DOES GRADUATE EDUCATION GRANT GREATER VISIBILITY TO THE WORK OF THE NURSE? A LITERATURE REVIEW OF PERCEPTIONS OF THE CNS ROLE.

by

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Abstract

An integrative literature review was undertaken to gain a better understanding of perceptions of the CNS role. With no limitation placed on publication dates, the search results yielded studies published in three distinct decades: the 1980’s, 1990’s and the first ten years of the new millennium. This integrative literature review was approached from a feminist perspective in recognition of the predominance of women in the profession. Twelve studies were included in the review. These peer reviewed studies include explorations of perceptions of physicians, staff nurses, patients, nursing administrators and CNSs themselves. Reported perceptions of the CNS role were generally positive; however, perceptions were sometimes clouded by a lack of communication or perceived lack of availability. CNSs, as nurse leaders, may find this review of the literature valuable for determining which professional activities have potential to raise the visibility of their work.
Introduction

In Canada the two Advanced Practice Nursing (APN) roles are the Nurse Practitioner (NP) and the Clinical Nurse Specialist (CNS) (CNA, 2008). The CNS is an advanced practice designation for nurses who have obtained graduate education and clinical expertise working with a specific patient population. The CNA defines the CNS as:

“A registered nurse who holds a master’s or doctoral degree in nursing with expertise in a clinical nursing specialty; uses in-depth knowledge and skills, advanced judgement and clinical experience in a nursing specialty to assist in providing solutions for complex health-care issues” (2008, p.40).

Both the NP and CNS roles encompass four essential competencies: clinical expertise, leadership, research consultation and collaboration (CNA). All four competencies are essential to the role enactment; however, this literature review was undertaken with an appreciation for the essential leadership competency. The CNS role was chosen for the focus of this review because the CNS role represents a leader amongst nurses. In both our professional and personal lives we look to our leaders to represent who we are within non-peer groupings. The CNS is first and foremost a registered nurse. As such, he/she represents nursing both in the clinical setting and during consultation and collaboration within the complex hierarchies within healthcare systems.

The work of nurses has often been deemed invisible within an economic landscape that calls for visibility and accountability. The inability of the nursing profession to clearly articulate and quantify many essential aspects of nursing care has made registered nurses vulnerable to replacement by other healthcare providers trained to fulfill the tasks traditionally done as part of nursing care. Nurses themselves recognize the value of the invisible work they do, but other
stakeholders and decision-makers may lack an awareness of the impact those contributions by nurses have on patient care and outcomes. Tourangeau (2006) illustrates this invisibility of nursing care in her description of data collected in the Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD). While the DAD contains extensive data, including medical care and outcomes, from hospitalized patients across Canada the database lacks any recording of nursing interventions, categories of nursing personnel providing care or nurse sensitive patient outcomes.

The CNS role has similarly been plagued by a lack of visibility within the healthcare mix and subsequently has also been vulnerable to cutbacks and layoffs during times of economic restraint (CNA, 2009). Researchers have exerted a considerable amount of effort exploring the impact of CNSs on patient outcomes. The measurement of those outcomes and the causal linking of CNS activities to improved outcomes remains an ongoing challenge for CNSs and nursing researchers (Ferraro-McDuffie, Chan & Jerome, 1993; Muller, Hujcs, Dubendorf & Harrington, 2010; Naylor & Brooten, 1993; Urden, 1999).

This literature review of peer reviewed publications exploring perceptions of the CNS role was undertaken to gain a deeper understanding of how others see this nurse leadership role. Research articles exploring the perceptions patients, other healthcare professionals including nurses and CNSs themselves, have of CNSs were considered and evaluated for the literature review. A feminist perspective was maintained while reviewing the articles in respect for the significant role gender has played in the evolution of the nursing profession and in the development of perceptions of nurses and CNSs by others and themselves. Considering the CNS role within the context of an evolving advanced practice designation, it was important to not limit the literature review to only include recently published articles. Including articles from a
broad span of time allows for a clearer vision of perceptions of the CNS role as it evolved during the turbulent times of the last century and into the present era of healthcare cutbacks and fiscal restraint. See Appendix A for the list of articles included in this review.

Many articles were eliminated from the review as, upon critical examination, it became clear that the perceptions being studied in the research were of CNSs that did not necessarily have graduate education. As the research question seeks to determine if advanced education leads to increased visibility of nursing work, such research articles were not included in the review. Some of the excluded articles are listed in Appendix B.

**Background**

In 1992, Robinson described humorously coining, in collaboration with her colleagues, the phrase The Black Hole Theory of Nursing to describe the phenomena in which tensions within healthcare systems prevented nurses from envisioning their work within the broad policy context while others were unable to clearly view and “comprehend the nature of nursing’s dilemmas” (p. 636). The lack of visibility of nursing work has been of concern to nurse researchers and scholars for a number of years. Buresh and Gordon (2006) blatantly stated “being unseen and unknown has been a perpetual problem for nursing” (p.14). Buresh & Gordon focus on nursing’s invisibility in the public domain; however, that invisibility has been found to persist in the professional domain as well. The lack of visibility of nursing work is even more mystifying when we consider the large number of nurses required for the delivery of quality healthcare in developed nations. The Australian nurse scholars Duffield et al. (2005) cite O’Brien-Pallas et al’s observation that as the largest labour force in hospitals, registered nurses are “often viewed as costly rather than cost-effective” (p.15). It would seem the cost of nursing
care is easier to quantify and view than the actual work provided in return for the financial remuneration.

Considerable research has been undertaken to demonstrate the effectiveness of nursing care on measurable outcomes to meet these demands of accountability and to justify the costs of employing registered nurses. The measurement of positive patient outcomes in relation to nursing care has been hampered by an inability to tease out the effects of such real world factors as patient characteristics, nature of care provided, context of care, and implementation of the nursing care (Sidani & Epstein, 2003). The invisibility of nursing work has been a persistent problem both in the research and the practice domains of registered nurses.

Since Robinson (1992) so graphically articulated the lack of visibility of nursing dilemmas, much has changed within the profession. One significant change that has occurred has been the increased number of RNs obtaining graduate education. Has the increased number of graduate educated nurses served to dampen those forces limiting the visibility of nursing work?

To answer this question, I chose to explore perceptions of the CNS role. I chose the CNS role rather than the NP role because the CNS functions at the fullest scope possible within the nursing role. The NP role, on the other hand, has been seen, by some scholars, to function within a paradigm that incorporates full scope nursing melded with aspects of the physician role such as prescriptive authority. As Brykczynski (2009) notes, some physicians have viewed NPs as “physician extenders” (p.101). This misperception regarding the NP’s role within the medical paradigm may, in Canada, have been further fostered by the development of the role as a means to provide primary healthcare in rural areas lacking physician coverage (CNA, 2008). The CNS role has experienced significant role ambiguity and confusion; however, the evolving
development of the role has remained more rooted within the traditional paradigm of care provided by nurses.

A background review of the CNS role as a master’s prepared nursing position requires a brief historical exploration of the development of graduate nursing education in Canada and the evolution of the CNS role in Canada.

**Development of graduate nursing programs in Canada**

In Canada, prior to 1959, Canadian nurses who wished to obtain graduate nursing education were required to study outside of Canada to achieve their scholastic goals. Today, Canadian nurses have many options for graduate studies including a variety of distance courses allowing them to study from home. The increased accessibility of graduate education allows nurses, even in rural areas, to achieve educational goals while continuing to work and tend to family responsibilities as needed. In 2008, 7,463 Canadian RNs (2.8%) had obtained master’s education compared to 5,425 in 2004 (2.2%) (CNA, 2010). Dziuba-Ellis, Blythe, and Baumann (2006) cited Canadian Institute for Health Information statistics from 2003 indicating that only 1.9% of Canadian nurses had at that time obtained a master’s or doctorate degree. It is important to view this trend within the historical context. In 1959 only 2 nurses were enrolled in Canada’s only master’s of nursing program at the University of Western Ontario (Ross Kerr, 1988a). CNA statistics from 1968 record that only 501 Canadian RNs had obtained a master’s or doctorate degree representing, a mere 0.5% of the national professional body (1969). The 1968 CNA workforce statistics also record that of those Canadian RNs holding advanced degrees, only 21% had obtained that degree in Canada (p.49).

The trend of increasing prevalence of master’s prepared nurses working in Canada is a result of established policy initiatives to provide higher education for nurses and the demand by
nurses for that available education. Cragg and Andrusyszyn (2005) cite the Canadian Association of Schools of Nursing statistics showing an increase in enrolment in Master’s programs from 1,143 in 1998 to 1,706 in 2002 (p.1). Cragg and Andrusyszyn attribute an increased accessibility due to “more program offerings and the use of distance education methods (p.1)” as facilitating increased enrolment in master’s of nursing programs.

Simultaneous to the trend towards a more educated nursing workforce Canadian nurses have been affected by economic and social trends. Within the economic discourses of scarcity and accountability which permeate present day healthcare systems, nurses have been required to quantify their work. The care that nurses provide includes tasks and actions which are quantifiable as well as components to care which have proven difficult to measure and record. The resulting tabulations of nursing activities have rendered the essential yet non-quantifiable aspects of nursing care invisible. This inability to present nursing work, including the work of CNSs, within the language and classification systems of dominant forces in healthcare such as medicine and administrative hierarchies has left professional RNs vulnerable to replacement by other healthcare providers trained to perform the tasks but lacking the epistemological foundation of the professional nurse.

