987), Kramer (1972) and Niziolek (1991) emphasized the need for a collaborative health care plan if primary health care for all is to become a reality. Tucker (1994) suggested that the interdisciplinary patient care plan, with the patient as a participant, will better serve the needs of our population. Henderson (1987) made the same argument, stating that a plan is only effective to the "extent that it guides or directs the combined efforts of patient, all health care workers involved and in some cases family members" (p.16). It is of interest that only one respondent made mention of placement of the NCP at the patient's bedside where the patient and family could read it as well. However, reading does not imply full participation.

More than one-half the total sample reported they used SCPs in their clinical areas. Comments about the SCP such as "it is too long to read or use with every possible outcome on it"; "it is in a book at the desk, not on the patient's chart or at the bedside"; and that "it is not necessary to consult the SCP after nursing in the area for a while as one knows the care" may account for the fact that SCPs were not individualized all the time by the respondents who reported using them in the clinical area. According to Nichols and Barstow (1980) the value of SCPs "depends on the extent to which nurses use them" (p.27) and if used incorrectly it is inappropriate to expect nursing behaviours to be influenced by them or to use their outcomes as a measure of the quality of the nursing care. From the responses it would appear that the SCP was used mainly as a reference for new and unusual interdependent nursing interventions - special procedures, medications, treatments and was not necessarily individualized for each patient. Nichols and Barstow (1980) reported similar findings, however their sample also reported using the SCPs for individualized care and nursing orders and suggested the SCPs be made shorter and placed on patient's charts (Nichols & Barstow, 1980). That the SCP was reported as not being modified consistently but was used to a great extent raises two issues: one is the need for, and the use of, care references by the general duty nurse, and the second is the

need for a tool that the nurse can use to modify and then communicate the modified standard care plan. Carpenito (1991) stated that without the use of pre-printed or automated care plans, which free the nurse to handwrite or free text individual diagnoses and interventions as required, nurses will continue to write routine plans. It was these routine plans that the present study's respondents said were a waste of time.

Both NCPs and SCPs were reported as being used in all clinical areas yet several respondents questioned what the term 'standard care plan' meant. That there were different individual understandings of what the terms NCP and SCP meant was evident from the question. Some of the Pattern SCP nurses reported the use of SCPs in their clinical area and then later in the interview stated they used policies and procedures and protocols to help them plan their care. The variety in individual thoughts in response to the term NCP also provided evidence that the terms meant different things to different nurses. This "semantic mislabelling" (Shea, 1986, p.156) frustrates and confuses discussion of the NCP between nurses. The term NCP was usually associated, by the respondents, with the long care plan developed by student nurses and was associated with mixed or negative feelings. Many respondents claimed they used no NCP only to disclose that, in response to the open-ended questions, they used other formats such as protocols to

guide their care, did consult written NCPs or SCPs on the patients' charts and were using the nursing process. Did the fact that the format used was different from the traditional NCP learned in nursing school and that the survey was about NCPs, lead them to think that protocols and standards were not care plans, albeit not individualized ? The terminology needs to be clarified so that nurses recognize a plan of care is just that, whatever the format, but that it is only complete if it is individualized for the patient. The mislabelling by the individual respondents may have biased the results of the survey as no definition of the terms NCP or SCP was provided.

Nurses also need the feedback from their peers and leaders that they are providing theory based care. Several stated they "used the NCP as a tool to guide assessment for the individual patient" but for many the recognition of their actual application of the nursing process was only apparent after they had completed a good part of the NCPAS. Perry (1985) stated that nurses do not always recognize the cognitive skills they use in 'thinking nursing' as an essential component of nursing. Both Perry (1985) and Rosenow (1983) claimed, that in the bureaucratic acute care hospital, nurses are not rewarded for thinking nursing but for getting tasks done.

Associations

After review of the NCPAS means for the total sample as well as for the professional and demographic characteristics and the open-ended questions plus the NCP Behaviour mean for the Pattern NCP nurses, it is not surprising that the association between the NCPAS mean score and the NCP Behaviour score for the Pattern NCP was a weak, positive linear one with much variability about the line or that the percent of variance shared by the two was only 5 percent. While increases in the Behaviour summed scores did appear to be somewhat matched with increases in the NCPAS mean, the increases were not consistent. Many respondents agreed that the NCP was of value as a communication tool, that the writing of the NCP was a professional responsibility and then reported they had never written NCPs, did not use or write them as nursing care took precedence over writing. Others stated they had never written NCPs as a RN and did not write them on any shift but then reported some writing/ revising behaviour. This inconsistency in responses to the attitude and behaviour items would be one reason for the weak linear relationship between the variables attitude and behaviour. The weak but positive linear relationship would also be construed as support for Shea's (1986) framework which depicts nurses' NCP Behaviour as a multi-faceted issue. There are many factors which impact upon the nurse's

intent to write/revise NCPs. The inconsistency in responses and the weak positive linear relationship would also lead one to believe that the general consensus amongst nurses is that the writing of the NCP is not a worthwhile activity.

Contrary to the findings of Thomas (1984), the present study did not demonstrate significant associations between attitude and age of the nurse or between attitude and recency of highest nursing education. The larger, perhaps more heterogenous sample may account for this and there may be no significant difference. As well the present sample was comprised of only general duty nurses whereas Thomas' included some head nurses as well as general duty nurses.

The variable Pattern, unique to the present study, was significantly associated with attitude, and a significant difference in the attitude mean was found between those who used NCPs and those who used no NCP or SCP and between those who used SCPs and those who used neither a NCP or SCP. That Pattern was significantly associated with attitude is not surprising. Although the proportion of variance shared by these two variables was not large, a 6.07 percent, the respondents who reported not using either a NCP or SCP did have a significantly lower, but still positive, attitude score towards writing NCPs than either the Pattern NCP or Pattern SCP nurses. This could be interpreted as support for Shea's (1986) framework which suggests that the tool format used can be a modifying factor on the NCP behaviour

or on the motivation to write NCPs. The Pattern No SCP No NCP nurses reported they did not use either a NCP or SCP in their clinical areas and hence would not have NCP writing behaviours or modify SCPs. Their attitudes would be less positive as a result of the perception that NCPs were not necessary for the provision of care in their areas. The significant association between clinical area and attitude could be explained in a similar manner to Pattern. As there was no difference between the clinical groups the explanation may simply be that the reported format used in the clinical area would influence the nurses' attitudes toward that format. If the tool is not used, why would one have a positive attitude towards using it?

The variables basic nursing education and highest nursing education were both significantly associated with attitudes. The significant association between basic nursing education and the NCPAS mean score may be accounted for by the fact that the baccalaureate nurses, while approximately only 14% of the total sample, had further opportunity, by virtue of their 4 year program as opposed to 2 years, to discuss and use the NCP and to observe its use in various nursing settings. As well, the fact that there was a significant association, although no significant difference between the categories of the variable 'years of nursing experience', with the attitude mean may be an alert to the fact that there is potential for the more experienced

nurse to not need the type of information currently included in the present plan of care or as previously discussed, that the practising nurse uses practice wisdom and knowledge to make nursing clinical judgements and has no need for the traditional nursing process and NCP. The attitude mean tended to decrease as the years of experience increased. Many said they knew what to look for by virtue of their years of nursing experience, but despite this, they also wanted patient specific information.

The only factor common between the present study and Thomas's (1984) was that there was an significant association between highest nursing education and attitude. As the percent variance was small the effect of highest education on attitude may have less influence than other modifying factors which are found in the nursing environment. The association of education with attitude may have been due to nurses having further exposure to the theoretical application of the nursing process as well as to further exposure to positive modelling of the value of the process and written plan to nursing. Although no significant difference was found between the NCPAS means scores by recency of highest education, it is interesting to note that those who expect to complete their highest nursing education program by 2000 had the highest NCPAS mean score for this professional characteristic. This could be construed to be support for Bowman et al. (1983) who

concluded that planned continuing education fosters continued positive attitudes towards writing NCPs.

The variance shared by attitude and whether the nurse uses the NCP to help provide nursing care was larger compared to other shared variances between attitude and variables significantly associated with attitude. The belief that the use of the NCP will enhance nursing care is a motivator for the behaviour to write a NCP. The higher shared variance would suggest that Shea's (1986) framework should have a feedback loop, for it would appear that use of the NCP fosters a more positive attitude towards writing/revising NCPs. The question then becomes what is restricting the writing component of the desired behaviour of writing and using the nursing care plan in Shea's (1986) framework?

