A MODEL OF NURSING IN AN AMBULATORY CHRONIC DISEASE MANAGEMENT SETTING

A thesis submitted to the Faculty of Health Sciences,
University of the Witwatersrand
for the Degree of Doctor of Philosophy.
byVictoria Jane Pinkney-Atkinson

DECLARATION

I declare that this thesis is my own, unaided work. It is being submitted for the degree of Doctor of Philosophy in the University of the Witwatersrand. It has not been submitted for any other degree or examination in any other university.

This thesis was completed while employed by:

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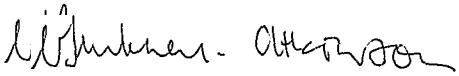

VICTORIA JANE PINKNEY-ATKINSON

Wednesday, 22 September 1999

DEDICATION

TO MY FAMILY

My dearest godmother

DREAMY DRAKE

and my beloved son

DAVID JOHN PINKNEY-ATKINSON

and

IN LOVING MEMORY OF GREAT NURTURERS

FLORENCE KHUZWAYO

JENNIFER FRY FUNKEY

ADELE MILLER TABACK

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LIST OF ABBREVIATIONS

BP	Blood pressure
CDM	Chronic disease management
CNS(s)	Clinical nurse specialists
DBP	Diastolic blood pressure
IDDM	Insulin dependant diabetes mellitus
NIDDM	Non-Insulin dependant diabetes mellitus
NP	Nurse practitioner
OPD	Outpatient department
SBP	Systolic blood pressure

LIST OF PUBLICATIONS ARISING FROM THIS STUDY

1. Pinkney-Atkinson, V.J., & Robertson, B. (1993) Ambulatory nursing: the handmaiden/specialist dichotomy. *Journal of Nursing Administration,* **23** (9),50-57.
2. Pinkney-Atkinson, V.J. (1991). Humanistic caring in ambulatory chronic disease management. In *Proceedings of the Centenary Nursing Conference.* Volume 3: Occupational Health Nursing. Pretoria: SA Nursing Association.
3. Pinkney-Atkinson, VJ (1991). Overview of a model of nursing care in chronic disease management. In *Proceedings of the Centenary Nursing Conference.* Volume 10: Practice-General. Pretoria: SA Nursing Association.

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CHAPTER 1: INTRODUCTION

> *This is a bewildering time for nurses. We are asked to prepare a foundation for the future of our profession, but we have no plan to guide us. We are asked to build its structure, but we have no mortar for the bricks. We are asked to furnish its interior but we do not know how to begin. There is no design to follow, no clear picture of what could be - only an elusive image waiting to be defined, acknowledged, and accepted. (Hein & Nicholson, 1986:1)*

When this study commenced in the mid 1980's nurse academics were engaged in an intensive effort to clarify the identity of nursing as a discipline distinct from other health professions. The outward manifestation of this struggle was the burgeoning of interest in nursing theory. Although there is a great deal of literature on the subject it is difficult to tell how this struggle has in reality impacted on the care given by ordinary nurses working with real patients. While nurse academics in South Africa and abroad wrestled with the weighty problems surrounding the nature of nursing, nurses providing patient care have often failed to see what all the fuss was about. Indeed, many nurses have questioned the relevance of nursing theory in the real world (Clifford, 1989: Johnson, 1985; Webb, 1986).

That is the way that this introductory chapter began until the almost final draft. It commenced as a conventional overview of the background information relevant to this doctoral thesis. Like many other written presentations of this genre, it cited the international trends and literature as a rationale for this study. However, each time a certain point was reached the content would not gel into a cohesive entity with the exact nature remained elusive. The revelation came as I searched through Meleis's excellent work, *Theoretical Nursing: Development and Progress,* which sketches the background and history of nursing theory (Meleis, 1985). What was previously subliminal became overt. It concerns the South African context.

The opening quotation has meaning and relevance for South African nurses in a way that is different from their American counterparts. While there were some similarities, many issues facing this country's nurses were moulded by the socio-political context with the liberation struggle forming the backdrop for this study.

1.1 Reason for the study.

This study deals with the nature of nursing within a historical, social and intellectual context. The group that is the focus of the study had its origins in the Soweto student revolt of 1976 and the events that followed in its aftermath (Wagstaff & Beukes, 1977). Some of the study's informants were members of the first group of specialist nurses trained in the management of ambulatory patients with chronic illnesses in 1977. The period from 1977 until the end of the data collection in 1992 was the hardest, most isolated and violent of the entire apartheid era.

The academic boycott during the 1980's meant that very few South African nurses residing within the country had access to interactive international debate and growth. South African nursing was, and still is, fragmented by racial, social and gender issues. The effects of the fragmentation have not yet worked though the nursing community as outlined in *Divided Sisterhood: Race, Class and Gender in the South African Nursing Profession*:

> Thus the profession today is facing, in the words of a senior nursing professor, 'a major crisis of identity'. This crisis is not simply the result of the more general crisis afflicting public health services in South Africa and internationally; it is also intimately connected to the gender stereotypes that have dominated the profession and its representation, its authoritarian character, and the enmeshing of its professional identity and organisation in the racial, class and gender divisions of a divided society. (Marks, 1994:14)

This present study attempts to uncover nursing knowledge at a very confusing time and place in South Africa's history. To achieve this understanding the nature of specialist nursing in an ambulatory chronic disease management setting is described. This statement is vitally important because the two main reasons for undertaking the study may be linked to it:

- lack of a collective South African consciousness on the nature of nursing;
- nurses as ambulatory care providers where there is poor access to health care.

These issues are discussed in the next sections.

1.1.1 South African nursing knowledge development.

The quest to uncover the nature of nursing means that this study is in the realm of nursing knowledge and theory development. Its focusses upon the

development has to take into cognisance the wealth of literature and trends in the rest of the world. By far the leading geographical area for nursing knowledge development is the United States (US). This study is in no way is an academic comparison of South Africa and the US. It simply highlights some of the major differences that make the application of US literature inappropriate for South Africa and hence for this study. This is in the spirit of the well known work by Mishler (1979).

American nurses have lead the field in the development of nursing knowledge and theory. In the mid 1980's when this study commenced, they were beginning to achieve consensus about aspects of nursing knowledge development (Meleis, 1985). It had lead to agreement for example on critical common components for a nursing theory: person, environment, health and nursing. This era of agreement followed decades of debate about nursing theory.

South African nurse academics only began to teach courses on nursing theory about that time. This teaching was neither preceded nor accompanied by the forty years of discussion on the need for nursing knowledge and theory. What was and remains most lacking is a collective consciousness of nursing epistemology. The ongoing interchange about the need for nursing knowledge and theory development has created a collective professional memory among American nurses. The same is not true of this country and that process is only just beginning as intellectual discourse had only occurred on a very limited scale. The collective American memory leads some academics to assume that there is universally applicable nursing knowledge.

At the heart of this study is the nagging doubt about the sufficiency of the evidence to support the hypothesis that South African nurses have a unified view of nursing. Of even more concern is the notion that they have a view coinciding with that of country with a vastly different social context. Nor can it be assumed that nursing in this country is the same as in the developed countries given the very different factors that have shaped its history. There have been local moves to replicate and "indigenise" American nursing knowledge. While these are laudable, they may not get to the root of the problem because they are starting from the wrong premise or assumption. The failure to consider cultural differences and similarities was noted nearly thirty years ago.

> Nursing theory and practice must take into account man's culture and social behaviour so that the nurse's mode of thinking and interacting with individuals will reflect new and penetrating views about behavior in health and illness. (...) Furthermore, we know that health services may be rejected, sabotaged, or severely criticized if the staff are antagonistic to the norms and health values of a cultural group. Thus, nursing educators and practitioners are remiss if they do not consider the culture of their patient community, their students, their staff, and their faculty. More and more, it is also important to have knowledge about cultural systems of hospitals, universities, schools of nursing and medicine, and patient groups. (Leininger, 1967:28)

Issues that are considered passe by developed countries are very much part of the reality in a developing country. Issues described as in the past for American nursing are still the reality in this and other developing countries. For, most South African nurses are only just beginning to develop a collective, and possibly different view of nursing. That worldview will help to find the similarities and the differences with the "accepted" American worldview. While it may ultimately it be shown that there are similarities, these need to be uncovered.

This discovery process will not be eased by nursing imperialism that informs South African nurses of the "officially sanctioned" versions of nursing contained in popular nursing theories. It is the kind of paternalistic response that comes from the dark side of nursing. A side that seems to be international in its need to dictate a worldview even when there is not sufficient evidence to support that perspective. Partly it is rooted in the origins and current views of nursing education as shown in the following excerpt.

> Nursing education has a long history of squelching curiosity and replacing it with conformity and a non-questioning attitude. Nursing education prepared nurses to think of themselves as the handmaidens of physicians, the executors of doctors orders, and the implementers of hospital policy. It has managed to socialize students to roles that are not congruent with scholarship and discovery. And independent thinking or critical attitude was the antithesis of what was expected of a nurse. Because nursing education was based more on apprenticeship, training, and experience than on ideas, knowledge, and learning, the nurse graduated to find herself more dependant on the medical and hospital systems than on self-reliance or problem solving. The education system in nursing did not help in building the self-image of a nurse being a source of knowledge. (Meleis, 1985:37-38).

The reasons for the lack of the collective South African memory about nursing lies in its divided past. In the years of that this study covers, 1977-1992, nursing

was shaped by political and class divisions. Little more than factual content of illnesses can be said to be shared. For decades most of the positions of power in academic nursing were held by Afrikaans speaking white South Africans.

The implications of this power elite's domination of South African nursing can be illustrated by the viewpoint of one the most influential nurses, Professor Charlotte Searle. Searle, influenced more than one generation of nurses of all races, from the powerless to the powerful through her writing, distance learning, influence on policy and forceful personality. This dominant personage's pro-apartheid stance is encapsulated in the following excerpt from her doctoral thesis (a standard text in university education for nearly three decades):

> No single factor contributed more to the rapid development of the non-White nursing service than the policy of separate development. (Searle, 1965:276)

This quotation is highlighted to show how sentiments that were deeply offensive to most of South African nurses could be stated as the accepted worldview. It further underlines the impossibility of having a collective nursing perspective in this country when the majority of nurses were referred to in a way that clearly stated their second class status. Furthermore, it underscores that the nursing reality in no way matched the lofty ideals itemised in the nursing theory developed a continent away.

The solution to some way forward lies in developing a collective consciousness that includes acknowledging the very painful past, a confused present and an unknown and uncertain future. It doing that we are recognising that nurses are part of a society that is still going through a very difficult healing process. One part of the way forward is to discover local nursing theory that acknowledges these painful and complex realities. While American nurses have had more than four decades of collective interaction on the development of nursing theory local nurses have had neither the length, diversity nor depth of discourse on nursing theory and related issues. Nursing theory remains primarily a university educational activity removed from the practice of the mass of ordinary nurses.

1.1.2 Health care access.

The second factor that differentiates South African nurses from its developed world counterparts is issues that relate to health care access. These issues will continue to dominate nursing for the decade to come since nurses are seen as central to redressing the imbalances of the past health care system. Ambulatory nursing is the field of nursing where extended practice roles have evolved because of failure to provided care to most of South Africans. The impetus for ambulatory nursing role development and maintenance has, in most cases come from the medical profession (Beaton, McMurdo & Wilson, 1978).

South Africa is a developing country with some very highly developed sectors. However, the provision of primary care to the majority of the under served population has increasingly become the responsibility of nurses. This trend began in earnest after the black student revolt in Soweto in June 1976. The ensuing violence and political upheaval made it difficult for doctors to deliver services in many areas. Most doctors were white and would have had difficulty entering the disadvantaged areas. It was felt that the black nurses known in that area would deliver the service effectively (Wagstaff & Beukes, 1977). So began the real role of the nurse as a primary care provider and this quickly spread to other areas that had problems of patient access for whatever reason.

For decades nurses within the power elite have always refrained from calling this cadre of nurses primary health care nurses (or nurse practitioners). Long before the Alma Ata definition of primary health care these nurses were providing as much comprehensive care as was possible in the practice circumstances. Argument reigned around the provision of a medical model of care, the perception that the nurses were as "mini-doctors" and the like. Once the competence debate had settled the medical profession accepted nurses in these roles. However, the nursing power elite held that these nurses were not nursing and not providing primary health care but doing something called "medical model" care. This is despite a change in legislation that enabled nurses to practice in these roles. They were certainly fulfilling a role that until very recently had been the prerogative of the doctor. The following decades did little to improve the situation as doctor numbers in resource poor areas continued to decline further entrenching this care in nursing sectors. Coupled with poor and

declining service conditions in the public sector increasing responsibility for ambulatory primary and specialised care fell onto nurses.

The majority of providers of primary health care in the public sector are black nurses who were trained by doctors and some nurses in supportive educational roles. This is due to the segregation of health care along racial lines until the late 1980's. Until then it was legislated that each race group cared for its own "kind". Access was primarily a racial issue since the "non-white" patients had limited access to health care. Problems arose for all patients in academic centres with the emigration of doctors after the Soweto uprising. This continued through the politically repressed 1980's.

The problems of access and marginalisation of nurse providers also manifested in the ambulatory management of chronic illnesses. Poor access is compounded when a patient has a chronic illness because he usually has to have repeated contacts for care over a period of years, even an entire lifetime. Likewise there is a misconception that primary health care only focuses on acute illness that is of relatively short duration. Chronic illness especially in an ambulatory setting is the forgotten element nursing practice.

The nurses who are the informants of this study were first trained for specialist management of ambulatory patients with chronic illness in the same era as the rise of the primary care nursing. The reasons for this development were similar to those of the primary health care nurses. Like their primary care colleagues, the informants have suffered from the same marginalisation. Failures to recognise the importance of this aspect of nursing can have a negative impact on the way that care is provided.

1.2 Domain of inquiry.

The aim of this study is to discover nursing knowledge. However, it is an excursion limited to a single practice setting in the outpatient department of an academic hospital in Johannesburg, South Africa. The informants of the study are clinical nurse specialists who care for ambulatory patients with the chronic illnesses of diabetes mellitus and/or hypertension. Therefore, in ethnographic terms this is a micro-ethnographic study as it deals with one informant group and one setting (Spradley, 1980).

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The unit of analysis is nursing work and the method chosen to study nursing work is the qualitative research methodology of grounded theory. The results of the study will be arranged as a substantive nursing theory of specialist ambulatory nursing work.

The remainder of this chapter will focus on the topics relevant to this study:

- nursing knowledge,
- nursing theory,
- clinical specialisation in nursing.

TABLE 1. 1: RESEARCH PARAMETERS SHOWING DOMAIN OF INQUIRY.

	RESEARCH PARAMETERS
Title	A model of nursing in an ambulatory chronic disease management setting.
Aim	To describe the nature of specialist ambulatory nursing work in a setting by using a single informant group consisting of the nurses who manage patients living with diabetes mellitus and/or hypertension.
Research question	What is the nature of nursing work as viewed by a group of clinical nurse specialists who manage the care of patients with the chronic illnesses of diabetes mellitus and/or hypertension in an outpatient clinic?
Research objectives	• To describe the environment and context in which the informants practice at an academic hospital in Johannesburg, South Africa.
	• To evaluate client care in each clinic in terms of selected client outcome parameters.
	• To develop a conceptual model of specialist nursing work in a single ambulatory nursing setting.
	• To make recommendations about the future of the role of the nurse in ambulatory chronic illness client clinics.

1.3 Nursing knowledge.

The problem of defining, clarifying and accepting that which is special to nursing is central to this study and reflects much of the confusion within nursing at this juncture. This has proved difficult since much of nursing's content and practices originate in other disciplines (Meleis, 1985; Perry & Jolley, 1991). The search began in earnest from the 1960s onwards when nursing emerged from medicine's dominant shadow. Medical practice and thinking had a profound influence with the pre-eminence of the disease-orientated medical model (Clifford, 1989; Cull-Wilby & Pepin, 1987). A grand theory or even definition of nursing is questioned because there are situational variants (Dunlop, 1986).

Nursing has sought to find an identity as a separate discipline with a unique body of knowledge. It is reasoned that by developing this knowledge nursing will attain greater legitimacy as a profession. The identification of nursing knowledge is seen as an important intellectual task in nursing (McCloskey & Grace, 1990). As Fuller (1978:701) notes:

> The autonomy of a profession rests more firmly on the uniqueness of its knowledge, knowledge gathered ever so slowly through the questioning of scientific inquiry. Nursing defined by power does not necessarily beget knowledge. But knowledge most often results in the ascription of power and is accompanied by autonomy.

As the cadre of nurse academics at universities has increased, there has been ever more pressure to justify an intellectual niche for nursing. They believe that the key to establishing nursing as a unique intellectual and practice domain lies in the development of theory.

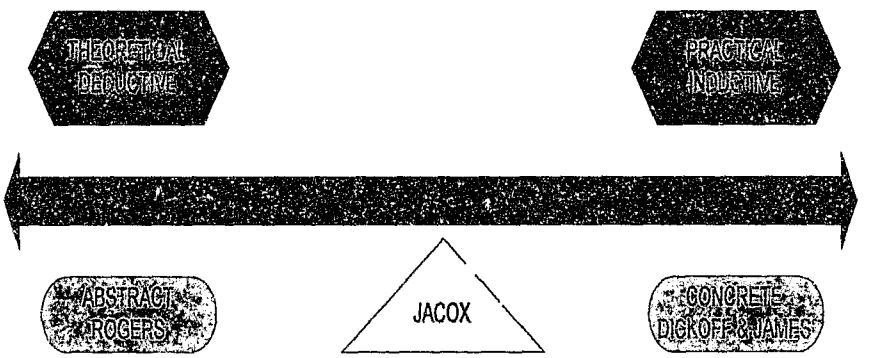
If knowledge is a socially constructed reality as Berger and Luckmann (1967) contend, then the mutual or social aspects of shared cognition and action are important. Therefore, much of what is considered unique in nursing falls into the realm of tacit knowledge. Tacit knowledge is shared or mutual knowledge within a nursing group and it goes beyond explicit instructions and facts (Polyani, 1958). Experiential, practical and mutual knowledge are terms that can be included within the concept of tacit knowledge (Heron, 1981; Lincoln & Guba, 1985).

In trying to identify the unique aspects of nursing the real focus is on uncovering the "something special" that "nurses are doing to account for these changes and what interactions between nurse and client make for positive results" (Sullivan, 1982:8). Moulde & Diers (1985) noted that there is little

research into these unique areas of nursing. Qualitative research with nurses as informants is a way to uncover the tacit knowledge.

> Knowledge development is an applied discipline consisting of extending practical knowledge (know how) through theory-based scientific investigations and through the charting of the existent know how that develops through the practice of the discipline. (...) The knowledge imbedded in this clinical expertise is central to the advancement of nursing practice and the development of nursing science. (Benner, 1983:37.)

The development of nursing knowledge usually occurs either from a theoretical or practice perspective as illustrated in Figure 1.1 (p. 10). These differing perspectives should be considered different points on a knowledge development continuum. If it develops from a theoretical basis then it describes the reality as the theorist sees it and attempts to fit the practice situation to it. Deductive methods are used to develop this knowledge Rogers' theory is an example. The converse is true of the development of knowledge from a practice standpoint. Here reality is described within the context of an actual setting and then it is translated into a theory (shown on the right of Figure 1.1).

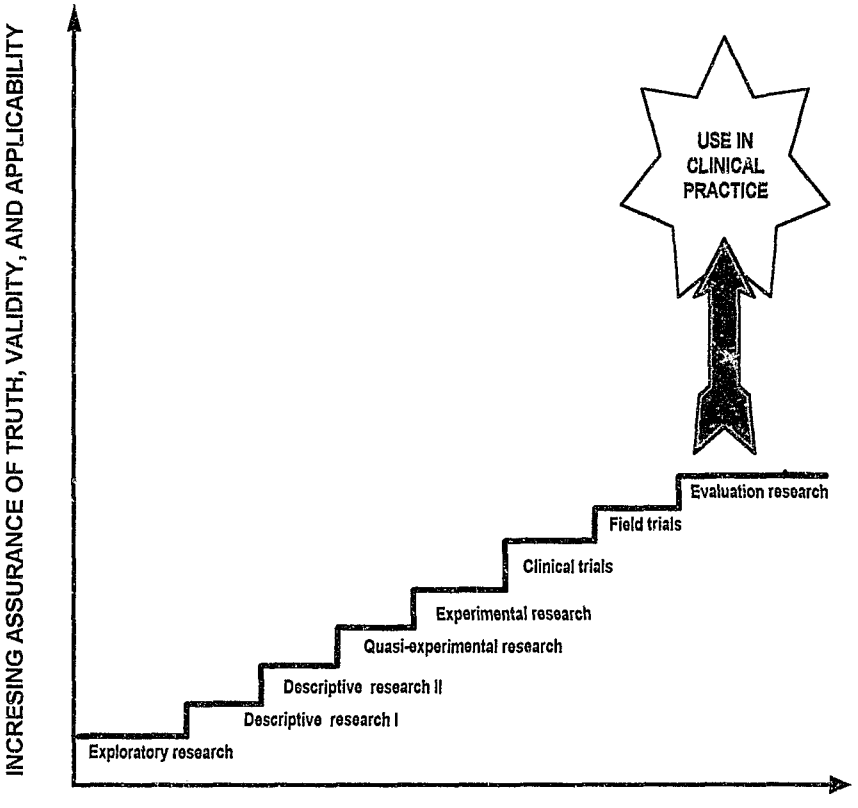


(Source: V Pinkney-Atkinson.)

FIGURE 1.1: CONTINUUM OF KNOWLEDGE DEVELOPMENT.

The development of nursing knowledge is not a "one off" procedure but occurs over a long period using different methods at different times. Stevenson's (1990) interpretation of the steps of theory development has been adapted and is shown

in Figure 1.2 (p. 11). It highlights the incremental nature of knowledge development. Depending on one's perspective of science, the development of theory will occur in different ways (Quint, 1967). In this study it was decided to go the practice route in which knowledge is derived from qualitative research using the grounded theory methodology. However, the uncovering of tacit knowledge provides a "methodological headache" for nursing (Meerabeau, 1992). As noted earlier, this study is aimed uncovering of tacit knowledge.



(Adapted from Stevenson, 1990)

FIGURE 1.2: STEPS IN THE RESEARCH DEVELOPMENT PROCESS TOWARDS KNOWLEDGE UTILISATION IN PRACTICE

1.4 Nursing theory.

One of the most important purposes of nursing theory is the development of unique knowledge (Craig, 1980). In 1965 an American Nurses Association position paper focussed attention on nursing theory development as a primary mechanism for the development of nursing knowledge. It resulted in the exponential growth in the number and variety of theories each representing a differing worldviews and scope.

The most prominent theorists are listed below with the date of their major work (George, 1985; Melies, 1985; Fitzpatrick & Whall, 1989):

- **1890** Nightingale (1890).
- **1950's** Peplau (1952), Henderson (1955), Hall (1959) Johnson (1959).
- **1960's** Abdellah (1960), Orlando (1961), Howland & McDowell (1963), Travelbee (1964), Weidenbach (1964), Harms & MacDonald (1966), Levine (1966), King (1968).
- **1970's** Rogers (1970), Roy (1970), Orem (1971), Roper, Logan & Tierney (1971), Neuman (1972), Patterson & Zderad (1976), Parse (1976).
- **1980's** Fitzpatrick (1983), Watson (1985), Leininger (1986).

With the exceptions of Nightingale (1890) and Roper et al (1971), all of the listed theorists are American. This confirms that theory development is primarily an American activity. The emphasis on theory development has not been without its critics:

> The development of theoretical frameworks can be seen from another perspective. They have been created to bestow respectability and credibility upon our profession. They have provided a professionalizing stance. This is in response to how other professions have evolved. Thus, it seemed important to follow the same path. This, in a way, is a knee-jerk response. Perhaps, it is time to question the definitions of what a profession is, and indeed, whether or not professions utilizing models have served the public well. (Hardy, 1986:106).

Quotations such as this one perhaps gives some indication of the more contentious side of theory development, the one that resulted in years of wrangling. Although some kind of unanimity has been reached, much about nursing theories remains controversial, e.g. definitions of theory, scope of theories. Still, there are some who believe that a theory of nursing is not possible

for this implies that there is one or more universal core concepts (McFarlane, 1976; Cash, 1990). Others feel that there are only situational truths in nursing (Dunlop, 1986). Arising out of the confusion are definite themes that show the areas of agreement, disagreement and emerging areas. Some of these issues have direct relevance for this study because they impact on the content and processes. According to Kemp (1990) these themes are:

- *Areas of agreement*
  - the need for nursing theory;
  - the domain of nursing;
- *Areas of divergence.*
  - the meaning of theoretical terms;
  - What is a nursing theory?
- *Emerging and ongoing themes.*
  - holism and particularism;
  - shifting philosophical base;
  - acceptance of diversity;
  - theory for practice and clinical modelling;
  - gender sensitive or feminist knowledge.

Another factor that influenced the theory development was a requirement for nursing school accreditation that curricula are based on a nursing theory. A similar but less overt trend occurred in this country in 1986 when nursing theory was legislated into nursing education by prescribing a particular philosophy to underpin the curriculum of all nursing education.

1.4.1 Approaching nursing theory definition.

Like so much else in this intellectual area, there is continuing debate on what constitutes a theory. Attempts to differentiate between the terms are not necessarily helpful. Terms such as *conceptual model, conceptual framework*, and *theory*, are used interchangeably by some and differentiated by others. Adam (1985) states collectively the terms can be viewed as abstractions, conceptions, mental images and ways of viewing reality. Similarly Meleis (1985:96) notes:

> ... the differences between conceptual models, frameworks, and theories relegate most of these differences to semantics and the confusion created by the many nurse scientists and theoreticians who

> have been educated in a multitude of fields. The rationale for taking this perspective is not to argue for a new position nor to initiate a debate, but rather to cast some doubt on the significance of differences between theory and conceptual models.

For the same reasons the terms are used interchangeably in this study. Nursing theorists have yet to resolve these issues satisfactorily. It is not the objective of this section to get into the debate that others (much more erudite on the subject) have failed to resolve. Rather, it is to outline the areas of consensus and conflict relevant to this study. Having identified that as a problem, not entering the morass of syntax is almost impossible. The selection of the word *model* in the title of this study was a deliberate, but not particularly useful, attempt to avoid the semantic debate. It was chosen because it implies a theory under construction or development. It was a response to the grandiosity that surrounds metatheory construction in nursing.

Both of the following definitions of theory are appropriate and the use of the term model is interchangeable for the author.

> A theory is *a set of theoretical statements* that specify relationships between two or more classes of phenomena (and therefore, concepts) in order to understand a problem or the nature of things. (Kim, 1983:11).

And best of all for its loose construction:

> The term *theory* is used to describe the conceptualizations (theories, models and frameworks) that have been proposed by theorists. (Kemp, 1990:609).

A model is anything that represents perceived reality and it can be linked to the terms conceptual or theoretical model. In one sense a model is part of the process to developing a theory as it is akin to the first stages of knowledge development with a theory having greater specificity (Capers, 1986). Part of the confusion is highlighted in this quotation from the period:

> Theoretical models are similar to conceptual models but imply less tentativeness. Terms sometimes used interchangeable with "conceptual" and "theoretical models" are "conceptual" and "theoretical framework." There is not clear distinction across disciplines for use of the words "conceptual model" versus "conceptual framework." (...) Theory by our definition goes beyond the meaning of conceptual model but includes the notion that conceptual theoretical models precede and coexist with theory. (Chin & Jacobs, 1983:14)

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And best of all for its loose construction:

> The term *theory* is used to describe the conceptualizations (theories, models and frameworks) that have been proposed by theorists. (Kemp, 1990:609).

A model is anything that represents perceived reality and it can be linked to the terms conceptual or theoretical model. In one sense a model is part of the process to developing a theory as it is akin to the first stages of knowledge development with a theory having greater specificity (Capers, 1986). Part of the confusion is highlighted in this quotation from the period:

> Theoretical models are similar to conceptual models but imply less tentativeness. Terms sometimes used interchangeable with "conceptual" and "theoretical models" are "conceptual" and "theoretical framework." There is not clear distinction across disciplines for use of the words "conceptual model" versus "conceptual framework." (...) Theory by our definition goes beyond the meaning of conceptual model but includes the notion that conceptual theoretical models precede and coexist with theory. (Chin & Jacobs, 1983:14)

1.4.2 Domain of nursing.

The domains of nursing are also described as the critical components of a nursing metatheory. This metaparadigmatic view helps to outline the areas of interest in nursing as an intellectual discipline. The components of person, environment, health and nursing are widely accepted as central to a nursing metaparadigm but there is continued evolution with alternative proposals (Firlit, 1990). Flaskerud and Halloren (1980), Fawcett (1984) and others have outlined the key components:

- **Person:** the recipient of care.
- **Environment:** the contextual aspects relating to the person receiving care and/or the place in which nursing is performed.
- **Health:** the goal or outcome of care.
- **Nursing:** the activity of the provider of care, nursing action, nursing process.

1.4.2 Types of theory.

Theories can be classified in a number of ways some examples are: scope (breadth of nursing theory), content (needs, outcomes etc.), and stage of theory development. Only those relevant to this study will be described below.

1.4.2.1 Scope

The scope refers to the breadth and level of abstraction of the concepts that are being explained.