**Evolution of the CNS role in Canada**

The CNS role was first introduced during the 1960’s in both Canada and the USA. Nurse scholars attribute the evolution of the CNS role to various forces. The Canadian Nurses Association (2008) notes, the CNS role in Canada evolved in the 1970’s in response to the increasing complexity of patient care and served to “provide clinical guidance and leadership to nursing staff managing complex care” (p. 9). Development of the CNS role in the USA has been considered to have been preceded by three forces: increased specialization, new technology, and
public need and interest (Keeling, 2009). Those forces were also present in the healthcare system. Canam (2005) indicates that Canadian CNS role development has been largely driven by the need to “meet the changing health needs of society (p.70).” Scherer, Jezewski, Janelli, Ackerman and Ludwig (1994) advise that the CNS role developed to “provide expertise at the patient’s bedside and to provide opportunities for career advancement to nurses who wanted to give direct patient care” (p.138). It is evident that increased complexity of patient care and the increasing use of sophisticated technology in the delivery of nursing care contributed to growth of the CNS role in Canada.

The Canadian Nurses Association (2009) also indicates that “in times of fiscal cutbacks CNS positions are vulnerable to being reduced or eliminated” (p.2). This admission of the vulnerability of CNS role by the CNA is followed by an indication that the well-established CNS role is confirmed by research as having a positive impact on “the quality and cost of care” (p.2). The two statements by the CNA indicate a disconnection between evidence-based support of the CNS role and economic justification of the role by healthcare decision makers. Observing such inconsistencies between evidence and action provided the initial motivation for me to pursue a further exploration of stakeholders’ perceptions of the CNS role.

What is missing from discussions regarding development of the CNS role is an exploration focused on the personal motivations of nurses to obtain the skills and knowledge to function within the CNS role. It is undeniable that societal forces have supported the development of CNS roles; however, personal conversations between me and CNSs indicate that some nurses obtained graduate education and developed skills to work as a CNS even when such opportunities were non-existent or scarce. While an exploration of personal motivations of CNSs toward career development is beyond the scope of this literature review, it is worth
acknowledging that the development of the CNS role has also been dependent upon RNs desire to engage in professional advancement.

In considering the evolution of the CNS role, it is also noteworthy that inconsistencies still persist regarding the educational background of practicing CNSs. In conducting a qualitative research study of APNs in BC, Schreiber et al. (2005) revealed that 47% of the self-identified CNSs who responded to their study were enacting their CNS role with a nursing diploma as their highest level of nursing education. This inconsistency reflects the ongoing evolution of the CNS role; perhaps the final manifestation of the role has not yet been achieved.

The CNS as a nurse leader

The four advanced practice competencies of the CNS are clinical expertise, research, leadership and consultation and collaboration (CNA, 2008). CNSs enact the leadership competency through thoughtful fulfillment of the other three competencies. As clinical experts CNSs can guide and support fellow nurses in the provision of care for complex and challenging patients. In regards to research, the CNS represents a unique force within the nursing profession; nurses engaged in hands on patient care with the expertise to not only utilize research findings but to generate knowledge through conducting research. The CNS also embodies the leadership role amongst nurses and as a representative of nurses amongst other healthcare professionals as they engage in consultation and collaboration.

The CNA (2008) describes APNs as leaders within organizations and communities as agents of change “seeking effective new ways to practise, to improve the delivery of care, to shape their organizations, to benefit the public and to influence health policy” (p.24). There is a need for these CNS leaders to be visible and make a difference in their organizations; this
literature review was undertaken, in part, to determine if research results supported fulfillment of this competency requirement.

The leadership component of the CNS role has been hard earned. Present day CNSs owe a debt of gratitude to the early CNSs. Classic tensions existed within nursing even in regards to development of the CNS role. Keeling (2009) describes the early controversies within nursing as the APN roles began to develop; the CNS role, developing within the nursing mainstream, caused intra-professional struggles as the role “represented innovations that challenged the status quo of the nursing establishment and the healthcare system” (p.28). Change, even positive change, can be seen as a threat to some professionals including registered nurses.

Statement of Problem

How are CNSs perceived within the healthcare system? The CNS role, much like nursing work in general, has been plagued by a lack of visibility. The CNS is prepared to provide care which can have a positive impact on patient outcomes but also functions and affects changes within the systems sphere of influence. Outcomes within the system sphere have proven difficult to measure; therefore, in some healthcare systems it has been difficult to justify the CNS role. The CNS role has evolved during a time in which more RNs have obtained graduate education. This literature review has been undertaken to determine if that graduate education grants greater visibility to the work of the nurse.
Purpose/Aim of Project

This literature review has been undertaken as partial fulfillment of requirements for completion of the Master of Nursing/Advanced Practice Leadership. Completion of this program of study could partially prepare me to obtain a CNS position. The knowledge gained through completion of this integrative literature review serves to deepen my understanding of expectations and perceptions others may have of the CNS role. Such knowledge can ideally help me in making positive contributions toward the healthcare system in general and in my professional conduct as a leader amongst nurses.

Furthermore, the purpose of this project was undertaken to reveal how healthcare professional’s perceptions may be contributing to the lack of visibility of the CNS role and perhaps even shed some light on the persistent dilemma of invisibility of some key aspects of nursing work in general. Studies exploring the perceptions CNSs have of their own role serve to reveal tensions within the professional body which may be contributing to a lack of clarity.

It is hoped that the knowledge gained from this literature review will help advance the nursing discipline in developing strategies to enhance awareness of the CNS role both amongst non-nurses and nurses.

Research Methods

As indicated, the main purpose of this literature review is to gain a greater understanding of perceptions of the CNS role. The literature review was conducted using an integrative review method. For academic purity, only primary source research reports were included in the review. Polit and Beck (2008) guide the researcher conducting a literature review to rely mostly on primary resources which are “descriptions of studies written by the researchers who conducted
The research articles included in the review were all written in English and published in peer-reviewed journals.

The literature search was conducted using two electronic databases: The Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medical Literature On-Line (MEDLINE). Search words included CNS, Clinical Nurse Specialist, Perceptions of, and Advanced Practice Nurse. The electronic search was complemented by utilizing the ancestry approach and hands-on search of specific nursing journals. Polit and Beck (2008) describe the ancestry method as the use of “citations from relevant studies to track down earlier research upon which the studies are based” (p.110). Three of the earlier works revealed through the ancestry method, Sisson (1986), Walker (1986) and Ingersoll (1988), are cited in numerous journal articles and nursing textbooks reflecting the significant contribution these researchers have made to the nursing discipline. Augmenting the highly technical database searching with hands on review of nursing journals allowed me to more fully appreciate the temporal context within which the studies were conducted. Skimming the journals and noting the research being conducted concurrent with the CNS articles that I was reviewing gave me a more complete understanding of nursing concerns and the context within which the CNS research was being conducted.

I did not place a limitation on research articles based on date of publication. The rationale for including earlier studies was the desire to gain an understanding of the perceptions of the CNS role throughout its evolution. I did intend to limit my search to studies conducted in Canada, USA and the United Kingdom (UK) where the CNS title has been used for a similar length of time and as a means of focusing on studies conducted and published in English.
A criterion for inclusion of research articles in this review was that at least 80% of the CNSs involved/studied had obtained graduate education. This requirement for graduate education as a requirement of the CNS role proved to be a significant challenge when reviewing studies conducted in the UK. The development of the CNS role in the UK has been troubled by lack of agreement regarding scope, titles and education requirements (Schober & Affara, 2006). The CNS role in the UK was initially developed in the 1960’s, as it was in Canada and the USA; however, in the UK the CNS was initially primarily an administrative post (Bousfield, 1997). The United Kingdom Central Council (UKCC) defined the CNS role based on specialist practice but, unlike the CNA and American Nursing Association (ANA), did not require the CNS practicing in the UK to have obtained graduate education (Jack, Oldham, & Williams, 2003). The limitation of including only studies in which the CNSs had obtained graduate education resulted in the eventual exclusion of all identified UK studies. One Irish study (Dowling, 2000) did meet the entry inclusion for the literature review.

The Integrative Review Method

The integrative review method was chosen as the best means of developing a deeper understanding of perceptions of the CNS role. Broome (1993) notes that the “primary purpose of a literature review is to gain an in-depth understanding of a phenomenon by building on the work of others” (p.193). The integrative review method is defined by Broome as “one in which past research is summarized by drawing overall conclusions from many studies” (p.195). As described by Whittmore and Knafl (2005) the integrative review method “allows for the inclusion of diverse methodologies” (p.547) in the literature review. The framework developed by Whittmore and Knafl involves five distinct stages: problem identification, literature search, data evaluation, data analysis and presentation. This method; therefore, is well suited to gaining
an understanding of a concept such as perceptions of the CNS role, which has been studied concurrent to organic evolution of the role over time.

The results of various studies are considered within the context of the era in which they were conducted and also with consideration to the development of the CNS role during that time. The studies have been summarized in a coded table (Appendix A). Some, but not all, of the excluded studies have been summarized in Appendix B. The coding of excluded studies further serves the purpose of viewing the included research in context with other concurrent nursing research. The reasons for exclusion from the review are provided and supply awareness that graduate education, while a documented requirement of the CNS role, is not yet a fully enacted reality of the role in all work environments.