The fact that employment status was significantly associated with Behaviour mean is of interest. Casual nurses who had the highest NCP Behaviour mean score reported that the NCP "helps know what to do as don't see the patients regularly and don't have to repeat what is already done", "I try to write NCPs as required so that other nurses are helped too." The plan, if current, was of value to these nurses. This valuing would influence behaviour as a modifying factor (Shea, 1986). Perhaps a significant reason for the casual nurse to have a higher writing/revising behaviour was that casual nurses do not have the advantage

of seeing patients on a daily basis. The presence of a plan to guide care for individual clients would provide the casual nurse with care information that would allow him/her to nurse as if he/she had seen the patient before. This would be less stressful for the nurse and for the patient. Hence the casual nurse reported higher NCP Behaviours. The significant association and difference between groups of the variable 'employment status' on NCP Behaviour may also be accounted for by the fact that part time respondents reported a lower NCP Behaviour and 47.6% of the Pattern NCP sample was comprised of part time nurses.

Despite the less than 10% shared variance, the significant association between the use of the NCP to help provide nursing care and NCP Writing/Revising Behaviour is of interest. Shea's (1986) framework pictures the desired behaviour as a combination of writing and using the NCP. The modified framework used in the current study depicted the writing/revising behaviour as the dependent variable with attitude towards writing NCPs as the independent variable. If the two behaviours were separated in Shea's (1986) framework, would the framework be more useful for the study of the use of nursing care plans? Lastly, as the variable 'use the NCP to help provide care' was significantly associated with both the independent variable and the dependent variable of the modified framework it would suggest that the actual use of the tool to help

provide patient care has a significant positive impact on the nurses' attitude towards writing/revising NCPs and on the propensity to write a NCP. It becomes a circular framework. This further supports the suggestion that the framework should include a feedback loop from desired behaviours to motivating and modifying factors.

Limitations

The findings would be generalizable to the nurse population of Manitoba with limitations. The sample was representative of the provincial registered nurse population only to the degree Winnipeg nurses, who nursed in acute care facilities and agreed to participate, were representative of the larger general duty registered nurse population of Manitoba at the time of the survey. Despite the use of an appropriate sample size and sampling plan, the investigator cannot be absolutely sure that the sample was representative of the target population, hence generalizability of the investigation's findings to the target population should be conservative (LoBiondo-Wood & Haber, 1990).

Self-selection bias may be associated with the sample despite the random selection as not all who were randomly selected chose to participate in the study. The demographic characteristics of those who refused to participate are

unknown except for employment status, whether place of nursing employment was a teaching or community acute care hospital and their gender. The inability to compare all the professional and demographic characteristics of those who refused with those who participated is a limitation of the study, and will affect generalizability of the findings. Bias may have resulted as a consequence of the context within which the study was conducted. Anxiety related to health care reform and its impact upon the practice of nursing may have influenced answers to the survey questions as well as the decision to participate.

Elements who did respond may not be representative of the total population, but all elements of the accessible population would have had an equal opportunity of being included with random sampling. If the telephone number was incorrectly transcribed on the sampling frame, not current, not a working line, or was unlisted, every element in the population of interest did not have an equal, independent chance of being a participant despite being selected for the sample by random assignment. These are disadvantages of the telephone survey according to Hash, Donlea and Walljasper (1985).

In addition, the MARN membership list was accurate as of December 1, 1992, the membership renewal date. Changed places of work, addresses and telephone numbers may not have reached MARN or have been entered into the computer. Ten

nurses selected at random from the list were not eligible for participation as they no longer nursed in acute care hospitals within the stated geographic area. Telephone number changes may have affected whether the randomly chosen nurse was contacted, but if the new number was provided automatically when the old number was called, the new number was used to contact the nurse. Additionally not all members may have had telephones. This was an early problem with the telephone survey method (Shelley, 1984; Williamson et al., 1982). However it was assumed that this population of Canadian registered nurses did own telephones and was no different than those Canadian registered nurses polled by the Canadian Nurse journal in November, 1992 who were reported to own high tech consumer products at a rate of 17 to 200 percent higher than the general population. Using the information provided by the Manitoba Telephone System, approximately 15 percent of its customers in the designated urban area chosen have unlisted phone numbers (K.Miller, Director, Customer Services, personal communication, November 25, 1992). These nurses, when chosen randomly to be included in the investigation, were replaced by others, also chosen randomly.

Despite the proposed ordering of the questionnaires in the interview schedule, the respondents' reported NCP writing/revising behaviours may have been influenced by a social desirability bias. These self-reported NCP

behaviours may or may not be accurate, and were not validated by actual measure. In addition, participants may have been wary of answering questions with full disclosure, over the telephone to a stranger. Survey methodology tends not to provide in-depth information (Shelley, 1984), while Likert type scales tend to be associated with subject response bias (LoBiondo-Wood & Haber, 1990). Hence, the potential biases of self-reports may be accuracy of the responses and validity (Polit & Hungler, 1991; Shelley, 1984).

By keeping the sample size as large as possible and describing the sample characteristics, the basic assumptions of a descriptive correlational design were met (Brink & Wood, 1989). The description of the sample characteristics also enables others to assess the representativeness of the sample (Brink & Wood, 1989). In addition, biases associated with survey methodology and Likert type scales were offset by attending to the sampling technique, the questionnaire design, the interviewing techniques, and the data analysis prior to the actual investigation. This was done so as to promote the reliability and validity of the results. The data analysis did not include multivariate techniques; therefore the combined effects of two or more variables on a dependent variable were not explored.

Implications

Nursing Administration

This study indicated that the respondents did not have the same goals for the NCP as they believed nursing management to have and that it was not the general duty nurse who wanted NCPs to be written. Writing NCPs was equated with audit time and the use of management terms. Clearly nursing administration and general duty nurses must come to a consensus as to the purposes of the care plan, for nursing, for the health care facility, or for the interdisciplinary health care team involved in patient care. They need to ensure they are talking about the same tool. A care plan has two main reasons for being: to foster continuity and comprehensiveness of care (Kramer, 1972). This could be in the form of a nursing plan of care between nurses within one agency or between nurses of several agencies or a case management plan involving all disciplines within the agency or between agencies. Whatever the format, there must be a fit between the nurses' expectations and those of the organization. Management and nurses must share the goal setting so as to promote teamwork and facilitate optimum nursing care. Once there is consensus on the purposes of the care plan documentation, organizational valuing must be visible. Clear public statements must be

made about the purpose of the care plan and its value. There should be clear statements of responsibility and accountability for the NCP. The rewards for writing NCPs must be clarified as well as the consequences for not doing so. Nursing management must ask if the organizational valuing of this aspect of nursing is apparent in job descriptions, performance evaluations and the merit system.

Management and general duty nurse work teams or multidisciplinary teams, including nursing, should determine the format of the documentation. The respondents clearly stated that one care plan format does not serve all clinical areas well. While the information required and the use of the information was similar, short stay area nurses reported they had less time to document and had different priorities from the longer stay areas. Therefore the priorities of each clinical area will determine, to some extent, the format required despite the fact that the respondents identified similar information requirements. A systems consultant would facilitate the development of formats which could provide information needed in the specific nursing areas, as well as provide information needed for the nursing management information system. The format should facilitate the achievement of the stated goals for the NCP. The nurses who are to use the tool must be involved with the design so that it meets the needs of nurses, patients, and administrators.

Respondents also indicated the NCP and SCP were highly valued by casual nursing staff. Both Patterns provided these nurses with specific information required to provide continuity to the care. The respondents, regardless of employment status, reported the SCP most useful as a reference for patient situations with which they were not familiar. This has merit in and of itself. Ready references provide guidelines for unfamiliar patient situations and facilitate accountable safe care for the patient. The concern to be addressed with the use of SCPs as reported in this study is that they were references only for unusual situations and were not reported as being modified for individual patients. If the information was not on the NCP or SCP, float nurses reported they arbitrarily decided upon interventions which may or may not have provided continuity to the patient's care or they had to seek a staff nurse who might know about the particular patient's care. It may be that a specific clinical area might use a combination of SCPs, for reference, and a different plan format which allows individualized nursing diagnoses to be written. It may be that the individual patient's plan may be best located at the bedside where the patient could be truly a partner in his/her own health care.