- *Grand theory* (metatheory) describes phenomena in a general field at the broadest level of abstraction. The theories of Roy (1959) and Johnson (1970) are considered examples are the "theories of nursing" (Fitzpatrick & Whall 1983; Galbreath 1985; George 1985a; Lobo 1985; Riehl & Roy 1974).
- *Middle range theories* are on a smaller scale and relate to one reference group. Examples, Reihl and King (Fitzpatrick & Whall, 1983; George, 1985a; George, 1985b; Riehl & Roy, 1974).
- *Micro-theory* set of theoretical statements that deal with narrowly defined phenomena. These are also known as substantive theories. This study is a micro-theory because it focuses on one small group and examines only the work of these informants.

1.4.2.2 Stage of theory construction

This refers to the four stages or levels of development from the simplest to the most complex (Dickoff, James & Wiedenbach,1986a):

- Descriptive: factor isolating research identifying phenomena
- Explanatory: factor relating research explaining relationships between phenomena;
- Predictive: situation relating
- Prescriptive: situation producing.

1.5 Clinical specialisation in nursing.

The literature on nursing specialisation is strongly biassed in favour of the American perspective. It is for this reason that the discussion will be limited because so much of what has been written is not directly relevant to South Africa and other countries that follow the British apprenticeship model of nursing education.

Specialisation within clinical nursing practice increased in the past three decades. This is not limited to nursing as other health professions are experience similar trends (e.g. medicine, social work, and physiotherapy). The specialist practitioner in any field lays claim to greater depth of knowledge and practical expertise in an confined area of the discipline (Beecroft & Papenhausen, 1988). Specialist practitioners in clinical fields are called clinical nurse specialists (CNSs) in the United States and most practice in hospital or acute care inpatient settings (Hodges et al, 1988). Other nurses, specialised in the provision of primary health care, are known as nurse practitioners (NPs) and practice mainly in ambulatory settings (Sultz, Henry & Sullivan, 1979). CNSs and NPs were initially considered different categories of nurses but both are now considered clinical specialist roles. The practice settings on which they focus differ as does the scope of health care problems (Kitzman, 1983, Papenhausen & Beecroft, 1990). Today the term *advanced clinical practitioner* is considered more appropriate as it extends beyond roles (Davies & Hughes, 1995).

> The terms *clinical nurse specialist* and *nurse practitioner* will probably have to be exchanged for a title that more accurately describes the advanced clinician of the future, since there will probably be fewer CNSs aligned according to a body system or particular malady and more whose skill encompass a wide range of treatment and health maintenance behaviours for a select client population. (Spross & Hamric, 1983:296).

The major areas of clinical specialisation are: midwifery, medical-surgical (general), community, and psychiatric nursing. Within general nursing there are further areas of focus: intensive care, renal, operating theatre and orthopaedics. Nursing specialities tend to follow along lines similar to those of medicine but there are differences that are peculiar to nursing such as entero-stomal therapy (McFarlane, 1976).

There is an ongoing and unresolved debate about what makes up a clinical nurse specialist. The major criterion for recognition as a CNS is the educational qualification. The important aspects of CNS are listed below (American Nurses Association, 1976):

- qualifications: masters' degree in a specific area of clinical nursing;
- role defined by: client needs, societal expectations and clinical expertise of the nurse;
- specialisation elements included clinical judgement and skills regarding client care, patient advocate and change agent in the nursing care and in the health care delivery system;
- role termination when no longer directly involved in patient care.

Both formal education and continued clinical practice are important criteria for specialisation. Educational preparation at a master's degree level differentiates the CNS role in the USA from many other countries (Pearson, 1983). A Nigerian study of nurses working in extended primary health care roles showed the lack of baccalaureate or NP education is noted (Olade, 1989). In the USA with its different education system there is increasing convergence on the educational criterion (Werner, Bumann and O'Brien, 1988a).

Although the role was first described in the 1940's, decades later there was still no consensus on major aspects:

> Defining and implementing the role of the clinical nurse specialist have been confusing, frustrating, and controversial. Issues of organizational placement, authority, job activities and responsibilities, economic effectiveness, impact on quality care, educational preparation, and titling have been restraints in implementing the clinical nurse specialist role. (Werner, Bumann & O'Brien, 1988b).

In Britain there are wide variations in interpretation of the role with pioneering still taking place at the beginning of the 90's (Stafford, 1991). Within this system specialist practice is considered to have clinical, teaching, management and research components.

The need for specialisation is linked to the knowledge explosion in medical science and increasing technology. As medicine makes way for new knowledge, technology, and skills so nursing changes by becoming more scientifically and technologically orientated. This reciprocal relationship has meant that as medical practice changed so too has nursing. Much considered to be nursing work was once the domain of the doctor (Papenhausen & Beecroft, 1990). Initially in taking on more specialist functions nurses were described as practising in *extended* or *expanded* roles (Murphy, 1970). Although there was debate on the terms both highlight that nursing was perceived to have a finite boundary of practice (Bullough, 1976). Movement beyond this ill-defined boundary was considered extending the scope of practice of the nurse. Historical and legal precedents tended to reinforce the traditionally held view that the nurse should not diagnose, prescribe client care, or treat patients as independent practitioners. When nurses began to perform these functions they were seen to be acting in extended roles. Role expansion engendered a great deal of discussion in health care professions.

The concepts of role expansion and development are central to the process of specialisation in nursing. For as the knowledge and technology increases so will nursing roles continue to change. Nursing roles in specialised fields continue to develop and remain a significant feature of the secondary and tertiary levels of health care. Some primary reasons for development are the maldistribution of doctors resulting in problematic access, changes in health care delivery systems and increased knowledge and skill requirements in the provision of nursing care (Spross & Hamric, 1983).

Today there has been a resurgence of interest in the comprehensive case management of patients with long-term illness like hypertension and diabetes. It

is borne out of a concern for the increasing fragmentation of care that occurring because of managed health care. The nurse is ideally placed to deal with these trends.

1.5.1 CNS role components.

Given the amount of controversy that surround the areas highlighted this far it would be strange if there was no controversy about the role components of the CNS! Girard (1987) and Ryan-Merrit et al (1988) have documented the controversy. Table 1.2 shows the components of the CNS role. When looking at the list many components are clearly dependent on the type of practice setting rather than being universal components. This supports the notion that the key competencies rather than roles' components should be the focus of role definition. According to Davies and Hughes (1995) key competencies include:

- clinical expertise;
- critical thinking and analytical skills;
- clinical judgement and decision making;
- leadership and management;
- communication;
- problem solving;
- collaboration;
- education and research;
- patient programme development in response to needs.

Again nursing is at odds with the way that other health care professions define specialisation. These definitions imply that the availability of students to teach, conducting research and acting as a consultant are key to specialisation. Furthermore editorials have suggested that specialisation is different from being a clinical nurse specialist (Papenhausen & Beecroft, 1990). It raises the question as to the reason nurses need a whole breed of superspecialists within specialist ranks. It appears strange that in nursing definition as a specialist depends upon the availability of students to teach, conducting research and acting as a consultant.

The practice of nurses in advanced clinical roles has also been problematic from a nursing theory perspective:

> Our review of nurse practitioner studies points out an alarming but not surprising consistency. Almost without exception, test of the effect of nurse practitioner practice are evaluations, and are atheoretical. There appears to have been little attempt so far to develop the kinds of theories and abstraction now appearing more and more frequently in the more general literature. (Diers & Moulde, 1979:76)

Six years later the same authors repeated the theme in an article highlighting the paucity of research into the" something special" that nurse practitioners do in their work that improves compliance and decreases symptoms (Moulde & Diers, 1985). Sullivan (1982) first used the phraseology "something special" when motivating for evaluation of nursing that:

> could show what nurses are doing to account for these changes and what interactions between nurse and client make for positive results. (p.8).

Studies of this ilk are looking at the nature of advanced nurse nursing in particular practice settings.

TABLE 1.2: COMPONENTS OF THE CNS ROLE.

Adapted from Ryan-Merritt, Mitchell & Pagel (1988).

Component of CNS role	Definition	Examples activities.
Director of care - clinical	Provides manages, and evaluates nursing care.	• Assessment, planning, evaluation. • Provides patient care. • Advises on patient care problems. • Patient advocacy. • Role model.
Manager	Utilizes the managerial process to create an environment conducive to professional nursing practice.	• Interviews staff for selection. • Effective resources use, e.g. supplies equipment, budget, personnel. • Formulates policies for nursing practice.
Teacher	Facilitator of learning.	• Assesses patient & staff learning needs. • Plans & implements interventions.
Researcher	Uses processes of critical inquiry to contribute to nursing's body of knowledge.	• Generates researchable problems. • Evaluates research findings. • Identifies appropriate research dissemination strategies. • Communicates research findings.
Consultant	Provides expertise with the consultee retaining decision making authority.	• Assesses the need for consultation. • Collects and interprets information. • Reaches a contractual agreement.
Collaborator.	Works cooperatively with members of the multidisciplinary team towards the accomplishment of mutual goals.	• Articulates own needs, abilities and talents. • Works with a team towards goal development and achievement. • Displays concern for team & members.

1.5.2 Clinical specialisation in South Africa.

In this country there is little relevant information on clinical specialisation. Although some of the factors are similar to the USA, many others were different. Therefore, it could not be taken for granted that the solutions were the same. The use of the term CNS is uncommon in South Africa and there is no officially recognised definition (Dewar, 1988). This country is a developing country with a

very small proportion of nurses with a university degree at the basic educational level. The system of nursing education is similar Britain's and as such, the criterion of a master's degree is inappropriate (Searle, 1988). Nevertheless there have been attempts to make this a requirement (Uys & Dewar, 1988). The following definition is more appropriate to this country:

> a clinical nurse specialist is a registered nurse who has had formal post-registration education in a clinical nursing speciality and who continues to practice and develop expertise in that speciality. (Pinkney-Atkinson, 1986:17).

Advanced clinical practice areas in South Africa are similar to those in the US but the terminology differs. Formal national recognition for advanced nursing courses is dependent on the acceptance of a course as a diploma (year or longer) or certificate level (≤ 6 months) by the South African Nursing Council according to rigid criteria. Not all formal courses in advanced nursing are officially listed with the registering authority. Since they were first introduced in the 1940's, there has been a plethora of courses designed to meet varied needs. They range from:

- a whole clinical discipline, e.g. ophthalmic nursing;
- to those limited to a particular illness, e.g. tuberculosis, diabetes and hypertension;
- to other educational programmes have focussed only on procedures, e.g. total parenteral nutrition and haematology cell separation (Du Preez, 1988).

Educational preparation and other related requirements for advanced nursing practice vary along a continuum as shown in Figure 1.3 (p. 24).

At the "super-specialist" end of the continuum (left), nurses gain specialisation in a university (US terminology - college) to the level of a doctor's or master's degree usually requiring two or more years to complete. This group constitutes a super-elite because very few educational institutions, nurses and clinical specialities have the resources for this level of specialisation as shown by the small number of nurses with basic degrees in clinical areas (Van Niekerk, 1988; Searle, 1988). Psychiatric nursing has been the most successful in achieving this level of specialisation. Outside psychiatric nursing the nurses who try to attain specialisation usually have to have clinical mentors and supervisors from the medical fraternity. The clinical content of the curriculum is largely developed

by educators involved in the course. Registration of the speciality may occur with the national registering authority.

The midpoint of the continuum is held by the many one-year courses in a variety of clinical areas that are registerable with the national nursing council as an additional qualification. These courses are usually based in a nursing college (US terminology - nursing school) with close links to an institution that provided care to patients, e.g. hospital. Only some colleges offer specialist courses on a selected basis. The system of education follows the apprenticeship model of pre-registration training in South Africa. Most trainees are the employees of a health authority and are granted paid study leave to complete the course. Frequently the "students" continue to provided essential patient care for the majority of time that they are in the practical setting.

This type of training was, and still is, problematic. A reason is that it offered one of the only ways for nurses to gain additional salary increases. That is, for each course of a year or longer successfully completed (up to a limit) nurses would be given a salary increment or notch. Since other avenues for promotion to the highest levels in clinical fields were not open to nurses, it meant that many nurses completed one course after another. These "course hoppers" never really practised in a field for longer than the required period before moving on to another course. In addition there were often shortages of posts particularly at "black" hospitals that made the life of a perpetual student the only way to stay employed. Students were not supernumery to the provision of patient care so the abuse of students is perpetuated. It is for this reason that the local definition of clinical specialisation contains the reference to continued practice in the area of specialisation.

At the right-hand end of the continuum are the in-service or short courses. These are usually hospital-based in-service programmes. Those registered with the nursing authority as "short courses" require an approved training scheme for a minimum of six months. Other in-service courses, formally planned and designed according to educational principles, but have not gone through the process of registration with the nursing authority (Pinkney-Atkinson, 1979 & 1983). Successful candidates are given certificates by the employing / education authority. These are the lowest status courses in the hierarchy of advanced

clinical practice. The hypertension and diabetes courses that the informants of this study undertook are in this category:

- in-service education courses;
- lasting at least six months or longer;
- developed according to acceptable educational criteria;
- not recognised by the South African Nursing Council

University	Nursing college/ Technical college	In-service
Doctor's/ master's degree	Diploma	Certificate.
▲	▲	▲
Few years	**Year**	**Few months**
Psychiatry	Intensive care	Diabetes /hypertension.

(Source: V Pinkney-Atkinson.)

FIGURE 1.3: CONTINUUM OF ADVANCED NURSING PRACTICE.

So the development of in-service programmes for the nurses to become an advanced practitioner in the care of ambulatory patients with hypertension and diabetes mellitus is well supported by local trends. However, local nursing literature on advanced clinical practice and research in this field is sparse. If compared with the role components listed in the previous section (p. 19) then the nurses who are the informants in this study are the South African equivalent of the CNS and can be considered advanced practitioners. From 1977 onwards, these nurses were known within the Johannesburg Hospital as advanced clinical nurses at the local cutting edge of this trend. They practised in these extended roles and took on increased responsibility without qualifying for or receiving salary increments.

1.5.3 Ambulatory nursing specialisation

The South African equivalent of the American NP is the primary health care nurse. This ambulatory role has political significance because it came into being at the time of the Soweto uprising (p. 6). Most primary care nurses were black and conversely most of the prime movers for the courses throughout have been white medical doctors. For many reasons this group has since its inception been marginalised from the mainstream of nursing. Some of these are the:

- provision of care was often provided in a politicised setting linked to the liberation struggle;
- almost all care was provided by black nurses;
- championing of their cause by doctors.

The main conflict has centred around the "medical model of care" as opposed to a health care or nursing model, with a supposed focus on providing predominantly curative care as opposed to comprehensive care. As Ntoane (1993) notes there were changes in the concept of primary care from first contact care as the Alma Ata definition became more accepted.

The marginalisation took the form of the lack of recognition of the training as primary health care work. The power elite decided to call the course "Clinical Nursing Science, Health Assessment, Treatment and Care" and it became known by staffers at the South African Nursing Council as "that course." However, there was a failure to convince practising nurses that these nurses were not providing primary health care. Since independence the democratically elected government has strengthened and increased this nursing role giving it legitimacy and it is likely that the new interim nursing council and its successors will have different views from the previous incumbents. It is likely when this group is studied from a socio-political perspective much more about the reasons for marginalisation will be apparent.

At first, primary health care nurses were accepted by no-one: nurses, doctors or patients. However, over the years acceptance came from patients and doctors but never from the nursing power elite. They were called "mini- doctors" highlighting the perception that they were no longer nursing. One major reason for the lack of recognition as a nursing discipline it was practised in an ambulatory setting where nurses have traditionally played passive and servile roles (page 28). In this setting active practice roles looked (at least from the outsider's

perspective) like "doctoring". Even so, it did not mean that a brand of nursing could not and did not evolve in these settings.

The nurses who worked in specialist ambulatory chronic disease management clinics suffered from similar problems. Their origins and practice settings were similar to those of the primary health care nurses. However, the number of nurses who worked in these fields was very small, unlike the present. It was the desire to uncover the nature of specialist ambulatory nursing that prompted this study and, if possible, to link it to a national and international body of knowledge. It is the reason for the study of the marginalised roles in ambulatory specialist nursing practice.

1.5.4 Chronic disease management nursing.

The ambulatory nursing roles that focus on the specialist management of patients suffering with a chronic illness had their origins at the same time as the primary health care nurses. Shortages of specialist medical caregivers for specific disease conditions and the long-term care of stable chronically ill patients were considered a poor utilisation of these resources, as this rather patronising quotation shows:

> Let us be honest with ourselves! The long-term routine care of the hypertensive patient offers no challenge. Just as we rely on specially trained nurses in the coronary intensive care unit, we must become aware of their value in the follow-up of hypertensive patients. (...) (The) patient can ideally be followed by a nurse or health assistant working under the nurse. The nurse, challenged by the assignment, establishes a meaningful relationship with the patient which allows her to motivate the patient to take medication and to remain under care for the rest of his or her life. (Finnerty, 1967:605)

Expanded ambulatory roles for nurses in the management of chronic illness were established in the US more than three decades ago (Guthrie et al, 1964). South Africa began with the establishment of stomatherapy as a specialisation in the mid 1970's. However, this speciality has significant inpatient responsibilities.

From its inception the role of the nurse in the management of chronic illnesses has always been comprehensive in nature (Pinkney-Atkinson, 1978). These nurses were very different in that they did not take on the handmaiden roles like other nurses working in the OPD and yet there were no role models from the ranks of nursing. The only other closely allied group was the primary health care

nurses. Like their primary health care counterparts, it did mean that a unique brand of nursing evolved that was different from that of their doctor preceptors. This study attempts to uncover the nature of nursing in that setting.

The assumption that the person with a chronic illness is the same as an inpatient or even an acutely ill outpatient exists. Nevertheless, this class of patient has special needs that are fundamentally different:

> For a person with a chronic illness, life is altered in some way. Whether simple or complex, changes are nevertheless permanent. A patient with a chronic disease assess recommended treatments on how well they can be integrated into his life. Evidence suggests that an individual's perception of his situation will determine whether or not he will comply with a medical regimen. Health professionals neglect the patient's point of view if they believe that patient regards the health professional as the absolute authority, thereby contributing to non-compliance. (Cameron & Gregor, 1987:671).

The person with a chronic illness is autonomous and nurses must develop special relationships with them and these must last a long time.
Then there are the long-term problems of handling illnesses: costs, access and many health problems especially in persons who live in urban areas. The fragmented care given to persons with long-term illnesses has led to the increasing importance of disease management particularly in managed health care environments. This is true of all population groups and at all levels of care from the least to the most sophisticated.

WHO has shown that chronic diseases become major causes of death when any population's life expectancy exceeds more than 60 years. In the South African white population this is an increasingly important problem as the population ages. Also the diseases that are the focus of this study are classified as chronic diseases of lifestyle:

> Chronic illness of lifestyle are a group of illnesses that share similar risk factors as a result of exposure over many decades, to unhealthy diets, smoking, lack of exercise and possibly stress. The major risk factors are high blood pressure, tobacco addiction, high blood cholesterol and diabetes. These result in high mortality rates due to among others, strokes, heart attaches, tobacco- and nutrition induced cancers, chronic bronchitis and emphysema. (Fourie & Steyn, 1995:i)

Many do not like this classification as it has negative implications for those who do not have the illness through a poor lifestyle, e.g. insulin dependant diabetes mellitus (IDDM).

1.6 Ambulatory nursing.

Ambulatory care services are the backbone of the health care system and are widely diverse. It occurs in settings where patients do not require an overnight stay away from home (Phipps & Buergin, 1987). Definitions often fail to give insight into the wide range of care setting, level/type of care offered and variety of practitioners (Ross et al, 1984). The term is used interchangeably with *outpatient care* and:

> ... encompasses different types of venues for patient care such as outpatient or community clinics; casualty or emergency rooms; doctor's consulting rooms also home care services such as visits by district nurses and community health nurses. The term also includes all aspects of health care including preventive, promotive, curative and rehabilitative care. (Murnaghan, 1973:13).

By implication ambulatory nursing is the provision of an appropriate level of episodic nursing care over variable period (days to years) given to persons in a variety of settings (hospital outpatient departments to community clinic, workplace, school, or home). An important feature of ambulatory care is the wide variety of setting in which it can occur. The ambulatory context of care is very different from the one in which most nurses in this country obtain their training. In this system of education nursing students gain the preponderance of practical experience in the ward or inpatient setting. This sustains the impression that real nursing only occurs in an environment in which the patient is more dependant on the nurse as caregiver. Although there is more contact with ambulatory care in the present education system it is still heavily biased in the general nursing field to inpatient care.

The outpatient department of public hospitals are considered as distant and little understood sources of ambulatory care. Their relevance for patients is infrequently understood as a vital part of the continuum of nursing care. It is hardly surprising that the content of nursing work in this setting suffers from the same neglect. The work done by registered nurses in hospital outpatient *departments is different from inpatient nursing care because the nature of patient* contact is episodic with little direct care. Traditionally nurses working in this setting do mainly non-nursing, clerical activities. Their:

> day-to-day activities would generally revolve around stocking and cleaning examining rooms and other areas of the clinic, explaining to the patients the outcome of their visits with the physician, scheduling appointments for the patient in other areas of the system, assisting

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> day-to-day activities would generally revolve around stocking and cleaning examining rooms and other areas of the clinic, explaining to the patients the outcome of their visits with the physician, scheduling appointments for the patient in other areas of the system, assisting

> the physician with some procedures such as pelvic examinations and routine simple surgeries, completing routine paper work such as requisitions for patient testing and requests for medical records, and participating in an occasional nursing encounter. These tasks were accomplished between answering the telephone. (Hooks, Dewitz-Arnold & Westbrook, 1980:13)

This role is "ritualistic and rigid" with the nurses functioning "chiefly as traffic controllers, sorters of reports ..." (Buchanan, 1977:45). Unfortunately except in areas where nurses have taken on advanced clinical roles this is still the case today. Advanced clinical nursing roles continue to develop in ambulatory settings with a focus on direct patient care than their traditional outpatient department counterparts (Pinkney-Atkinson & Robertson, 1993). The current policy of the national Department of Health is to stimulate and support nurses in primary health care roles to overcome the problems of access.

1.7 Definition of terms.

The preceding sections have discussed the issues that surround the terms that are relevant to this study. In this section the terms are defined according to their use in this study.

1.7.1 Ambulatory nursing care.

The provision of an appropriate level of episodic nursing care over a period of days to years given to a patient in a variety of settings from hospital outpatient department, community clinic, worksite, school or home (Pinkney-Atkinson & Robertson, 1993).

1.7.2 Chronic disease.

The 1956 Commission on Chronic Illness definition remains adequate:

> All impairments or deviations from normal which have one or more of the following characteristics: are permanent, leave residual disability, are caused by non-reversible pathological alteration, require special training of the patient for rehabilitation, may be expected to require a long period of supervision, observation, or care. (Strauss, Corbin, Fagerhaugh, et al, 1984:1)

Diabetes mellitus and hypertension are the chronic diseases that are the focus of this study.

1.7.3 Chronic disease management.

A comprehensive approach to the provision health care to persons with a chronic illness by one or more categories of health care provider. All levels of intervention are included from primary prevention, through acute disease management and rehabilitation.

1.7.4 Model.

The term theoretical framework, conceptual model, model and theory are used interchangeably in this study to avoid the problems of semantics that has long lead to confusion in nursing. Inthis study a model or theory is:

> ..an articulated and communicated conceptualization of invented or discovered reality (central phenomena and relationships) in or pertaining to nursing for the purpose of describing, explaining, predicting, or prescribing nursing care. (Meleis, 1985:29).

1.7.5 Specialist nurse.

A specialist nurse is an advanced clinical practitioner who is a registered nurse and has had formal post-registration education in a clinical nursing speciality and continues to practice and develop expertise in that speciality. (Pinkney-Atkinson, 1986:17).

1.7.6 Setting.

The terms *social situation* and *social context* are used interchangeably. The three primary elements in any social situation are: a place, actors, and activities (Spradley, 1984, p. 39). Therefore, the term setting refers to both a social phenomenon and a physical place similar to that of Lofland (1971:16) "a similarity of circumstance of action" of the actors that may transcend space and time.

1.8 Assumptions.

The following assumptions underlie this research:

- The specialist nurses who are the informants of this study are the South African equivalent of the American CNS or advanced clinical practitioner.
- That over the years a model of nursing that is specifically suited to the management of ambulatory patients with chronic illnesses has emerged.

- That the evolution of this clinical nursing speciality is largely free of the influences of existing nursing theory representing a unique living laboratory of advanced clinical practice in an ambulatory South African setting.
- That the use of a qualitative and quantitative research methodologies will uncover the nature of nursing in this context that is different to medicine and traditional ambulatory nursing roles.
- That nursing knowledge development requires qualitative practice oriented research that focuses on different settings.
- That the context or setting within which the nurse's practice alters the provision of nursing care.

1.9 Limitations.

The following limitations to this study are acknowledged:

- It is a substantive nursing theory focussing only on the nurse's worldview and does not take into account the perceptions of the doctor or the patient.
- Only one setting (Johannesburg Hospital) and those informants who work there has been included.
- Local literature on many subjects relating to this study was extremely limited.
- Academic resources (human and published) in the grounded theory methodology were extremely limited due to the academic boycotts.

CHAPTER 2: QUALITATIVE METHODOLOGY

The purpose of this chapter is to describe the qualitative methodology used in this study by documenting and explaining the rationale for decision making. Since the methodology is relatively unfamiliar in South African nursing research circles, explanatory information will be given throughout.

2.1 Qualitative research.

> Qualitative research is a field of inquiry in its own right. It cuts across disciplines, fields, and subject matter. A complex, interconnected family of terms, concepts, and assumptions surround the term qualitative research. These include the traditions associated with positivism, poststructuralism, and the many qualitative research perspectives, or methods, connected to cultural and interpretive studies. (...) There are separate and detailed literature on the many methods and approaches that fall under the category of qualitative research, such as interviewing, participant observation, and visual methods. (Denzin & Lincoln, 1994:1)

This quotation serves to highlight that qualitative research is a complex and interwoven field of study. Despite increasing acceptance many prejudices against qualitative research in South African academic circles remain. Other countries with a far greater qualitative research tradition, experience similar biases (Munhall, 1992; Denzin & Lincoln, 1994). Between 1970 and the mid-eighties qualitative research had entered its third phase when a full repertoire of paradigms, methods and strategies had been described. Although nursing has been slow to accept qualitative research the more recent research literature shows increasing acceptance (Field & Morse, 1985; Leininger, 1985; Munhall & Oiler, 1986; Parse, 1985; Sandelowski, 1986).

Qualitative research has evolved beyond the stage of multiple methodologies to a collection of different interpretive frameworks. The four basic paradigms are: positivist/postpositivist, constructivist-interpretive, critical and feminist-postructural. Each research paradigm has its own worldview that deals with questions of ontology, epistemology and methodology. Therefore, the selection of qualitative research strategy must be congruent with the relevant paradigm. Qualitative methodologies include: phenomenology, ethnography, case study, historical method and grounded theory to name some. Each uses different methodological combinations of data collection and analysis. The way in which research findings are presented varies according to the method.

2.2 Interpretive paradigm.

A paradigm is a set of basic beliefs that define the researcher's worldview about:

- *Ontology (theory)*- the form and nature of the world/reality;
- *Epistemology (methodology)*- the nature of the relationship between a researcher and what can be known;
- *Methodology (analysis)*- the way that the researcher discovers what can be known.

The constructivist-interpretive paradigm forms the foundation of the present research study. This paradigm can be described using the above headings (Guba, 1990: Guba & Lincoln, 1994).

- *Ontology* - relativist that assumes subjective and multiple intangible social realities that can change as the research develops and constructs become more sophisticated.
- *Epistemology* - researchers and informants create the findings or knowledge through interaction.
- *Methodology*- must allow for interaction between informants and researcher with the objective to get an agreed view of more informed and sophisticated view of reality than in previous descriptions.

Table 2.1 (p. 34) shows the constructivist-positivist position in relation to certain common research issues.

The approach is based upon the belief that to understand meaning one must interpret it (Schwandt, 1994). Symbolic interactionism is one constructivist-interpretivist view of reality in which human behaviour is described in terms of the ascribed meanings. A key feature of this approach is the focus on the meaning of phenomena and not necessarily the actual behaviour. Spradley (1980:9), has noted that:

> If we take meaning seriously, as symbolic interactionists argue we must, it becomes necessary to study meaning carefully. We need a theory of meaning and a specific methodology designed for the investigation of it.

TABLE 2.1: CONSTRUCTIVIST POSITION ON SELECTED RESEARCH ISSUES.
(Adapted from Guba & Lincoln, 1994).

ISSUE	POSITION DESCRIBED
Aim of inquiry	Understanding and reconstruction of concepts held by researcher and informants with an increasingly sophisticated and informed construction.
Nature of knowledge.	*Knowledge consists of those concepts about which there* is consensus. These constructions are subject to revision.
Knowledge accumulation	Inductive and deductive processes and is only relative.
Quality criteria	trustworthiness (internal validity); transferability (external validity); dependability (reliability); confirmability (objectivity).
Values	Formative and central.
Ethics	Intrinsic - revelation and special problems.
Voice (way of speaking to an audience)	The works of the informants should speak as if giving their feelings and interpretation to the audience of the study.
Training novice researchers	Resocialisation from positivist tradition but should have a background in both qualitative and quantitative methods.