In keeping with the fourth stage of Whittmore and Knafl’s framework, the data generated from the literature review has been analyzed for greater understanding of the phenomena under study. An analysis of the research is presented within the context of the decade in which it was conducted. The CNS role has been determined to influence three spheres within the healthcare system: patient/client, nursing personnel, and organizational/network (Zuzelo, 2003). The analysis of the data has been organized within these three spheres. Zuzelo identified the patient sphere as the “fundamental sphere of CNS influence” (p.369). As a clinical expert, collaborating and consulting with other healthcare providers the CNS activities have significant impact on patient care and patient outcomes. The CNS influences the nursing personnel sphere in many ways. Zuzelo includes the development of knowledge and skills of nurses, disseminating research findings, and clarifying nursing’s contributions to patient care as CNS activities which influence this sphere. The CNS role also potentially exerts a broad influence on the
organizational/network sphere. Zuzelo identifies CNS outcomes in this sphere as addressing “problems, processes, strategies, policies, initiatives and programs”(370).

Analyzing the data according to the CNS’s impact on the three spheres is consistent with the overarching competency requirements of the CNS to affect change and improvement through patient outcomes and also through system-wide innovation. This method of data analysis was intended to provide a multi-dimensional understanding of perceptions of the CNS role within the context of the time the research was conducted.

Research Perspective

Perceptions are not formed within a vacuum. The Oxford Dictionary defines perception as the “act or faculty of perceiving; intuitive recognition of the truth, aesthetic quality, way of seeing, understanding” (1998, p.661). The human experience of perceiving others takes place within and is affected by the context in which we engage in the interactions which flavour our perceptions. It is with this awareness of the importance of context that I have undertaken to present the research reviewed in chronological order. Perceptions revealed during the course of scientific inquiry must be now considered in light of the times in which they were documented. Major influences on perceptions of the CNS role within the temporal context may include broader perceptions of women and of professional nurses.

Nursing has traditionally been a profession mainly comprised of women. In recent years, more men have chosen nursing as a career choice. The Canadian Nurses Association indicates that in 2008 females accounted for 94 % of employed nurses in Canada and males a mere 6% (CNA, 2010). Without discrediting or ignoring the important contributions men make to the profession of nursing it is also necessary to explore issues of concern to nursing with a respect for the impact gender and perceptions of the female gender have exerted on our professional
body. As the nursing profession has evolved from one of technical skill to a discipline with its own unique domain of knowledge, so have women in Canada moved into ever more prominent positions of authority and leadership. Recall that the CNS role was first established in the 1960’s, an era when North American women were pushing for societal reforms that would forever change perceptions of all working women. Ross Kerr (1988b) reminds us that the feminist movement began long before the 1960’s. Feminists’ ideals were outlined in seventeenth century literature, the suffragette movement of the late 1800’s, and Florence Nightingale’s ground-breaking scholarly accounts of nursing care. The CNS role has evolved, just as the feminist movement evolved; therefore, each decade of research is explored with a reminder to consider the context in which nurses, mostly women, were living both their professional and personal lives.

Findings

The 1980’s

For those of us who were working as nurses in the 1980’s, we can easily cast our minds back to those early morning preparations which included donning the white or pastel coloured uniform, polished white shoes, and the ubiquitous and awkward nursing cap. Nurses, more novice to the profession, have to imagine this antiquated, and yet not so distant time,, to place them contextually into the era in which the first five studies were conducted. Tarsitano, Brophy, and Snyder (1986), Walker (1986), Sisson (1987), Ingersoll (1988) and Oda, Sparacino and Boyd (1988) all chose to explore perceptions of CNSs during those days described when nurses were clearly identifiable from other staff members by their mandated dress code. Furthermore, nurses could identify the educational background of their nurse co-workers based on the style of
nursing cap she wore. Each nursing program branded its graduates with unique nursing caps and pins. The very small percentage of men engaged in bedside nursing during this time often wore a generic uniform of white pants and shirt resulting in frequent confusion with orderlies. Even if all aspects of the nurses’ work were not visible during the late 1980's, the nurse was certainly visible within the hierarchy.

But what were the perceptions of the CNS during this time? Davies and Eng (1995) indicate that locally within BC in the 1980’s, the relatively new CNS role was gaining momentum. The University of BC began offering graduate nursing education focusing on clinical specializations in 1973 with 40 students graduating from the program between 1975 and 1987. The articles reviewed for this decade explored perceptions of the CNS mainly recognizing the CNS as a potential resource within the healthcare system.


This study was undertaken to gain a better understanding of how employers and CNSs perceived the abilities of the CNS. The aim of the study was to obtain data about the similarities and differences regarding the importance of the four CNS components from the perspective of nurse administrators and CNSs. The researchers hypothesized that no significant difference would be reported between the perceptions of the two groups studied.

The researchers utilized the Clifford Clinical Specialist Functions Inventory (CCSFI) tool to capture objective quantitative data. The CCSFI was developed by Clifford in 1981 and allows respondents to rate 37 CNS behaviours on Likert-type scale of importance that operationalized the four components of the CNS role: clinical practice, education, administration and research. Clifford developed the tool based on a survey of CNS job descriptions and a
literature review. Clifford had the instrument reviewed by 25 CNSs for face validity. Tarsitano, Brophy and Snyder did not make any modifications to the original CCSFI. As well, the researchers gathered information about the respondents’ education and professional experience through an open-ended questionnaire.

While Tarsitano, Brophy and Snyder do not document a response rate to their questionnaire, they indicate that the questionnaire was mailed to nurse administrators at 110 urban hospitals with at least 100 beds. Questionnaires were given to CNSs attending a regional CNS council meeting and mailed to registered CNS members who did not attend the meeting. A total of 54 nurse administrators and 35 CNSs participated in the study.

A two tailed t-test for independent samples was used by the researchers to compare the mean scores of respondents to each of the 37 questions in the CCSFI. The original study hypothesis was supported by the questionnaire findings in regards to three of the role components but was not accepted in regards to research. Analysis of the results showed that nurse administrators perceived research to be more important than did the CNSs. The consultant function received the highest rating. The education component was valued by both groups while both groups perceived that the administrative component was the least important role.

The researchers present their findings considering the CNS as a perceived resource for the healthcare system. Results are presented in a manner intended to guide educators to refine this resource for the needs of employer and recommend an evaluation of research preparation of graduate nurses. The recommendation hints that the Nursing Administrators view the CNSs as presenting an untapped resource for research within their organizations. Another possible conclusion regarding the difference in importance placed on the research component of the CNS
role could very well be that work environments were not conducive to fostering research opportunities for practicing CNSs.


Walker (1986) also chose to explore nursing administrator’s perceptions of the CNS role. Like Tarsitano, Brophy and Snyder, he was interested in views of individuals higher up within the hospital hierarchy of power. Walker’s aim was to survey a geographically distinct population of nursing service administrators to obtain descriptions of utilization of the CNS role, perceptions of the effectiveness of the CNS role, and to determine the presence or absence of factors related to utilization and perceived effectiveness. Walker’s study purpose reflected his identification of the very realist requirement that survival of the CNS role depended upon “perceptions of administrative personnel and the policies of the employing institution” (p. 52).

Walker developed a 22 item questionnaire for the study based on literature review findings and communications with five nursing administrators who were not included in the study. The questionnaire was revised following a review by three faculty members and a measurement specialist. Walker’s questionnaire allowed for collection of institutional and demographic data, information regarding utilization of CNSs and perceptions of CNS effectiveness.

Walker mailed the questionnaire to all 112 nursing administrators listed in the state hospital directory manual. Walker chose participants from a discrete US geographic area clearly identified as have a nursing administration position. A total of 82 completed questionnaires were returned to Walker yielding a response rate of 75%.
In regards to CNS utilization, more than half, 57%, of the 81 survey respondents reported employing CNSs. The reasons provided by respondents who did not employee CNSs were inadequate funds to pay for the position or their institution was too small to employ a CNS. Regarding perceived effectiveness of the CNS role, 95% of the administrators employing CNSs were satisfied with the CNS. Ninety-six % of respondents believed the CNSs improved patient care, 80% perceived the CNS role to be cost effective.

To determine factors which related both to utilization of and perceptions of effectiveness of the CNS role, Walker used a an analyses of variance and Pearson’s correlation coefficients between the demographic information and each of the items meant to gather data regarding utilization and perception of the CNS role. Polit & Beck (2008) define the Pearson’s correlation as “a correlation coefficient designating the magnitude of relationship between two variables measured on at least an interval scale” (p.761). Walker reported that factors which correlated to both utilization of and satisfaction with the CNS role were a larger institution, more experienced administrators, and administrators with a higher level of education. The Nursing Administrators with the highest education and the most experience with CNSs, also reported the highest level of perceived satisfaction with the CNS role.

Walker’s research provides further awareness that the evolution and acceptance of the CNS role in many environments has been somewhat dependent on the factors within organizations over which the CNS has no control, such as the education and experience of hospital administrators or other organizational decision-makers.