The study has demonstrated what administrators have known for years; NCPs are not written. Clearly, the use of a completed, but perhaps not current, NCP cannot be the

determinant of the quality of nursing care provided, nor can it be used to determine patient classification and nursing intensity. Clinical area specific patient outcomes need to be identified so that evaluation of care can be determined by outcome measurement as well as by process evaluation. The plan of care, whatever the format, must be a permanent part of the patient's record so that retrospective chart audits can determine the overall effectiveness of the care and the tool. Lastly, evaluation must be made the responsibility of the nurse providing the care over the course of the hospitalization. Kerfoot (1990) advocated that the bedside nurse be given the authority to develop the plan and to assess the quality of care provided, including whether the process met regulatory standards for designated patients. The nurses must also be able to influence the system to make changes that the evaluation determined were necessary.

That there was a need for care references, whether they be called SCPs or protocols and procedures was evident. They were particularly useful for new staff, for all staff unfamiliar with particular situations and for part time staff. The respondents who were involved at all in the development of these tools spoke positively about their use and about their revision. Again, this speaks to administration involving the practising nurse in the development and regular revision of the standards for care

and the tools needed to help meet these standards.

Nursing administrators can assist the general duty nurse in developing a level of comfort, confidence and competence with developing individualized plans by having inservice on a sequential basis and available in the clinical areas. Time must be allotted for the nurses to participate in this continuing education and for the development/revision of care plans. New graduates need assistance as they make the transition from the academic NCP to the working NCP.

A premise of the study was that if the NCP was found to be not acceptable and not prove useful as a communication tool to the RNs that it should be modified or not used. It was not acceptable, whether a SCP or NCP, for it was not modified. It was however, used. It was evident that nurses wanted information about the individual patient - specific needs, workable independent interventions plus interdependent interventions. Therefore the plan format needs to be modified so it meets the needs of the bedside nurse. The format modifications will require ongoing evaluation and revision as necessary.

Nursing Research

The actual writing/revising behaviour reported in this study needs to be verified through deliberate observation of

NCP behaviours or a chart audit. Social desirability bias may have been a factor in this study. Qualitative research would be beneficial in order to delve further into the reasons for not writing NCPs. Research into the most effective way to communicate a plan of care should be conducted. It may be that nurses in the different clinical areas need different plan communication tools. The research into information and format needs of the nurses and hospital in each clinical area would assist nursing administration and practising nurse work teams develop effective care plan tools. Practising general duty nurses need to be actively involved in this research as investigators.

The data obtained in this study should be further analyzed so that interactions between variables are studied completely. This may assist in identifying factors which do impact on writing behaviours and which could be acted upon in the acute care hospital so that plans of care are effective tools.

This study needs to be replicated with other segments of the nursing profession both within the hospital system and in the community. Health care reform has as its emphasis, a move from high cost illness care in hospital to health promotion and maintenance activities in the community. Is the NCP a valuable communication tool between hospital nurses and home care nurses; between home care nurses; and between hospital, home care nurses and community

health or wellness centre nurses or in long term care settings? What information is needed by these nurses so that continuity of care is maintained and in what format must it be communicated? The research needs to ask the nurses what effect the use of the NCP for the provision of nursing care has on patients' care and about the utility of the plan for nurses. Would a multidisciplinary plan of care be more effective than a one discipline care plan?

Further evaluative research needs to be done to determine what patients perceive 'quality nursing care' to be for an episode of nursing care in an acute hospital. Does the presence and use of the plan make a difference to these identified factors? The respondents who used the NCP to help provide care said it helped them continue specific nursing interventions, to set priorities for the patient and for the nurse's day. Did the use of the NCP by the nurses actually accomplish these outcomes or could they have been achieved using other plan formats? The purposes and outcomes for the other stakeholders in the acute care setting should be also investigated.

Nursing Practice

The findings of this research suggest that the general duty nurse receives little positive feedback from head nurses or colleagues in relation to a documented functional plan of care. It is suggested that recognition for such plans could be given by head nurses and others in perceived positions of power. Huckabay and Neal (1979) found their high NCP writers reported more positive social reinforcement for their plans. The modelling of this behaviour by other staff nurses and nurse educators could result in peer recognition for functional plans. This positive feedback would lead to strengthening the desired behaviour which has the potential to result in further positive reinforcement of the behaviour as well as increased job satisfaction (Attridge & Callahan, 1987). Nurses need to know their work does make a difference. They need to know that their professional nursing work is valued by the organization and by their peers.

The respondents' high reported use of the NCP to help them provide nursing care has a further implication for general duty nurses. Nursing colleagues in specific clinical areas or units, regardless of their employment status, need to discuss the information they require documented so that continuity of individualized planned care is facilitated. Nurses expressed concern that other nurses

might not agree with a plan and therefore would not follow it. Consequently they questioned the value of writing/ revising NCPs. Nurses should encourage each other to write this information, use it and then determine through discussion and evaluation if it had any effect for the patient, the nurses and nursing administration. The discussion of clinical judgements, by peers, would foster professional growth and personal satisfaction for nurses. It also might assist nurses to understand that there is no one perfect way to provide care, but that what has been developed by the patient and a nurse, if effective, should be continued.

In the delivery of nursing care with the new staff mix, the unlicensed nursing assistant helps the professional nurse provide care; the professional nurse is responsible for delegating aspects of patient care and for the direct supervision of the care provided (MARN, 1991). What are the implications of incomplete or not current NCPs for the delegation of basic nursing activities to this nursing team member?

Nursing Education

The acceptance, by nursing, of the nursing process as the core of nursing practice has meant that nursing students learn the purposes and use of the nursing process in their

nursing education program. The preparation of written NCPs for patients nursed in supervised clinical practicums has been a major focus in nursing education; and NCPs have been a valued means of evaluating students' progress in learning nursing. The written NCP and nursing process have been and are valuable tools for teaching the process of nursing care, particularly for beginning students. However, there are several issues. Nursing educators must question what they are measuring when evaluating a student's progress based upon a written NCP. Is it clinical practice and growth in making clinical judgements using the nursing process, or is it ability to follow directions and write nursing diagnoses, expected outcomes, interventions and evaluative statements as required by the NCP assignment format? Is there acknowledgement of the art of nursing or the grasping of the total view or the intuitive part of nursing? What is the value of writing a NCP using the nursing process for the beginning student and for the senior student? If practising nurses do not write NCPs as currently formatted should nursing educators still be emphasizing the traditional NCP as the tool for nursing?

Implications arise for the CNA's Registration/ Licensure Committee which has developed registration examinations based upon competencies expected of the beginning graduate. The nurse is responsible for writing and revising the plan of care. The new graduate will be

required to know how to write/revise plans for the national registration examinations, yet practising nurses have reported they do not write/revise NCPs. Fonteyn and Cooper (1994) suggest that teaching students the use of the nursing process fosters the development of basic problem solving skills but not creativity or individualization of care. Should nursing educators be encouraged to use alternative approaches such as case studies, as suggested by Fonteyn and Cooper (1994), to foster this creativity and individualized care? The Manitoba Association of Registered Nurses, while emphasizing the use of a problem solving methodology, has changed its practice standards to facilitate the use of alternative methods of making clinical nursing decisions by the practising general duty nurse. Should nursing educators, education programs and national requirements for registration encourage the use of alternative methods of determining clinical nursing decisions in addition to the nursing process? If so, should the traditional NCP be portrayed as the sole tool for the communication of the planned care?

It was the student NCP which was incorporated into the nursing practice tool; yet the two have different, although related purposes. Nursing educators need to develop an awareness in their students of the difference between the tools as well as the rationale for the differences. They need to discuss the similarities and differences in the

formats encountered in the various clinical areas and community agencies and the merits of the various formats for the patient and the nurse within the given nursing context. The names of the various formats or 'charting systems' should be familiar to the students particularly as they learn to use them.