According to Blummer (1969) the following premises are central:

people act towards phenomena according to meaning;

the meaning is derived from, or arises out of, human social interactions;

individuals modify meanings through an interpretive process.

In this paradigm reality is socially constructed from the experience and perceptions of the lived world (Berger & Luckmann, 1967). The aim of research is to extract the meaning that people attach to the phenomena in their lived world or reality. Meaning is then codified and arranged into a theory that aids the understanding of the world from the participants perspective. Its goal is to:

> generate a theory that accounts for a pattern of behavior which is relevant and problematic for those involved. (Glaser, 1978:93).

The present study focuses on uncovering meaning by exploring the tacit knowledge embedded in the practice of clinical nurse specialists who work in an ambulatory setting. Tacit knowledge is a shared understanding that goes beyond explicit instructions and facts (Polyani, 1958). The three types of tacit knowledge are: experiential, practical and mutual (Heron, 1981; Lincoln & Guba, 1985). Any research attempting to uncover the tacit knowledge within a particular nursing context is investigating shared meaning. This study is aimed at uncovering the "something special" that "nurses are doing to account for these changes and what interactions between nurse and client make for positive results (Sullivan, 1982:8). Tacit knowledge by definition is a form of shared meaning and therefore qualitative research methods with symbolic interactionism as the foundation are indicated. The use of nurses as the informants in a grounded theory study is one way of uncovering this tacit knowledge.

2.3 Grounded theory methodology.

Duffy (1985:231) cites two main reasons for using grounded theory as a methodology in nursing research:

> Considering the fallacies of armchair and grand theories and the deductive methodology of the true experiment, grounded theory is proposed as the more appropriate design for nursing research at this time. Two of the criteria for selecting grounded theory apply to nursing: (1) investigating an area that has not been previously researched (there are many in nursing) or (2) investigating and area that has been previously researched by other disciplines not by nursing ... The data and theories generated by this methodology should result in **nursing** theory (reality based) which can be verified by true experiment.

But the term grounded theory can be confusing as it applies to a:

- finished product - a social theory that is inductively derived from the study of
- the phenomena it represents;
- method of simultaneous data collection and analysis that relate to the
- phenomenon being study (grounded in data).

It is a general methodology that can be used by many disciplines for theory development. Strauss & Corbin (1994) note the following distinct features of the methodology:

- its purpose is to develop a theory (understanding) based on research;
- the theory is grounded in data (or is generated and developed through interplay);
- the data is systematically collected and analysed;
- the theory evolves during research using the constant comparative method;
- theoretical sampling;
- systematic coding procedures;
- a new feature, a conditional matrix (for which there is limited supporting literature and it will not be discussed further in this study).

Unfortunately, much of the language used in the original texts is inaccessible to anyone other than the most dedicated social researchers who need an advanced background in sociology.

> Glaser and Strauss, both sociologists, wrote their book using the jargon of their profession - a language all but incomprehensible to the uninitiated. On the one hand, this language problem has given rise to a number of interpretations of the method which bear only faint resemblance to the original work. On the other hand, some nurse scientists more accustomed to a linear, step-by-step approach, declare that this foreign method (grounded theory), written in a foreign tongue (sociologize), is consequently unscientific and unsound. (Stern, 1985:149)

One fascinating aspect of the methodology is its continued evolution. However, it is also a source of frustration, since being equivocal about its exact nature is difficult. Strauss and Corbin (1994) predict its continued development that is parallel to that of survey research from the 1940s to date.

The founders of the grounded theory approach, described its methodology in the 1960s. Later publications continued to elaborate the methodology further (Glaser & Strauss, 1965; Glaser & Strauss, 1968; Glaser, 1978; Strauss, 1987; Strauss & Corbin, 1990). The aim was to produced social theory that had a relationship to data, unlike the "armchair" theories of Merton, Parson and others. Only in the 1980s was the methodology more generally accepted in the United States and it still has to be fully accepted in South Africa.

The early descriptions of grounded theory lacked specificity and this has enabled continued methodological evolution (Strauss & Corbin, 1990). Methodological flexibility is acceptable, even desirable, provided it is supported by sufficient reasons and has been fully documented (Strauss, 1987; Turner, 1981).

Barney Glaser (1978:ix) alluded to this in the introduction to the methodological classic, *Theoretical Sensitivity*:

> (It) is not doctrine, although at points the enthusiasm of the author may make it sound as if each point is a command that restricts possibilities (...) the author trusts that readers can see other possibilities for ordering grounded theory research (...) the author hopes that readers will see the differences between their opinions and his on methodological issues as an occasion to analyze different approaches and opinions in research. Corrections too, are in order, if carefully thought through and not merely reactive. By its very nature grounded theory produces ever opening and evolving theory on a subject as more data are obtained and new ideas discovered. This nature also applies to the method itself and its methodology.

Grounded theory has been described as a general methodology that can be used in many fields. As in this study the methodology has been used with quantitative research. In nursing there is increasing support for both research paradigms:

> Integration of quantitative and qualitative research approaches is inevitable and essential in furthering nursing science. (Myers & Haase, 1989: 299)

2.4 Grounded theory components

In the following sections some of the distinguishing characteristics that comprise the grounded theory methodology are briefly described. The purpose of this section is to outline the major features of a grounded theory study. It is not intended as a substitute for a full explanation of the use of the methodology in relation to this study. The way in which the grounded theory methodology was applied to this study is contained in later sections of this study.

2.4.1 Theory grounded in data.

The aim of this methodology is the development of theory that differentiates it from other qualitative methodologies (Strauss & Corbin, 1994: 274). The theory is inductively derived from the data (and reality) that relate to the phenomena under study (Strauss & Corbin, 1990: 23). In the grounded theory context a theory consists "of plausible relationships proposed between concepts and sets of concepts" (Strauss & Corbin, 1994: 278).

2.4.2 Systematic collection and analysis of data.

A grounded theory requires that the data are collected and analysed systematically. The length and detail in this chapter should give sufficient evidence of this activity.

2.4.3 Constant comparative method.

Grounded theory is often called the constant comparative method because of the parallel collection of data and theoretical analysis. The interrelated procedures of making comparisons and asking questions are part of the systematic and ongoing attempt to verify findings throughout the study. It also gives precision and specificity to the findings (Strauss & Corbin, 1990:62). The data are compared with itself, technical literature, personal and professional knowledge. The use of memos and diagrams reflects this constant comparison.

2.4.4 Systematic coding.

The building blocks of a grounded theory are concepts discovered and clarified by coding. Coding is the process of analysing data that progresses from a broad to a narrow focus. The three levels of coding reflect the increasing specificity of the theoretically relevant concepts (Strauss, 1987). Table 2.2 (p. 39) outlines the coding taxonomy showing the major activities for each level.

The aim of axial coding is to make connections between the category and related subcategories or codes by considering various dimensions. The paradigm model (Table 2.3, p. 40) assists systematic reflection on the data.

TABLE 2.2: TAXONOMY OF CODING

(Adapted from Strauss and Corbin 1994)

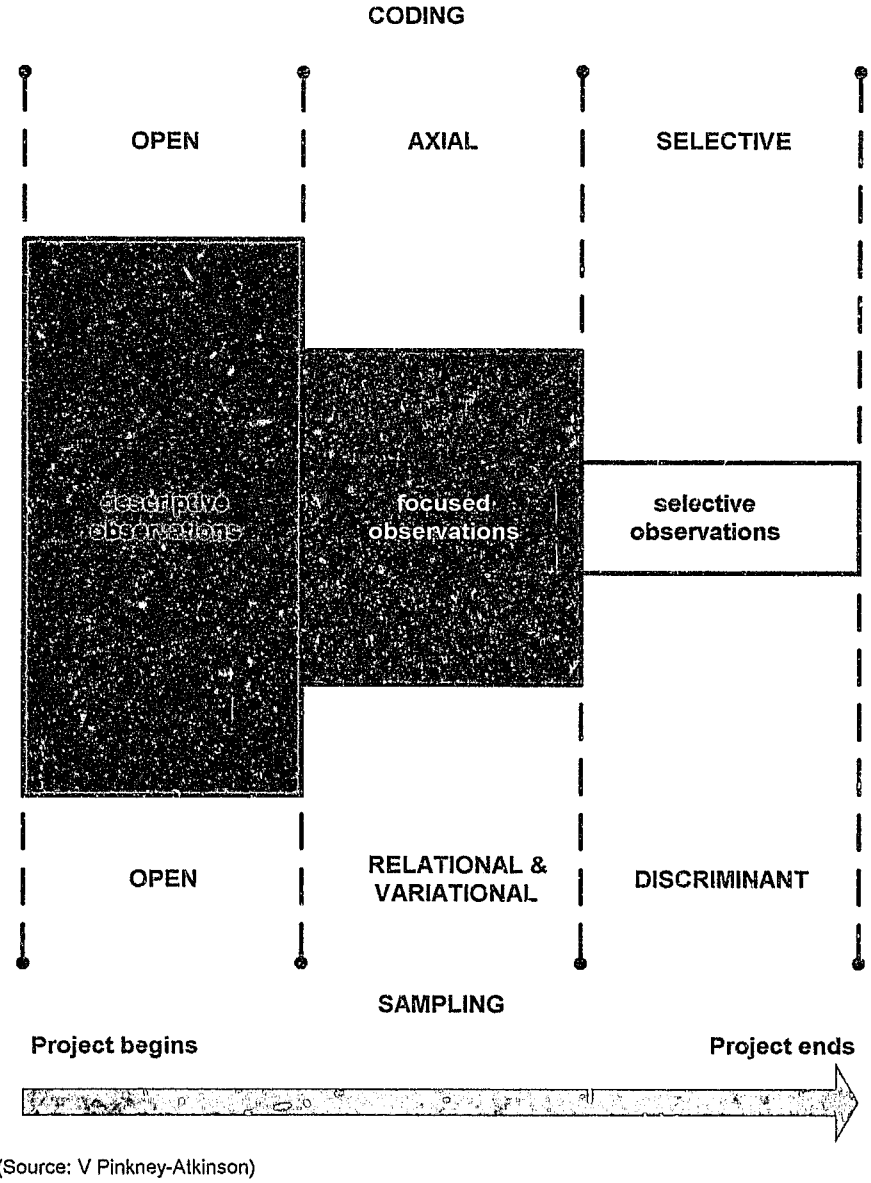
CODE TYPE	OBJECTIVE	COMMENTS
OPEN	• To discover, name and categorize phenomena. • To develop categories according to properties and dimensions.	The process by which data is broken down, compared, conceptualised and categorised by close examination. Categories are described and developed terms of properties with the appropriate dimensional range for each.
AXIAL	• To identify new connections between the categories by using a coding paradigm to establish subcategories. • To find evidence of variation and process in the categories.	Follows open coding and the categories are put together by examining the conditions that cause it. These conditions outline the sets of relationships. It is a complex process of inductive and deductive reasoning achieved by asking questions and making comparisons
SELECTIVE	• To integrate categories to form a theory; • To validate the integrated statements of relationship	The process of integrating the theory by identifying a core category that will relate all the other categories to it. It is done at a higher level of complexity than axial coding.

TABLE 2.3: THE PARADIGM MODEL FOR IDENTIFYING RELATIONSHIPS IN GROUNDED THEORY

(Adapted from Strauss & Corbin, 1994:99-107.)

DIMENSION	DESCRIPTION
PHENOMENON	The central idea/event/happening about which set of actions interactions are directed at managing or handling, or to which the set is related.
CAUSAL CONDITIONS (antecedent conditions)	Events or incidents that lead to the occurrence or development of a phenomenon. Usually >1 present. Be specific about describing these: when, while, since, due to, owing to, when.
CONTEXT	• The specific set of properties/dimension that pertain to a phenomenon. Use of a dimensional range (low - high). • Also the particular set of conditions within which the action/ interaction strategies are taken to manage, handle, carry out and respond to a specific phenomenon.
INTERVENING CONDITIONS	Broader and general structural context relating to the phenomenon. This facilitates or constrains the action/interaction strategies. Include: time, space, culture, economic status, technological status, career, history and individual biography.
ACTION/ INTERACTION/ STRATEGIES.	Directed at managing, handling, carrying out, responding to a phenomenon as it exists in a context or under specific set of perceived conditions. Interaction with self and other. Properties: • *processual* - evolving sequences/ movement/ change over time. • *purposeful* (goal oriented) - done for a reason in response to or to manage the phenomenon (strategies and tactics) may also be taken not related to the phenomenon but effect it. • *failed action/interaction* - ask why something not done when should have - ask why. • *intervening conditions* that facilitate or constrain the conditions.
CONSEQUENCES	Action and interaction taken in response to, or to manage, a phenomenon have certain outcomes or consequences. Failure to take action has consequences. Outcomes may affect people, places or things. Possibly: events/ happenings; actual/ potential; present future. Consequences for the onset of actions may become part of the conditions for another set of actions

The relationship between coding, theoretical sampling and the specificity of data collection is shown diagrammatically in Figure 2.1.



(Source: V Pinkney-Atkinson)

FIGURE 2:1: RELATIONSHIP BETWEEN CODING, SAMPLING & RESEARCH SPECIFICITY.

2.4.5 Theoretical sampling.

Sampling in grounded theory is unlike that of quantitative research where a sample is chosen according to the extent that it represents a particular characteristic in the population. Strauss and Corbin (1994:176) state that theoretical sampling is the sampling of concepts that have proven theoretical relevance for the theory that is being developed. Theoretical sampling occurs when an informant's inclusion is based upon incoming data and developing theory rather than statistical or other characteristics (Knafl & Howard, 1984:22). It is based on how often a concept occurs in events and other data sources so that the evolving categories can be more fully explored and ultimately described. A grounded theory evolves from frequency of occurrence of concepts relevant the research question.

Three types of theoretical sampling (open, relational and variational, discriminate) follow the three types of coding (open, axial, and selective). These relationships have been described in a table and are further explained in Table 2.4 (p. 43). Sampling of concepts should continue similarly until theoretical saturation occurs. Theoretical saturation is likely to have occurred when the categories discovered meet the following criteria:

- no new or relevant data emerge;
- categories are dense with all paradigm elements variations explained;
- relationships are established and validated.

While Figure 2.1 (p. 41) represents coding and theoretical sampling as described as being sequential and linear this is somewhat misleading as it a schematic representation of the process. In reality it is less exact with codes proceeding in the extent of clarity. While one code may be at an axial stage another may be opening up as an open code. As noted by Pandit (1996: 7)

> There are three types of coding: open coding, axial coding and selective coding. These analytic types and it does not necessarily follow that the researcher moves from open through axial to selective coding in a strict consecutive manner.

TABLE 2.4: COMPARISON OF THEORETICAL SAMPLING & CODING AIMS.

TYPE OF CODING	CODING AIM	THEORETICAL SAMPLING AIM	COMMENTS.
Open	• To discover, name and categorize phenomena; • To develop categories according to properties and dimensions.	To uncover as many potentially relevant categories as possible.	Open to those persons, places and documents that provide the greatest opportunity for uncovering potentially important categories. Data collection is usually unstructured.
Axial	• To identify new connections between the categories by using a coding paradigm to establish subcategories . • To find evidence of variation and process in the categories.	• To uncover and validate relationships between and withing categories. • To find evidence of variation and process within categories.	Theoretically relevant categories are systematically studied using relational and variational sampling with questions and comparisons as guides. Sites, subjects or documents may be data sources.
Selective	• To integrate categories to form a theory; • To validate the integrated statements of relationship	• To verify the core variable and relationships between categories; • To fill poorly developed categories.	Discriminate sampling the researcher chooses the sites, persons or documents that will verify the theory and develop poorly filled categories. It may mean the use of new or previous data sources. Verification takes the form of testing or constantly comparing the theory against the data.

2.5 Methodological overview.

The different methodological components that were used in this study are summarized in Table 2.5 (p. 45). The data collection was complex and eclectic with the accuracy of conclusions being enhanced by triangulation. Triangulation is the use of multiple research methodologies and techniques to study the same problem or object. Denzin (1970) describes four types of triangulation: data, investigator, theoretical, and methodological. Data and methodological triangulation were used in this study. Data triangulation is the use of multiple sources of data within the same study. Table 2.5 also shows multiple data sources such as informants(informants and groups), documents (patient records and job descriptions) and literature.

Methodological triangulation is the use of multiple procedures for data collection and analysis within the same study. It enables the collection and analysis of different slices of data enhancing the scope, density, and clarity of the constructs (Glaser & Strauss, 1967). Also known as *between or across method triangulation* in which related but dissimilar methods are used. It is considered the most complex form of triangulation (Murphy, 1989). Methodological triangulation was used to gain a more holistic and contextual view of the nurses and their work than possible if a single methodology was used (Jick, 1979). The use of qualitative and quantitative strategies shows methodological triangulation (Campbell & Fiske, 1959; Denzin, 1970).

Multiple triangulation is complex, combining two or more types of triangulation into a study design and requires a common unit of analysis (Kimichi, Polivka & Stephenson, 1991). The unit of analysis in this study is the work of the clinical nurse specialists and other nurses working in an ambulatory setting. Grounded theory and multiple triangulation are based on methodological flexibility with the researcher needing to tolerate ambiguity and the ability to cope with uncharted territory (Mitchell, 1986).

TABLE 2.5: SUMMARY OF METHODOLOGY

DATA COLLECTION METHOD	DATA SOURCE	NO.	DESCRIPTION	ANALYSIS METHOD & PURPOSE
FORMAL INTERVIEWS	**Individual informants:** Clinical nurse specialists working in the Diabetes and Hypertension Clinics. Duration: 30-90 minutes	11	Unstructured. Scheduled. Audio-taped. Transcribed and coded using *The Ethnograph* software. (Seidel et al, 1988)	Grounded theory methodology. Typology of nursing work. Adding meaning.
	Focus group informants: As above. Duration: 1,5 - 3 hours	3	Semi-structured (focussed). Rest as above.	As above. Member checks. Validity.
INFORMAL INTERVIEWS	**Individual or group.** Informants: as above and other nurses. Duration: a few minutes.		Unstructured and spontaneous Incorporated directly into memos.	As above.
DOCUMENT ANALYSIS	**Literature and other documents** (e.g. letter). Topic related: directed by emerging categories.	400	Treated as secondary data source. Incorporated in memos.	Theory development
	Job descriptions. OPD registered nurses. Generated circa 1984 and still current.	59	Content analysis. Ranking of factors.	Typology of nursing work.
OBSERVATION	Non-participant.		Focussed observation of ambulatory nursing work.	Context. Validity checks.
PATIENT RECORD AUDIT	Hypertension Clinic patient records May - October 1986	505	Structured retrospective patient clinical audit. clinical criteria. Standardized audit form according to objective outcome criteria	Quality care and context check.
	Diabetes Clinic patient records January 1989 - January 1990.	1088		

2.6 Methodology report components.

In a qualitative study the methodology should be presented so that it enhances the credibility of the study (Sandelowski, 1986). Experimental research report headings are not applicable to qualitative studies due to the differing paradigms and assumptions (Aamodt, 1983). The problem is compounded by the lack of consensus about the method of presenting qualitative studies:

> The reporting of study results confronts the qualitative researcher with a difficult problem. Unlike the person who has undertaken an experimental or survey study, the qualitative researcher has no well-codified, generally accepted, protocol available as to how the methodology and findings of such a study best can be communicated. (Knafl & Howard, 1984:17).

No matter which headings are used, it is important that a qualitative study is auditable. That is the extent to which another can follow the logic or "decision trail" and is the qualitative research equivalent of reliability and validity (Lincoln & Guba, 1985). It is shown primarily by description and explanation of how the researcher conducted the study (LeCompte & Goetz, 1982; Goetz & LeCompte, 1984). The use of matrices is recommended to help this process and this has been used extensively in this thesis (Miles & Huberman, 1984 &1994).

Table 2.6 (p. 47) shows the headings selected for used in this chapter to enable the credible and auditable reporting of the methodology. These are a synthesis of the recommendations of: Brink (1992), Burns (1985), Howard & Knafl (1984), Le Compte & Goetz (1982), Leininger (1990), Lincoln & Guba (1985), Miles & Huberman (1994) and Spradley (1980). Each component will be briefly described with the rationale under the heading *qualitative research component*. The application of this component is described under the heading of *In this study*.

TABLE 2.6: SUMMARY OF QUALITATIVE REPORT COMPONENTS.

COMPONENT	DESCRIPTION
PROBLEM STATEMENT, PURPOSE & RESEARCH QUESTIONS.	Explanation of the boundaries and relevance to nursing. Clearly stated expected outcomes or goals.
CONTEXT.	Social dimensions. Social context: interpersonal, physical, time, function, structure. Actor, activities, place. Meaning-in-context
SAMPLE & INFORMANTS.	To determine the adequacy of the sampling procedures used. Informants: who, why, how chosen and mortality.
RESEARCHER CREDENTIALS.	Outline the researcher's expertise/experience in this type of research.
RESEARCHER ROLE.	The social role of the researcher and how this affects interactions: status position and group membership.
ETHICS.	The way that ethical issues surrounding qualitative research were managed.
DATA GATHERING STRATEGIES.	Purpose of method made clear: • gaining site access; • gaining access: subjects; • methods; • duration; • amount. Member checks, peer checks; mechanical recording; coding clarity; typologies; checklists. Data base: history, maturation, changes, stability over time. Confirmability.
DATA ANALYSIS.	Raw data conversion and abstractedness. Reasoning process. Decision rules. Conceptual maps.

2.7 Statement, purpose, and research question.

2.7.1 Qualitative research component.

When using the grounded theory methodology the goals and design may change as the study progresses and these must be documented along with the reasons (Goetz & Le Compte, 1984:41).

2.7.2 The present study.

The major change was to reduce the scope of the study from three to a single hospital context. In the original design it had been intended that the informants would be drawn from three similar chronic disease management clinics at different public hospitals in Johannesburg. Similarly it was planned the quantitative patient record audits would cover all patients who attended the diabetes and/or hypertension clinics where the informants worked. It was agreed that the original study size had been overambitious in the number of clinical audits and settings. By the time the study's scope was reduced, the data from more than 3000 patient records in three hypertension clinics had been collected and the results presented as two papers at the Southern African Hypertension Society Congress, June 1989. Table 2.7 (p. 50) shows the initial and final research parameters.

The decision to reduce the scope of the study was taken during the first peer debriefing session in October 1988 (see peer debriefing page 99). It was unanimously agreed that the study was too large (concerning clinical audits and in the number of venues for the qualitative work.) Satisfactory progress was being made on the grounded theory component which had been confined to informants from one setting. It was decided that the Johannesburg Hospital should be the sole setting since it had the following advantages. It had:

- the greatest number of years of experience (since 1977);
- the greatest number of possible informants;
- the most comprehensive physical resources;
- ease of geographical access (the researcher's office was a five minute walk from the research site);
- language access - the informants talked with each other and the patients in English or Afrikaans (both understood by the researcher);
- social access had already been achieved (past and present contacts).

It was agreed that a comparison between the different settings was inappropriate and too complex. There was a concern that the depth and richness may be lost in an attempt to get information from informants from different research sites. In addition potential validity problems arose when using data collected from different informant groups in each setting. Leininger (1990) and

Mishler (1979) have stressed the importance of meaning within a context or culture. Given the differences that existed in the settings then, it is likely that very different data may have been collected. At the time of the study the hospitals, and therefore the clinics, patients and personnel (except doctors) were racially segregated. Thus it is possible that the use of symbolism may have added a dimension that would have proven too problematic.

2.8 Context.

2.8.1 Qualitative research component.

The context refers to the physical context and the social settings for data collection. A social situation or context consists of three elements: actors, activities, and place. The five criteria for selecting a social situation for research are: simplicity, accessibility, unobtrusiveness, permissibleness, frequently recurring activities (Spradley, 1980: 52).

2.3.2 The present study.

Except for the social and relationship data, most of the information on the physical data relating to the cor.text is contained in Chapter 3. Much of that chapter's content is descriptive using quantitative research methods:

- place - description of the physical setting;
- activity analysis of the nurse actors (nurse job analysis from documents);
- combined description of the patient actors and care outcomes (clinical audit of patient records).

2.9. Sample and informants.

2.9.1 Qualitative research component.

The purpose of this section is to describe sampling so that its adequacy can be judged. The informants need to be described as to their identity in relation to the study: why they were selected and any mortality.

TABLE 2.7: COMPARISON OF INITIAL & FINAL RESEARCH PARAMETERS.

	INITIAL	FINAL
Title	Nursing role in ambulatory chronic disease management - past, present and future.	A model of nursing in an ambulatory chronic disease management setting.
Aim.	To describe the nature of specialist ambulatory nursing work from the nurse's perspective. Informants: clinical nurse specialists working in the diabetes and hypertension clinics of three Johannesburg academic hospitals.	To describe the nature of specialist ambulatory nursing work in a setting by using a single informant group consisting of the nurses who manage patients living with diabetes mellitus and/or hypertension.
Research question.	What is the nature of ambulatory nursing work as viewed by a group of clinical nurse specialists who work in chronic disease management clinics in the Johannesburg area?	What is the nature of nursing work as viewed by a group of clinical nurse specialists who manage the care of patients with the chronic illnesses of diabetes mellitus and/or hypertension in an outpatient clinic?
Research objectives	To describe the environment and context in which the informants practise.	To describe the environment and context in which the informants practise at an academic hospital in Johannesburg, South Africa.
	To evaluate client care in each clinic in terms of selected client outcome parameters.	To evaluate client care in terms of selected client outcome parameters.
	To develop a conceptual model of the nurses' role in 3 settings.	To develop a conceptual model of specialist nursing work in a single ambulatory nursing setting.
	To compare the above role with those of the more traditionally accepted OPD nursing roles in selected medical outpatient clinics.	To make recommendations about the future of the role of the nurse in ambulatory chronic illness client clinics.
	To make recommendations about the future of the role of the nurse in ambulatory chronic illness client clinics.	Unchanged.

2.9.2 The present study.

Throughout this study the term informant has been used instead of the term subject. A theoretical or purposive sample was used and this is explained in earlier section (pp. 42, 53).

2.9.2.1 Informant selection criteria.

The key informants were all registered nurses who worked in diabetes and hypertension the outpatients department of the Johannesburg Hospital. They were especially trained to manage diabetic and/or hypertensive patients and are the South African equivalent of clinical nurse specialists (Pinkney-Atkinson, 1986). The relevant characteristics of the twelve female CNSs are further described in Table 2.8 (p. 52).

The informants met the following criteria for inclusion:

- registered nurses;
- special training in the management of diabetic and/ or hypertensive patients;
- employed by the Johannesburg Hospital in the diabetes and/or hypertension clinics;
- experience in the management of ambulatory hypertensive and diabetic patients;
- employed between November 1987 and April 1992.

All informants played a role in the management of ambulatory patients but some did not consult with patients (" see patients") on a one-to-one basis as they were fulfilling patient related administrative functions, e.g. patient reception and routing ("the desk"). During the study period some informants developed an interest in learning to manage the patients' other concurrent chronic illnesses, e.g. asthma. These nurses were in the process of becoming more informed about the illnesses relevant to this study and with patient teaching.

Five of the most experience nurses were interviewed early in the study. One way of compensating for a very small group was to extend the research over a longer period.

TABLE 2.8 INFORMANT WORK RELATED CHARACTERISTICS.

Informant	*Duration of clinical association*	*Work intensity (hr/week)*	*Chronic illness discipline*	*Chronic illness related work activities*
1	1982-April 1992	≤25 hrs →40 hrs	• Diabetes • Hypertension • Other	CDM course. Clinic administration, innovation and teaching
2	January 1980 - April 1992	25 hrs → ≤25 hrs	• Diabetes • Hypertension • Other	Decreased hours worked in 1992. Special interest: research. CDM course.
3	May 1981 to end of study.	≤25 hrs	• Diabetes • Hypertension	Hypertension clinic administration.
4	June 1983-April 1992	40 hrs → ≤25 hrs	• Diabetes • Hypertension	Decreased hours worked in 1992. Speciality diabetes in obstetric patient
5	January 1979-January 1988	≤25 hrs	• Diabetes • Hypertension	Administration.
6	January 1979-April 1992	≤25 hrs → 40 hrs	• Diabetes • Hypertension	CDM course. Increased hours worked 1992. Speciality: paediatric diabetic patients.
7	1977-April 1992	≤25 hrs → 40 hrs	• Diabetes • Hypertension • Other	CDM course
8	June 1990 to end of study	≤25 hrs	• Diabetes • Hypertension	
9	January 1991 to end of study	≤25 hrs	• Diabetes • Hypertension	
10	June 1991 to end of study	40 hrs	• Diabetes • Hypertension • Other	University graduate.
11	1992 to end of study	40 hrs	• Diabetes • Hypertension • Other	University graduate. CDM course.
12	1977 to end of study	≤25 hrs	• Hypertension	

Key:

	Informants with clinical responsibilities outside the clinic unrelated to chronic disease management.
→	Change in the number of working hours with the first number showing the original number of hours worked and the second figure the new number worked.

2.9.2.2 Sample size.

Since a theoretical sample is used, the concept of sample size (referring to number of informants) is not appropriate. However, this did not prevent an ongoing and pressured discussion about the correct size of the sample and by this it is often implied number of interviews. The dominant feeling was that there were too few informants according to:

- "trends" (Brink, 1992);
- number of interviews - 20-50 interviews (Swanson 1986:70).