Sisson (1987) took a broader scope of the hierarchal hospital structure and explored the perceptions managers, staff nurses and physicians had of CNSs. Sisson conducted her evaluation
research at a US university hospital which had seen an increase in CNS positions from one in 1974 to 16 in 1982. Hospital administration was exhibiting support for the CNS role without benefit of any research evaluating the role. In contrast to the two previously examined research studies, Sisson’s research was aimed at gaining an understanding of “consumer interests rather than management interest” (p.14). This represents a broadening of the exploration of the CNS as a resource to the organization theme exhibited during this decade.

The purpose of Sisson’s study was to describe the perceptions of nurse managers, staff nurses, head nurses and physicians who work with clinical nurse specialists. Sisson utilized an evaluation method developed by Scriven designed specifically to gain an understanding of professional services. The research method, described as a goal-free method of evaluation, involved personal interviews scripted with eight open-ended questions.

Sisson utilized a variety of methods for the study sample selection. Staff nurse participants were identified by choosing every fifth name on a staff roster excluding permanent night staff and ensuring inclusion of at least one staff from each major department of paediatrics, psychiatry, obstetrics/gynaecology, medicine, and surgery. A convenience sample of physicians was used. Sisson does not indicate how head nurses were selected for invitation to participate and no overall response rate is indicated. The study was originally designed to include patient perceptions of the CNSs, but Sisson was not able to pursue that line of inquiry given time constraints.

Sisson surveyed 13 nursing directors, 42 head nurses, 54 staff nurses, and 11 physicians using eight open-ended questions. Head nurses were surveyed in a group setting and provided written responses to the questions; all other participants were interviewed individually. The
responses to the eight questions were analyzed by Sisson by a method of assigning responses to category headings developed by the researcher.

Nearly half (48%) of participants perceived the CNS to be primarily a resource person and secondly an educator of patients and staff (28%). Half of physicians perceived the educator role of the CNS as most helpful while the other half saw the CNS as most helpful functioning as a liaison with other staff. No participants identified the research component of the CNS role as helpful. Sisson explored what the CNSs did that was not helpful and while most participants could not identify CNS activities that were not helpful, they did indicate that they did not fully understand the specific role components of the CNS role. In response to a question probing participants’ perceptions of what the CNS could do that she was not already doing, respondents indicated that the CNSs should be more available for both patients and staff. Staff nurses indicated a need for increased communication (33%), head nurses and nursing directors pointed to a lack of visibility and physicians reported a need for more collaboration in the planning of patient care (36%).

Respondents were asked if they perceived the CNS role to be cost effective. The results reflect the ongoing challenge that still faces CNSs in the present day. Forty-two percent perceived the CNS to be cost effective, while 24% indicated they did not know how to assess the cost effectiveness of the CNS role. Of the physician respondents, 73% considered the CNS role to be cost effective.

In response to a question asking for a possible alternative to the CNS role, 20% of respondents felt an RN with a specialty certificate could be an alternative. While this is a small percentage of respondents who perceived the CNS role as potentially replaceable by a non-graduate educated RN, it is startlingly significant that “the most predominant source of this
suggestion came from the staff of the medical department, head nurses, and nursing directors” (p.16). The other respondent groups couldn’t identify an alternative to the CNS position and “firmly stated that this role should be performed by a master’s prepared professional” (p.16). The responses to this question reflect a lack of support within the nursing profession for acceptance of the graduate education as essential for the CNS role. This is a vivid example of a tension, or force, within the healthcare system, generated by nursing themselves which “prevents nursing from envisioning their work within the broad policy context” (Robinson, 1992, p.636).

**Ingersoll, G. L. (1988). Evaluating the impact of a clinical nurse specialist.**

Ingersoll (1988) rounds out our scan of the hospital hierarchy by providing information about staff nurses’ perceptions of the CNS role. The overall aim of this US study was to determine the impact of the addition of a CNS upon the healthcare delivery of a regional spinal cord injury (SCI) center. Ingersoll conducted a retrospective chart review of documented patient care prior to and post institution of the CNS role on a specialized unit. She also included an insightful sub-study of staff nurses’ perceptions of the CNS. It is the sub-study results which are included in this review.

Ingersoll identifies that the reported staff nurses’ perceptions were based on their experiences with a recently employed master’s prepared CNS whose role did not include administrative responsibilities. Unfortunately Ingersoll does not provide details of the size of the convenience sample of staff nurses included in the study. She does however; report the response rate for the written resource availability questionnaires as 69%. The staff nurses identified the CNS as a primary resource (84.2%) and as the most helpful resource in caring for spinal cord injury patients (65.8%). Staff commented favourably regarding the CNSs “accessibility and
willingness to spend time with patients and families” (p.154). Comments also indicated that the staff nurses valued the CNSs knowledge and through her guidance, were able to increase their comfort level in caring for spinal cord patients.

A significant limitation of the staff survey component of Ingersoll’s research is the omission of the total number of staff respondents. The results do highlight that the CNS employed at the site of Ingersoll’s research was readily available and accessible to staff for consultation regarding care and education. It appears Ingersoll did not probe for perceptions regarding the research component of the CNS role. Documentation of the staff survey results is further limited by a lack of details regarding the questionnaire, method of recruitment of staff nurses, and ethical considerations regarding protecting the anonymity of survey respondents and protection of their rights considering the research was conducted within their place of employment.

Even with these significant limitations, Ingersoll’s survey results provide an important contribution to this literature review. Ingersoll’s study design incorporating a retrospective outcomes-based evaluation of CNS contributions to patient care combined with a staff survey of perceptions of the CNS role can serve as a guide to future researchers in designing their own studies of the CNS role.


While the previous studies examined the CNS role within the healthcare system, Oda, Sparacino and Boyd (1988) chose to explore how CNSs perceived their role within the context of their own career development. The aim of this study was to gain a deeper understanding of how CNSs perceived their practice and the future of their role. Convenience sampling of participants
attending a US CNS conference resulted in a total of 36 CNSs participating in this qualitative study. Researchers estimated that 75 CNSs attending the conference were invited to participate; therefore, a participation rate of 48% was obtained.

Participants were asked to complete a questionnaire developed by the researchers which posed 35 questions to gather demographic information and 25 questions regarding role perspectives and one final question probing the CNSs future role projections. The research instrument was modified from a previously validated questionnaire developed by Aradine and Denyes in 1972. Adaptations to the original questionnaire were developed by researcher team member Oda and reviewed by two CNSs. Participants were given the questionnaire during the conference session and those who chose to participate mailed the completed questionnaire back to the researchers.

Just under half of the participants were between 34 and 40 years of age. The majority of participants, 83.3%, had obtained graduate education and 5.6% had doctorate education. In regards to role maturity, 70.6% felt they had reached role maturity. A similar percentage expressed satisfaction with their present role. The researchers noted that 78.8% of participants did not perceive further role advancement being dependent upon assuming an administrative role. Only 39.4% of participants viewed private practice as a future career option. Oda, Sparacino and Boyd concluded that proactive administrators should consider methods to enhance CNS role development as a means of ensuring retention of the CNSs’ skills and experience. The results of the study were valuable at the time of publication regarding the evolution of the CNS role and remain relevant today for nurses considering their own career development.

Limitations of the study were identified by the researchers as including a small sample size and a lack of diversity in both the gender (all female) and race (mostly Caucasian) of the
participants who were mainly employed in university medical center hospitals. This lack of diversity provides results that lack generalizability to the general population of CNSs that may come from diverse backgrounds and practice in a wide-range of healthcare environments.

**Analysis of the 1980’s**

The five studies reviewed from this dynamic decade were concerned with how the CNS role contributed to patient care and also what the CNS role meant to the CNSs themselves. Results support a general perception of the CNS as being effective in the patient sphere, particularly with complex patients. The CNSs’ positive impact on patient outcomes is also related to strength within the nursing personnel sphere. Participants perceived the CNS as a resource for staff and provider of education. The CNS is perceived as a leader in supporting nursing staff in providing quality care. Unfortunately, during the 1980’s the research component of the CNS role was not evidenced in perceptions of study participants. It is important to recall that these studies were conducted in an era prior to the broadly acceptance requirements of evidence-based practice that we see being utilized today.

Within the organization/network sphere some study results indicated that CNSs could improve their visibility by being more accessible for other healthcare providers and during consultations. Situating themselves within the healthcare hierarchy, CNS participants did not generally envision a role advancement entailing assuming an administrative position. Tarsitano, Brophy & Snyder’s research indicated that the administrative component of the CNS role was least important both to representatives of the organization, Nursing Administrators and CNSs. This finding is congruent with the trend that emerged in the evolution of the CNS role in which administration was replaced by leadership as a core component of the CNS role. Research from this era tended to examine perceptions of the CNS as a resource to the organization seeking an
understanding of how the CNS role was seen to contribute to patient outcomes or cost-effectiveness.

The replacement of administration as a core component with leadership perhaps reflects findings which indicate that the CNS role was perceived as a support for nurses and other healthcare providers. Sisson revealed a tension in the nursing sphere regarding RN’s perception of the need for graduate education for the CNS role. Within the nursing sphere, in this decade, a lack of buy-in from nurses themselves regarding the need for leaders with graduate education is in contrast to other healthcare professional respondents in Sisson’s research. It is important to remember that during the 1980’s many RNs were practicing with a diploma and the undergraduate degree was not yet a requirement for entry into practice.