To facilitate the transition from student to practitioner role senior nursing students should be encouraged to prepare 'working' care plans and determine their effectiveness in the clinical area, not only in terms of patient outcomes but in terms of utility to fellow nursing students or ward staff. Nurses reported they did not write NCPs as other nurses might not agree with the plan or carry it out. Students should be encouraged to discuss and question plans of care for patient situations within the safe environment of student clinical groups. The involvement of the general duty nurses as experts in some of these discussions would assist the students in seeing how experienced nurses make clinical nursing decisions. This would foster collegial discussion of care as graduates and ensure that future nurses are comfortable with such discussion.

Nursing

Nursing has, to this point in time, albeit with some debate, accepted the nursing process as its methodology and the NCP as evidence that the process has been carried out. A plan may be evidence that the process has been used, but it is not evidence that the planned care has been provided or indeed, that it was effective. Nursing as a profession must ensure that both process and outcome measurements are used to determine the effectiveness of nursing care. Nursing, as a profession, must ensure that standards do not limit the practice of nursing to a basic level by requiring the use of a methodology which may be limiting.

Nursing must ask why there is such an array of terms used for a plan. Should the plan not just be called a plan? Nurses were not sure about the terms used to describe the different formats, or about nursing diagnoses. Nurses felt guilty because they do not use the formal NCP learned in nursing school. This should not be. In the acute care world they may not have the time to reflect upon their decision making processes nor are they encouraged or rewarded for doing so. Students and new practitioners are socialized into this acute nursing care milieu which does not recognize the value of nursing knowledge. The mentoring of new practitioners so that nursing knowledge and practice wisdom is valued by nursing practitioners needs to become a

focus for the profession as a whole. These are issues that nursing must address for the bedside practitioner and for the profession.

Lastly, the results of this study would appear to support the changes made in the Standards of Nursing Practice: Direct Care Provider (MARN, 1994) which charge the professional nurse with the responsibility and accountability for providing care through the use of a sound knowledge base, a problem solving approach and a plan of care. Although still emphasizing an analytic approach to nursing care as the methodology, the latitude in the new standards should promote the use of practice wisdom and the art of nursing as well as analytic thought. The respondents indicated that the required NCP writing/revising behaviour was not carried out; and yet they also stated that planned care was critical for continuity and comprehensiveness of patient care. The felt guilt for not using the nursing school NCP may be minimized through the use of the new practice standards. This will need to be evaluated as well as whether newly developed care plans using a sound knowledge base and practice wisdom are documented and useful to the practitioner. The national professional nursing and hospital accreditation standards need to be revisited. As nursing's role continues to evolve at even a faster pace than in the past, nursing needs to be ever cautious so as not to define itself as it is today, but as it should be so

as to meet tomorrow's needs and expectations. Nursing must influence the development of standards which truly measure quality and reflect the practice of nursing.

In summary, there are micro and macro implications for nursing as a result of this study. The practising general duty nurse in the acute care hospital milieu did not find the present NCP or SCP to fully meet their needs and do not write NCPs or modify SCPs as required by patients' changing conditions in the acute care hospital. This impacts upon professional and accreditation standards which require current care plans for each patient; the standards are no longer a measure of accountability. The accuracy of the data base for the general duty nurse and the nurse administrator is also affected. In turn, if the presence of a care plan does impact upon a care, continuity of care will be compromised for the patient.. or will it?

Nurses do however, have positive attitudes towards planned care and want specific information concisely documented in easy to use format that can be used to help provide individualized care. They also want references for unusual medical conditions encountered in their areas. To achieve the goals expounded for a plan of care, the nurse must write/revise/modify the plan so that it is current. General duty nurses must be involved in the development and evaluation of standards and tools which facilitate the practice of nursing in the judgement of the practitioner.

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APPENDIX A

UNIVERSITY OF MANITOBA

FACULTY OF NURSING ETHICAL APPROVAL

The University of Manitoba

FACULTY OF NURSING
ETHICAL REVIEW COMMITTEE

APPROVAL FORM

Proposal Number N#93/20

Proposal Title: "ATTITUDES OF REGISTERED NURSES WHO PRACTISE IN ACUTE CARE HOSPITALS IN AN URBAN CENTRE OF MANITOBA TOWARDS WRITING NURSING CARE PLANS (NCPs)."

Name and Title of Researcher(s): DONNA MEDER, RN
MASTER OF NURSING GRADUATE STUDENT
FACULTY OF NURSING, UNIVERSITY OF MANITOBA

Date of Review: APRIL 05, 1993.

APPROVED BY THE COMMITTEE: APRIL 05, 1993.

Comments: APPROVED WITH CHANGES SUBMITTED ON APRIL 16, 1993.

Date: APRIL 19, 1993.

Karen I. Chalmers, PhD, RN — Chairperson
Associate Professor
University of Manitoba Faculty of Nursing

Position

NOTE:
Any significant changes in the proposal should be reported to the Chairperson for the Ethical Review Committee's consideration, in advance of implementation of such changes.

Revised: 92/05/08/se

APPENDIX B

MANITOBA ASSOCIATION OF REGISTERED NURSES

BOARD & RESEARCH COMMITTEE APPROVAL

Manitoba Association of Registered Nurses
647 Broadway, Winnipeg, Manitoba R3C 0X2 (204) 774-3477
Toll Free: 1-800-665-2027 (Manitoba only.)
Fax: (204) 775-6052

May 17, 1993

Donna Meder
226 Raquette St.
Winnipeg, Mb
R3K 1N6

Dear Donna Meder:

I am pleased to inform you that at the May 4-5, 1993 meeting of the MARN Board of Directors, approval was granted for release of membership names for your study "Attitudes of Registered Nurses Who Practise in Acute Care Hospitals in an Urban Centre of Manitoba towards Writing Nursing Care Plans".

Please contact Anita Mayer, Computer Systems Coordinator at your earliest convenience.

Yours truly,

Dorothy Froman RN,BA,BSN,MN
Consultant, Professional Development

DF/lk
LETTER/LYNNE

APPENDIX C

SELF-REPORTED NURSING CARE PLAN WRITING/REVISING BEHAVIOUR QUESTIONNAIRE

NCP Writing/Revising Behaviour Qustionnaire

1a. Do you use a standard care plan (SCP) at your place of work?

[1] Yes
[2] No **[GO TO QUESTION # 2].**

1b. Do you modify the SCP to meet your patient's needs?

[1] Yes
[2] No **[GO TO QUESTION # 4]**

1c. Do you ...

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

... individualize SCPs for your patients?

[SKIP TO QUESTION # 4]

2. Do you.....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

... initiate writing individualized NCPs for your patients on their admission to hospital?

3. When your patients' conditions change do you.....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

.... revise their NCPs ?

4. Do you write/revise NCPs more regularily during:

[1] Day shifts
[2] Evening shifts
[3] Night shifts
[4] Not applicable
[5] Equally on all shifts worked

APPENDIX D

NURSING CARE PLAN ATTITUDE SCALE (NCPAS)

NURSING CARE PLANNING ATTITUDE RATING SCALE

Please check the column of response following each statement that most nearly represents your opinion about the statement.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
1. The written systematic planning of nursing care is an important professional responsibility.					
2. Each of my patients needs a nursing care plan.					
3. Setting patient priorities does not really help me in writing nursing care plans.					
4. My employing agency should set aside time for me to plan nursing care.					
5. Most nurses place too much emphasis on planning nursing care.					
6. Nursing care plans are not valuable.					
7. Planned nursing care tends to improve patient care.					
8. Nursing care plans are vital to patients who are chronically ill, e.g., with diabetes.					
9. Writing nursing care plans takes up too much of my time.					
10. Writing nursing care plans is a more appropriate activity for students than for staff nurses.					
11. Head nurses should reward the writing of nursing care plans as much as other aspects of patient care.					
12. Continuity of nursing care depends on written nursing care plans.					
13. I feel very confident of my ability to plan individualized patient care.					