It further highlights the lack of understanding of the concept of theoretical sampling in which a relevant concept is the basis of sampling and not the number of informants. The founders of the methodology do not specify upper limits and set the lower limit as two interviews (Glaser, 1987; Strauss & Corbin, 1994).

The concepts sampled in this study arose from hundreds of pages of data obtained from formal and informal group and individual interviews, documents and observation. The South Africa population of this type of CNS was only about 25 at the time that the study was conducted. This means that at least half were in the informant group. When using this methodology knowing the number of informants that will be used is difficult before the study commences.

> There are no set rules to determine what is sufficient. The analyst can, however, feel confident that the field has been thoroughly explored when not further categories emerge from the data, the categories are dense and well developed, the same patterns are seen repeatedly, and there is variation. (Corbin, 1986:93).

2.9.2.3 Informant maturation and mortality.

When the study period is protracted (as is this one), it is likely that the informant group will change the most important work related changes are documented below:

- *Informant 2*:
  - decreased the number of hours worked in the clinic
  - took up alternative employment in a related research post within the university;
- *Informant 4:*
  - promoted out of the area

- only consulted with patients on a sessional basis;

- *Informant 5*:
  - resigned from service after 10 years as a CNS
  - participated in the final member check;
- *Informants 6 and 7:*
  - increased the work intensity to 40 hours/week;
- *Informants 8 -11:*

  commenced work in the clinics during the study period.

2.10 Researcher credentials.

2.10.1 Qualitative study components.

The researcher's understanding of and ability to carry out qualitative research should be documented (Cobb & Hagemaster, 1986). There is no consensus on how much training (including supervision and mentorhood) is required before commencing a solo qualitative study. Burns (1988:46) feels that an apprenticeship in a specific type of qualitative research is an essential prerequisite. Others are less stringent noting that in the early days of ethnographic research techniques were learnt by doing (Goetz & Le Compte, 1984). More than fifty years later Spradley (1980:38) noted that "the best way to learn to do ethnography is by doing it."

The founders of grounded theory recommend the need for training but are aware of the difficulties that may present.

> We have discovered that the best grounded analysts are trained. The problem then is how can many budding analysts, who have no local grounded theorist to train them, train themselves. (Glaser, 1978:33).

Even aspirant grounded theorists who undertake such training have insecurities:

> Of course they do not believe they can do it until their first major piece of research - usually a thesis - has actually been completed. (Strauss, 1987:xiii)

Furthermore, the following quotation is of necessity long, because it conveys the important methodologic mistakes made in grounded theory.

> Over the 20 year period 1967 to 1987, nurse scientists with no first-hand contact with grounded theory's originators or their students began inventing rigid rules for judging the value of a grounded theory. Their "cooked up" translations, however, frequently break with the spirit of creativity inherent in the original grounded theory method and the philosophy of pragmatism undergirding the method. In critiquing manuscripts, these "translators" demanded that a visual diagram accompany all grounded theories. And proclaimed that a sample size less than 12 is unacceptable, even when data collection methods have been triangulated. While we agree with John Dewey's view (1935), as cited by Strauss and Corbin (1990) that "if the artist does not perfect a new vision in his process of doing, he acts mechanically and repeats the same old model fixed like a blueprint in his mind" (p.6), the importation of rigid rules is counterproductive to the spirit of creativity and the generation of grounded theory. Although certain flexible methodologic guidelines, such a simultaneous data collection and analysis and purposive and theoretical sampling principles, are undisputed, credible grounded theory ultimately stands on its own as diverse, parsimonious, conceptual, and relevant to data. (Wilson & Hutchinson, 1996:123).

This excerpt confirms earlier statements in this study and should in no way be interpreted as being apologetic about the realities of performing grounded theory in a different environment. It confirms that a full understanding of grounded theory is patchy and limited. If a lack of research resources is problematic in the developed countries then it is not hard to imaging the situation is much more difficult in this country with the limited

The academic boycott was in place for most of the study period and the influence of these concepts was limited. The South African pool of nurse researchers who are fully conversant with grounded theory literature and who have conducted such research is virtually nonexistent. In the digital age this is less of a problem given the plethora of online qualitative journals and e-mail. In 1999 it is now very easy to get feedback and information within hours from internationally recognised and published grounded theorists. Unfortunately that has only become a reality after this study was completed.

2.10.2 The present study.

My undergraduate degree had a three year major in sociology. The text selected in the final year for research methodology was Denzin's (1970) *The Research Act* - a classic in the field of qualitative research. There was extensive

study of the symbolic interactionist and related perspectives. In the final year sociology class I was among the top students. In the late 1980s and early 1990s I served as external examiner for the human behavioural/ sociology course for health professionals at the University of the Witwatersrand.

Neither courses nor apprenticeships were not available at the time this study commenced. It was the height of the academic boycott and isolation was virtually complete. Some researchers had experience of qualitative methodologies but none with experience of grounded theory. Towards the end of the study there was increasing contact with qualitative researchers but still none with grounded theorists. This perceived lack was countered by the extensive study of the literature on qualitative research and grounded theory in particular.

To commence research without such formal training, apprenticeships and mentorships was inefficient. Excessive amounts of time were spent checking and rechecking literature for confirmation of the methodology. However, then no other choice was realistic. At the completion of this study there are at least four other persons who are conducting this kind of research in heaith related fields and networks are developing.

2.11 Researcher role.

2.11.1 Qualitative report component.

When there is any degree of participant-observation the researcher's role must be described so that any influences can be clearly understood and its effect can be estimated (Burns, 1984.) Included in this component is a description of the status or social position that outlines the extent to which the researcher is a member of the studied group and the position held or ascribed (LeCompte & Goetz, 1982). This section is further subdivided into three areas to direct discussion: social relationships and position, and immersion. The first person is used in this section to describe the researcher and for ease of description.

2.11.2 The present study.

The opportunity to study this informant group arose because of a past association as a participant and professional group member. In common with members of informant group I am a registered nurse. Between 1977 and 1981 I was a full participant in the setting in which the informants worked. I was a co-worker, developer, educator, and supervisor of the first groups of clinical nurse specialists in diabetes and hypertension. My masters degree entitled *The Development of Extended Roles for Nurses in the Hypertension and Diabetes Clinics at the Johannesburg Hospital* (Pinkney-Atkinson, 1983) and many papers were presented and also published relating to this area (Pinkney-Atkinson 1979; 1980; 1986; 1989; Pinkney-Atkinson, Milne, Fee *et al,* 1981).

From June 1977 to June 1979 I was employed by the University of the Witwatersrand's Division of Continuing Medical Education to design and set up the experimental training programmes to enable nurses to manage patients with chronic illnesses. For the following year until July 1980 my full-time responsibility was to manage the clinic and practise as a clinical nurse specialist. The role became institutionalised during this period and I acted as the first full-time clinical nurse specialist in diabetes and hypertension.

Following this period until early 1981 I worked in the clinic for a few hours a week on a sessional basis. For the next five years there was no direct contact with the informants. In February 1986 I was appointed to the academic staff of the Department of Nursing Education, University of the Witwatersrand with an office in the same building as the clinic. Academic staff were encouraged to have clinical attachments and it seemed natural that mine should be to the diabetes and hypertension clinics. Furthermore contact was encouraged by the physician who headed one of the clinics and the first level nurse supervisor. However, it direct patient care was only possible occasionally. Social contact with the nursing staff was limited to clinic-related social functions. During this period my status was that of a knowledgeable visitor with no formal position power over the informants. Seven of the 12 informant group members worked with me in this setting during that period.

2.11.2.1 Social relationships.

The informant group treated me as a knowledgeable observer And, although I had played a part in pioneering the ambulatory clinical specialist role, my clinical knowledge was dated and the informant group were more knowledgeable and skilled in patient care. Because the study was conducted over a protracted period, the social relationships with the informants were complex. These relationships before and during this period are shown in Table 2.9 (p. 59).

As a university employee I had no official line status in the hospital nursing hierarchy. Consequently, I had no direct power over the informants' professional advancement. As the teacher in the chronic disease management course, my decision about each participant's competence was final but this was based mainly on objective criteria. This course did not lead to advancement because it was classified as an inservice educational programme.

2.11 Immersion during the study period.

Involvement and intimacy of the researcher with the informants are critical from many perspectives. The method used to gain access must be described as it can cause difficulties. In addition there is the problem of over-immersion.

2.11.1 December 1987 - December 1988

Involvement with the informant group increased as data collection commenced. Interviewing with the more frequent contact engendered intimacy between the informants and myself. During this period I was asked by some informant group to become involved in their continuing education which lead to more intense and deeper interactions with group members.

TABLE 2.9: RESEARCHER'S RELATIONSHIP WITH INFORMANTS BEFORE AND DURING THE STUDY PERIOD.

INFORMANT	BEFORE	DURING
1	None.	Collaborator on ideas and projects. CDM co-convener. Helped with academic activities. Shared confidences.
2	Colleague 1980-1981[1].	CDM course participant[2]. Assisted with academic activities. Shared confidences.
3	None.	Limited to research. Avoided interviews.
4	Colleague as students but different years (1970-1976)	Started CDM course but did not complete[2].
5	Colleague 1978-1981[1]	Limited to research.
6	Colleague 1979-1981[1]	CDM course participant[2].
7	Colleague 1977-1981[1].	CDM course participant[2].
8	Colleague as students but different years (1970-1976). Unrelated projects (1982).	Limited to research.
9	None.	Limited to research.
10	Former undergraduate student.	Limited to research.
11	A colleague in a field unrelated to present study.	CDM participant[2].
12	Colleague 1977-1981[1].	CDM participant[2].

Notes. 1: For full description of relationships see researcher role p. 69.
2: For full description of Chronic Disease Management (CDM) course relationships see p. 58.

2.11.2 August 1988 to December 1989.

The chronic disease management course for nurses commenced in August 1988. Although the course was started on the motivation of the informants it included nurses from other hospitals. The more intense interaction brought further interdependence between the informants and me with greater involvement in many aspects of clinic life (except direct patient care.) My visits

to the clinic became frequent and the informants often phoned or popped into my office.

By mid 1989 the intense interaction culminated in over-immersion or "going native." The classic problem of "going native" is the result of intense and long-term participation with the researcher not being able to maintain sufficient distance from the informants. The researcher is unable to observe and analyse with the required amount of objectivity (LeCompte & Goetz, 1982:47). In total immersion the researcher takes on the informants' way of thinking and feels like a fully integrated group member. It often occurs after prolonged involvement with the informants when the researcher is unable differentiate self from subject.

> Rather than trying to protect ourselves against the dangers of over- or under-immersion, our sights should be set on ways to judge and account for the quality of our immersion in the dual roles of qualitative researcher and nurse. At very least, the practice of accounting for our efforts toward balancing the tension associated with immersion should be reflected in our research report. (Robinson & Thorne, 1988:71)

During this period I became too involved in the daily world of the clinic. It became apparent when changes were made to the infrastructure and I became involved in the process. So complete was my immersion that I began to intrude into group leadership and conflict issues. Instead of allowing the events unfold and observing I became involved as negotiator. Differentiating my needs from those of the group was hard. During one such conflict resolution session it became clear to me that I had gone way beyond the planned nonparticipant observation.

2.11.3 January - June 1990.

Involvement in the chronic disease management course had completed the transformation into a full informant group member. In situations like this, a temporary withdrawal from the research situation is recommended (Wax, 1971). Since observation was not critical to this study and much data analysis was still needed, it did not interfere unduly with the study.

During this period I had sporadic contact with individuals but no contact with the full informant group. I refrained from seeking an active role in the clinic and avoided contact during the first half of 1990 but on any but a superficial or project

basis. By the middle of 1990 my involvement was again being sought on peripheral (not directly clinic related) issues.

2.11.4 June 1990- February 1992.

Limited but cordial contact with the informants.

2.12 Ethics.

Robinson & Thorne (1984) note that other ethical topics have to be considered: informed consent, intervention, identity, influence (also known social relationships) and immersion. The first three issues will be discussed in the following sections and last two issues are dealt with elsewhere in this chapter. In addition formal ethical approval for the study was obtained according to the University of the Witwatersrand'S requirements.

- University of the Witwatersrand Committee for Research on Human Subjects (Annexure A: Ethics Clearance Certificate, p. 199).
- Permission to conduct the study in the Johannesburg Hospital on staff members was obtained from the hospital superintendent.

2.12.1 Informed consent.

In the grounded theory methodology consent is considered an ongoing transaction because the research design may change. An informant who feels comfortable in participating in one level of research may not feel so at another.

Each informant who participated in the formal taped interviews signed a consent form (Table 2.10, p. 62). With hindsight this form could have been improved by giving more detail (Polit & Hungler, 1991). Each participant was told that she could withdraw from the study anytime. One informant withdrew indirectly by not being available for group discussions. Since she was not a key informant and this was her normal style of interaction, the matter was not confronted.

TABLE 2.10: SAMPLE OF CONSENT FORM

CONSENT

I _____

hereby give my consent for the interview in relation to the research into nursing roles to be tape recorded. I understand that my responses will remain anonymous.

Signed. _____

Date._____ Place _____

2.12.2 Intervention.

Researchers commonly intervene on the problems or situations discovered in the study setting. Often interventions are given as an inducement to gain entry to the situation (Punch, 1986). The initial interventions were requested by the informant group for the researcher to present non-clinical (education, administrative or research). This became problematic when the intensity increased and the researcher became involved in conflict resolution (p. 59).

There were unexpected outcomes of the research process that could not have been predicted and therefore could not be part of the informed consent. The research process produced some cathexis that provided the impetus for the informants group to move on to another stage of professional development. One informant said:

> I found that the interviews were cathartic for me. After I had spoken to you (researcher) I left those feelings behind and moved on to another level of development.

2.12.3 Identity.

The need to protect the individuals from being identified by their comments and yet correctly to inform on the results of the study causes a dilemma. Neither the setting nor the informants should suffer harm or embarrassment because of

the research (Punch, 1968). In this study preventing the informant group from being identified would have been difficult, if not impossible, because the type of service they provide and the researcher's long association with the group. The aim was the protection of individual informants from being linked to specific comments that may cause embarrassment within the hospital hierarchy or with other group members. In grounded theory studies the informants are usually from small easily identified groups and sensitive information may be used against them by those in more powerful positions (Archbold, 1986).

In discussing the matter with the informant group, it was agreed that the researcher would prevent individuals from being identified and the full transcripts of the interviews will not be made available. The informants have been identified only by numbers on all documentation. Further protection was afforded through the length of the study since a number of the informants no longer worked in the clinics at time of writing this thesis.

2.13 Data collection strategy.

Separating the data collection and analysis phases is especially difficult when involved in grounded theory research since these continue concurrently. An attempt has been to describe these separately but it must be remembered that these occurred concurrently. Table 2.11 (p. 68) outlines the sequence of data collection. Different types of data were gathered, each giving different slices of the reality and helping to build a fuller and more trustworthy picture (Glaser & Strauss, 1966; Le Compte & Goetz, 1982; Goetz & Le Compte, 1988). The following data gathering strategies were used: formal and informal interviews, literature searches, observation, document analyses (patient record audits and job description audit). Each data collection strategy is described.

2.13.1 Formal individual interviews.

The most important data collection method was the individual interviews (eleven interviews conducted with ten informants between November 1987 and July 1991.) The interviews were held at a time that was acceptable to the informant and except for one case these were booked well in advance. Most interviews were conducted in the researcher's office away from the clinical area

to reduce the risk of interruption. Each interview was audio-taped according to guidelines and with the consent of the informant (Bozzet, 1980). The average duration of an interview was one hour (range 30 - 90 minutes).

Interviews were like conversations between two professionals in an informal atmosphere. Most began with introductory questions about the interviewee's nursing career. For example: "Please tell me how you came to work in the diabetes clinic?" The six interviews conducted between November 1987 and January 1988 concentrated on understanding the nurse's worldview with special reference to their work. Since the purpose was to generate as many open codes as possible there was no specific interview schedule and the issues were most often first raised or alluded to by the informant. The data analysis that followed the first two interviews showed clear common themes. It was possible to get confirmation and further insight on common topics even at this early stage. The final five interviews were conducted when the data analysis had reached the axial and selective coding phases. The later interviews were more focussed in terms of the emerging theory.

The individual data collection occurred over a protracted period (November 1988-July 1991). The length of this period was due a number of factors. The study was limited to one site where eight informants worked and all had been interviewed (individual and/or group) by mid 1988. In a strategy to try to overcome some of the negative consequences of over-immersion I decided to withdraw from data collection until a group of newer recruits could be used as data sources to confirm or negate the emerging theory. These informants had not been part of the group during 1989. Also included was one very experienced clinical nurse specialist who because of the terms of her employment had little contact with me in the over-immersion period.

The data from the interviews were transcribed verbatim by me using a computer with a word processing package. Although it was time consuming, an important benefit was the familiarity with the contents of each interview. Certain informant phrases still stay with me enabling the formulation of codes at an early stage. It also raised questions for further elucidation for later interviews. An hour of taped conversation took about 8 hours to transcribe, format and correct. Naturally my typing speed dramatically increased as the study progressed! More

than 350 pages of transcription resulted from the eleven individual and group interviews (p. 68).

Many grounded theorists have alluded to the problems of data management and this study is no different (Glaser & Strauss, 1967; Turner, 1981; Chenitz & Swanson, 1986). Although the computer word processing era was a great improvement, coding and integration of the theory were still proving unwieldy. *The Ethnograph* was the first qualitative data management computer programme that I discovered that would enhance this task (Siedel & Clark, 1984; Seidel, Kjoseth & Seymour, 1988). Unfortunately, the trade and academic boycott was at its height and *The Ethnograph's* developer declined to supply it to a South African. A year later, in July 1990 a copy was obtained using an alternative channel. All transcribed interviews and coding were converted to a compatible format. Although it caused considerable delay, the vastly improved system of data management and analysis proved invaluable. Today there is a plethora of software packages available for this function (Pandit, 1996).

2.13.2 Group interviews (group member checks).

The primary purpose of the group interviews was to get feedback on the analytic categories, interpretations, and conclusions derived from the individual interviews. These group interviews are also known as member checks and focus groups. Member checks vary in the degree of formality, informant numbers and timing in the research process (Hoffart, 1991). This section will deal with formal group member checks and the informal member checks with individuals are described in the next section. Informant checks are thought to be "the most crucial technique for establishing creditability" (Lincoln & Guba, 1985:314). Creditability is an essential part of establishing the qualitative research equivalent of reliability and validity (Le Compte & Goetze, 1982; Leininger, 1990).

Group member checks are a form of a focus group on a specific topic directed by the researcher but have the advantage of interaction with the respondents which explores topics (Morgan & Spanish, 1984). Getting feedback from the informants is seen to be a logical step in the corroboration of data analysis but is not without problems. For example, the potential to influence the informants or informant's failure to understand the findings because of the sociological language used (Miles & Huberman, 1994:276).

The first member check (numbered 1 in the right hand column) occurred in a mixed group of informants and other health care professionals who worked in the clinic. The major analytic codes were presented for discussion. Non-nursing professionals questioned certain categories and the informants spontaneously defended and amplified the preliminary interpretation. Two of the nurses in the group had not yet been interviewed. The group session lasted an hour was not audio-taped but theoretical notes were made following the interview and incorporated into the emerging theory. There were no major disagreements with the findings from the informants.

The second member check (Table 2.12, p. 69) was a formal group interview with three of the key respondents. It focussed on the analytic codes and the links between these (at an axial coding level). No printed material was given as the informants told the researcher that they did not wish to have it. Rather they preferred to talk through the concepts and not study it in writing. The informants felt sufficiently at ease to interrupt anytime during the interview. The proceedings were taped, transcribed and so became part of the concurrent data collection and analysis. This interview accounted for another 48 pages of transcribed material. There were no major disagreements with the findings to this point and further clarification resulted.

With the exception of informant three all others participated in the third member check. All informants were invited to participate in a scheduled 3 hour interview. Each participant was given a document summarising the core categories with the relationships to other categories. Once the participants had read the document the researcher lead a focussed discussion with illustrated explanations. The nurses interacted and discussed points that they felt important to raise. The proceedings were taped and only partially transcribed (48 pages) as two of the tapes went missing. The group did not have any major disagreement with the findings.

2.13.3 Informal interviews (informal member checks).

Informal interviews or member checks with individual informants were conducted throughout the study with the objective of clarifying meaning and getting answers to specific questions. These ranged in duration from a few minutes to over an hour. They were like a never-ending conversation - often

ongoing over the whole period of the study. These conversations were able to be resumed after interruption and with little formal introduction. Informal checking was deliberate and occurred continuously as part of the constant comparative method. For example, the codes generated from one interview were checked with than those of other informants. An example of an informal interview is given below.

> *Discussion with informant 1 in the clinic. 25 October 1989.*
> In opening a discussion on the handmaiden she flew into this:"The doctors are abusing us." Much more aggressive and assertive than before and she is the least like a handmaiden. Want to take more control clinic and policy. She doesn't want to "see" (clinical consultation) diabetes patients any more because there is not enough time for patient education and this is more important to her. The nurses are often taking on all of the extra load in patients when there is a problem with doctor staffing (late or absent). The time for the nurses to be involved in the clinical consultations is at the beginning of their work as CNSs and not so much later for the more experienced. Other nurses reluctant to let this aspect of their work go. Nurses are still more holistic in their approach than the doctors who focus more on treatment.

Longer informal interviews centred on the structure of the clinic and how the patients went through the system on the first and subsequent visits. Interactions with other nurses (specialist and/or working in ambulatory settings) often confirmed the existence of the categories and corroborated findings. The Chronic Disease Management Course provided a further confirmation of many of the categories and added a depth of understanding.

2.13.4 Observation.

Non-participant observation was used to confirm the content of formal and informal interviews. It was also used to clarify aspects of nursing work.

TABLE 2.11: SEQUENCE OF DATA COLLECTION.

INDIVIDUAL INTERVIEWS	GROUP INTERVIEWS	PEER DEBRIEFING	CLINICAL AUDITS
1986			
			May - Hypertension
			October -Hypertension
1987			
November			
December x 3			December (Hillbrow)
1988			
January			January (Hillbrow)
	June		
October		October	
1989			
			January Diabetes
	April		
			December- Diabetes
1990			
			January - Diabetes
		August	
		September (X2)	
		November	
1991			
April			
		August	
		September	
1992			
	February		
END OF DATA COLLECTION OR INCORPORATION			

2.13.5 Job descriptions.

Fifty-nine job descriptions of all the registered nurses working in the OPD were obtained from the nursing service manager. The exact authorship of individual job descriptions is unknown but they were developed by the area charge sisters sometime in the mid 1980's. As such they represent a unique word picture of the way in which these nurses perceived their work. Each job description had its own format that bears little resemblance to the standard criteria for written job descriptions. Consequently, there is a wide variation in format, writing style and language usage. Analysis and the findings relation to the job descriptions is used in all chapters including the model in Chapter 4.

TABLE 2.12: INFORMANT PARTICIPATION IN FORMAL DATA COLLECTION.

INFORMANT	FORMAL INDIVIDUAL INTERVIEW DATES	GROUP INTERVIEW NUMBER.*
1	13 November 1987	1, 2, 3
2	17 December 1987 30 October 1988	1, 2, 3
3	17 December 1987	1
4	17 December 1987	3
5	29 January 1988	3
6	29 January 1988	2, 3
7	4 April 1991	1, 3
8	4 July 1991	1, 3
9	4 July 1991	3
10	5 July 1991	3
11	Not interviewed	3
12	Not interviewed	1

* Group interview dates: *group interview 1* = 29 July 1988;
group interview 2 = 21 April 1989; *group interview 3* = 21 February 1992.

2.14 Data analysis.

A weakness of grounded theory has been that data analysis was not well described (Glaser & Strauss, 1967). Later attempts to clarify data analysis were designed for more advance researchers (Glaser, 1978; Strauss, 1987). Strauss (1987:xiii) corroborates that "flying by the seat of one's pants" in qualitative data analysis remains an option for researchers in this problem laden area:

> ...the literature on qualitative analysis is sparse, and even the ethnographic monographs generally give little clue as to the authors' analytic processes. (Strauss, 1987:xiii)

The data analysis phase consists of the stages as outlined in Table 2: 13 (Pandit, 1996: 3).

TABLE 2:13 STEPS IN THE DATA ANALYSIS PHASE
(Adapted from Pandit, 1996:3)

STEP	ACTIVITY	DESCRIPTION
Analysing the data	Open coding	Develop concepts, categories and properties
	Axial coding	Develop connections between a category and its sub-categories
	Selective coding	Integrate categories to build theoretical framework
Theoretical sampling	Literal and theoretical replication across cases until theoretical saturation	Confirms extends, and sharpens theoretical framework.
Reaching closure	Theoretical saturation	Ends process when marginal improvement becomes small.

2.14.1 Coding.

"Coding is the general term for conceptualising data." (Strauss 1987). Sections 2.4.4 and 2.4.5 (p. 38; p. 42) dealt with the theoretical aspects of coding. The purpose of this section is to show the processes involved in the coding with examples of from the data analysis. It must be stressed that all levels of coding occurred in each interview until theoretical saturation was achieved.

The purpose of open coding is to discover, name, categorize and develop initial codes. This step involves fragmenting the data into pieces called codes. The generation open codes occurred from the formal interviews with informants and the analysis of the OPD job descriptions. It is important to note that both of

these data sources resulted in the initial codes. Although these processes were at first separate they were linked in the next phase of coding.

Initially open coding was undertaken after a line-by-line analysis each transcription but this soon was to fragmented and a paragraph by paragraph or even longer analysis was instituted (Strauss & Corbin, 1990:73). The initial manual coding of the formal interviews was superseded a computer software data management programme, *The Ethnograph.* This made it easier to print the section of the transcription referring to a code and then to compare these with each other and other similar codes (constant comparison). A complete list of the frequency of codes lists was possible. Manual coding of the job descriptions generated individual activity codes relating to the stated work content with examples and these were entered on index cards.

The conceptual labels or names were derived from the data (e.g., *talking to a brickwall* or *new horizons*) or from objective characteristics such as *time* and *talking.* Code names were annotated in the margins of the pages and were constantly revised. It is exceptionally difficult to show the dynamic nature of this work. Originally this was done manually on the actual text but the coding was completely redone once *The Ethnograph* data management software was obtained.

Analysis of the transcribed interviews generated 127 codes relating to the work of the CNSs. Annexure B (p.200)shows an alphabetical list of the codes with a description. The coding process is dynamic and this list is one that was generated sometime after *The Ethnograph* was obtained in July 1989. At that stage manual coding had already reached a fairly advanced stage so the recoding was done at a fairly advanced stage. Annexure B differs from the original code list in that constant comparison had already modified the code names and the beginnings of categories could be seen. The descriptions that accompany the codes show that the coding was moving to a second level because there is already evidence of grouping codes for example the codes that relate to different types of talking are called "kinds of talking." The following *types of talking* are already noted:

- *team talk*
- *telling*
- *talk two way*
- *talk about*
- *talk through*
- *talking*

- *talking to*

Annexure C (p.208) shows the full breakdown of the frequency of codes according to each formal interview. The use of a spreadsheet made it possible to get an overall picture of frequently occurring and marginal codes. This provided an assessment of the relative importance of codes and issues. However, a note of caution must be sounded here with the introduction of quantitative elements in a qualitative study. There is an inherent danger in just looking at frequency as this gives no idea of the depth of the interview. For example, a code may be recorded as a having occurred once but this may relate to 2 lines or 2 pages of material. This depth is not reflected in a frequency count and it is a severe limitation to the use of quantitative methods to indicate the importance of codes.

The use of a spreadsheet made it possible to get an overall picture of the most frequently occurring and more marginal codes. This provided an assessment of the relative importance of codes and issues. Annexure D (p. 209)shows the most commonly occurring codes in descending order which is just another way of interpreting the data contained in Annexure C.

The analysis of the written OPD job descriptions should also be seen as part of the open coding exercise and Annexure E (p. 210) shows the coding list, description and frequencies for this element. This was an important and very dense source of information about the OPD-ambulatory nursing jobs and formed the foundation for the typology of nursing work and knowledge.

Once a category name and an initial definition were assigned, there was a need to categorise the data according to content. Categorising phenomena presented some methodological concerns as it predated the clearest treatise on the grounded theory methodology (Strauss & Corbin, 1990). Although the originators of the methodology give some guidance its application remains sketchy. The work of Spradley (1980), Turner (1981) and Miles & Huberman (1985) offered a practical "how to" level suggestions. Each has particular merits for the analysis of data, (e.g. Miles and Huberman describe the use of matrices or tables to describe and clarify data - this technique has been employed extensively in this study.)

Domain analysis is another of these techniques and particularly clear and implementable way of identifying patterns of meaning from the codes (Spradley,

1980:88). In ethnography a cultural domain is a category of meaning consisting of three elements: cover term, included terms, semantic relationship. Performing domain analysis enables elementary meaning to be attached in a systematic manner. Table 3.14 (p. 73) show how this can applied to concept analysis by using an example from an interview. The use of this analytic tool helps make sense of the mass of information by linking like codes. This domain analysis was a second step in the analysis of the data.

TABLE 2:14: EXAMPLE DOMAIN ANALYSIS.