**The 1990’s**

The 1990’s marked a time of healthcare restructuring and the beginning of an era in which economic discourse permeated the provision of healthcare. In Canada and the USA many RN positions were critically examined. A number of components of nursing care were delegated to non-registered nurses in an effort to reduce the cost of healthcare (Smith, Smith, Boechler, Giovannetti & Lendrum, 2006). Research that examined nursing work, tended to focus on the quantifiable tasks and outcomes. With the CNS role more firmly established, it still remained particularly vulnerable to cutbacks due to the difficulty in measuring positive outcomes derived from the work of CNSs. As Ray (1999) noted at the close of the decade, “evidence of cost-effective contributions to patient outcomes has become the currency by which professional groups maintain their position in healthcare agencies” (p.1019). The elimination of CNS positions and the replacement of RNs with other, less educated healthcare providers, during this
era is a reflection of the struggles of the nursing profession to demonstrate cost-effectiveness of nursing care.

Nurse researchers, who sought to gain a greater understanding of others’ perceptions of the CNS role, provide us with a wide range of perspectives from patients (Baradell, 1995) to staff nurses (Nuccio et al, 1993) to nursing administrators (Scherer et al, 1994). A sense of uncertainty about the CNSs survival as a viable Advanced Practice designation is evident in the research and reflected in Hester and White’s (1996) exploration of CNSs perceptions of their future.


Nuccio et al (1993) explored staff nurses’ perceptions of the CNS role and factors which influenced the role. The purpose of the study was to obtain objective quantitative data which could contribute to both decreasing CNS role confusion and the development of measurable outcomes related to CNS actions. The researchers recognized that a lack of documentation of these issues of importance to the CNS role may have contributed to the persistent ambiguity that plagued the CNS role. Nuccio et al. clearly placed their research and the CNS role in the context of the times by acknowledging that development of the CNS role was often dependent upon factors within the institution. Such institutional factors that affect the CNS role development are type of institution, needs of the institution, number of CNSs employed at the institution, education level of institution employees, and the patient population served by the institution.

Nuccio et al. studied a convenience sample of staff nurses employed at a large American medical center which includes three acute care campuses. Of 1,600 staff nurses invited to participate in the study, 636 usable surveys were returned resulting in a reported response rate of
38%. This large sample size represents one of the strengths of this study compared to the majority of the studies reviewed which generally had much smaller sample sizes.

Like Tarsitano, Brody & Snyder in 1986, Nuccio et al. used the CCSFI tool to explore perceptions of the CNS role. The researchers note that neither Clifford, nor the previously mentioned researchers reported reliability or validity for the CCSFI. Nuccio et al. tested for internal validity by testing the instrument with graduate students prior to commencing the research study. Perhaps in reflection of a growing sophistication in the documentation and publishing of nursing research, this is the first of the reviewed articles to clearly identify the process of obtaining ethics approval for the study.

Perceptions of the CNS role were separated into four components: clinical, education, research, and administration. Within each of these components respondents identified the most important subcomponents. In summary, the staff nurses perceived the CNSs clinical role as being most important in promoting upgraded care in specific areas and implementing health teaching. The importance of the education component was perceived to be mostly related to in-service education for nursing personnel and assisting with patient teaching. The staff nurses reported perceiving the CNS as contributing to research by identifying pertinent research questions, planning and conducting research, interpreting results, and assisting nurses to utilize the results. The staff nurses perceived administration as being less integral to the CNS role. This finding resonates with findings in many of the other studies reviewed. Nuccio et al. indicate that staff nurses were in support of CNS involvement in leadership activities such as development of policies and standards rather than the managerial tasks of resource allocation and personnel evaluations.
Based on the research results the researchers proposed CNS role expectations could include consultation and resource for clinical issues, application of nursing process in provision of complex care, staff education, both generating and disseminating research findings, and focusing on clinical leadership versus management activities.


Scherer et al. (1994) turned the focus of their research energies to the nursing administrators. The study incorporated multiple purposes: determine utilization of the critical care CNS, identify the perceived importance of role functions and perceived activities related to each of the functions. Furthermore, by including nursing administrators from institutions that did not employ CNSs, the researchers sought to gain an understanding of differences in perceptions of role function between nursing administrators who did and did not employ CNSs.

Scherer et al. recruited study participants from a sample of all nursing directors in New York State employed at hospitals with at least 100 beds. Of the 313 nursing directors invited to participate, 198 returned mailed questionnaires to researchers resulting in a response rate of 65%. The researchers developed the three part instrument used in the study. The first part of the questionnaire was composed of 20 questions gathering information about the agency and CNS job characteristics. The second part explored perceptions of activities of the CNS role function in which 56 questions divided into five categories were used to gain an understanding of perceptions of clinician, educator, consultant/change agent, researcher, and manager roles of the CNSs. The third part of the questionnaire explored opinions about expected job characteristics. The second part of the questionnaire was developed by the researchers based on literature review results and the American Association of Critical Care Nurses 1987 CNS role definition position.
statement. The researchers indicate that this portion of the questionnaire was peer reviewed, amended and interrogated for reliability. Reliability assessments were indicated as not necessary for the other two portions of the instrument given the demographic and educational information researchers were collecting with those sections.

Respondents reported that 90% of the CNSs employed within the institutions for which the respondents worked held a master’s degree. On average, two to three CNSs were employed at each hospital, “with 48.2% of the facilities acknowledging employment of critical care CNSs” (p.140). Nursing administrators overwhelmingly perceived the CNS role as functioning as an expert clinician and educator. In descending order of significance respondents noted the consultant/change agent role and researcher as also important. The management component of the CNS role was considered important by less than 20% of the respondents.

The researchers recommended that continued viability of the role was dependent upon continuing to refine measurable outcomes of CNS activities such as decreased hospital stays and other means of cost reductions. These recommendations based on the research findings were congruent with the economic and social pressures being exerted on the CNS role at the time. This exploration of the nursing administrator’s perceptions, as employers of CNSs, serves as an excellent complement to the previous study which explored staff nurses’, as consumers of CNS services, perceptions of the CNS role.


Baradell (1995) chose to explore the perceptions of psychiatric patients who had received care from CNSs. This is the only study identified for this review which explored patients’ perceptions of the CNS. The purpose of this study was to determine clinical outcomes and the
level of patient satisfaction with psychotherapy provided by a CNSs. Baradell’s research was the first study to critically examine psychotherapy delivered by a CNS. Previous studies of effectiveness of treatment had been in the context of therapy provided by a psychiatrist.

The study was designed to question whether patients who had terminated from psychotherapy with a CNS reported improvements in clinical symptoms and quality of life and to determine the level of satisfaction reported by those patients. Baradell also sought to determine if there existed a positive relationship between clinical outcomes and level of satisfaction and how patients had come to choose psychotherapy provided by a CNS.

With the assistance of five private practice CNSs providing psychiatric care in central North Carolina, researchers mailed out 223 questionnaires to patients who had terminated psychotherapy with a CNS. 100 patients returned completed questionnaires providing a response rate of 45%. An analysis of nonresponders compared to responders showed that females and patients who had actively participated in the termination process were more likely to participate in the research. Researchers clearly identified the means by which patient confidentiality was maintained given the assistance of the CNSs in obtaining the demographics of the research participants.

The mailed questionnaires collected demographic information as well as Profile of Mood States-Short Form (POMS-SF), Quality of Life (QOL), and Patient Satisfaction Survey (PSS). The respondents were asked to complete the QOL and POM-SF for two time points; recall of how they felt before therapy and since termination of therapy. The PSS included open-ended questions. All instruments used in the gathering of information had previously been tested and utilized in studies. The wording of some items on the PSS was modified to capture information based on provision of care by the CNS.
Respondents reported excellent clinical outcomes, improvement in quality of life and high levels of satisfaction with the care provided by the CNS. In assessing length of treatment, the CNS led care was consistent with accepted short term therapy treatments provided by psychiatrists. The researchers summarized the study results as supporting the provision of psychiatric care by CNSs as a means of providing cost-effective care. Respondents indicated that they most often sought CNS provided care as a result of a referral from either a healthcare provider or a member of their social network.

A concern regarding this study is that although it was reviewed by experienced nurse researchers, the authors do not provide documentation of an ethics review board approval. The initial cover letter introducing the study and seeking participant participation was written by the CNSs who provided care. Although no patients currently undergoing treatment were approached for study participation there is a concern that patients may have felt pressure to participate given the previously established relationship with the CNS.

The findings from this study support that CNSs are able to provide cost-effective specialized care. The respondents in this study also indicated a high level of satisfaction with the care provided and positive clinical outcomes.


The aim of Hester and White’s (1996) study was to gain further understanding of practicing CNSs perceptions of their practice and the future of their role. This study was undertaken at a time when societal and professional tensions were driving nurse scholars and educators to consider the possibility of merging the NP and CNS role. The researchers mailed questionnaires to 80 CNSs in the Houston, Texas area who had served as preceptors in the
graduate nursing program. The response rate from this convenience sample was 53% with 42 survey questionnaires returned to the researchers.