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
14. Nurses should assume more responsibility for planning as well as giving care.					
15. Evaluation of nursing care is easier with a written nursing care plan.					
16. Writing nursing care plans is more important to nurse educators than to other nurses.					
17. Skilled nurses do not need to rely on nursing care plans.					
18. Short-term patients cannot benefit from skillful planning of nursing care.					
19. There is little need for nursing care plans when there is good communication on a unit.					
20. Nursing care plans are vital to patients who are critically ill, e.g., with acute myocardial infarction.					
21. Developing nursing care plans for my patients poses no intellectual challenge for me.					
22. Once patients are up ad lib they do not need a nursing care plan.					
23. I expect to spend a minimum amount of time writing nursing care plans.					
24. Nursing care plans sometimes are a delusion.					
25. With nursing care plans, patients receive more individualized care.					
26. Planning helps to coordinate patient care.					
27. I find it very satisfying to develop individualized plans of nursing care.					
28. Patients who are convalescing from surgery without complications don't really need nursing care plans.					

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
29. Nursing administrators should encourage the writing of nursing care plans as much as other aspects of care.					
30. I would like to be able to write better nursing care plans for my patients.					

Modified from E. Ruth Yurchuk's Nursing Care Planning Attitude Rating Scale by Jo Ann Thomas with permission of the author. Psychometric evaluation of the tool done by S. Oetker Black, R.L. Taunton, J.A. Thomas, and S. Krampitz with eleven of twelve items revised based on the data collected (1989).

APPENDIX E

PROFESSIONAL AND DEMOGRAPHIC CHARACTERISTIC QUESTIONNAIRE

Professional and Demographic Characteristics Questionnaire

1. What is your area of clinical practice or speciality ?

[1] Surgery
[2] Medicine (includes Geriatrics)
[3] Obstetrics / Gynecology
[4] Pediatrics / Neonatology
[5] Psychiatry
[6] Intensive Care (ICU)
[7] Emegency
[8] OR / RR
[10] L & D

2. How many years have you worked in this clinical area ?

[96] Less than one year
[ ] _____ years

3. Are you presently working on a :

[1] Part time basis
[2] Casual basis
[3] Full time basis
[4] Unemployed

4. What was your basic nursing education program?

[1] Diploma graduate
[2] Baccalaureate graduate

5. What is the highest level of nursing eduction you have attained or are currently working towards?

[1] Nursing diploma
[2] Baccalaureate degree
[3] Post diploma baccalaureate degree
[4] Masters in nursing
[5] Post diploma certificate

6. In what year did you complete your highest level of nursing education or is it in progress?

a. [1] Completed [2] In progress

b. _____ year completed
c. _____ year expected to complete

7. How many years have you practised as a RN?

[96] Less than one year
[2] _____ years

8. Where did you first learn about the nursing process and nursing care plans? In:

[1] Your initial nursing education program
[2] Work inservice programs
[3] Continuing education workshops
[4] Continuing formal education such as BN for diploma nurses, refresher program

9. Approximately how many years have you been writing nursing care plans as a RN?

[96] Less than one year
[2] _____ years

10. In what age group do you belong?

[1] 21 or under
[2] 22- 30 years
[3] 31-40 years
[4] 41- 50 years
[5] 50 years or more

APPENDIX F

INTERVIEW SCHEDULE ONE

Interview Schedule One

PRE AND POST QUESTIONNAIRE SCRIPT

(i) Hello. May I speak to _____**[FIRST NAME]**. Thank you. **[IF NOT AVAILABLE ASK WHEN IT MIGHT BE A GOOD TIME TO CALL BACK OR STATE YOU WILL CALL BACK. WRITE TIME/DAY FOR CALL BACK ON SCHEDULE. CALL BACK AT THAT TIME]**.

(iia) Hello _____ **[FIRST NAME]**. My name is Donna Meder. I am a master of nursing student at the University of Manitoba. I am completing my thesis on the use of the nursing care plan (NCP) by general duty RNs in Manitoba. My proposal has been approved by the Ethical Review Committee of the Faculty of Nursing. With your permission, I would like you to answer a few questions to help me with this study. It will take about 20-25 minutes. You may withdraw at any time. Is this a convenient time for you?

[Yes - CONTINUE. GO to iii]

[NO - arrange for another time]

When would be a more convenient time today/tomorrow?
_____
Good. I will call back at_____
today/tomorrow. Goodbye and thank you. **[MARK TIME FOR RECALL ON SCHEDULE]**.

[NO - doesn't wish to participate]

You would rather not participate? That's fine. I thank you for your time and for listening. Good bye.

(iib) Hello_____ **[FIRST NAME]**. My name is _____. I'm calling on behalf of Donna Meder, a master of nursing student at the University of Manitoba. She is completing her thesis on the use of the nursing care plan by general duty RNs in Manitoba. Her proposal has been approved by the Ethical Review Committee of the Faculty of Nursing. With your permission, I would like you to answer a few questions to help her with this study. It will take about 20-25 minutes. You may withdraw at any time. Is this a convenient time for you?

[Yes - CONTINUE. GO to iii]

[NO - arrange for another time]

When would be a more convenient time today/ tomorrow?

_____

Good. I will call back at_____
today/tomorrow. Goodbye and thank you. **[MARK TIME FOR RECALL ON SCHEDULE]**.

[NO - doesn't wish to participate]

You would rather not participate? That's fine. I thank you for your time and for listening. Good bye.

(iii) Thanks. Your answers will remain confidential and anonymity is assured as only grouped responses will be reported in the thesis results. Your name and phone number were obtained from the MARN after this thesis was approved by the MARN Research Committee and Board. The list will be returned to the MARN at the study's completion and the surveys will be secured in a locked file.

Before I begin the actual survey would you confirm that you nurse in one of the acute care hospitals within the city of Winnipeg?

[1] Yes **[CONTINUE]** [2] No **[GO TO V]**

_____

CONDUCT INTERVIEW

_____

(iv) Thank you for your participation. This study would not have been possible without your thoughtful answers. If you should have any questions, please do not hesitate to call (myself) Donna Meder at 837 4741. A copy of the completed thesis will be available in the University of Manitoba library. As well, a summary of the results of this study will be sent to MARN's Nurscene newsletter for possible publication. Again, thank you.

(v) No? I'm sorry that I have interrupted your _____ **[DAY, EVENING]**. Your willingness to participate in the survey is appreciated, however since the thesis is looking at the use of NCPs by nurses who nurse in acute care hospitals within the city of Winnipeg I am unable to include you in the survey. Thanks you for your interest and time. Good bye.

INTERVIEW SCHEDULE

NAME:_____ ID #_____

PHONE #:_____ INTERVIEWER :_____

DATE/TIME ACTUAL INTERVIEW:_____

DATE/TIME 1ST CALL:_____ REFUSED_____

CALL BACK REQUESTED- DATE/TIME:_____

DATE/TIME 2ND CALL(no answer @ #1)_____

DATE/TIME 3RD CALL(no answer @ #2) _____

I'll begin the survey by asking you some specific questions about NCPs.....

1 a. Do you use a standard care plan (SCP) at your place of work?

[1] Yes

[2] No **[GO TO QUESTION # 2].**

b. Do you modify the SCP to meet your patient's needs?

[1] Yes

[2] No _____ **[GO TO QUESTION # 5]**

c. Do you ....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

... individualize SCPs for your patients?

[SKIP TO QUESTION #4]

2. Do you.....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

... initiate writing individualized NCPs for your patients on their admission to hospital?

3. When your patients' conditions change do you.....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

.... revise their NCPs ?

4. Do you write/revise NCPs more regularly during:

[1] Day shifts
[2] Evening shifts
[3] Night shifts
[4] Not applicable
[5] Equally on all shifts worked

5. When you hear the term NCP what is your first thought ?
[PROMPT IF NECESSARY] Can you think of anything at all?

[2] NO thoughts.

_____

_____

_____

and your second?_____

_____

_____

6. Do you use NCPs to assist you to provide nursing care?

a. [1] Yes **[GO TO B]**

[2] No **[GO TO C]**

6. b. Could you briefly explain how?
[PROMPT] Think of your average day providing nursing care. How do you use nursing care plans?

_____

_____

_____

c. Would you briefly explain your answer?
[PROMPT] Is there any special reason for not using NCPs when providing nursing care?

_____

_____

_____

Next, I will read a series of statements.

Would you tell me whether you strongly agree, agree, are uncertain, disagree, or strongly disagree with them.