(Adapted from Spradley, 1980:89)

DOMAIN ANALYSIS ITEM	EXAMPLE
COVER TERM (Name)	LIMIT
SEMANTIC RELATIONSHIP (used to define on the basis of inclusion)	X IS A KIND OF Y
INCLUDED TERMS (names for smaller related acts - positive and negative)	not knowing enough missing something overconfidence

Table 2.15 (p. 74) shows Spradley's list of universal semantic relationships applicable to ethnography. It was a useful way of looking at the data and attaching a first level meaning and label to the codes. The use of this format made it possible to identify similar or related items and then to group them together to form linked categories or domains. Annexure F (p. 212) shows an example of a preliminary grouping of the codes into related categories. This process occurred many times with the addition of the typology of nursing work and continued until the categories could be linked and validated as those presented in Chapter 4. Corroboration was sought in the manner of grounded theory data collection by moving backward and forward in the data and eliciting very brief confirmation or rejection of the concepts from the nurses.

TABLE 2.15: UNIVERSAL LIST OF SEMANTIC RELATIONSHIPS SHOWING EXAMPLES FROM THIS STUDY.

(Adapted from Spradley, 1980:93)

RELATIONSHIP	FORM	EXAMPLES FROM THE STUDY
Strict inclusion	X is a *kind* of Y	*Missing something* is a kind of limit.
Spatial	1 X is a *place* in Y 2 X is a *part* of Y	1 The *desk* is a place in the clinic. 2 The weighing area is part of the desk area.
Cause-effect	X is a *result* of Y	*Taking control* is a result of empowerment.
Rationale	X is a *reason* for doing Y	*Checking* is a reason for protecting limits.
Location-for-action	X is a *place for doing* Y	The *desk* is a place for many interactions with the patient.
Function	X is *used* for Y	The *telephone* is used for patient empowerment at a distance.
Means-end	X is a *way* to do Y	*Talking through* is a way of talking to patients.
Sequence	X is a *stage/step* in Y	*Getting through* is a stage of getting to know.
Attribution	X is a *characteristic* of Y	The focus on *new horizons* is a characteristic of an empowered nurse.

Miles and Humberman (1985) suggest the use of matrices to assist the dimensionalising of data. This lead to the development of several typologies or taxonomies some of which are listed below:

- locations (p. 92)
- patients (p. 96)
- nursing work (p. 102)
- handmaiden activities (p. 127)
- knowing content (p. 132)
- limits (p. 140).

The development of taxonomies use of tables and matrices for data analysis and presentation is mandatory according to Miles and Huberman's (1984) seminal work *Qualitative Data Analysis: A Sourcebook of New Methods.* These

are seen as a way of analysing and presenting descriptive data particularly in a single site (as in this study.) The quotation below emphasises this point very strongly. The use of italics in the quote below are those of the authors (Miles & Huberman.)

> The idea of display is very central to this book. By "display," we mean a spatial format that presents information systematically to the user. Newspapers, gasoline gauges, computer screens, and organizational charts are all displays. They present information in a compressed, ordered form, so that the user can read valid conclusions and take needed action.
> For qualitative researchers, the typical mode of display has been *narrative text.* (...) Our experience tells us that narrative text alone is an extremely weak and cumbersome form of display. It is hard on analysts, because it is *dispersed,* spread out over many pages and is hard to look at; it is *sequential* rather than simultaneous making it difficult to look at two or three variables at once; it is usually only vaguely *ordered;* and it can get monotonous and overloading. The same objections apply with even stronger force for the final readers. Indeed, some observers (for example Mulhauser, 1975) have claimed that narrative text case studies are almost useless for policymakers, who cannot afford the time and energy required to comprehend a long account and draw conclusions for theirs work. The argument of this book is, as an analogue to "You are what you eat," is "*You know what you display.*" Valid analysis requires, and is driven by, displays that are as simultaneous as possible, are focused, and are systematically arranged as the questions at hand demand. While such displays may sometimes be overloading, they will never be monotonous. Most important, the chances of drawing and verifying valid conclusions are very much greater than for narrative text. (Miles and Huberman 1984: 79).

The purpose of axial coding is to identify connections between categories according to properties and dimension. A template of the paradigm model that was described in section was developed to helped the systematic analysis (Table 2:16, p. 76, 78). The data and codes were finely combed so that the categories could be densified and saturated. Table 2:17 (p. 78) shows the use of this template s to develop and densify the concept of *new horizons. New horizons* consists of the following codes:

TABLE 2:16 EXAMPLE OF TEMPLATE OF PARADIGM MODEL.

PHENOMENON:	
CAUSAL CONDITIONS:	
CONTEXT:	
INTERVENING CONDITIONS:	
ACTION/ INTERACTION STRATEGIES:	
CONSEQUENCES:	

The purpose of selective coding is to:

- direct the focus of selective interviewing
- integrate categories into a framework
- identify a core category.

A core category or variable is one that is central to the integration of the theory and its integration underpinning the relationships (Strauss, 1987). Other names for this central element are cultural theme (Spradley, 1980) or story line (Strauss & Corbin, 1994). The use of the paradigm model assists with the integrative process (p. 40, 78). Some categories may not fit in with the emerging theory and are discarded. An example of a category that did not survive is *every chronic disease is different* despite its relatively high frequency rank among the codes (Annexure B; code 10, p.200).

Knowing was identified as the core variable within the first months of the study. Since grounded theory literature cautions against the early selection of a core category a great deal of time was taken in verification and the exclusion of other possible core variables. Consequently, there was an attempted to uncover alternatives. *Knowing* remained the core category but its complete illustration only occurred towards the end of the study. At which point the conceptualisation had undergone many amendments and refinements so that its meaning was substantially different from the initial understanding.

2.14.2 Memos and diagrams.

From the beginning of the study various tools were used to help and direct theory development: memos, notes and diagrams. The writing of memos and notes relating to the emerging theory and directing future research was carried out. Diagramming, flow charting and conceptual mapping were also extensively used. A full set of memos and diagrams are available for scrutiny. An example of a memo is attached as Figure 2.2 (p. 79) and a conceptual map as Figure 2.3 (p. 80).

TABLE 2.17: EXAMPLE OF THE USE OF THE PARADIGM MODEL TEMPLATE.

CONCEPT - NEW HORIZONS - TAKING CONTROL	
PHENOMENON:	Change expanded vision. It is a process with no finite ending. Past, present and future in it. Past narrow - present opening expanded not really sure. Feeling that more knowledge/knowing is desirable
CASUAL CONDITIONS: Different timing for different groups/ individuals.	Limited role A personal willingness to risk Past nursing experiences are often negative because they had no control / passive / restrictive and childlike. Allows them to want challenge to seek growth.
CONTEXT: What are new horizons? Never a dull moment.	1) challenge know more status / competence. 2) boredom barrier -every day is different change orientation. Every patient is different allows every day risk and humanizing.
INTERVENING CONDITIONS:	*Nurturing environment* of the clinic enables it to happen. Mentoring of different kinds. Challenge different doctor /nurse interactions. Leaders who are not restrictive. Restrictive fragment.
ACTION/ INTERACTION STRATEGIES:	Opening up new goals and challenges want to move but structure doesn't allow fo· ·t. Don't know where to go - help/information. Process of taking control of self. Not always easy to take on new roles because of fear. Strategies of limit protection.
CONSEQUENCES:	Job satisfaction. Paper shufflers -are those who haven't started the process. Informants- increasingly complex expanded roles. Fear of failure and exhilaration. Fear of stereotyped roles-being stuck. Self-esteem increased.

Memo 1 28 December, 1987 11h30

I have just attempted the first 2 pages of interview 1. In find that I am not entirely sure about how to code. There seems to be overlap and it is not easy to differentiate between facts and incidents.

Horizons

One thing though that already appears is that a category arising out of challenge is possible. I've called it horizons because this seams important to be seeking and not standing still in both personal and work environments. Forward looking new and expanding horizons is seen as positive. Limited or shrinking ors standing still is seen as negative. Are these perhaps people who like to take risks/ risk-taking because with appear to be acceptance of mistakes and learning from them? Are they pioneer stock perhaps like voortrekkers who didn't want to be fenced in by bureaucracy of limits. The also appear to want to be responsible for own actions. They want to be masters of their own destiny.

Past nursing experiences. (Pne) or conventional nursing is hospitals or ward seems to be seen in a negative light because it ↓ individuality and narrows horizons and takes away self-esteem.

FIGURE 2.2: EXAMPLE OF A MEMO.

2.14.3 Peer debriefing.

The purpose of peer debriefing is to assist the researcher with data analysis and discussion of next steps. Peers were selected because of experience in one or more related areas related to the research. Table 2:18 (p. 81) outlines the formal meetings with peer groups, the date of such meetings and the outcomes.

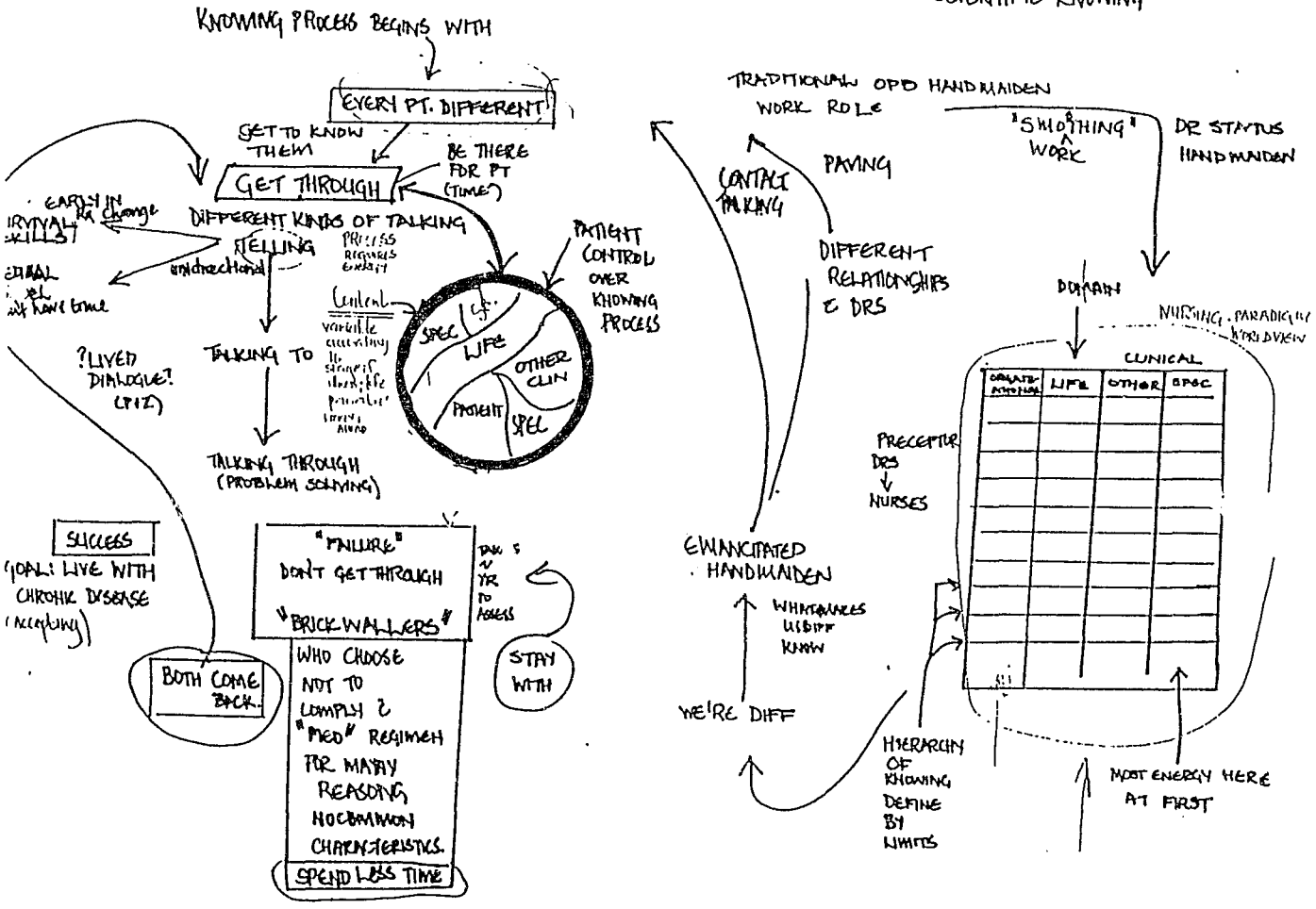


FIGURE 2.3: EXAMPLE OF A CONCEPTUAL MAP

TABLE 2.18: SEQUENTIAL LIST OF PEER EXAMINATION OF WORK.

DATE	PEER PARTICIPANTS	OUTCOME
October 1988	2 nursing academics with an interest in qualitative research; 1 sociologist; 1 medical theorist/ philosopher.	Recommendations to limit: • the number of research sites; • further quantitative research Research acceptable as discussed.
August 1990	2 nursing academics with an interest in qualitative research; 1 medical academic with little knowledge of qualitative research.	Coding and category content judged to be satisfactory for the stage of research.
September 1990 (2 meetings)	A leading social anthropologist.	Recommendation to be clearer when using the terminology and to make field observations.
November 1990	Medical sociologist and doctoral student using a qualitative methodology.	General discussion on common methodological problems.
August 1991	World authority qualitative methodology in nursing.	Discussion on methodology. Recommendation to make sure that the steps were clearly described and iternised.
September 1991	Nurses attending a nursing	Presentation and discussion of two papers on the model as described in Chapter 4

2.14.4 Literature analysis.

The literature in journals and books was used as a secondary data to add hypotheses or questions as the categories emerged. The primary reason for their use was the relatively small number of informants. Journal articles and books form the social and health sciences were the major sources. Many more than the 350 documents listed in the selected bibliography were sourced in this way (p. 179).

The secondary sources were used to support or refute the developing theory (as mentor would) and as an adjunct to constant comparison and theoretical sampling. However, they were never used to generate new categories. Most frequently there was a search for similar or related concept such as new horizons

or knowing. Similar concepts or new areas for investigation were sought or the lack of this was noted.

2.14.5 Job description analysis.

The development of a typology of ambulatory nursing work was a parallel and related activity and is described in Chapter 3. However, many of the concepts that arose from the analysis of the job descriptions were also mentioned in the interviews in one form or another. Once the typology was developed it was possible to link concepts from the interviews. For example, the following concepts can be linked to the typology of nursing work in Table 3.6 (p. 102)

the code handmaiden was linked to the broad category of low status non-nursing work required of nurses.

similarly the code smoothing is a kind of non-nursing work called helping and therefore it is a kind of handmaiden work.

So this is how one aspect of the triangulation was implemented to add the ascribed meaning of the informants to that of the analysis of the job descriptions.

2.14.6 Links to observation.

In the same way the observation of the clinic and the procedures confirmed elements in the interview and also the categories. For example: the codes *desk*, *phone* and *outside* refer to actual locations or to activities that occurred.

CHAPTER 3: THE CONTEXT

The purpose of this chapter is to give another perspective on the nature of nursing work by describing the context within which the study took place. The language used in this section is that of ethnography and clinical audits and as such it is different to that of the previous chapter.

In the ethnographic frame of reference this study can be classified as a topic-orientated micro-ethnography. It is topic-orientated because it focuses on one aspect of the informants life. That is, the unit of analysis is the work of a group of clinical nurse specialists who practise in an ambulatory setting. Their patients are persons who have the chronic illnesses diabetes mellitus or hypertension. The scope of this research is at the micro-ethnography end of the continuum because it involves multiple social situations within one social institution (Table 3.1).

TABLE 3.1: VARIATIONS IN THE SCOPE OF RESEARCH.
Adapted from Spradley (1980:30).

SCOPE OF RESEARCH	SOCIAL UNITS STUDIED
Macro-ethnography	Complex society.
▲	Multiple communities.
▲	A single community studied.
▲	Multiple social institutions.
▲	A single social institution *Johannesburg Hospital.*
▲	Multiple social situations. *Primarily within the OPD.*
Micro-ethnography	A single social situation.

The work that is the subject of this research occurred within a particular context or social situation. Figure 3.1 (p. 84) diagrammatically represents the three elements of a social context: place, actors and activities (Spradley, 1980: 40). These elements form the basis for the description of the context in this chapter. Each element will be augmented with information that relates to this research. It is inevitable that there will be a certain amount of overlap with other

chapters in this thesis and within the various sections of this chapter. Where this occurs a brief summary will be accompanied by cross-references to the primary source of information. The results of the clinical audits have been incorporated into the content of this chapter to make it a cohesive whole.

The terms *context* and *social situation* are used interchangeably in this study. The three elements that comprise a social situation are outlined below.

- The *place* is the physical setting for the research. The main physical setting was one area within the OPD of the Johannesburg Hospital.
- The *actors* are the people who participate in the social situation. In this social situation they can be very broadly classified into two main groups: health care personnel and patients.
- The *activities* are those acts performed by the actors. Although the focus is the acts of the informant group, describing only the one group of actors in isolation is impossible.

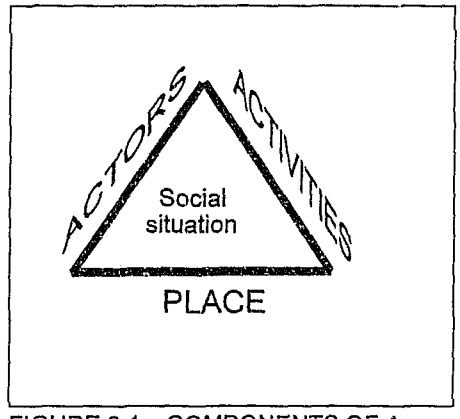


FIGURE 3.1: COMPONENTS OF A SOCIAL SITUATION.

The remainder of this chapter will describe each of the elements of the social situation in relation to the current study. Descriptions are based upon the results of the methodologies described in the next section.

Furthermore, Spradley's (1980: 82) descriptive matrix of questions assisted in getting a broad view of the social context was used systematically to focus on the following components of a social situation:

- space - the physical places or places;
- object - the physical things present;
- act - the single actions that people do;
- activity - the sets of related acts that people do;
- event - the sets of related activities that people perform;
- time - sequencing over a time period;
- actor - people involved;
- goal - the thing/s people are trying to accomplish;

- feeling - emotions felt and expressed.

3.1 Methodology.

Ethnography, like the grounded theory, relies heavily on qualitative techniques. Data collection methods are similar to that of grounded theory and the same data collection methods were used for this ethnographic description of the context of the study. In addition to the qualitative methodologies (described in Chapter 2) both the clinical audits and the typology of nursing work used its own particular methodology. These two methodologies are described in this section.

3.1.1 Method 1: the clinical audits.

Increasingly health care professionals are being urged to evaluate the quality of patient care and clinical auditing is one method evaluating different aspects of clinical care. A clinical audit involves the systematic evaluation of objective information by peers from different disciplines (Mann & Vallance-Owen, 1992; Smith, 1992; Frostick, Radford & Wallace, 1993;). An audit is one of many types of peer review that may focus on structural, process or the outcomes of clinical care.

Benchmarking is a quality assurance evaluation technique, long used in industry but relatively new to health care (Anderson & Rivenburgh, 1992). An organisation compares itself on specific criteria with a recognized leader and the comparison assists to identify shortcomings and to establish a baseline or standard against which to measure its progress in the development and maintenance of quality care. At present national benchmarks have not been developed and accepted for the cooperative management of hypertension or diabetes mellitus in an ambulatory setting.

Two clinical audits were conducted - one of the diabetes clinic and another of the hypertension clinic. The methodology was identical but the operationalised criteria differed. The objectives of the clinical audits were to:

- describe the patient population demographics;
- describe patient outcomes
- establish interim benchmarks for selected patient outcomes.

The audits are retrospective patient record reviews of all patients who attended the clinic at least once during the year preceding data collection were

included. A standardised record audit form was structured in the same sequence as the patient record and each was pilot tested (Annexure G, p. 213; Annexure H, p. 214). Registered nurses familiar with the clinical record collected the audit data.

3.1.1.1 Audit definitions.

The following operationalised definitions were used in both audits.

Patient: a person living with either diabetes or hypertension who attended either clinic at least once during the period the audits were conducted:

- Diabetes Clinic: January 1989 - January 1990;
- Hypertension Clinic: May - October 1986.

Nonattender a patient who did not attend the clinic for the four months immediately before data collection (synonym=dropout). Patients with either six monthly or yearly appointments were not classified as nonattenders.

Nurse patient a patient who was managed by a clinical nurse specialist for the last three consecutive visits.

Doctor patient a patient who was managed by a doctor for the last three consecutive visits.

Mixed patient a patient who was managed by both a doctor and clinical nurse specialist in the last three consecutive visits.

3.1.1.2 Patient outcome criteria

The patient outcome criteria are objective measure of the outcomes of the clinical care. In the management of hypertension they were blood pressure control criteria stratified according to age. The diabetes glycaemic control criteria were based on the glycosylated haemoglobin. The criteria and the results will be discussed in the section on activities (p. 100).

3.1.2 Method 2: Ambulatory nursing work typology & factor analysis.

The typology of ambulatory nursing work is the cornerstone of this research (Table 3.6, p. 102). When the grounded theory methodology was applied to this typology, it underwent changes that reflected the meaning attached to nursing work (Table 4.1, p. 127 ; Table 4.2, p. 130). The method used to develop the typology are summarised in Table 3.2, (p. 88).

A content analysis was performed on 59 written job descriptions of registered nurses from 18 areas within the OPD (Annexure E, p. 208). The coding scheme emerged from data and followed the conventions suggested by Spradley(1980) and Miles & Huberman (1994). Individual activity codes relating to the stated work content with examples were entered on index cards. Constant comparison of the codes continued throughout the study period with increasing specificity and was concurrent with the factor analysis. The categories were linked to secondary data sources in the technical literature.

The exact authorship of individual job descriptions is unknown but they were developed by the area charge sisters sometime in the mid 1980's. As such they represent a unique word picture of the way in which these nurses perceived their work. Each job description had its own format that bears little resemblance to the standard criteria for written job descriptions. Consequently, there is a wide variation in format, writing style and language usage. This limitation to data analysis was counterbalanced by direct questioning of the nurses working in the area concerned. At the time of writing this thesis the job descriptions have not been superseded.

The typology was converted into a factor checklist for the quantification of the items in the job descriptions. The purpose of this non-statistical factor analysis was to rank the activities according to the frequency with which they occurred in the documentation. This ranking helped to suggest the more important activities.

TABLE 3.2: SUMMARY OF METHODS USED IN TYPOLOGY.

PHASE OF DEVELOPMENT	DATA SOURCES.	DESCRIPTION.
Phase 1: *General content analysis.*	59 OPD job descriptions.	All available nursing job descriptions from OPD. Content analysis based on the work activities.
Phase 2: *Specific classification and ranking of activities.*	Above 59 job descriptions classified into: • 9 job descriptions of nurses working in specialist roles (from 2 OPD areas) • 50 job descriptions of nurses working in traditional roles (from 18 OPD areas).	Based on the typology developed in phase one. At the end of this phase it was possible to differentiate the clinical nurse specialists job descriptions from those of the traditional OPD nurses. Numerical counting and ranking of activities according to inclusion and exclusion criteria.
Phase 3: *Adding meaning.*	10 informants specialists in diabetes and hypertension. Extended data collection period (1987 - 1991) to increase primary informant numbers.	Open coding of transcribed interviews using the grounded theory methodology. The purpose was to add meaning to the typology from the perspective of the informants. Typology modified see Tables 4.1(p. 127) 4.2 (p. 130)

3.2 The social situation - place.

This section describes the physical setting in which nursing work occurs. The place is where the actors participate in the activities. The psychosocial environment is described in the Chapter 4 under the headings *the unknowing environment* (p. 120) and the *knowing environment (*p. 127).

The Johannesburg Hospital is a social institution that provides tertiary health care. It is highly respected institution with an international academic standing and a reputation for excellent patient care and research (Schreiber, 1990). As an academic hospital it serves as a venue for the practical training of undergraduate and graduate students linked to the University of the Witwatersrand Faculty of Health Sciences. The hospital is also the primary practical training venue for nurses who are not participating in a university programme.

In 1990/1991 it had the highest number of admissions to a hospital (629 211) for the Transvaal province and probably the highest in the nation (Engelhardt,

1992:134). It is in essence five 400 bedded hospital with a planned total of 2000 beds and this has been the constant source of controversy from the earliest planning days. For most of the study period the hospital served predominantly the white population according to the policy of apartheid. However, transformation began in earnest during the study period when there was increasing racial integration of patients and professional staff (Schreiber, 1990).

3.2.1 The outpatient department.

The outpatient department (OPD) is an important functional and geographic area in the hospital. As a functional entity it is the source of ambulatory patient care through a system of clinics. Most clinics are arranged according to medical speciality or inpatient units. In 1990/1 the clinic was ranked as the second busiest in the Transvaal province with 538 461 outpatient visits (Engelhardt, 1992). As a geographic entity the OPD consists of physically separate but interconnected areas. Each area is the venue for several clinics held at different times during the day and week. Each area has core personnel consisting of clerks and different categories of nurses. Medical care is provided by teams of doctors the content of which varies according to the discipline and functional area concerned. Other health care professionals consult in selected clinics.

As a geographic entity the OPD consists of physically separate but interconnected sections called areas. One area is usually the venue for several types of clinics.

3.2.2 The diabetes and hypertension clinics

The hospital has only one specialist adult hypertension and diabetes clinic with a small proportion of all patients attending it. Admission to the clinics is limited by admission criteria so that the most severe and physically needy are seen by the specialist clinic. The remainder of patients are usually seen in the medical or other clinics.

The specialist diabetes and hypertension clinics are held in the same geographic area of the OPD and it is the primary social setting for this study. This area was also allocated to the informants as the base for their clinical activities. It has enabled them to have greater control over the clinical area and to be available for unscheduled patient contacts when the patients have urgent

problems or need additional support. Thus, patient care could continue despite there not being an official clinic scheduled.

The area is not used exclusively for diabetes and hypertension as it is shared with other medical speciality clinics like those that deal with patients who have thyroid disorders and those with cancer of breast. The diabetes service consists of a range of clinics that cater for the special needs of groups of diabetic patients (e.g. adult, adolescent and renal diabetes for patients with impaired renal function). Each clinic has its own scheduled times of operation and patient entrance criteria. The clinics for pregnant and paediatric diabetics are separated geographically and controlled by different medical personnel.

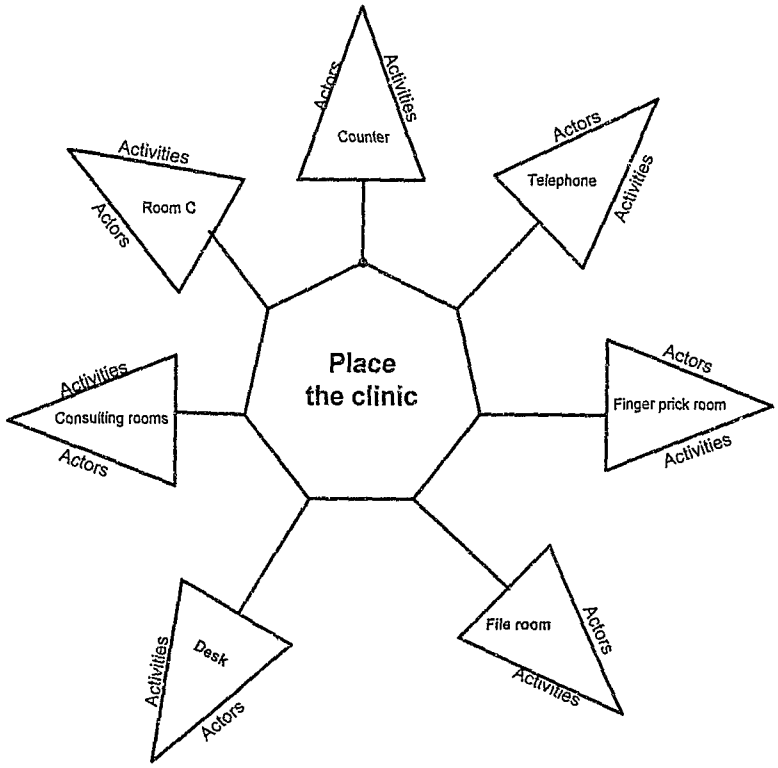


FIGURE 3.2: LOCATIONS WITHIN THE CLINIC.

3.2.3 Locations within the clinic.

Within the clinic are many different locations in which the actors participate in activities, e.g. the desk, finger prick room etc. This arrangement of locations, actors and activities linked by physical proximity (the clinic) is called a cluster of social situations and is shown in Figure 3.2 (p. 91) and described in Table 3.3 (92).

TABLE 3.3: TYPOLOGY OF LOCATIONS

PLACE	DESCRIPTION ACTIVITIES
CONSULTING ROOMS. Several separate cubicles around the edges of the clinic.	Caregivers consult with patients in the rooms. Each has a similar in layout, furniture and equipment. Each week the caregivers are allocated the same room for consultations. Informants who work in consulting rooms are *on the inside.*
COUNTER. A place where the clerks perform the administrative functions.	A name derived from the white counter that acts as a physical barrier to the public. All cash and appointment activities occur here. Primarily the clerk's domain. Behind this area is the venue for the second telephone.
DESK. A physical place where patients are received into clinical care.	A name derived from the wooden table on which all of the clinic's patient files are arranged for the clinic. It is the control point for clinical activities and all patients must come here first. Other functions related to the desk are: 1) maintaining patient records and test results before the clinics; 2) directing patients 3) monitoring weight. The informants who work at this table are said to be *on the outside.*
FILE ROOM. A room in which all the patient clinic files are stored.	A long narrow windowless room housing about ten filing cabinets and two desks. It is also the location for the second telephone.
FINGER PRICK ROOM. A converted store room in which the informants monitor blood and urine glucose levels.	A name derived from the method by which a blood sample is obtained for a blood glucose sample. All diabetes patients go to this room at each visit. Some informants perform this function routinely and give patients individual feedback.
ROOM C. A converted consulting room reserved for professional personnel	A name derived from the room number. Informal seating arrangement with refreshment facilities, desks, lockers, and educational equipment room. It is the venue for meetings, journal clubs, administrative work, and relaxation.
TELEPHONE. Two physical places containing a telephone used for patient-related care activities.	Specific telephones are used by the informants for the following patient-related activities: • telephone consultations; • getting overdue laboratory and other results • requests for other services e.g. porterage.