Hester and White developed a data collection tool to capture demographic information and descriptive information intended to paint a picture of the perceptions the CNSs in response to the research question. The survey consisted of demographic information and three open-ended questions. The questions sought to determine the CNSs perception of the CNS role evolution in the near future (six to twelve months) and in the long term (five to ten years), asked respondents if they supported replacement of the CNS role with an NP role, and probed for specific actions nurse educators could do to better prepare CNS students. Hester and White indicate the instrument was reviewed by a panel of experts and modified based on that review.

Participants completed demographic data which confirmed that all but two of the participants had obtained graduate education. The remaining two respondents were enrolled in graduate programs. In response to questions regarding deletion of the CNS role, not surprisingly the majority (71%) did not want the CNS role deleted. Seventeen percent supported deletion of the CNS role and 12% supported combining the NP and CNS roles. The research respondents’ support of their designation is not unexpected. Given the uncertainty of the times in which this research was conducted the researchers demonstrated, through their findings, an affirming enthusiasm from CNS for the designation.

In response to the final question regarding actions educators could do to better prepare novice CNSs participants indicated a need for enhancement of research courses. The researchers interpreted the responses to mean a need for more instruction regarding application of research in practice. The complexity of the CNS role was reflected in other identified learning needs such as conflict and negotiation skills, change strategy knowledge, public speaking, and marketing skills.
This results of this small study of a convenience sample of CNSs working within a specific geographic area lack generalizability to the entire CNS population; however, the questions asked provided the snap-shot the researchers were seeking of the CNSs perceptions of their work and their future. In contrast to other studies which have looked to the perceptions of others, the important question regarding what the CNSs felt needed to be added to CNS education is perhaps a research question worth asking by more researchers in more geographic and diverse CNS work settings.

Analysis of the 1990’s

The research results from the 1990’s reflect a generally accepted perception of the CNS role at improving patient outcomes. In regards to patient outcomes though, there is a sense of urgency to find measurable outcomes to clarify contributions of the CNS role. Baradell’s important research findings provided a venue for the voice of patients who had received CNS care. As the ultimate consumers of the CNS role, these patients reported a positive perception of the CNS role. The economic discourse never ceased in the 1990’s as evidenced by the inclusion of consideration of the economic feasibility of the CNS role included in this exploration of patients’ perspectives of the CNS role.

Within the nursing personnel sphere, the CNS role continued to be perceived as a valuable support to nursing staff by providing education but was also perceived as a source of information and guidance regarding research findings. Scherer et al. provided evidence of an articulated need by staff nurses for guidance and support from CNS in the area of research. Staff nurses perceived the CNSs as able to not only conduct research but also a valuable resource for guiding implementation of research findings. Perhaps reflecting a growing sophistication within nursing research, researchers in this decade more clearly identified ethics approval for research
projects and details regarding consent processes are also more transparent. The expressed needs of the staff nurses for guidance in research and the refinement of ethics documentation reflect a decade in which nursing research gained momentum. This finding is echoed in Hester & White’s finding that the CNSs themselves felt CNS education should include an enhancement of research education.

Researchers from this decade more clearly articulated the reality that the CNS role development was at least in part dependent upon factors within the organization/network. Researchers revealed that CNS role development and full utilization of the role is dependent upon organizations and healthcare delivery systems that facilitate full development of the role. Through this symbiotic relationship, CNSs that are able to contribute at a systems level, such as Scherer et al. suggested in policy development, are also able to foster organizational systems that benefit patient populations.

An effort has been undertaken to consider the research findings within the context of the time it was conducted. Further to this contextual awareness, it is important to note that three of the four studies reviewed from the 1990’s were published in the Clinical Nurse Specialist journal. Baradell’s research is the only one from this decade not published in the journal devoted to CNS issues of interest. The CNS journal which first came off the printing press in spring of 1987 provided an important and obviously well received forum for dissemination of CNS research.

2000 and Beyond

The new millennium arrived; Y2K disasters failed to occur and the world surged forward into the age of technology. We embraced technology in both our personal and professional lives.
For many nurses, electronic health records, bedside electronic charting, computerized medication dispensing, and the use of more highly technical assessment devices became part of their daily provision of care. Varcoe and Rodney (2002) provide a clear picture of the realities of nursing work in Canada during the early years of the new millennium. The reforms fuelled by corporate ideology were, and continue to be, firmly entrenched. Nurses, during their daily interactions with technology, have become pawns in the corporate streamlining and efficiencies as many of their actions, such as ordering lab work, are recorded and counted. Varcoe & Rodney indicate that not only does this use of technology to capture and record nursing actions, eliminate the ability to capture the indeterminate work of nurses but also makes the data collection process and decision making process invisible to nurses.

The internet and a high saturation of personal computers in North American homes resulted in a surge of interest by nurses for advanced education. Graduate education became more available to more practicing nurses. North American society has seen a trend towards relaxing of previous gender alignment to certain professions resulting in more men entering the nursing profession.

In the hospital, nurses are no longer easily identifiable from other healthcare providers. In many acute hospitals an army of staff all wear hospital provided scrubs. Patients and other staff cannot easily identify the roles of colleagues and unlike in the 1980’s, nurses seldom know from which university their fellow nurses graduated. The CNS, whether wearing scrubs or street clothes and a lab coat, is unlikely to be easily identifiable as a CNS by either patients or colleagues.

Another tension within the professional landscape of the CNSs has come from within the nursing profession and specifically within the cadre of Advanced Practice Nurses. While the
CNS had been the most recognizable advanced practice role in Canada, implementation of the Nurse Practitioner Initiative in 2004, moved the NP role into the spotlight (Canam, 2005). The following studies explore perceptions of the CNS role during a time when individual nurses are no longer easily identifiable amongst healthcare workers and the CNSs are finding a need to clearly differentiate their role from the growing NP movement.

In contrast to the previous two decades reviewed, the three studies included in this section of the review are firmly rooted in the nursing domain exploring perceptions of nurses (Dowling, 2000), and CNSs themselves (Canam, 2005; Dias, Chambers-Evans & Reidy, 2010).


The only Irish study included in the review, Dowling (2000) explored nurses’ perceptions of the CNS role. Dowling’s purpose was to reveal how nurses perceive the CNS role, how they utilize the CNS, and their expectations of the CNS. The research question focused on defining the nurses’ perceptions of the CNS role.

Dowling describes her sample setting as disproportionate stratified random sampling. The disproportionate balance allowed for oversampling of ward sisters (charge nurses). One hundred and thirteen staff nurses and 9 ward sisters participated in the study. Dowling indicates that approval for the study was obtained from nursing administration and randomly chosen nurses were approached and invited to participate. Unfortunately Dowling does not provide documentation regarding any nurses approached who chose not to participate so it is not possible to ascertain a response rate. It is also not clearly documented if the semi-structured interviews were conducted in an appropriate manner to protect the rights and privacy of the participants who were invited to engage in a research project at their place of employment.
Dowling utilized a semi-structured interview and a question component in which respondents rated the four CNS sub-roles of consultant, educator, patient care provider and researcher in order of importance. The interview schedule was reviewed for internal testing and piloted on two staff nurses not included in the study.

Respondents indicated they perceived the CNS as clinical experts and best suited to educate both patients and staff. Furthermore the nurses perceived CNSs as improving patient care. The research component of the CNS role was ranked as the least important component of the CNS role.

Dowling reports that eight categories emerged from the interview results when analysed according to Burnard’s framework. The categories that emerged were: deskilling of the generalist nurses, link nursing, CNS viewed as expert, CNS/patient relationship, CNS as patient educator, CNS as staff educator, communication between nurses and CNS, and outcomes of CNS practice.

Dowling notes that in the UK and Ireland nurses had previously been concerned that the CNS role implementation would result in a de-skilling of bedside nurses. This concern was not revealed or documented by researchers exploring the CNS role development in North America. Dowling notes that study respondents “admitted to now accepting and even welcoming” (p.97) the CNSs with some residual fear still evident regarding the possibility of the CNS role resulting in de-skilling of the ward nurse. Six respondents indicated a need to avoid heavy reliance on the CNS role for fear of losing their own skill level. Consistent with some earlier studies conducted in USA, respondents felt communication between the CNSs and staff could be improved.

Limitations of this study include a lack of generalizability given the sampling method and limited sample size. The method of recruitment and lack of documentation regarding how

Canam (2005) chose to explore CNS perceptions of their role within the specialized practice area providing care to children with complex healthcare needs. The aim of this qualitative study was to address the gap in knowledge related to the nature of CNS practice and the contextual factors that influence it through gaining a greater understanding of CNSs’ understanding of their practice. The study was undertaken with a descriptive interpretive approach in which discussions with CNSs revealed the realities of their practice, then the researcher examined the language used in the discussion to interpret the social context of the CNS participants’ daily practice.

Canam used purposive sampling to obtain the contact information for 17 CNSs working in BC in the specialty of her interest. Twelve CNSs responded providing a remarkable response rate of 71%. Furthermore, four participants self-selected for the study through the snowball effect of approached participants sharing details of the study with them allowing them to contact the researcher. A total of 16 CNSs employed in the Vancouver area participated in the study. Eleven participants had graduate education, two were enrolled in graduate studies and only three were enacting the CNS roll with a BSN education.