[IF NECESSARY, PROMPT WITH "Do you strongly agree, agree, are uncertain, disagree, or strongly disagree with the statement I just read ?" **]**

7. The written systematic planning of nursing care is an important professional responsibility.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

8. Each of my patients needs a nursing care plan.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

9. Setting patient priorities doesn't really help me in writing nursing care plans.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

10. My employing agency should set aside time for me to plan nursing care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

11. Most nurses place too much emphasis on planning nursing care.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

12. Nursing care plans are not valuable.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

13. Planned nursing care tends to improve patient care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

14. Nursing care plans are vital to patients who are chronically ill with conditions such as diabetes.

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[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

15. Writing nursing care plans takes up too much of my time.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

16. Writing nursing care plans is a more appropriate activity for students than for staff nurses.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

17. Head nurses should reward the writing of nursing care plans as much as other aspects of patient care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

18. Continuity of nursing care depends on written nursing care plans.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

19. I feel very confident of my ability to plan individualized patient care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

20. Nurses should assume more responsibility for planning as well as giving care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

21. Evaluation of nursing care is easier with a written nursing care plan.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

22. Writing nursing care plans is more important to nurse educators than to other nurses.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

23. Skilled nurses do not need to rely on nursing care plans.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

24. Short-term patients cannot benefit from skilful planning of nursing care.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

25. There is little need for nursing care plans when there is good communication on a unit.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

26. Nursing care plans are vital to patients who are critically ill with medical conditions such as acute myocardial infarction.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

27. Developing nursing care plans for my patients poses no intellectual challenge for me.

[1] Strongly agree
[2] agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

28. Once patients are up ad lib they do not need a nursing care plan.

[1] Strongly agree
[2] agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

29. I expect to spend a minimum amount of time writing nursing care plans.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

30. Nursing care plans sometimes are a delusion.

[1] Strongly agree
[2] Agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

31. With nursing care plans, patients receive more individualized care.

[5] Strongly agree
[4] agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

32. Planning helps to coordinate patient care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

33. I find it very satisfying to develop individualized plans of nursing care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

34. Patients who are convalescing from surgery without complications don't really need nursing care plans.

[1] Strongly agree
[2] agree
[3] Uncertain
[4] Disagree
[5] Strongly disagree

35. Nursing administrators should encourage the writing of nursing care plans as much as other aspects of care.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

36. I would like to be able to write better nursing care plans for my patients.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

Lastly.....

37. What is your area of clinical practice or speciality ?

[1] Surgery
[2] Medicine (includes Geriatrics)
[3] Obstetrics / Gynecology
[4] Pediatrics / Neonatology
[5] Psychiatry
[6] Intensive Care / ICU
[7] Emergency
[8] Operating Room / Recovery Room
[10] Labour & Delivery

38. How many years have you worked in this clinical area ?

[96] Less than a year
[ ] _____ years

39. Are you presently working on a :

[1] Part time basis
[2] Casual basis
[3] Full time basis
[4] Unemployed

40. What was your basic nursing education program?

[1] Diploma graduate
[2] Baccalaureate graduate

41. What is the highest level of nursing education you have attained or are currently working towards?

[1] Nursing diploma
[2] Baccalaureate degree
[3] Post diploma baccalaureate degree
[4] Masters in nursing
[5] Post diploma certificate

42. In what year did you complete your highest level of nursing education or is it in progress?

a. [1] Completed [2] In progress

b. _____ year completed
c. _____ year expected to complete

43. How many years have you practised as an RN?

[96] Less than a year
[2] _____ years

44. Where did you first learn about the nursing process and nursing care plans? In:

[1] Your initial nursing education program
[2] Work inservice programs
[3] Continuing education workshops
[4] Continuing formal education such as BN for diploma nurses, refresher program

45. Approximately how many years have you been writing nursing care plans as a RN?

[96] Less than a year
[ ] _____ years

46. Finally, in what age group you belong?

[1] 21 or under
[2] 22- 30 years
[3] 31-40 years
[4] 41- 50 years
[5] 50 years or more

APPENDIX G

INTERVIEW SCHEDULE TWO

Interview Schedule Two

PRE AND POST QUESTIONNAIRE SCRIPT

(i) Hello. May I speak to _____**[FIRST NAME]**. Thank you. **[IF NOT AVAILABLE ASK WHEN IT MIGHT BE A GOOD TIME TO CALL BACK OR STATE YOU WILL CALL BACK. WRITE TIME/DAY FOR CALL BACK ON SCHEDULE. CALL BACK AT THAT TIME]**.

(iia) Hello _____ **[FIRST NAME]**. My name is Donna Meder. I am a master of nursing student at the University of Manitoba. I am completing my thesis on the use of the nursing care plan (NCP) by general duty RNs in Manitoba. My proposal has been approved by the Ethical Review Committee of the Faculty of Nursing. With your permission, I would like you to answer a few questions to help me with this study. It will take about 20-25 minutes. You may withdraw at any time. Is this a convenient time for you?

[Yes - CONTINUE. GO to iii]

[NO - arrange for another time]

When would be a more convenient time today/tomorrow?
_____
Good. I will call back at_____
today/tomorrow. Goodbye and thank you. **[MARK TIME FOR RECALL ON SCHEDULE]**.

[NO - doesn't wish to participate]

You would rather not participate? That's fine. I thank you for your time and for listening. Good bye.

(iib) Hello_____ **[FIRST NAME]**. My name is _____. I'm calling on behalf of Donna Meder, a master of nursing student at the University of Manitoba. She is completing her thesis on the use of the nursing care plan by general duty RNs in Manitoba. Her proposal has been approved by the Ethical Review Committee of the Faculty of Nursing. With your permission, I would like you to answer a few questions to help her with this study. It will take about 20-25 minutes. You may withdraw at any time. Is this a convenient time for you?

[Yes - CONTINUE. GO to iii]

[NO - arrange for another time]

When would be a more convenient time today/ tomorrow?

_____

Good. I will call back at_____
today/tomorrow. Goodbye and thank you. **[MARK TIME FOR RECALL ON SCHEDULE]**.

[NO - doesn't wish to participate]

You would rather not participate? That's fine. I thank you for your time and for listening. Good bye.

(iii) Thanks. Your answers will remain confidential and anonymity is assured as only grouped responses will be reported in the thesis results. Your name and phone number were obtained from the MARN after this thesis was approved by the MARN Research Committee and Board. The list will be returned to the MARN at the study's completion and the surveys will be secured in a locked file.

Before I begin the actual survey would you confirm that you nurse in one of the acute care hospitals within the city of Winnipeg?

[1] Yes **[CONTINUE]** [2] No **[GO TO V]**

_____

CONDUCT INTERVIEW

_____

(iv) Thank you for your participation. This study would not have been possible without your thoughtful answers. If you should have any questions, please do not hesitate to call (myself) Donna Meder at . A copy of the completed thesis will be available in the University of Manitoba library. As well, a summary of the results of this study will be sent to MARN's Nurscene newsletter for possible publication. Again, thank you.

(v) No? I'm sorry that I have interrupted your _____ **[DAY, EVENING]**. Your willingness to participate in the survey is appreciated, however since the thesis is looking at the use of NCPs by nurses who nurse in acute care hospitals within the city of Winnipeg I am unable to include you in the survey. Thanks you for your interest and time. Good bye.

INTERVIEW SCHEDULE

NAME:_____ ID #_____

PHONE #:_____ INTERVIEWER :_____

DATE/TIME ACTUAL INTERVIEW:_____

DATE/TIME 1ST CALL:_____ REFUSED_____

CALL BACK REQUESTED- DATE/TIME:_____

DATE/TIME 2ND CALL(no answer @ #1)_____

DATE/TIME 3RD CALL(no answer @ #2) _____

I'll begin the survey by reading a series of statements.

Would you tell me whether you strongly agree, agree, are uncertain, disagree, or strongly disagree with them.

[IF NECESSARY, PROMPT WITH "Do you strongly agree, agree, are uncertain, disagree, or strongly disagree with the statement I just read ?" **]**

7. The written systematic planning of nursing care is an important professional responsibility.

[5] Strongly agree
[4] Agree
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8. Each of my patients needs a nursing care plan.

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[1] Strongly agree
[2] Agree
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22. Writing nursing care plans is more important to nurse educators than to other nurses.

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25. There is little need for nursing care plans when there is good communication on a unit.