3.3 Actors.

There are two main groups of actors:

- patients and
- health care personnel.

3.3.1 Patients.

All of the patients have a chronic illness (either hypertension or diabetes mellitus) and they attended the specialist clinics at the Johannesburg Hospital. At the time that the clinic's audit was conducted there were 505 and 1088 patients in the hypertension and diabetes clinics respectively. The paediatric and maternity diabetes clinics were not audited. This number represents a fraction of the adult diabetic and hypertensive patients in all of the clinics at the hospital since most of these patients are not eligible for the specialist clinics according to the admission criteria. For example, most of diabetics have non-insulin dependent diabetes mellitus (NIDDM) and the admission criteria would exclude most of these persons. One of the hypertension clinic admission criteria for example, was the presence of severe uncontrolled high blood pressure in a young person. Therefore there are many diabetics and hypertensives who are treated at other general medical clinics and in the polyclinic held in other areas in the OPD.

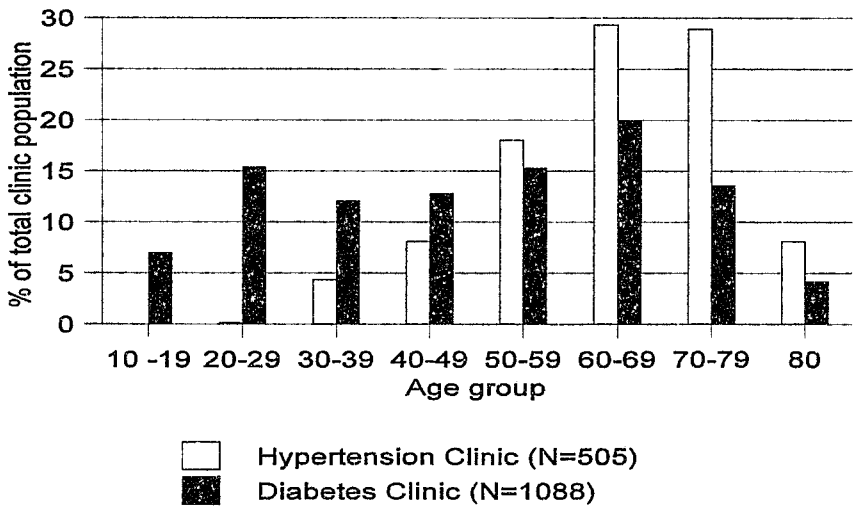


FIGURE 3.3: AGE DISTRIBUTION IN BOTH CLINICS

The audit showed that nearly two thirds of the hypertensive patients were female with the sex distribution being equal in the diabetes clinic. Other studies have also noted the under-representation of males at public sector hypertension clinics (Smith, Nel & Joelson, 1987; Pinkney-Atkinson & Milne, 1989). Since hypertension is equally prevalent in males and females, it is speculated that either the males receive treatment elsewhere (worksite) or they receive no treatment at all. This could be the source of another study. Figure 3.3 (p. 93) shows the age distribution of patients in both clinics. More than half (53,1%) of the diabetic and > 80% of hypertensive patients > 50 years. This would be in line with the differing age profiles of the illnesses with IDDM occurring at a younger age and primary hypertension that develops in later life.

Figure 3.4 (p. 94)confirms that more than three quarters of patients in the Diabetes Clinic have IDDM according to clinic admission policy. This is in line with the national consensus opinion that: all insulin treated patients need to be managed in dedicated units in academic hospitals (Society for Diabetes, Metabolism and Endocrinology of South Africa minutes, 1994). The proportion of insulin-treated nurse and doctor patients is virtually identical. When advanced clinical nursing roles were first mooted in 1978 the clinic's doctors felt that nurses probably could not manage insulin therapy. At the time of the audit patients with IDDM made up more than 3/4 of the nurses' patient load and they provided the educational support for most of the doctor's IDDM patients.

Classifying patients in a variety of ways is possible other than according to:

- type of chronic illness;
- illness descriptors, e.g. renal diabetic;
- age, e.g. paediatric, adult or adolescent;
- physical state, e.g. maternity.

For the purposes of data analysis the audits patients were also classified according to caregiver. The caregiver groups managed different percentages of the patient population in the two clinics (Table 3.4, p. 95).

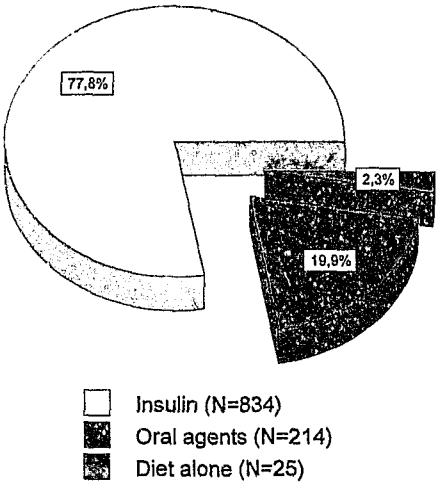


FIGURE 3.4: DIABETIC TREATMENT REGIMENS

In both clinics the doctors managed the majority of patients as the chief care provider. Although the proportion of patients that the nurses manage as chief care provider looks different in the table the actual numbers are almost similar (hypertension N=201; diabetes mellitus N=194).

TABLE 3.4: PATIENT POPULATION AS MANAGED BY CHIEF CAREGIVER.

	Hypertension Clinic		Diabetes Clinic	
	%[1]	N	%[1]	N[2]
Doctor patients	57,4	290	73,6	781
Nurse patients	39,8	201	17,8	187
Mixed	2,8	14	8,6	91

Note 1 Percentage of patients attending that clinic.

Note 2 Number attending diabetes excludes 27 cases with missing information.

Table 3.5 (p. 96) highlights the problem with the method of classifying patients according to the chief caregiver. Although it is the traditional way of classifying patients it is valid only as long as each caregiver group provided roughly the same sort of care. In the Hypertension Clinic the doctors and nurses have

same sort of care. In the Hypertension Clinic the doctors and nurses have roughly equivalent clinical and patient education roles. The roughly equivalent number of patients is a reflection of this. However, in the Diabetes Clinic the nurses only manage about one fifth of the patients as the chief ca ver. There is a heavy dependence on the informants to provide patient education with almost every patient receiving has educational input from the informants. In addition the nurses are responsible for other activities like the coordination of care. This then decreases the ability to have a greater case load.

Other ways of classifying patients are shown in table 3.5 (p. 96).

TABLE 3.5: TYPOLOGY OF PATIENTS.

CLASSIFICATION BASIS	PATIENT TYPE	DEFINITION AND DESCRIPTION
Duration of hypertension and diabetes clinic attendance.	New	A patient who has attended for less than a year. May attend other clinics. Disease duration variable (weeks - years).
	Old.	A patient who has attended for longer that a year.
Hospital admission status.	Clinic.	A patient who has attended the clinics more than once on an outpatient basis.
	Ward.	A diabetic or hypertensive person who is an inpatient in a hospital ward. Has not necessarily attended the clinic. Referred for disease-related support or education. Disease duration variable.
Attendance compliance.	Nonattender .	A patient who has not attended the clinic for ≥ 6 months. No attempt has been made to find out why the patient does not attend.
	True dropout	A patient who has not attended the clinic for ≥ 6 months. After investigation no legitimate reason for nonattendance

3.3.2 Health care personnel.

The clinical care of the patients is provided by a team of caregivers consisting of different categories of health professionals: doctors, nurses, nutritionists, podiatrists, pharmacists and social workers. While care is provided on a team basis, it is the doctors and nurses who manage the clinical patient care with each

caregiver has their own case load of patients. Patients are referred to the other team members as determined by the clinical assessment.

The administrative and nursing staff for the main adult hypertension and diabetes clinics are based permanently in the geographical area of the clinic. Medical care is provided by different specialist teams of doctors of different grades (from the unit chiefs to registrars.) Most of the doctors are in the full-time employ of the hospital. In addition other health care professionals may consult in selected clinics, e.g. a nutritionist, a podiatrist, a social worker, pharmacist. Only the doctor and the nurse as professional caregivers will be considered further in this section.

3.3.3 Nurses.

All nursing categories work in the OPD but only the registered nurses are significant in this study. Like all other areas of the hospital these nurses have a variety of qualifications, years of service, competence and seniority. Most are attached to one geographical area and manage the clinics and other related matters at that venue. A few clinics have nursing or administrative staff that come in only for certain special clinics but this is not the norm.

This study has highlighted the dichotomy between the informants who practise in advanced clinical roles and the other nurses in "traditional outpatient nursing roles" (Pinkney-Atkinson & Robertson, 1993). The dichotomy is based on the type of nursing activity undertaken is outlined. The following section describes nurses in sociological terms according to the type of work done.

3.3.3.1 Traditional outpatient nurses.

Among nurses generally there is a perception that those who work in this setting have a problem (e.g. competence, interpersonal, physical or personal) and the "good" nurse does not choose to work in the OPD. Therefore, there is a stigma attached to all nurses in this setting. As will be seen in the activities section (p. 100) traditional outpatient nurses usually perform different kinds acts.

Traditional nurses are stereotyped biddable *handmaidens* who perform mainly unskilled work not directly related to patient care (p. 124). The work is menial and low in status, not really requiring a registered nurse. Usually administrators or clerks could perform the functions. There are similarities to nursing in the Victorian Nightingale era when the nurse had the triple but unskilled roles of wife, mother, and housekeeper (Pizurki et al, 1987). Barriers between patient and

nurse develop and are sustained were there is little direct care. The work is characterised by the informants as boring and menial with little patient or doctor contact. Despite this poor image these nurses are often pivotal in the smooth functioning of the clinic.

3.3.3.2 Clinical nurse specialists.

In the nature of clinical specialisation the informants have moved away from the large handmaiden or smoothing component of work and do proportionately more professional nursing activities. In doing so they have been emancipated from the handmaiden status associated with traditional OPD nursing work.

For most of the informants the catalyst for this emancipation has been the acquisition of specialised scientific knowledge necessary to do direct patient care activities. The need to update constantly or get new knowledge was frequently stressed and this might be part of the mechanism by which they retain autonomy. Autonomy is considered the hallmark of professional practice and in nursing it is directly related to the independent provision of patient care and expert knowledge (Collins and Henderson, 1991) The emancipation of the specialist roles from the dominance of non-nursing activities done by traditional nurses testifies to increased autonomy. A clinical nurse specialist's autonomy should be seen in context of a profession considered lower in autonomy than others. However, it appears that individual autonomy needs are different and these are influenced both by educational level and clinical context (Collins & Henderson, 1991). Attaining a specialised educational level in relation to patient care increases the level of nurse autonomy (Dwyer, Axhwartz & Fox, 1992). It is expected that the informants would be more autonomous than traditional nurses. Nurses with low autonomy will be likely to select jobs that require almost no decision making and the converse is true for those who work in specialists roles (White, 1975). This places the handmaiden and the clinical nurse specialists at opposite ends of the continuum of professional nursing autonomy.

When asked what differentiated the informants from other nurses working in the same setting an informant noted that it was probably the way in which the informants deal with professional issues:

> Mainly that we (informants) have been taught to ask questions and we have learnt that we are not just stupid. We can actually learn something and put something back into it. You know I don't see doctors there any more (hand movements above head) and myself down here (hand movements on a lower plane). I didn't see that for many years. I see

> myself on a basis where I can actually discuss things and ask things with them and maybe a lot of other girls haven't reached that. They are still in this role - you know down here and up here. (Again the hand movements on two levels.) 5B:1823

3.3 Doctors.

Doctors can be categorised in many ways according to:

- the amount of expert knowledge and skills (preceptors, registrars);
- way of treating the nurse (old style doctors);
- gender (women workers).

A fuller description of doctors is given in Chapter 4 (p. 144) as many descriptors are dependant on meaning.

3.3.1 Preceptors

Three criteria exist for a doctor to be classified as a preceptor:

- years of clinical experience and/or;
- specialisation in either hypertensive disorders or diabetology;
- close working relationship with the informants.

The archetypical preceptor is an internationally acknowledged authority. Most have worked regularly with the informants over a period of years and have been advocates for nursing role expansion.

The informants have the most cordial and open relationships with these doctors and most never experienced anything quite like it before. Usually they give unconditional support for the informant's clinical work and other related endeavours.

3.3.3 The unknowing doctor.

These are "bad" doctors who are perceived not to care sufficiently for the patients or the informants. The lack of care may also be due to a knowledge deficit in relation to clinical matters and the informants feel that these doctors know less that them. They do not have good interpersonal relations with the informants and are often perceived to be distant and formal.

3.3.4 Registrars

Registrars are younger and less experienced doctors who are undergoing specialist training. A training requirement is a three-month rotation through different clinical areas like the clinic. They attend the clinic twice a week during the rotation.

3.3.5 Woman workers.

The issue of gender was raised in relation to both doctors and nurses. The informants noted their surprise at how well they worked together as an all female group. Second, some preceptors were women. Experiences had taught the nurses to be wary of female doctors because relationships were difficult and uncomfortable. In this setting the informants noted how well they got on with each other and with female doctors.

3.4 Activities

Work consists of a series of activities and acts.

3.4.1 Ambulatory nursing work typology.

The typology reveals two major classes of nursing work: professional and non-nursing activities. Both may be further subdivided into self-explanatory activity categories (Table 3.6, p. 102). The classification is related to the level and type of knowledge required to do the work. It also reflects the agent (person or object) that is the focus of the activities.

Professional nursing activities relate to provision of direct patient care and the information associated. These activities require the use of predominantly scientific and humanistic knowledge and is the legal responsibility of the nurse according to the South African scope of practice (SA Government regulation R2598, 1987)

Non-nursing activities can be done by other categories of unskilled or semiskilled personnel such as housekeepers, clerks or auxiliary nursing personnel (SA Nursing Council, 1991). The type of knowledge required is administrative or general knowledge that may be acquired with little formal training. The work is repetitive and requires low level skills, decision making ability and knowledge. Often nurses perform these tasks in the place of other categories of workers and at the expense of direct patient care.

3.4 2 Non-nursing activity dominance.

The factor analysis highlighted a second dichotomy of nursing personnel based on the frequency of listed activities. These two groups are the clinical nurse specialist and the traditional OPD nurses respectively (Table 3.7, p. 103). Over ¾ of the activities of the traditional group (75,7%) were classified as non-nursing while the opposite is the case for the clinical nurse specialists where 69% were classified as professional nursing activities. This inverse relationship shows a clear dichotomy.

Since the factor analysis is based on written job descriptions and not observation it does not reflect the actual time spent performing the activities. However, nonparticipant observation and informal interviews suggest that these figures approximate reality. A South African study confirmed that registered nurses working in hospitals spend 46,3% of their time on non-nursing duties (Muller & Coetzee, 1990). While these figures are not directly comparable they seem to support the impression that direct patient care accounts for about a 25% of traditional OPD nursing activities and about 66% of clinical nurse specialist time in ambulatory care. This gives great cause for concern for the malutilisation of nursing personnel especially in a recessionary economy in which ambulatory care is being promoted as part of the solution.

These findings confirm that the use of Verran's (1981) classification of ambulatory nursing responsibilities would have been inappropriate because only one category, normative care, appears to be part of traditional OPD nursing work. Normative care is the equivalent of non-nursing duties thus much of the rich description of would have been lost.

TABLE 3.6: TYPOLOGY OF OPD NURSING WORK.

PROFESSIONAL NURSING	
The provision of direct nursing care to patients & the information associated with this. Requires the use of professionally acquired knowledge. The legal responsibility of the registered nurse (SA scope of practice.)	
DIRECT PATIENT CARE	Nursing interventions performed in the physical or telephonic presence of the patient.
Advanced	Nursing interventions using problem solving requiring specialised knowledge and skills gained through appropriate clinical experience. E.g.: clinical problem solving ("seeing" patients) prescription of care; performance & assistance with advanced therapeutic & diagnostic procedures (IV medication, pacemaker insertion, effort ECG); specialised dressings (stomatherapy).
Basic	A first level of nursing intervention directed at meeting the basic (universal) needs of patients. E.g.: physical assessment (weight, urine & blood tests); assistance with activities of daily living (dressing, mobility); basic procedures (wound dressings, eye drops); interpersonal contact & support ("lending a sympathetic ear", "being there"); general patient related help.
Patient education	A nursing intervention to ensure an adequate level patient knowledge & skills so that the patient to manage specific health problems. E.g.: teaching blood glucose monitoring, telephonic problem solving.
KNOWING	A range of acts directed at fostering the patient related knowledge & skills required by members of the health team. E.g.: team communication (ward rounds, handover); in-service education (journal club, lectures).
NON-NURSING	
Acts requiring general or administrative knowledge. Little formal training needed. May be performed by other categories of unskilled or semiskilled workers such as housekeepers, clerks or auxiliary nursing personnel.	
BOOKING	A non-nursing act related to any aspect of scheduling patient appointments. E.g. making bookings, vetting appointments (approving urgent appointments, checking admission criteria); adjusting caregiver case loads.
EQUIPMENT & CLEANING	A non-nursing act relating to the management of the physical facility & resources. E.g.: maintenance, replacing, inventory & ordering (stores, stationery, physical facilities); cleanliness & tidying (setting up rooms, dusting, replacing stationery); clinic security; labelling specimen bottles.
RECORD RELATED	A non-nursing act related to the maintenance of records. E.g.: patient records (maintenance, storing, opening); preparation (inserting carbon paper); test reports (sorting, getting).
HELPING	An act aimed at the "smooth running of the clinic" & general assistance of the patient and other health care workers. E.g.: doctors (chaperoning, calling to clinic); nurses (relief work); general ("odd jobs"); patients (directing to other venues).
PERSONNEL	Administrative/ management acts related to the staff members & conditions of employment. E.g. supervision (nurses & other staff); motivation; collection of personnel forms, discipline (attire); compilation of duty roster.

TABLE 3.7: FACTOR RANKING OF OPD NURSING ACTIVITIES

TYPE OF NURSING ACTIVITY		% SPECIALIST	% TRADITIONAL	% OF ALL ACTIVITIES
PROFESSIONAL NURSING				
DIRECT PATIENT CARE	Advanced	22.0	4.2	7.4
	Basic	8.0	12.1	11.3
	Patient education	20.0	2.6	5.8
KNOWING		19.0	5.5	7.9
TOTAL DIRECT PATIENT CARE		69.0	24.3	32.4
NON-NURSING				
BOOKING		5.0	5.9	5.8
EQUIPMENT & CLEANING		9.0	24.6	21.8
RECORD RELATED		7.0	20.4	18.0
HELPING		9.0	17.3	15.8
PERSONNEL		1.0	7.5	6.3
TOTAL NON-NURSING		31.0	75.7	67.6
TOTAL ALL NURSING ACTIVITIES.		100.0	100.0	100.0

3.4.3 Clinical outcomes

This section describes certain measures that reflect the quality of care. Although other outcomes were measured (e.g. body weight) these have not been included because their measurement is difficult to express objectively. The measures shown below are usually taken to reflect the quality clinical care and are reasonable easy to operationalise.

3.4.3.1 Blood pressure (BP) control criteria

The BP control criteria are different for patients aged over 65 and less than 65 years in recognition of the physiologic increase in BP with age. If one BP reading was above the set criteria then the BP was classified into the higher category. Clinic BP measurement criterions mean that the BP is measured on the right arm at phase V after the patient has been sitting for five minutes. The control criteria are shown in Table 3.8 (p. 104) and are based on internationally acceptable criteria from the World Health Organisation (WHO, 1987).

TABLE 3.8 : BP CONTROL CRITERIA.

Control category	BP Control criteria in mmHg	
	< 65 years	≥ 65 years
Good	≤ 140/90	≤ 165/95
Acceptable	141/91 - 165/95	166/96 - 175/105
Poor	> 165/95	> 175/105

The control criteria were applied to clinic attenders based on the BP at the last visit before the record audit was done. The overall clinic BP control (despite age group and caregiver) showed that nearly 75% of all clinic patients had acceptable or good BP control. The corresponding figure for the doctor patient group is 72,4% and for nurse patient group 78,8%.

The age related BP control is shown in Figure 3.5 (p. 106) and Figure 3.6 (p. 106). The nurses do as well as, if not better than the doctors in terms of outcomes. Although there may be many reasons for this but the most frequently cited is that nurses manage the less complex older patients. The figures are given as a percentage so that comparisons can be made between the control achieved in each caregiver group.

A high level of good BP control in patients aged >65 years was attained (Figure. 3.5, p. 106). The figures for overall BP control compare favourably with those of other hypertension clinics in the Johannesburg Hospital Academic Complex that also have nurses practising in advanced clinical roles (Table 3.9, p. 105). The Johannesburg Hospital Academic complex consists of the hospitals used by the University for clinical practise in the Johannesburg area. Only

Baragwanath Hospital did not have a hypertension clinic then. If the good and acceptable BP control categories are added then the Johannesburg Hospital results at 82,4% control are better than the nearest hospital (Coronation Hospital 72,3%).

TABLE 3.9: OVERALL BP CONTROL IN JOHANNESBURG ACADEMIC HOSPITAL COMPLEX.

BP control	HILLBROW	CORONATION	JOHANNESBURG	MEAN
Good	55,5%	58,2%	52,9%	55,5%
Acceptable	12,2%	14,1%	29,5%	15,9%
Poor	32,3%	27,7%	25,6%	28,5%
Total	100,0%	100,0%	100,0%	

(Source: Pinkney-Atkinson & Milne, 1989)

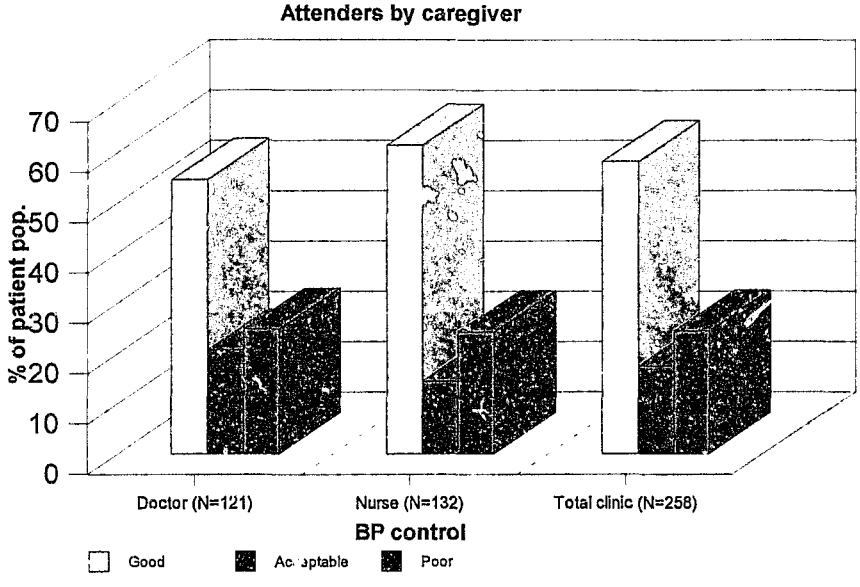


FIGURE 3.5: BP CONTROL > 65 YEARS

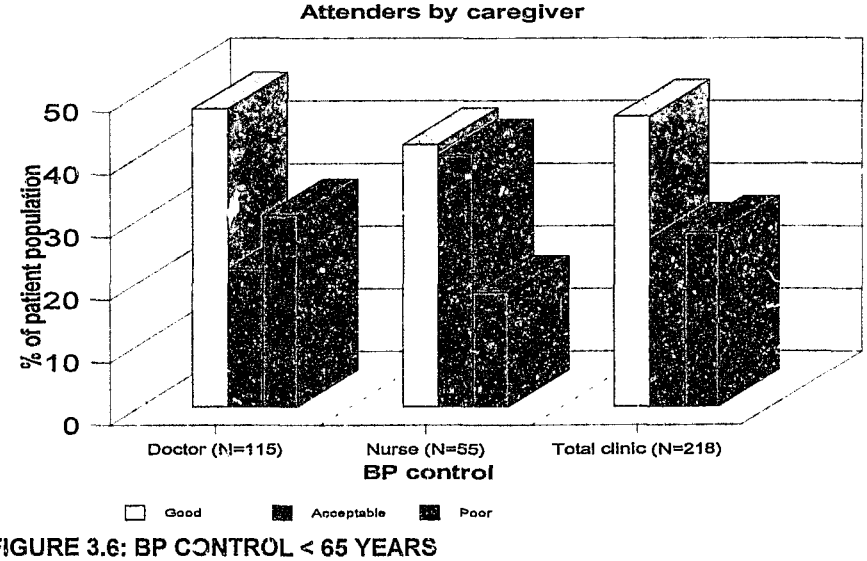


FIGURE 3.6: BP CONTROL < 65 YEARS

3.4.3.2 *Glycaemic control criteria*

The glycosylated haemoglobin ($GHbA_1$) blood assay results from the basis for judging glycaemic control. $GHbA_1$ is a measure of glycaemic control during the 2-3 months before the blood test. The categories of glycaemic control are: good, acceptable and poor (Table 3.10, p. 107).

TABLE 3.10: GLYCAEMIC CONTROL CRITERIA

		$GHbA_1$ %
GLYCAEMIC CONTROL CRITERIA	Good	<8
	Acceptable	8 - 9,5
	Poor	≥ 9,6

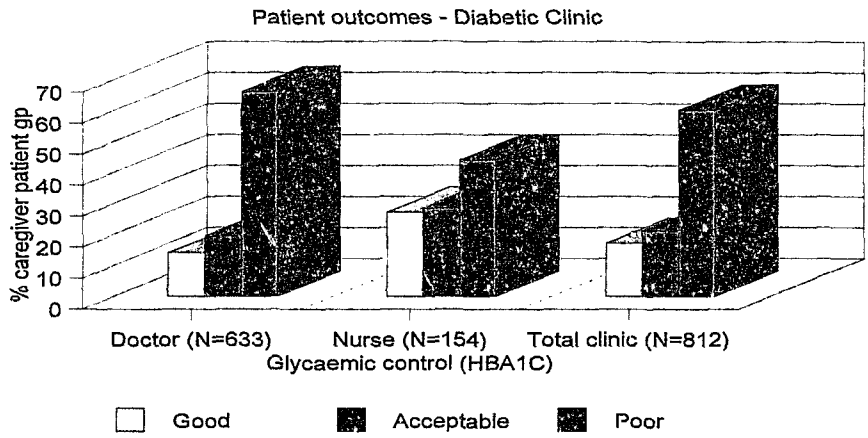


FIGURE 3.7: GLYCAEMIC CONTROL BY CAREGIVER GROUP

3.4.3.3 Glycaemic control.

At the time that the audit was conducted $GHBA_1$ it was not yet policy to use it on all patients routinely. Glycaemic control was taken from the most recent $GHBA_1$ test result taken within six months of the audit date. Figure 3.7 (p. 108) shows the glycaemic control of patients who attend the diabetic clinic according to the chief caregiver and represents 74,63% of the audit group. The mixed category is very small and has been excluded from the table. By combining the good and acceptable categories of glycaemic control the totals for each caregiver group are: overall clinic 38,9%, doctor 32,1%, nurse 58,2% and mixed 56,0%.

3.4.3.4 Clinic attendance.

More than 85% of diabetic clinic and >90% of hypertension patients attend the clinic regularly. A difference in the dropout rates for the different caregiver groups:

- Diabetic clinic: 17,59% doctor, 4,26 % nurse.
- Hypertension clinic: 16,5% doctor and 4,5% nurse.

Other studies have higher drop out rates but measured over a different period. In Soweto primary health care doctors and nurses had a 18% dropout at the end of the first year of treatment (Saunders, Ntoane & Wilson, 1983). In another study in Soweto 73% of patients attended so infrequently as to jeopardise treatment (Saunders, Irwig & Wilson, 1982). Similarly a Parisian study recorded

a 16,3% dropout rate after one year (Degoule, Manare Vu et al, 1983). It appears that the clinics that are the focus of this study have favourable attendance rates.

3.4.3.5 Duration

The number of years that each patient attended the respective clinic is shown in Figure 3.8 (p. 109). It highlights the continuing need for patient education and information on the management of the disease. It is not clear why there is such a marked dip in clinic attendance after ten years of attendance.