Canam engaged in in-depth interviews with study participants which she described as conversations. Canam created an interview guide, but chose to allow the conversations to flow
organically rather than restrict the dialogue during the lengthy interviews which lasted up from one and a half to over three hours. Transcripts of the conversation were shared with participants to allow for clarification and correction, if necessary, of interview results. Canam analyzed the results drawing on the work of Lieblich et al. in listening with three voices: the voice of the narrator, the voice of the researcher and the voice of theory.

Participants described their practice as focusing on patient, families and population health. The CNSs perceived the greatest potential for delivering high-quality, cost effective care by engaging in work affecting the population level. CNSs also perceived their role as providing important support to nurses providing direct care. Canam indicated that the CNSs demonstrated an awareness of their potential impact on the systems level of healthcare through “efficient use of resources, particularly the time of healthcare providers” (p.80). Policy and guideline development was another professional activity in which the CNSs perceived themselves as contributing at a system level. CNSs, in enacting their expert clinical role, interacted with a wide range of patients and their families. Respondents indicated that it was this diverse interaction on the individual level that gave them an awareness of needs within the population level.

Canam proposed that it is this ability to affect the population level and the individual level of patient care that could provide the market for CNSs within the healthcare delivery system. These finding further reflect the dynamic evolution of the CNS role from that of expert clinician of individual patients to that of expert clinician affecting population health through use of clinical knowledge and knowledge of human and material resource utilization.

In the final study included in the review Dias, Chambers-Evans, and Reidy (2010) explored CNSs perceptions of the consultant component of their professional role. The aim of the study was to provide a description of the CNS consultation component as enacted in a university hospital working with adult patients. The research questions explored the goals and objectives of the consultation component, sought the CNSs’ description of that component, probed for identification of barriers and facilitators of the consultant role and asked the participants to identify characteristics of the CNS and the consultee necessary for effective consultation.

Researchers utilized a qualitative descriptive design to gain an understanding of the phenomena of interest. Individual semi-structured interviews lasting from one to one and a half hours were conducted and demographic information was also gathered.

The researchers clearly document that only graduate prepared CNSs were identified as eligible to participate. The sample population approached for study participation was 16 CNSs working in a large urban hospital in Quebec. Eight CNSs agreed to participate resulting in a response rate of 50%. Researchers chose to explore the consultation component of the CNS role because effective consultation supports the CNS’s ability to introduce change, improve practice, and work with other healthcare providers. The authors indicate that CNSs have evolved from viewing consultation as an activity related to patient/family care and now recognize consultation as a “bridge between knowledge and practice” (p.94) in pursuing innovation, change and program development.
In interviews, CNSs indicated that as clinical experts their sharing of information with other healthcare providers “was perceived as a means of supporting the consultee or team” (p.94). This perception of supporting team members resonates with research results that span all three decades where the CNS is perceived as a resource and support. Many nurse scholars have indicated CNS role confusion and ambiguity are a result of lack of clarity regarding education requirements and consistency regarding CNS education programs and work environments. Study participants revealed that they perceived role confusion as a result of being required to constantly adapt their practice to external forces such as new healthcare realities, new technology and increasing complexity of care. This result supports the idea of forces within the healthcare system contributing to a lack of clarity or visibility of nursing work. Study participants revealed the purposeful use of role clarification as a strategy to combat the lack of understanding of other healthcare professionals regarding the CNS role.

The CNSs involved in the study identified managing crisis situations, ensuring continuity of care and supporting other healthcare professionals as key components of the consultation competency.

**Analysis of the new millennium**

Nurses are caring for ever increasingly complex patients. Reasons for this increased complexity include an aging population with multiple co-morbidities, better survival rates following acute presentations such as MIs and economic pressures to shorten the length of hospital stays resulting in hospital beds being occupied by only the most acute patients. The CNS as a clinical expert continues to be perceived as a valuable resource in the delivery of care for such patients. Dowling revealed that in Ireland and the UK staff nurses were concerned that a
reliance on the CNS to provide complex care could result in a de-skilling of staff nurses. This concern has not been evident in North American research results.

Dias, Chamber-Evans, & Reidy revealed that contrary to de-skilling the staff nurse, the consultation component of the CNS role allowed them to share knowledge and make recommendations to facilitate the consultee’s development of a patient care plan. The CNSs perceived the consultation component of their role as enhancing patient care by way of positively influencing the nursing personnel sphere.

The research results from the post 2000 decade reflect the continued evolution and maturation of the CNS role. While the CNS remains grounded in clinical expertise, that clinical expertise is perceived by practicing CNSs as being a resource for affecting change in the broader organizational/network sphere of influence. Ways in which CNSs perceive themselves as contributing to positive change on a systems level includes policy and guideline development recognizing the need for effective use of resources. Hester and White report that CNSs themselves perceive their role as continuing to evolve to meet future challenges and changes, a perceived advantage of the long-standing role ambiguity that has plagued the CNS role. It may prove that the CNS role continues to evolve as CNSs find ways to contribute to healthcare at the systems level if the organizations that employee CNSs provide support to facilitate those contributions.

Discussion

CNSs are leaders and role models within the nursing profession. They have the capacity to influence the patient sphere not only through direct care but also through their influence in the nursing personnel sphere and the organizational sphere. To achieve the full enactment of the
CNS role each CNS must communicate aspects of their role with other healthcare providers including nurses, and with patients.

Does graduate education grant greater visibility to the work of the nurse? That question, based on the results of this integrative review, cannot be fully answered in a binary yes or no fashion. Graduate education provides the CNS with the tools and the opportunity to grant greater visibility to his or her work.

The graduate education alone does not guarantee increased visibility. Research findings in this literature review supported the intuitive speculation that factors within healthcare organizations can enhance the development of the CNS role. Perceptions of the CNS role tend to be more positive amongst employers of CNSs that have higher education and greater experience with CNSs. Staff nurses generally perceive CNSs to be a positive influence on patient care and a strong support for the educational and clinical needs of nurses. Staff nurses and hospital administrators perceive the CNSs as capable of affecting positive change by engaging in the utilization, generation, and translation of research findings. Patients perceive CNSs to be effective and cost efficient in their provision of care. A lack of communication regarding the CNS role at times blurred the perceptions of study participants. A difference was noted between nurse participants in Ireland and North America, with the Irish nurses perceiving the CNS role as potentially detrimental to the skill level of the ward nurses.

To gain greater visibility and clarity regarding their role, CNSs must seize opportunities that are present within their organizations which facilitate communication and/or demonstration of the CNS competencies. Likewise, healthcare organizations employing CNSs can utilize the CNS’s expertise in research and consultation to enhance both the use of evidence based findings by nurses and the generation of nursing research within the organization.
The CNS role has been plagued by role ambiguity and title confusion through its evolution. This ambiguity may in fact reflect an adaptability and flexibility needed for the dynamic times of change and innovation that lie ahead. Muller et al. (2010) in discussing the relationship between CNSs and the obtaining of Magnet Status for U.S. hospitals identified precisely that the lack of “a uniform role definition has been an advantage to CNSs in their pursuit of optimal role interpretation to achieve improved clinical outcomes” (p.253).

Considering the rapid changes and pressures within healthcare systems today, much can be gained from studying the CNS role as enacted in distinct supportive healthcare environments. Further research regarding perceptions of the CNS role would allow for an understanding of the role as it continues its evolution within the changing healthcare landscape. The three spheres of influence of CNSs could guide researchers to explore patients’, nurses’, and administrators’ perceptions of CNS roles within particular healthcare organizations. Researchers should strive to ensure that the perceptions studied are perceptions of those stakeholders that interact with CNSs who are prepared at the graduate level. Graduate nursing education has long been a mandated requirement of the role and as such should be an integral component within study designs. In recognition of the three spheres of influence of the CNS role, researchers should also endeavour to explore perceptions of patients, nurses, and members of healthcare systems that employee CNSs. The CNS role as it develops and evolves must maintain high levels of communication with other healthcare professionals including other nurses to fully exert a positive impact over the nursing personnel sphere of influence.
Significance of Findings to Nursing

This integrative review of literature related to perceptions of the CNS role has implications for registered nurses and for CNSs in their respective areas of practice. Researchers from each of the three decades explored included the perceptions of nurses of the CNS role. Variability of perceptions of nurses studied reflects the identified need of CNSs to maintain open communication regarding their role. Not all nurses that participated in the various studies fully supported the requirement that CNSs obtain graduate education. A number of research studies exploring perceptions of the CNS role had to be excluded from the review because CNSs at the site of the study clearly did not have graduate education. In some study findings other healthcare professionals were more able to perceive the benefit of graduate education for the CNS role than nursing respondents.

As we stand firmly planted in the new millennium and looking to a future in which nurses will need to continue to justify their contributions to the healthcare system, this lack of understanding regarding the CNS role requirements exhibits ongoing destabilizing forces within nursing. One theme that emerged throughout the three decades is the opportunity for CNSs to support the nursing sphere of influence through knowledge translation of research findings, use of research findings in application of evidence-based practice and generation of nursing knowledge through engaging in research. Nurses and nurse administrator respondents in studies reviewed indicated a perception of CNS expertise within the research component. CNS respondents themselves indicate a need for greater emphasis on research education in CNS education programs.
Conclusion

This literature review provides a greater understanding of perceptions of the CNS role by other healthcare providers and CNSs themselves. The original research question sought to determine if obtaining graduate education, as a requirement of CNS role enactment, granted greater visibility to the work of nurses. The results of this literature review guide me to respond that graduate education grants the CNS the opportunity to increase the visibility of nursing work. Factors within the healthcare system can enhance the CNS’s ability to make his/her work visible but, there is also an onus of responsibility on CNSs to choose opportunities to open the windows of organizational hierarchies to shed light on their activities. Important steps CNSs can take toward increasing the visibility of their work include open communication with other healthcare providers, remaining accessible for consultations, and actively and openly engaging in research application and generation.