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26. Nursing care plans are vital to patients who are critically ill with medical conditions such as acute myocardial infarction.

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27. Developing nursing care plans for my patients poses no intellectual challenge for me.

[1] Strongly agree
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28. Once patients are up ad lib they do not need a nursing care plan.

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29. I expect to spend a minimum amount of time writing nursing care plans.

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35. Nursing administrators should encourage the writing of nursing care plans as much as other aspects of care.

[5] Strongly agree
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[2] Disagree
[1] Strongly disagree

36. I would like to be able to write better nursing care plans for my patients.

[5] Strongly agree
[4] Agree
[3] Uncertain
[2] Disagree
[1] Strongly disagree

Next I will ask you some specific questions about NCPs.....

1 a. Do you use a standard care plan (SCP) at your place of work?

[1] Yes

[2] No **[GO TO QUESTION # 2].**

b. Do you modify the SCP to meet your patient's needs?

[1] Yes

[2] No _____ **[GO TO QUESTION # 5]**

c. Do you ....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

... individualize SCPs for your patients?

[SKIP TO QUESTION #4]

2. Do you.....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

... initiate writing individualized NCPs for your patients on their admission to hospital?

3. When your patients' conditions change do you.....

[1] Never (0% of the time)
[2] Seldom (33% - 1% of the time)
[3] Often (66% -34% of the time)
[4] Usually (99% - 67% of the time)
[5] Always (100% of the time)

.... revise their NCPs ?

4. Do you write/revise NCPs more regularly during:

[1] Day shifts
[2] Evening shifts
[3] Night shifts
[4] Not applicable
[5] Equally on all shifts worked

5. When you hear the term NCP what is your first thought ?
[PROMPT IF NECESSARY] Can you think of anything at all?

[2] NO thoughts.

_____

_____

_____

and your second?_____

_____

_____

6. Do you use NCPs to assist you to provide nursing care?

a. [1] Yes **[GO TO B]**

[2] No **[GO TO C]**

6. b. Could you briefly explain how?
[PROMPT] Think of your average day providing nursing care. How do you use nursing care plans?

_____

_____

_____

c. Would you briefly explain your answer?
[PROMPT] Is there any special reason for not using NCPs when providing nursing care?

_____

_____

_____

Lastly.....

37. What is your area of clinical practice or speciality ?

[1] Surgery
[2] Medicine (includes Geriatrics)
[3] Obstetrics / Gynecology
[4] Pediatrics / Neonatology
[5] Psychiatry
[6] Intensive Care / ICU
[7] Emergency
[8] Operating Room / Recovery Room
[10] Labour & Delivery

38. How many years have you worked in this clinical area ?

[96] Less than a year
[ ] _____ years

39. Are you presently working on a :

[1] Part time basis
[2] Casual basis
[3] Full time basis
[4] Unemployed

40. What was your basic nursing education program?

[1] Diploma graduate
[2] Baccalaureate graduate

41. What is the highest level of nursing education you have attained or are currently working towards?

[1] Nursing diploma
[2] Baccalaureate degree
[3] Post diploma baccalaureate degree
[4] Masters in nursing
[5] Post diploma certificate

42. In what year did you complete your highest level of nursing education or is it in progress?

a. [1] Completed [2] In progress

b. _____ year completed
c. _____ year expected to complete

43. How many years have you practised as an RN?

[96] Less than a year
[2] _____ years

44. Where did you first learn about the nursing process and nursing care plans? In:

[1] Your initial nursing education program
[2] Work inservice programs
[3] Continuing education workshops
[4] Continuing formal education such as BN for diploma nurses, refresher program

45. Approximately how many years have you been writing nursing care plans as a RN?

[96] Less than a year
[ ] _____ years

46. Finally, in what age group you belong?

[1] 21 or under
[2] 22- 30 years
[3] 31-40 years
[4] 41- 50 years
[5] 50 years or more

APPENDIX H

LETTER TO DR. R. L. TAUNTON

Winnipeg, Manitoba

Canada

November 15, 1991

Roma Lee Taunton PhD RN
School of Nursing
University of Kansas
KS 66103

Dear Dr. Taunton

I read with interest the article Evaluation of a Scale to Assess Nurses' Attitudes Toward Written Care Plans in The Journal of Applied Nursing Research Vol.2, No.2, 1989.

I am a student in the Masters of Nursing program at the University of Manitoba, Winnipeg, Canada. I am in the process of organizing my research project and am reviewing the literature with the idea of researching a question related to written nursing care plans. At this point in time I believe attitude is a primary concern, and would like to discover just what practicing nurses in the province of Manitoba think about the written care plan. Your revised Nursing Care Plan Attitude Scale sounds like it may be just the tool I've been searching for.

Would it be possible to obtain it from you and to utilize it with your permission? Have any other nurse researchers used this tool since it was revised? Would you be able to give me their names and addresses so that I could contact them personally?

I would be pleased to hear from you regarding my request. My home address is as above. My work address is enclosed on my business card.

I do appreciate your help in obtaining the revised scale.

Sincerely

Donna Meder BN

APPENDIX I

PERMISSION TO USE THE NCPAS

December 4, 1991

Jo Ann Thomas, R.N., M.N., C.N.A.A.

Donna Meder R.N., B.N.

Canada

Dear Ms. Meder:

Enclosed is a copy of the Nursing Care Planning Attitude Rating Scale which you requested from Dr. Roma Lee Taunton. I also am sending you a copy of the original twelve items which were revised.

Other nurse reseachers who have requested this information are listed below:

Marlys Ohman

Mary Ann Williams, BSN, RN

Leah J. Mkumbwa

Evelyn Wassenberg, RN, MN

Hopefully, this information will be helpful to you. I would be very interested in obtaining a copy of your completed results. Good luck on your research project.

Sincerely,

Jo Ann Thomas

cc: Dr. Roma Lee Taunton
Dr. Sharon Black

APPENDIX J

OPEN - ENDED QUESTIONS

Open-ended Questions

1. When you hear the term NCP what is your first thought ?

_____

_____

_____

and your second?_____

_____

_____

2. Do you use NCPs to assist you to provide nursing care?

a. [1] Yes **[GO TO B]**

[2] No **[GO TO C]**

b. Could you briefly explain how?
[PROMPT] Think of your average day providing nursing care. How do you use nursing care plans?

_____

_____

_____

c. Would you briefly explain your answer?
[PROMPT] Is there any special reason for not using NCPs when providing nursing care?

_____

_____

_____

APPENDIX K

INTERVIEWER INSTRUCTIONS

Interviewer Instructions

The objective for this investigation is to ask nurses their opinions about nursing care plans (NCPs) and whether they write and revise them. The interview schedule, which you will follow when interviewing them over the telephone, briefly explains this objective. Your job, as an interviewer, is to be a neutral recorder of the nurses' answers to the interview questions. It is most important to the results of this investigation that you do not bias their answers in any way.

The questionnaire will be reviewed with you and we will role play an interview so that you are at ease with the content and process of the interview. It is your responsibility to read this page of instructions, and the interview schedule before the role play. You might want to read the interview schedule aloud to yourself. You should be so familiar with it that it does not sound like you are reading it when doing an interview. If, at any time, you experience problems with an interview or with the schedule, please discuss it with the investigator. In order for the study results to be reliable the interviews must be consistent, that is, as much the same as is possible. Reliability is vital to the investigator and you are the one to make it happen. Thanks.

All responses are to be kept confidential as is any material that might identify the respondent. The respondents will be guaranteed anonymity and confidentiality for their responses. These are an ethical obligation for yourself as a research assistant, as well as for the investigator. Only the subject's first name and telephone number will be written on the schedules, and the schedules will be locked in a cabinet when not being used. You are obliged to not talk about any response, telephone interaction, or identifying data to others.

The initial call will be made in the early evening. If you reach a non working line please indicate this on the interview schedule and notify the investigator. You will give this schedule to the investigator and proceed with another.

If the line is busy, note this on the schedule and retry the number later the same evening. If there is no answer after **four** rings note this on the interview schedule and retry the number the next day in mid-morning. The third attempt, if no answer is obtained, will be made the afternoon of the same day. Mark the time of each call on the schedule. You will only call a number three times. If no answer is obtained on the third attempt please indicate this on the interview schedule and notify the investigator.