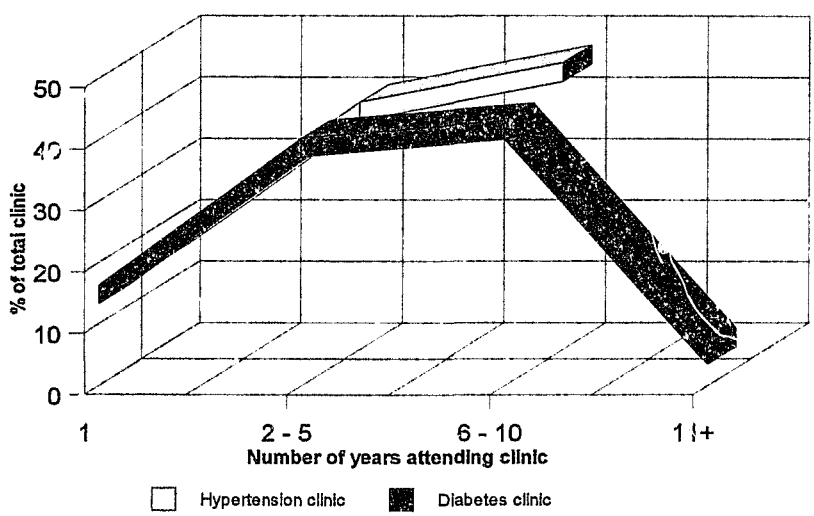


FIGURE 3.8: DURATION OF CLINIC ATTENDANCE

It must be acknowledged that these clinics are in the most sophisticated environment in the "superspecialist" academic hospital. Partly the reason for this is the fragmentation of health care and the lack of adequate facilities at other levels within the health care system. Ideally the type of clinic that is the focus of this study should be found at a secondary or a primary level. Increasingly it is being recognised that the care given to persons with chronic illnesses is often fragmented and inadequate for the patient to manage the illness. The clinics reflect some of the problems inherent in the apartheid health care system. It is likely that these clinics will change in nature in the time to come and will be found at all levels in the health care system and not only at academic hospitals. However, patient empowerment for the chronically ill requires in-depth knowledge by the caregiver. General training is usually insufficient.

3.5 Discussion - a collaborative model of care.

At first glance one is disappointed at the seemingly small number of diabetic patients (17,8%) who are managed by the nurses as the index caregiver. Has all of this effort been to the benefit of so few patients? Herein lies the problem - the traditional mind set that views a patient as cared for exclusively by one caregiver or another. The way of classifying patients according to chief caregiver does not adequately reflect the very interactive and cooperative nature care in this setting. It is possibly true of many other settings.

In this setting the informants cannot take bigger case loads because a large part proportion of time is spent monitoring and educating all of the clinic's patients, despite chief caregiver. So to a great extent all patients can be classified as mixed. The informants give information and to are available for all patients.

It appears that the type of joint practice that has developed is entirely appropriate for this setting. Over the years the nature of the "best" caregiver has been discussed - with particular reference to this and other ambulatory settings, e.g. primary health care clinics. Making comparisons about the care rendered by doctors and nurses in an era when the way in which care is provided is probably retrogressive and is undergoing major change. Unravelling the outcomes of care is hard, if possible. Even more so if trying to attribute the care to one group or another. New measures of the quality of care are urgently needed.

The new district health system for South Africa in which nurses are the chief primary health care providers supports this philosophy. However, it is important to note that the care in this study occurred in a cooperative environment. In this environment mutual care and support for all patients by doctors and nurses are important features. With hindsight identifying any patient on the grounds of chief caregiver is probably not accurate because of the almost total integration of care. The nurses provide availability access because someone is always present to answer the telephone or deal with patients who make unscheduled appointments. The nurses' many administrative and clinical functions especially in relation to patient education are vital for disease control and patient well-being. In emergencies the informants provide first-line service and if necessary the patient is then referred to the doctor concerned.

Doctors are essential as they provide the specialist clinical participation so necessary for patient care and nurse empowerment. They are the linchpins in educating the nurses and guiding clinical care. Nevertheless, the message is clear, all team members play an important part in a collaborative model of care - such as the one described in this study.

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CHAPTER 4: THE MODEL.

4.1 Overview of the model.

This chapter commences with a brief overview of the model of ambulatory nursing care for patients with chronic illnesses. Throughout the chapter the words shown in italics refer to the category labels. It is again stressed that the model is described from the informants' perspective.

4.1.1 Presentation of the results.

The grounded theory that resulted from the research is presented in this chapter. In common with the way that grounded theory is presented use is made of many excerpts from the informant's interviews. The excerpts selected for inclusion were not the only examples of a particular code. They were however selected because they present the most graphic verbal picture. Some of the informants had more developed descriptive skills and it is for that reason that they may have been quoted more often.

The information quotations are shown as indented single spaced blocks of text. When the symbols below appear in the test it indicates the management of the data were managed for presentation.

- ... A pause in the presentation or the sentence was never completed.
- (...)Editing by the removing an intervening section of text to enable the two related parts to be juxtaposed for continuity. *5B:124-129* Reference for the exact location of the quotations from participants interviews. *5B*:refers to the interview number. *:124-129* refers to the line numbers in the transcription in the interview text.

4.1.2 Introduction to the overview.

The act of caring for patients with the same chronic illness requires that the nurse embark upon a personal and professional journey. This journey will have a positive influence on the way in which she performs her work and conducts her professional relationships. She will be enabled to break the mould of negative and passive nursing roles that predominate in this setting of care, the OPD. The informants engage in the process of *knowing.* This process results in nurse empowerment and is the catalyst for patient empowerment. *Knowing* is the core variable and consists of two parallel and interwoven processes:

- *formal knowing* (resulting in nurse empowerment) and
- *humanistic knowing* (resulting in patient empowerment).

The broad outline of these two core concepts is shown diagrammatically (Figure 4.1, 114). The *knowing* processes have similarities in the following major elements:

- TARGET - the actor group that benefits from empowerment
- KNOWING CONTENT - consisting of five domains or fields of knowledge, skills and attitudes
  - *specialist medical*
  - *general medical*
  - *psychosocial*
  - *basic nursing*
  - *organisational.*
- WORK consisting of *knowing activities*
- KNOWING RELATIONSHIPS whereby the targets are supported in the work.
- a supportive KNOWING ENVIRONMENT.
- a RESULT/OUTCOME of target empowerment.
- TIME - large but unspecified amounts for the processes.

Although the processes have different targets both are part of the nurse's work in this setting. The two main differences between the forms of *knowing* occurs in the way in which the *knowing content* is gained and used (this will be described in a later section). *Formal knowing* is a largely INTERNAL process that enables nurse empowerment and *humanistic knowing* is an EXTERNAL process whereby the informant enables the patient to take control of a life that includes a chronic illness.

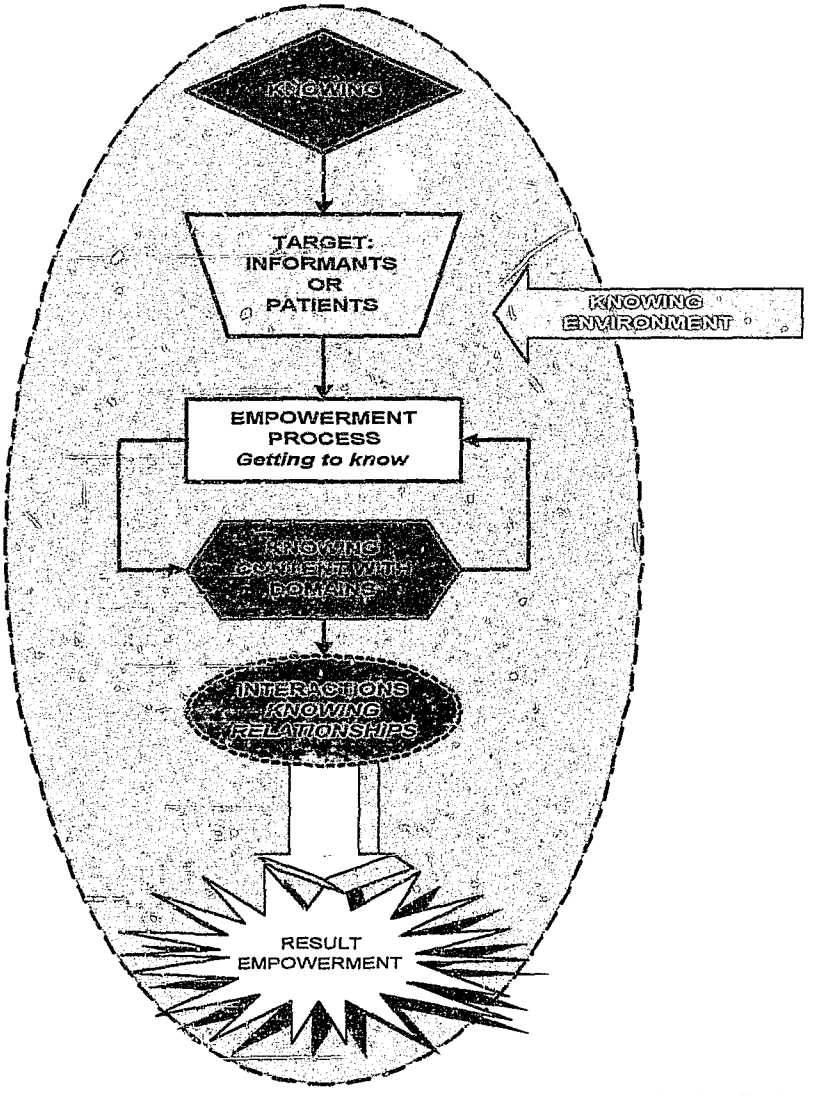

FIGURE 4.1: OVERVIEW OF THE MAIN COMPONENTS OF KNOWING

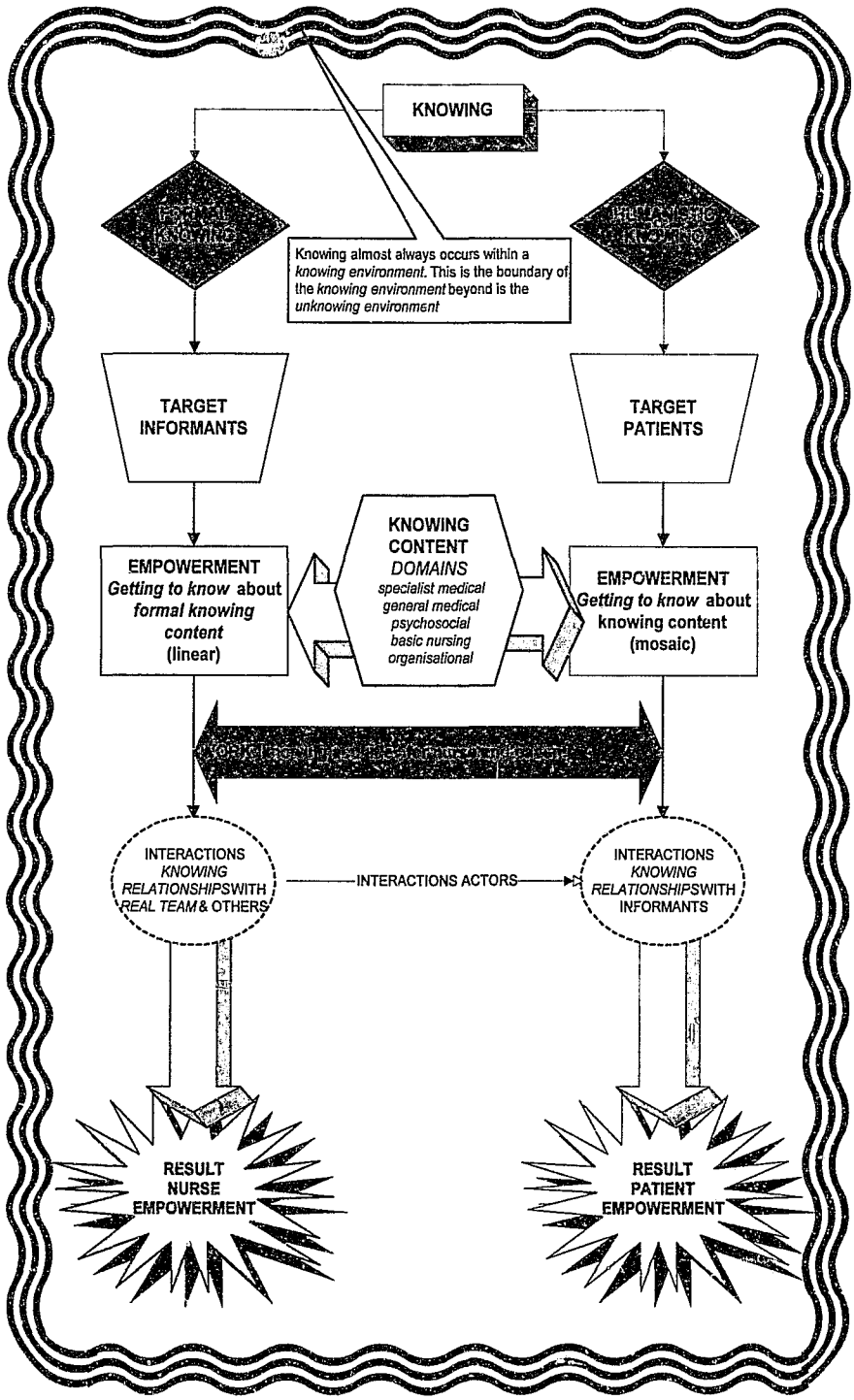

FIGURE 4.2 OVERVIEW OF THE MODEL SHOWING THE PARALLEL PROCESSES OF FORMAL & HUMANISTIC KNOWING.

Figure 4.2 (p. 115)shows the expanded version of the *knowing processes* as tandem and parallel sets of activities.

4.1.3 *FORMAL KNOWING* OVERVIEW

(Figure 4.2, p. 115)

DEFINITION: A nurse-centred process during which the informant increases her knowledge and skills enabling her to manage chronically ill patients competently. As the informant's knowledge and skills increase she is transformed into a clinical nurse specialist with expert power. The result of *formal knowing* is informant empowerment.

TARGET: An informant who constantly seeks challenges, *new horizons* and can take the risk that goes with intrapersonal change.

KNOWING CONTENT: Although similar content is needed for both types of knowing, its structural arrangement and the target's way of processing the content vary. In *formal knowing* the *knowing content* is linear in structure consisting of a vertical and a horizontal hierarchy. The horizontal hierarchy consisting of the five *domains* (arranged from lowest to highest status). Each *domain* has sequential levels separated by different kinds of *limits (missing something, not knowing enough, under- or overconfidence.)*

EMPOWERMENT: Informant empowerment consists of a process by which the nurse *gets to know* about the *knowing content.* During the *getting to know* process the informant acquires and shares *knowing content* needed for specialised nursing. Progress up the vertical hierarchy within a domain requires going beyond *a limit.* It takes courage and energy to take the risk of moving to the next level. Each *domain* has sequential levels separated by different kinds of *limits (missing something, not knowing enough, under- or overconfidence).* The informant engages in *limit protection strategies* (*bouncing, checking* and *referring)* to ensure safe practice. A very experienced informant will have difficulty in differentiating her practice domain from that of a doctor's (*the thin line*).

INTERPERSONAL RELATIONSHIPS: *Knowing relationships* develop with other informants and doctors (the *real team)* within the *knowing environment.* Interactions are collegial and have the gaining of knowing content (*knowing activities)* as a shared foundation.

WORK: The work of the informant is *to get to know* about the *knowing content* thus engaging *knowing activities*. *Knowing activities* consist of component tasks: nursing (advanced and basic) and education (patient and professional).
RESULT: The informant gains confidence, interacting with patients and doctors more assertively.

4.1.4 *HUMANISTIC KNOWING* OVERVIEW

(Figure 4.2. p. 115)
DEFINITION: A patient empowering interactional process that occurs in partnership with an informant. It is the work of the informant to act as a *conduit* for the *knowing content* needed by a patient to *take control* and to *live with* a chronic illness. Acknowledging a patient's individuality (*every patient is different)* and *control* are vital.
TARGET: A patient with the chronic illnesses of either diabetes mellitus or hypertension.
KNOWING CONTENT: consists of the same five domains but the patient acquires the content according to an individualised mosaic. It is individualised according to each patient's needs and is learnt according to patient set priorities. Despite this patient-centeredness the informants consider that *survival skills* are vital and must be learnt first.
EMPOWERMENT: These activities, collectively known as the *getting to know process*. The informant engages the patient in this process that enables the patient to *take control* and to live with the chronic disease. It occurs in 3 stages:

- initiation (*getting through*),
- maintenance (*talking through*)
- and success (*taking control*).

The informants realize that the patient controls all aspects of the *humanistic knowing*.
INTERPERSONAL RELATIONSHIPS: The *knowing relationship* occurs between informant(s) and patient. They are characterised by constancy (*staying with)*, availability (*being there*) and intimacy (*knowing each other*).
WORK: The work of the informant is to see patients and to perform *knowing activities:* consisting of advanced nursing and patient education. The nurse acts

as a conduit for the *knowing content* and shaping it so that it is problem-centred according to each patient's individual needs.

RESULT: A patient who can take control of the illness within the context of his/her own lifestyle and place in life. An empowered patient accepts responsibility for the ongoing management of the illness in partnership with the informant. *Brickwallers* are an extreme group of patients *who don't want to know* despite many supportive interventions over a period of years.

Both forms of *knowing* take place within a *knowing environment* that enables and supports the growth and development of the informants and the patients. Supportive interpersonal relations (called *knowing relationships)* are fostered between the doctors and nurses and between patient and informant. *Unknowingness* is a disempowered state of being and it is the usual precondition of the targets. It occurs in an *unknowing environment* that is negative and unsupportive. *Handmaiden experiences* have helped in the institutionalisation of passive nursing roles. Disempowered nurses are more likely to perform *handmaiden activities* in this OPD setting. The aim of these low status and menial *handmaiden activities* is the *smooth running* of the clinic. They are primarily non-nursing activities:

- *booking;*
- *housekeeping;*
- *paper work;*
- *helping;*
- *personnel management.*

Relationships with authority figures are characterised by blindness ranging from lack of acknowledgment to over manipulation. Caregiver-patient relationships are predominantly superficial and distant.

Humanist knowing also has another dimension - as part of the tacit knowledge of nursing practice in this setting. Now that it is made explicit, it can be added to the nursing domain and become part of the *knowing content.*

4.2 The Model In Detail

The model will now be discussed in more detail. Each of the core concepts will be described separately. The context of care is described in terms of the core concept, knowing and prefaces the full description of the model.

Nurse and patient empowerment is the cumulative outcome of the two parallel *knowing* processes. *Knowing* is not simply about giving power to nurse (informant) as this is an internal process. It is also an external process in which the patient is the target. As such it is linked and equated to one aspect of the concept of caring (Mayeroff, 1971:13):

> We sometimes speak as if caring did not require knowledge, as if caring for someone for example, were simply a matter of warm regard. But in order to care I must understand the other's needs and I must be able to respond properly to them, and clearly good intentions do not guarantee this. To care for someone, I must know many things. I must know, for example, who the other is, what his powers and limitations are, what his needs are, and what is conducive to his growth; I must know how to respond to his needs, and what my own powers and limitations are.

4.3 The *unknowing environment.*

An understanding of the context that provides the backdrop for informant work experiences and relationships are essential. Disempowered nurses and patients exist in a state of *unknowingness.* The intrapersonal, temporal, relationship and setting characteristics of this state are described in this section.

The *unknowing environment* is a sociocultural context that does not support the patient or nurse empowerment. An inflexible organisational climate within the hospital and its hierarchical nursing authority results in the subordination of nurses (Department of Health document one 1995.) In South African this is reinforced by class and gender discrimination (Devine, 1987; Marks, 1994).

The environment is characterised as consisting of three concentric circles (Figure 4.3, p. 121) and consists of the:

- macro-environment - the hospital at an organisational level with lings to the wider society;
- meso-environment - all of the different areas that comprise the OPD;
- micro-environment - the direct setting of care and it includes the one to one relationship between informants and patients.

The *unknowing environment* is diagrammatically represented as the two outer concentric circles, the meso- and macro-environments. It is distinct from the *knowing environment (*micro-environment.)

4.3.1 Unknowing relationships.

In general relationships with other health care professionals and patients are distant and unsupportive in the *unknowing environment.* Interpersonal intimacy with patients or doctors is not fostered. Informants can recall the many times in their careers when "doing" something (like cleaning the ward) was considered more important that talking with a patient.

An informant's close relative had worked for a time in the OPD. When she compared interactions in the *unknowing* and *knowing environments*, this was what she noted:

> It is hard to believe the difference in the doctors' attitude towards the sisters in the other clinics (*unknowing environment*) as compared with those of the doctors' in the hypertension and diabetes clinics (*knowing environment*). The doctors in traditional outpatient clinics are more inclined to talk to the clerks than the sisters. This is contrasted with the nurses (informants) who seem to get on so well with each other and the doctors. They are on first name terms despite the high positions held by the doctors (preceptors). *2:1502-1525*

Nurses in more traditional roles are dependent and their interactions with doctors conform to a subservient type of work and orientation towards knowledge.

> You know I don't see doctors up there any more (hand movements above head) and myself down here (hand movements on a lower plane). I didn't see that for many years. I see myself on a basis where I can actually discuss things and ask things with them and maybe many of other nurses (in traditional clinics) haven't reached that. They are still in this role - you know down here and up here (The informant shows the position by hand movements on lower and higher levels.) *5B:1827-1839.*

In the *unknowing environment* authority figures such as senior nurses, doctors, and administrative personnel are often known as "them" or "they" - faceless persons without names. It shows "their" social distance and that relationships that are often adversarial. *Administrative blindness* flourishes in an organisational climate that devalues the individual by ignoring or being *blind* to the informants' needs.

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> I think they (administration) are blind. I think that the hierarchy is blind to what goes on in this clinical area ... and to how much is required of the staff in some clinics. *4B:1544-1549*

Relationships with authority figures are characterised as different grades of *blindness* ranging from a lack of interest through dismissive insensitivity to exploitation.

> Rules are necessary but there is a lack of flexibility. I don't think that they really know what we are doing, or even see it as necessary. *6A:152-153.*

When *administrative blindness* is encountered, it enhances the informant's feelings of powerlessness so that they feel like unimportant and expendable cogs in a big wheel. They do not feel valued in any way. Many exemplars were given but perhaps the following vignette exemplifies the blind application of "rules" to the advantage of the powerful.

> I went to a funeral the other day and while there I met one of my nursing friends from another part of the hospital. She was terribly angry. This is her story.
> She had worked for the hospital for 19 years but has recently been ill. So she asked if she could transfer from a full-time to a part-time position due to her illness and operations. Before her transfer she had 84 days leave due to her. After transferring she applied for her leave. She was told: "sorry chum, you are now part-time and have not worked enough hours for this leave." After giving 24 hours notice she felt the saddest thing was that nobody said "won't you reconsider, you have been a valuable staff member for 19 years." *6A:278-299.*

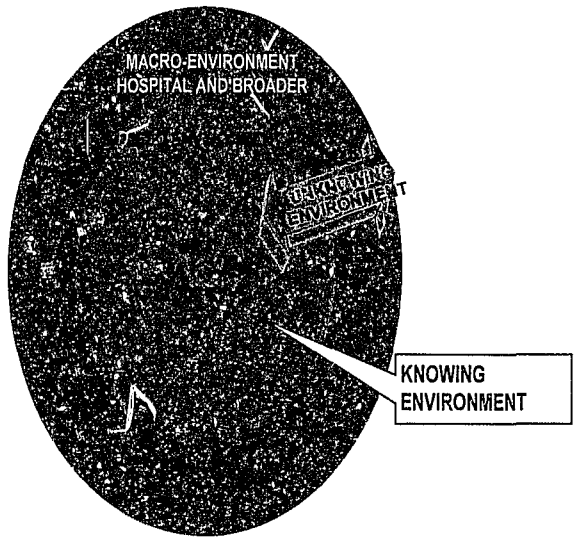

FIGURE 4.3: THE *KNOWING* & *UNKNOWING* ENVIRONMENTS

Encounters such as this one within the amorphous *unknowing environment* above all else makes the informants consider leaving the jobs that they enjoy so much.

4.3.2 Handmaiden defined.

The *unknowing environment* provides the ideal sociocultural and organisational climate for *handmaidens.* A *handmaiden* is a negative stereotype of a nurse who is a "servant girl or a subordinate, humble helper or servant." (Garmonsway, 1979:347). This characterisation is supported in nursing literature (Muff, 1982:120):

> Nurse as Handmaiden or **Servant to the physician** is the natural outcome of the myth of woman as subservient and the prevalence of paternalism in health care. This stereotype reinforces the idea that the nurses lack intelligence and autonomy and is, unfortunately, perpetuated by the nurses' own passivity.

A *handmaiden* represents all that is negative in traditional dependent nursing roles. The informants have, to a greater or lesser extent, rejected the handmaiden stereotype with its associated work activities. Even the most vocal informant acknowledged the existence of *handmaiden* roles and activities but she was emphatic that she had never personally been a *handmaiden.* Within the informant group the most extreme example of a failure to reject the *handmaiden* role is the nurse who had not taken the risks associated with advanced clinical practice and was most comfortable performing *paper work* at the desk (a location within the clinic see Table 3.3 p. 92). She participated minimally in providing direct patient care but still had more patient interaction than nurses in traditional roles. It is doubtful if she can be considered a clinical nurse specialist since she performed many *handmaiden activities.*

4.3.3 Handmaiden experiences.

Handmaiden experiences are unpleasant and humiliating nursing incidents (past or present) in which nurses are treated like feudal servants. These incidents have been directly or indirectly experienced by the informants at some stage in their nursing careers. The *unknowing environment* is linked across time by experiences characterized by a lack of support, consideration or caring. This association of negative incidents often spans the informant's career but usually

occurs unconsciously. Negative past nursing experiences are connected with similar authority figures and structures in the present *unknowing environment.* When an informant encounters destructiveness and humiliation in the present, a chord is struck that reaches across time to similar experiences in the first years of nursing.

All of the *handmaiden experiences* occurred in bureaucratic hospitals in which informants received their early professional socialization during their student years. In South Africa student nurses are an apprenticed menial work force without which the major public hospitals could not function. Three of the informants found these early professional encounters so repellant that they gave up nursing for many years after completing their training. One informant, who trained in the 1950s, recalls:

> My training experience was dreadful but of course it was the time in which I trained. One flattened oneself against the wall and said "yes sir, no sir." When I was on night duty I was hauled out of bed in the middle of the day because I had left a duster out. One was reprimanded for speaking to the patients, but it was the time. *6A:612-620.*

However, nurses who trained more than twenty years later had similar recollections. *Handmaiden experiences* do not support growth and development and create a passive response to power and authority. It is the lack of respect for an informant's dignity and the associated feelings of powerlessness that is instantly recognisable over time.

4.3.4 Handmaiden activities.

Work, the focus of this study, is a series of activities and acts (Spradley, 1970). In the OPD registered nurses have traditionally performed handmaiden activities or non-nursing tasks (Table 4.1, p. 125) in the place of direct patient care (Pinkney-Atkinson & Robertson, 1993). These non-nursing activities can be done by unskilled or semiskilled workers with little formal training. Housekeepers, clerks and auxiliary nurses also do these repetitive tasks that require low level skills and knowledge.

The informants feel that most non-nursing activities are important for the "smooth running of clinics". *Smoothing work* is needed for the efficient provision of patient care. It is low in status and usually highlights nursing subservience to

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The informants feel that most non-nursing activities are important for the "smooth running of clinics". *Smoothing work* is needed for the efficient provision of patient care. It is low in status and usually highlights nursing subservience to

other health occupations and especially to medical doctors. One informant explains:

> The doctor is up here (the nurse makes hand movements above her head) and the nurse is a handmaiden literally run around to make sure that everything runs smoothly. (...)Other nurses in traditional roles do the same thing year in and year out never learning a thing. *5A:1611-1628.*

The aim of handmaiden work is the "general organisation and smooth running of clinics" and not direct patient care. It leads to the association between non-nursing duties, *smoothing activities* and *handmaiden work.* None of these are aimed at the provision of direct patient care but at activities perceived by the informants to be:

- unpleasant (e.g. sluicing linen, dusting and cleaning equipment) &;
- mentally untaxing (e.g. sorting reports, checking stationery, supervision of cleaners).

TABLE 4.1: *HANDMAIDEN* ACTIVITIES

DEFINITION	EXAMPLES
BOOKING: Any activity relating to the scheduling of patient appointments.	Making bookings, vetting appointments (approving urgent appointments, checking clinic admission criteria); manipulating caregiver case loads.
EQUIPMENT & CLEANING: Any activities relating to physical facility and resources management.	Maintenance, replacing, inventory and ordering (stores, stationery, physical facilities); cleanliness and tidying (setting up rooms, dusting, replacing stationery); security of clinic (locking); labelling of specimen bottles.
RECORDS: Clerical acts aimed at the maintenance of patient records.	Patient records: maintenance, storing, opening; Preparation for next clinics (inserting carbon paper); Laboratory and test reports: sorting, ge' g.
HELPING : Activities aimed at the "smooth running of the clinic" including assistance of the patient and other health care workers.	Doctors (chaperoning, calling to clinic); nurses (relief work); general ("odd jobs"); patients: (directing to other venues).
PERSONNEL: Administrative/ management acts related to the staff members and conditions of employment.	Supervision (nurses and non-professional staff); motivation; collection of personnel forms, discipline (attire); compilation of a duty roster.