In analyzing the research findings with an awareness of the societal forces of the three decades it becomes clear that the evolution of the CNS role continues. CNSs included in the studies report that the role ambiguity and confusion inherent in the CNS role can be viewed now as a positive attribute. During these present turbulent times the CNS role has the flexibility and resilience to not only adapt to the changing times but the skills and knowledge to shape the direction of healthcare through research and policy development.
References


**Appendix A**

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Sample</th>
<th>Method</th>
<th>Country</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarsitano, Brophy &amp; Snyder</td>
<td>1986</td>
<td>CNS (35) and Nurse administrators (54) (n-89)</td>
<td>Clifford Clinical Specialist Functions Inventory survey</td>
<td>USA</td>
<td>CNSs and Nursing Administrators reported similar high value on the clinical component of the CNS role and the educational component. The administrative component of the role was bilaterally rated as of lowest value. The Nursing Administrators placed a higher value on the research component of the CNS role than the CNSs studied.</td>
</tr>
<tr>
<td>Walker</td>
<td>1986</td>
<td>Nursing administrators (n-82)</td>
<td>Mailed questionnaire</td>
<td>USA</td>
<td>Overall positive results, high level of satisfaction with the CNS role and 96% of respondents felt the CNS role improved patient care. Optimal allocation of CNS role: 34% practitioner role; 29% staff &amp; patient educator; 22 % consultant; 15% research.</td>
</tr>
<tr>
<td>Sisson</td>
<td>1987</td>
<td>Managers, staff nurses, &amp; physicians (n-120)</td>
<td>Interviews</td>
<td>USA</td>
<td>The CNS seen primarily as a resource person, secondarily as a patient and staff educator. Insufficient communication with CNSs noted. Areas for improvement improved patient care, increased staff education, and increased communication.</td>
</tr>
<tr>
<td>Ingersoll</td>
<td>1988</td>
<td>Staff nurses Spinal Cord Injury Ward n-unknown</td>
<td>Questionnaires as a sub-study component of a quantitative study of CNS functions</td>
<td>USA</td>
<td>CNS perceived as primary resource 84.2% of the time. 65.8% of staff nurses identified the CNS as most helpful in caring for SCI patients.</td>
</tr>
<tr>
<td>Oda, Sparacino</td>
<td>1988</td>
<td>CNSs (n-36)</td>
<td>Role perception questionnaire</td>
<td>USA</td>
<td>Most CNSs were satisfied with their position and did</td>
</tr>
<tr>
<td>Study</td>
<td>Year</td>
<td>Participants</td>
<td>Methodology</td>
<td>Setting</td>
<td>Findings</td>
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<tr>
<td>&amp; Boyd</td>
<td>1993</td>
<td>Staff nurses (n=636)</td>
<td>Clifford Clinical Specialist Functions Inventory survey</td>
<td>USA</td>
<td>Not see an administrative posting as role advancement.</td>
</tr>
<tr>
<td>Nuccio et al.</td>
<td>1993</td>
<td>Staff nurses (n=636)</td>
<td>Clifford Clinical Specialist Functions Inventory survey</td>
<td>USA</td>
<td>Most important aspect of clinical practice seen as promoting and upgrading of nursing care in specialized areas; education role involved consultations and in-services; administration seen as the least important function of the role, research an important component in particular the assessment of need for research and evaluation of and conducting of research.</td>
</tr>
<tr>
<td>Scherer et al.</td>
<td>1994</td>
<td>Nursing Administrators (n=198)</td>
<td>Mailed questionnaires</td>
<td>USA</td>
<td>Administrators saw the CNS role as expert clinician most important, followed by educator, consultant/change agent, and researcher.</td>
</tr>
<tr>
<td>Baradell</td>
<td>1995</td>
<td>Patients (n=100)</td>
<td>Mailed questionnaires</td>
<td>USA</td>
<td>Patient respondents reported excellent clinical outcomes, improvement in QOL and satisfaction with CNS provided care.</td>
</tr>
<tr>
<td>Hester &amp; White</td>
<td>1996</td>
<td>CNSs (n=42)</td>
<td>Mailed survey</td>
<td>USA</td>
<td>71% of respondents did not want the CNS role deleted; 17% supported deletion of the role; and 12% supported blending the CNS and NP roles.</td>
</tr>
<tr>
<td>Dowling</td>
<td>2000</td>
<td>Staff nurses (113) and ward sisters (9) (n=122)</td>
<td>Interview</td>
<td>Ireland</td>
<td>CNSs were perceived as clinical experts and most suited to patient and staff education. Communication between CNSs and staff was perceived as needing improvement. Some respondents feared over use of CNSs could result in de-skilling of nurses.</td>
</tr>
<tr>
<td>Author</td>
<td>Year</td>
<td>Sample Size</td>
<td>Data Collection Method</td>
<td>Setting</td>
<td>Description</td>
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<tr>
<td>Canam</td>
<td>2005</td>
<td>CNSs n-16</td>
<td>In-depth interviews</td>
<td>Canada</td>
<td>CNSs provide care on an individual and population level.</td>
</tr>
<tr>
<td>Dias, Chambers-Evans &amp; Reidy</td>
<td>2010</td>
<td>CNSs n-8</td>
<td>Semi-structured interviews. Qualitative descriptive design</td>
<td>Canada</td>
<td>CNSs describe the consultative component of their role as involving several key areas: managing crisis situation, ensuring continuity of care, supporting other health care professionals and health-care teams.</td>
</tr>
</tbody>
</table>
Appendix B
Examples of studies excluded from literature review

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Sample</th>
<th>Method</th>
<th>Country</th>
<th>Reason for Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storr</td>
<td>1988</td>
<td>(n-3)</td>
<td>Researcher observation of role enactment of 3 CNSs</td>
<td>Canada</td>
<td>Small sample size lends the study to limited generalizability of CNS role enactment</td>
</tr>
<tr>
<td>Frelin, Oda &amp; Staggers</td>
<td>1990</td>
<td>US Army CNS nurse officer (n-52)</td>
<td>Role perception questionnaire</td>
<td>USA</td>
<td>Research was conducted focusing on unique practice environment of the US Army. Reported experiences strongly resembled the CNS civilian experience with a greater acceptance of an administrative role being a means of role advancement. US Army CNSs experienced their role as satisfying, view their professional role as matured, and valued by their supervisors.</td>
</tr>
<tr>
<td>Bousfield</td>
<td>1996</td>
<td>CNSs (n-7)</td>
<td>Personal interviews Phenomenological investigation</td>
<td>UK</td>
<td>Of the 7 CNSs participating in study only 1 had obtained graduate education</td>
</tr>
<tr>
<td>Bamford &amp; Gibson</td>
<td>2000</td>
<td>CNSs (n-25)</td>
<td>Focus group</td>
<td>UK</td>
<td>Participants self-identified as CNSs; however, no evidence to suggest they had obtained graduate education. Debates during focus group participation indicate that not only do some of the CNSs in study not have graduate education; they do not consider it essential to the role.</td>
</tr>
<tr>
<td>Jack, Oldham &amp; Williams</td>
<td>2003</td>
<td>Nurses, doctors, consultants (n-31)</td>
<td>Tape recorded open-ended interviews</td>
<td>UK</td>
<td>Excluded as authors did not clearly indicate education level of CNSs working on the palliative team. Study results: doctors saw the CNS role as supportive and providing advice, symptom</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Sample Description</td>
<td>Methodology</td>
<td>Country</td>
<td>Study Results</td>
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<tr>
<td>Potter &amp; Coey</td>
<td>2003</td>
<td>RNs working in haematology (n=13)</td>
<td>Mailed surveys</td>
<td>UK</td>
<td>Excluded as authors did not clearly indicate education level of CNSs working with the RNs being studied. Study results: of the ten identified key aspects of the CNS role support is seen as the most important followed by patient/family counselling and staff training.</td>
</tr>
<tr>
<td>Jack, Hendry &amp; Topping</td>
<td>2004</td>
<td>3rd year nursing students (n=220)</td>
<td>Self-report questionnaires</td>
<td>UK</td>
<td>Excluded as authors did not clearly indicate students had interacted with CNSs prepared at the graduate level. Findings support the findings of Dowling where concerns regarding the de-skilling of general nurses could result from implementation of the CNS role. CNS contribution seen as largely positive enhancing patient care. Negative perception is the potential for disjointed care.</td>
</tr>
<tr>
<td>Goodwin et al.</td>
<td>2004</td>
<td>CNSs working in the specialty field of epilepsy (n=82)</td>
<td>Mailed questionnaires</td>
<td>UK</td>
<td>CNSs lack evidence of graduate education</td>
</tr>
</tbody>
</table>

Nurses saw the CNS role as important for providing support and education.