When an answer is achieved, follow the interview schedule exactly as it is written. Be polite no matter who answers or how they answer. The interview schedule indicates that

if the nurse is unavailable, you should ask the family member to identify a time when you might call back so as to speak to the nurse. If a child answers, do not insist that the child identify a time. Simply say you'll call back. As well, if the nurse states the time is not convenient, arrange a convenient time, write the time on the schedule and call back at that time. If the nurse refuses to participate in the questionnaire at any time during the call, for whatever reason, accept her decision, thank her and complete the call with a pleasant " That's fine. Thank you for your time. Goodbye". Write any reason(s) given for the non-participation decision on the interview schedule.

Please attempt to use the same tone of voice for all interviews. It should imply that you are neutral in regard to the responses. Do not rush the respondent to make an answer. You must not coerce the respondent into acting or responding in any specific way. In this way uniform, reliable data necessary for the analysis will be realized.

If the respondent does not understand a question, it is to be repeated as it is worded on the interview schedule. Should a question be asked regarding a question(s) in the survey, ask if she wants the question and the possible answers repeated. Suggest that the respondent call the investigator with the question and provide the phone number again.

Record the open-ended questions verbatim; if the respondents talk quickly state "Just am moment please, I am want to write exactly what you are saying down." As soon as an interview has been completed please review the interview schedule to ensure that it is completed and legible. Ensure that the open-ended questions are completed as the interviewee intended. Lastly, should concerns arise, please do not hesitate to discuss them with the investigator. Enjoy your interactions.

APPENDIX L

NCPAS MEAN SCORES

BY

PROFESSIONAL AND DEMOGRAPHIC

CHARACTERISTICS

NCPAS MEAN SCORES BY PROFESSIONAL AND DEMOGRAPHIC VARIABLES FOR TOTAL SAMPLE (N = 350)

Variable	Number	Mean	SD
Pattern NCP	143	114.8112	12.0649
Pattern SCP	166	114.8494	11.3611
Pattern No SCP No NCP	41	105.5366	12.6374
Clinical Area			
L & D	18	107.6111	12.2960
Surgery	68	113.1765	10.4666
Medicine	79	117.0633	11.8801
Obs & Gyne	32	112.2813	12.1635
Peds & Neonatology	41	117.3171	9.9510
Psychiatry	10	122.3000	9.0683
ICU	49	109.6327	13.1350
Emergency	19	112.2632	13.5722
OR & RR	34	111.7059	13.2288
# of Years Exp. in Clinical Area			
< 1 year	24	116.4583	7.9945
1 - 4.9 years	118	113.3136	12.5144
5 - 9.9 years	91	115.5714	10.6303
10 - 14.9 years	51	113.5098	11.7820
15 - 19.9 years	41	111.1951	15.6736
20 - 30 years	25	111.1600	12.6050
# of Years Exp.as RN			
Less than 6 years	96	115.2083	12.2560
6 - 18 years	173	114.2832	10.6212
19 - 37 years	81	110.8519	14.5242
Employment Status			
Part time	180	113.1167	11.9231
Casual	30	116.8000	10.3271
Full time	136	113.8750	12.9297
Unemployed	4	114.5000	2.5166
Basic Nrsg Ed Program			
Diploma	322	113.3106	12.2499
Baccalaureate	28	118.7143	9.7405
Highest Nrsg Ed			
Diploma	226	113.1062	11.6907
Baccalaureate	28	118.7143	9.7405
Post RN Baccalaueate	46	116.6957	13.4377
MN	1	104.0000	.0000
Post RN Certificate	49	111.2653	13.2787
Recency of Highest Ed			
1956 - 1970	47	111.4043	10.5659
1971 - 1988	183	113.8306	12.2146
1989 - 1993	79	113.5190	12.2252
1994 +	41	116.4634	13.2252

NCPAS MEAN SCORES BY PROFESSIONAL AND DEMOGRAPHIC VARIABLES FOR TOTAL SAMPLE (N = 350) Cont'd

Variable	Number	Mean	SD
Where First Learned NCP			
Initial Nrsg Program	299	114.0870	12.3154
Inservice	37	112.0811	11.1440
Workshops	5	107.8000	14.0961
Continuing Formal Ed.	9	112.4444	9.2886
# Years Exp. Writing NCP as RN			
Less than 3 years	85	112.9859	12.9859
3.5 - 11.5 years	162	115.6420	10.7129
12 - 30 years	82	112.5366	13.4488
Age Group			
21 or under	1	101.0000	.0000
22 - 30 years	101	114.6733	11.5578
31 - 40 years	135	114.6148	11.7917
41 - 50 years	94	112.2660	13.6745
50 + years	19	110.5789	8.6751
Use NCP to Help Provide Nursing Care			
Yes	267	116.6816	10.1270
No	83	104.2892	13.2881
Mean Score for Total Sample	350	113.7429	12.1456

APPENDIX M

NCP WRITING/REVISING BEHAVIOUR MEAN SCORES BY PROFESSIONAL AND DEMOGRAPHIC CHARACTERISTICS

NCP WRITING/REVISING BEHAVIOUR MEAN SCORES
BY PROFESSIONAL AND DEMOGRAPHIC CHARACTERISTICS
FOR PATTERN NCP SAMPLE (n = 143)

Variable	Number	Mean	SD
Pattern NCP	143	6.2797	2.1375
Clinical Area			
L & D	3	7.0000	2.6458
Surgery	24	5.6667	1.8337
Medicine	51	6.4706	2.1010
Obs & Gyne	10	5.4000	1.3499
Peds & Neonatology	13	6.4615	2.1454
Psychiatry	6	6.6667	2.1602
ICU	18	6.7222	2.3962
Emergency	8	6.6250	2.5036
OR & RR	10	5.9000	2.8460
Years Experience in Clinical Area			
< 1 year	10	5.5000	2.1731
1 - 4.9 years	51	6.2745	2.0404
5 - 9.9 years	41	6.3902	2.1550
10 - 14.9 years	19	5.8947	2.3545
15 - 19.9 years	18	6.8333	2.1761
20 - 30 years	4	6.5000	2.3805
Years of Experience as RN			
Less than 6 years	42	6.3095	2.0658
6 - 18 years	74	6.2162	2.0625
19 - 37 years	27	6.4074	1.9142
Employment Status			
Part time	68	5.8088	2.0389
Casual	12	7.0000	2.5226
Full time	60	6.7333	2.0819
Unemployed	3	5.0000	1.7321
Basic Nrsg Ed Program			
Diploma	132	6.3182	2.1625
Baccalaureate	11	5.8182	1.8340
Highest Nrsg Ed			
Diploma	94	6.1809	2.1451
Baccalaureate	11	5.8182	1.8340
Post RN Baccalaueate	25	6.5600	2.0632
MN	1	7.0000	.0000
Post RN Certificate	12	6.8333	2.6227
Recency of Highest Ed			
1956 - 1970	14	6.7143	2.1278
1971 - 1988	74	6.1216	2.2510
1989 - 1993	32	6.5625	2.0625
1994 +	23	6.1304	1.9142

NCP WRITING/REVISING BEHAVIOUR MEAN SCORES
BY PROFESSIONAL AND DEMOGRAPHIC CHARACTERISTICS
FOR PATTERN NCP SAMPLE (n = 143) Cont'd

Variable	Number	Mean	SD
Where First Learned NCP			
Initial Nrsg Program	126	6.2619	2.1473
Inservice	12	5.8333	1.8990
Workshops	0	.0000	.0000
Continuing Formal Ed.	5	7.8000	2.1679
Years Experience Writing NCP as RN			
Less than 3 years	36	6.0278	1.9926
3.5 - 11.5 years	67	6.5672	2.1548
12 - 30 years	35	6.0857	2.1878
Age Group			
21 or under	1	6.0000	.0000
22 - 30 years	39	6.1282	1.8663
31 - 40 years	57	6.1404	2.2236
41 - 50 years	39	6.6154	2.4019
50 + years	7	6.4286	1.5119
Use NCP to Help Provide Nursing Care			
Yes	117	6.5470	2.0865
No	26	5.0769	1.9783
Mean Score for Total Sample (n = 143)	143	6.2797	2.1375