4.4 The *knowing environment.*

Both *formal* and *humanistic knowing* are nurtured and sustained within a supportive climate called the *knowing environment.* It is both a physical place and a sociocultural context. Diagrammatically it is the inner circle or micro-environment in which the nurses conduct *knowing activities* including direct patient care (Figure 4.3, p. 121). It is populated by persons who are intimately known to the informants: health professionals, nurses and patients. The informants have knowing relationships with other health care professionals (p. 142) and patients (p. 155). This setting has its most profound influence on the informants by supporting their continued growth and development (*formal knowing.*)

The *knowing environment* is more than a physical place where patient care and interpersonal activities occur. It provides a safe psychosocial context that enables informant risk-taking thus enabling change to outmoded personal and occupational roles. One informant supported this when she noted:

> I find that there is a constant challenge. I like to work in an atmosphere where I can use my initiative and I can be independent and yet still have the contact with colleagues.(...) There is respect for our (informant) differences and we are given credit for what we know. When we make mistakes it is treated differently, a more adult approach. I am allowed to make mistakes and am not destroyed by it. I am not told that I am "an idiot" because I didn't do it their way. *1:15-20; 93-106*

Like Carl Rogers (1977) the informants assert that learning occurs more readily in a climate of freedom. The issue of freedom to learn within the work environment is crucial because formal knowing means that the informant continually seeks *new horizons* and confronts *limits*:

> It is a comfortable atmosphere to work in. People accept you. They accept your knowledge or lack of it. It is not a pressured situation regarding the people with whom one works. (...) I feel freer with doctors and the senior sister to ask questions, even foolish questions. Or what seem to be foolish questions. I have felt free to ask those questions. *11:192-197;615-621*

Isolating a single reason for the development of this unique practice setting in a very traditional doctor-centred macro-environment is hard. The doctors (see *preceptors)* who have headed the clinics from 1977 onwards have all been supportive of extended nursing roles. They had sufficient interest and position power within the academic hospital complex to act as advocates for specialist nursing roles. Two chief matrons actively supported the role and this was especially important in the first decade.

4.5 *Formal knowing.*

Any nurse who wishes to provide specialised ambulatory care to diabetic or hypertensive patients must undergo a transformational process that will empower her to provide comprehensive and advanced care. This will emancipate her from the traditionally ascribed handmaiden status of ambulatory nursing work. This process of empowerment is called *formal knowing* and it is a core concept. The name is derived from the term *formal knowledge* because it is based upon the acquisition of structured public domain knowledge available in textbooks, journals and the like (Carper, 1973).

Novices through to expert nurses experience *formal knowing,* highlighting that it is more than a once-off acquisition of knowledge, skills and attitudes. Profound inter- and intrapersonal consequences change the way that the nurses feel and behave in professional interactions and activities. Despite each nurse's knowledge and experience dynamic tension between the known and the unknown is always present. As one set of clinical competence limits are overcome then a new challenge emerges. The process is driven by the challenge of *new horizons* and the risk-taking behaviour that followed. This cyclical and complex process may stimulate simultaneous growth in different knowledge areas (*domains*). Novices experience more constant tension than expert nurses and consequently need more energy to overcome limits. Throughout this transition the informants use limit protection strategies to provide the security for progress to a new practice level.

4.5.1 Knowing work.

Handmaiden or smoothing activities are performed by the traditional OPD nurses and have already been described (p. 123). The basis for and the initial classification of ambulatory nursing work was described in the Chapter 3 (p. 83). Unlike their counterparts in traditional roles, the informants perform predominantly *knowing activities* that are based on acquisition and/or use of the knowledge, skills and attitudes required for advanced direct patient care. Therefore, the possession and use of the knowledge for advanced direct patient care are the factors that differentiate the work of these two groups. Traditional nurses perform routine repetitive tasks that require little intellectual or skilled input. They seem to avoid direct patient contact by remaining fully engaged in non-nursing activities.

Knowing activities consist of nursing (basic and advanced) and education (patient and professional) and are described in Table 4.2.

TABLE 4.2: *KNOWING* ACTIVITIES

DESCRIPTION	EXAMPLES
ADVANCED NURSING: Direct nursing interventions using high order problem solving requiring specialised knowledge and skills gained through appropriate clinical experience.	Clinical problem solving: "seeing patients" assessing clinical state, prescription of care diet, adjusting insulin, performance of and assistance with advanced therapeutic and diagnostic procedures.
BASIC NURSING: Direct first level nursing interventions aimed at meeting the basic (universal) needs of patients.	Physical assessment (weight, urine and blood tests); assistance with activities of daily living (dressing, mobility); basic procedures (wound dressings, eye drops); interpersonal contact and support ("lending a sympathetic ear", "being there"); general patient related help.
PATIENT EDUCATION: Nursing interventions aimed at teaching patients the knowledge and skills needed for self-care.	Teaching blood glucose monitoring, telephonic problem solving, individual problem-solving.
PROFESSIONAL EDUCATION: Individual or group activities aimed at increasing the informant's or other health care professionals knowledge and skills.	Team communication (ward rounds, handover); in-service education (journal clubs, lectures). Teaching other nurses and health care professionals in aspects of chronic disease management.

4.5.2 Knowing content.

The empowerment process is based on the acquisition of wide-ranging general and illness specific knowledge, skills and attitudes called the *knowing content.* Irrespective of whether it is the patient or the informant who needs to acquires the *knowing content* it must be learnt and is common to both *formal* and *humanistic knowing.* It can be classified into five *domains* or fields (Table 4.3 p. 130). It is multidimensional with intellectual, practical and emotional components. The continual incorporation of new information and techniques makes *knowing content* open-ended and dynamic. Effective patient care depends upon the

optimal management of diverse health problems using knowledge from nursing and other disciplines (e.g. medicine, social work, psychology).

The classification is derived by grouping activities according to the type problems that the patient would encounter in the treatment setting. These five content areas are called *domains*: specialist medical, general medical, psychosocial, nursing and organisational.

However, the structural arrangement and methods by which the targets engage with the content vary (Figure 4.4, p. 131). The informants appear to classify information linearly and process and use the information hierarchically. Patients arrange the information that they need to live with a chronic illness in a mosaic. Each mosaic contains the relevant domains of information. They use similar information according to the problems that they encounter.

TABLE 4.3: MATRIX OF *KNOWING CONTENT*

	DOMAIN OF KNOWING				
	SPECIALIST MEDICAL	GENERAL MEDICAL	PSYCHOSOCIAL	BASIC NURSING	ORGANISATIONAL
TYPE PROBLEM	Specialist clinical problems	Other clinical problems not related to the chronic illness concerned.	Psychological and socioeconomic problems.	Problems related to basic human needs deficit or monitoring of the same.	Problems related to the way in which the OPD care is provided.
DESCRIPTION	Physical conditions related the chronic diseases: hypertension and diabetes mellitus.	Other physical conditions not related to diabetes mellitus or hypertension.	Psychosocial problems of life or developmental tasks as experienced by the patient.	Problems with the activities of daily living that require assistance or support.	Administrative issues relating to the OPD functioning.
EXAMPLE	Hypoglycaemia, heart failure, retinopathy.	Pneumonia, aortic stenosis, arthritis.	Finance & housing. Alcohol abuse. Interpersonal. Depression.	Assisting a patient to dress or go to the toilet. Infection control.	Making appointment booking, patient record files, repeat medication.
CAREGIVER TRAINING TO ACQUIRE CONTENT	Mainly post-registration specialisation.	Some basic level but insufficient depth for current patient care needs.	Some basic level but insufficient depth. Life experience. Post-registration.	Nursing education. Already learned but some updating may be necessary.	Mainly in-service training specific to the OPD area concerned.
STATUS RANKING	Highest	High.	Intermediate	Low	Lowest

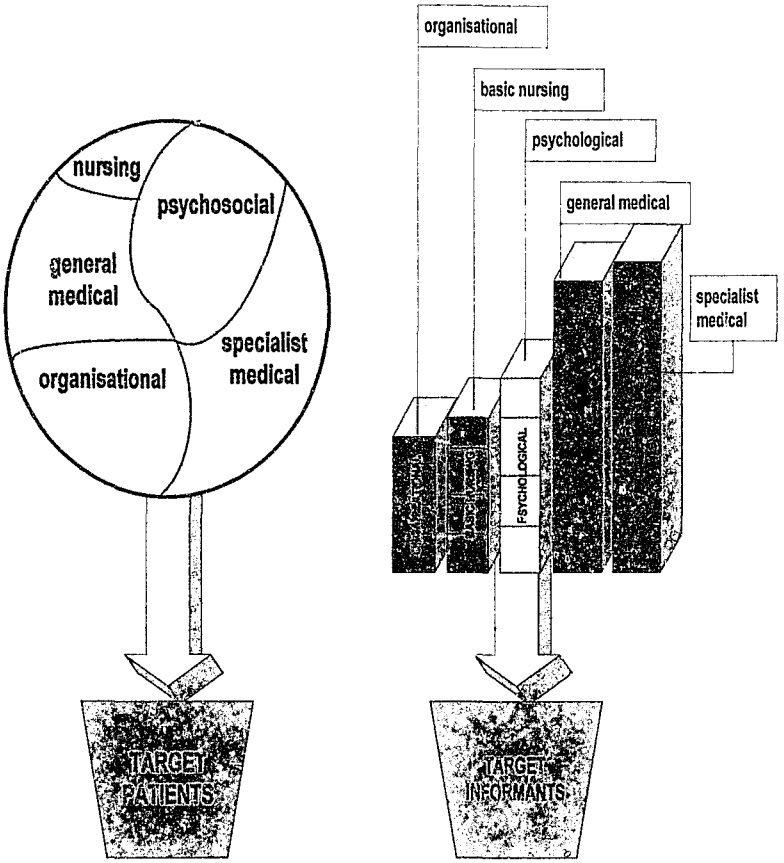

FIGURE 4.4: *KNOWING CONTENT* ARRANGED ACCORDING TO TARGET

4.5.3 Hierarchies of *knowing content.*

The structural arrangement of the *knowing content* during informant empowerment *(formal knowing)* is like two hierarchies superimposed upon each other (Figure 4.5, p. 132). These are a vertical hierarchy and a horizontal continuum. The continuum is in reality a horizontal hierarchy consisting of the five *domains* arranged in status rank from low to high. A vertical hierarchy exists within each *domain.*

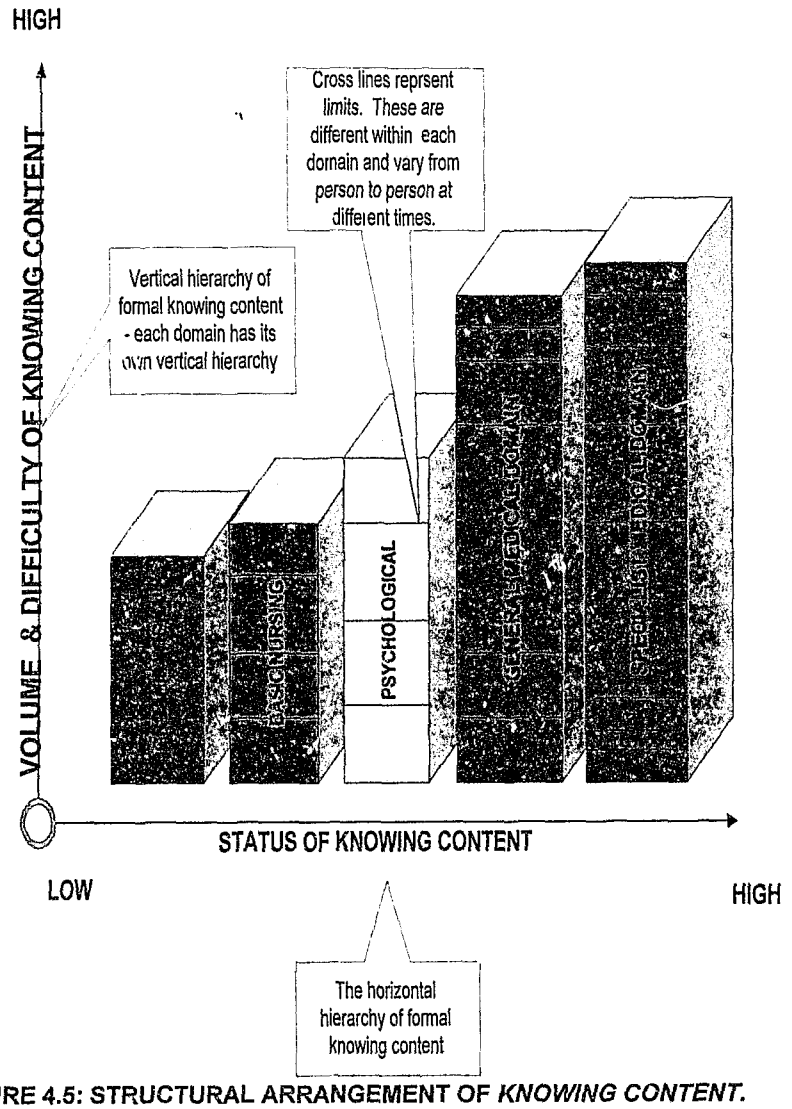

FIGURE 4.5: STRUCTURAL ARRANGEMENT OF *KNOWING CONTENT.*

4.5.4 Domains

A domain is a grouping of similar subject matter as described above. It is a vertical hierarchy with sequential levels of *knowing content.* A domain can be thought of and illustrated as step ladder with each rung representing a new level to be attained (Figure 4.6, p .133).

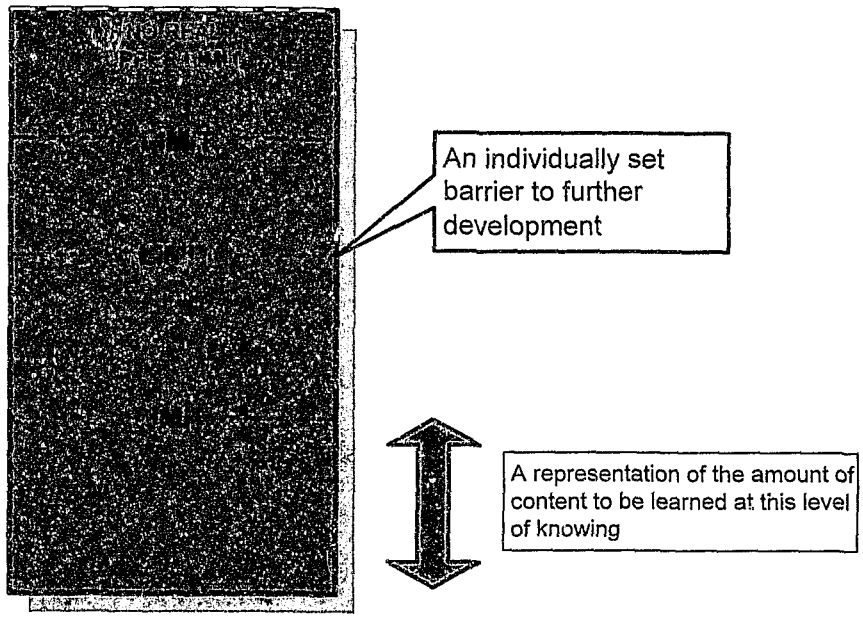

FIGURE 4.6: DOMAIN OF KNOWING.

Each level represents a new set of knowledge and skills that requires mastery before moving step-wise to the next level. A *limit* is a boundary between successive levels within a *domain*. Mastery of each level's content requires differing amounts of time and effort depending on the informant's aptitude, experience and competencies. The rate of vertical progress to higher levels of practice varies from informant to informant.

The different levels of practice are defined according to each informants personal criteria that include the following:

- personal characteristics;
- competence;
- domain of knowing content being used;
- task being performed;
- motivation.

The acquisition of relevant new *knowing content* enables growth and consequent upward movement. Upward mobility is complex with the following informant characteristics (p. 137):

- risk-taking (*seeking new horizons*);
- self-awareness (*knowing your limits*);
- self-esteem development (*confidence).*

The *nursing* and *organisational domains*, which correspond to the low status *handmaiden activities*, are the easiest to learn and have the least content. In contrast the content of the *specialist medical* and general medical domains take years to acquire and is probably never fully mastered. In a sense these domains are open-ended.

An informant may be at different levels within each of the five domains at any given time. The rate of acquisition of new *knowing content* slows with experience. Some informants reach their own limits and choose to stay at a particular level within a domain. However, most continue to learn as long as they are associated with the clinics.

4.5.5 Knowing mix.

Health professionals from different occupations are socialised to place emphasis on particular *domains* when providing patient care. The selection of *knowing content* according to world view is known as the *knowing mix.* This occupational specific selection of content accounts for the differing paradigms of care.

A doctor working in the hypertension and diabetes clinics uses a similar profile of *knowing content* to that of the informant. However, the medical profession places a much greater emphasis on the *specialist medical* and the *general medical domains.* These high status domains reflect the emphasis on the disease-orientated medical model in which technical and scientific knowledge is prized. In this model the disease is more often the focus of attention than the patient (Morse & Johnson 1991:21) and as one informant noted:

> A doctor will always approach the patient from the clinical aspect. He may pick up other psychological problems but he never explores them as we do. I don't think many do... some may do, those who have the interest. Doctors are definitely clinicians. *1:992-1009.*

Although the medical model is primarily disease oriented, the nurses acknowledge that this does not necessarily mean a lack of interpersonal skills in dealing with the patient.

> It depends on the doctor whether they see a patient as a disease or something more. Something that needs to live with the problem (...) in a full way. Not just something you can treat and not know anything about. *4B:1157-66*

The nurses provide care that focuses on the holistic management of patient problems and this is dependent on the use of all five *domains* reflecting a biopsychosocial model.

> I think that we see the whole patient ... whether the patient has seen a gynaecologist, if she has had a pap test. Patients will often mention breast lumps. They discuss most things. They feel they can. (...) We know about the new babies. The impotence and this sort of thing. Which I don't hear a doctor talking about, and maybe they do but it does not come out in case presentations. I think that we (the nurses) get to know the patients more. We have known them a long time even when they are a doctor's patient. *1:992-1009.*

This approach requires more time for patient interaction and is often perceived to be a weakness by doctors. This is exemplified by the following quotation in which an informant describes the response of a visiting doctor who came to observe the system of care:

> I can see that visiting doctors think I am taking too long with the patients. One said: "This is lovely. I would love to spend half an hour with each patient." I don't feel that I spent any longer with the patient than I needed.

A specialist nursing paradigm emerges when the informants simultaneously use the parallel concepts of *formal* and *humanistic knowing.*

4.5.6 The thin line.

The *thin line* is a metaphor for the role confusion that occurs as *formal knowing* progresses. These are:

- role distancing
- role blurring/ overlap.

Role distancing refers to the increasing differences between the informants and nurses in traditional ambulatory roles. The informants feel *we're different* from other nurses in the macro-environment as this extract from an interview with one informant shows when she describes this difference:

> The nursing staff have to show that they are interested in learning and they are not just there to direct the patients in and out of the doctor's office. (...) I don't know if many nurses in OPD see their role

> as learning. They work every month to earn their salary and I don't know if any of them learn anything in the time that they are at work. (...) Their role is nothing - they work with paper and it is clerical. Most of the OPD is like that except the few clinics where dressings and the like are done. They just see that there are enough files, that the patients go through to the correct doctors and are sitting outside the correct doors. *(5:1533-94).*

The second aspect of confusion occurs when the informants compare the increasing role overlap with a doctor's practise area. Experienced clinical nurse specialists report the presence of a *thin line* at the upper levels of the specialist medical domain. Here differentiating nursing practice from that of medical colleagues is difficult and the informants become conscious of a blurring of interprofessional role boundaries. It occurs most often with very experienced clinical nurses and with *knowing content* from the *specialist medical domain* (Keating & Nevin, 1985). An informant noted:

> I suppose the job that I perform is called nursing because I am a nurse. If I were a doctor, those same tasks probably would be doctoring. I suppose it is nursing because I help the patient to get dressed, get a bedpan and take blood samples. Apart from that I don't see much difference. (...) If someone asks me what I did I would tell them what I did and would call myself an advanced clinical nurse. But I wouldn't say that I am in a doctor's role. It is only when I think about what I do that I realize I am doing what a doctor does. Yet I still don't think of myself as a doctor. *(2:1406-12).*

4.5.6 Knowing your limits.

A *limit* is a boundary between successive levels within a *domain*. *Limits* are important because they delineate the boundaries between the currently known and the unknown. Each nurse establishes her own scope of practice based on a personally defined set of *limits*. Recognition of the known gives a sense of confidence to manage routine situations and take on new challenges. The tension between the currently known content and the potentially knowable translates into the amount of energy needed to overcome a practice limit. Practice within a *limit* is considered prudent and moving beyond the *limit* usually results in increased discomfort. One informant remarked:

> As specialist nurses we consult with patients and take responsibility for their total care. Nurses in traditional roles don't realize that we have to know our limitations. We extend ourselves but we don't take on anything with which we can't cope. *(1:206-11).*

A *limit* also represents a deficiency in *knowing content.* The feelings associated with *going beyond a limit* reflect discomfort and the informants have called these: "fear," "feeling out of depth," "groping," "going beyond one's competence," "the weight of responsibility," "being in the dark." The reason for discomfort is the recognition that a personal *knowing content* deficit may compromise patient safety.

Each informant has a personally determined set of *limits* that change over time. *Going beyond the limit* during the early stages of specialisation requires a great deal of energy and focus. Different types of *limits* are described in Table 4.4 (p. 138).

There are positive and negative consequences of *going beyond a limit* are part of the upward mobility to higher levels in the *domain* concerned. An example of a negative outcome is a *mistake* in which there is a content deficiency with the potential for patient harm. A sense of urgency surrounds the correction of *mistakes.* Although making a *mistake* is never a pleasant experience, the informants find that the supportive environment in which they practise makes risk taking easier.

4.5.7 New horizons.

A *new horizon* is both a positive limit that has the potential to increase *knowing content* moving the informant to new levels of practice. One nurse highlighted this growth orientation:

> Every day is different. It is not the same thing every day (...) Where else is there a job that is a learning process the whole time? If I come across something new, I can ask someone. I have an interest to go further and learn the whole time. It is a never-ending challenge to work somewhere like this clinic. I can always learn something new and there is always something new. It is up to me to make me aware of what is going on because nobody else is going to spoon-feed me.
>
> *(5:39-50)*

All of the informants are open to change and this is essential when dealing with the dynamic content of the higher status *domains.* The desire *to seek new horizons* enables risk-taking into unknown but not necessarily unknowable areas of practice. This characteristic seems to separate nurse specialists from other nurses.

TABLE 4.4: TYPES OF LIMITS

TYPE OF LIMIT	DESCRIPTION	EXAMPLE FROM INTERVIEWS
Missing something (An unconscious process.)	Failure to recognize a problem because knowing content is insufficient or over-familiarity with the patient.	*The nurses also see the same patient again and again and again, for ten years. Some times one doesn't actually see the wood for the trees. (5:1362-6)*
Not knowing enough (A conscious process.)	Recognition that there is insufficient knowing content to manage a recognised problem.	*There are those medical topics that one feels that a doctor, with a bigger background, would know straight away. For example: the twinge in the left leg associated with the pain behind the right ear means something relevant. And the nurses are not associating those two things because we are not able to tie them up. (5:1308-39).*
Lack of confidence (A conscious process.)	The nurse believes she is unable to manage the problem because of not knowing enough. This may be a mistaken belief	*There are areas that I don't really know if I am qualified to handle. Particularly the clinical assessment where a nurse's knowledge is not as good as a doctor's. Some of the work that the nurses are doing borders on what a doctor does. I find that scary and have felt "oh no, this is not for me - I am not really qualified to do this." The next day when the nurses have discussed it with the doctor, I find in fact that it hasn't been so bad. I have definitely found one is at the edge of one's knowledge at times. (10:102-27).*
Overconfidence (An unconscious process.)	Taking decisions without sufficient formal knowing backup.	*I was getting too sure of myself and perhaps too confident. I thought that I knew it all. (...) I think it is bad because one can get overconfident. (...) One might just do something wrong at the patient's expense because one is so sure of oneself. I don't think that I got to that stage but I would be scared of getting there. (2:899-925).*

Some informants have always sought *new horizons* but others feel it developed along with their clinical confidence. Each nurse defines the nature of the challenge in a way that reflects her personality, interests, and composite position in the domains. A few examples of *new horizons* are: a new patient, a difficult clinical problem, research project, the establishment of a new clinic, new knowledge and skills.

Taking on a *new horizon* requires the confrontation of one or more *limits* leading to risk-taking behaviour. In the initial stages of tackling a *new horizon* anxiety, fear and self-doubt are present. Even when these feelings persist the informant perseveres but once the challenge has been faced the feelings dissipate leaving elation in its place. Once the pattern of facing *new horizons* is established, accepting the more passive and dependent traditional nursing roles is more difficult.

4.5.8 *Limit protection* strategies.

The aim of *limit protection* is to reduce *mistakes* that may have negative consequences for patient and nurse alike. *Limit protection* capitalises on the collective and individual *knowing content* of other team members. The three main *limit protection strategies* are: *bouncing, referring* and *checking* (Table 4.5, p. 140).

TABLE 4.5: TYPOLOGY OF LIMIT PROTECTION.

TYPE	DESCRIPTION	EXAMPLE
Bouncing	Ideas are "bounced off" team members until either a solution or new insight is obtained. It involves talking through issues or problems with one or more team members.	Group case discussions are the more structured equivalent.
Referring	Passing a "real" problem on to an agency or another team member who is considered more competent. A "real" problem is too complex and may be reassigned temporarily or permanently. Referral requires a knowledge of resources and astute timing.	I handle problems if I can, but some of them are real problems. Many of these are social problems that can be handled by referral to the social worker or a local social resource. *(4:614-24).*
Checking	Going over the facts again to ensure that they are correct. In the example given the informant, an experienced clinical nurse specialist, had altered a dose of insulin on a new born baby. When going over the facts later that evening she was concerned that she had not acted correctly.	The nurses (informants) are all so scared of making a mistake that we are super-conscientious. When I say that 'we care' I mean that we double check because we know that we don't know everything or perhaps we haven't done something. It always comes across as if we are big deals, as if we are very confident. But I think that every one of us checks or doubts. I go over what I have done when I go home. One night I came back to the hospital and went into the clinic to double check what I had done in the patient record. The night superintendent thought that I was crazy. I **had** done what I should have. Then I phoned the patient to double check again." *(6:1239 et seq)*

4.5.9-The end result - empowerment.

The most important intrapersonal consequence of *formal knowing* is that the nurses gain confidence and thereby empowering them to *take control* of work activities:

> Knowledge is essential. One can't have confidence without knowledge. It is ego-boosting. One needs knowledge for confidence. *(4:1963-68).*

Empowered nurses have the confidence to break out of the dependent *handmaiden* roles that are the norm in this ambulatory setting (Pinkney-Atkinson & Robertson, 1993). Full empowerment can take years to develop. An informant noted:

> As specialist nurses we have the confidence and the knowledge, and when one has the knowledge one can talk from strength. If one doesn't know then one doesn't comment at all, e.g. in a totally different area like haematology or lupus. (...) But in areas where we have experience we can talk from experience. That is the answer, isn't it? It is because we are talking from experience.

Although there are different elements of empowerment, (e.g. professional, personal and interpersonal) the nurses feel that the greatest gains have been in the professional job-related areas. They feel as if they have "come a long way" since they began working in ambulatory chronic disease management. The informants show empowerment by:

- "taking responsibility and making decisions";
- "understanding and knowing your subject";
- "feeling that you are doing a pretty good job";
- "being assertive" - feeling secure enough to stand up for own actions when challenged by doctors or patients.
- increasing professional involvement: presenting and publishing academic papers, being involved in research, joining existing and establishing new professional societies, organising symposia.

4.5.10 Knowing relationships- *the real team*

Real team members are those informants and doctors who have frequent mutually supportive contact within the *knowing environment* while engaged in *knowing activities*. The purpose of these interactions is to increase the *knowing content* or improve the *knowing activities* of one or more of the participants. *Knowing relationships* occur between *real team members* and between the informant and patient. There are three grades of *knowing relationships* according to actors in the category of health care personnel involved: *preceptor, registrar, women worker.*

4.5.10.1 Preceptors

A *preceptor* is an experienced doctor who has attained a high level in the *medical domains* and supports informant *knowing activities*. Initially they perform a gatekeeping function for the *knowing content* especially for the *medical domains.* Many *preceptors* have worked regularly with the informants over a period of years and have been advocates for nursing role expansion. Each nurse uses her own composite level of *knowing content* as the benchmark for judging clinical competence.

> I like to work with a doctor who has greater knowledge and to draw on this.

The most extreme form of *a preceptor* is the nationally recognised specialist physician who is perceived as an expert in *a specialist medical domain*. The informants feel that they will never bridge the *knowing content* gap between themselves and these doctors. A preceptor is contrasted with the unknowing doctors who is as an informant noted:

> A bad doctor doesn't care or know as much as we (informants) do. *(2:281-2).*

However, some *preceptors* are not registered as specialists but they have worked in the clinic for many years. They have been supportive in a different was by being available *(being there)* for clinical consultations with the informants when needed. The nonspecialist preceptors do ask the informants for help in the management of specialist medical and psychosocial problems. The relationships are reciprocal with the *preceptors* teaching the informants about relevant

medical domain content and supervising problematic cases. These empowered nurses then teach the patients about living with a chronic illness. The *cascade of knowing content* is the way in which *knowing content* passes from a doctor to informant to patient.

> Oh yes certainly they *(preceptors)* depend on us (informants) quite a bit, particularly for the diabetic education. We are always available for that and the doctors haven't got the time. Oh yes, I think that we take a tremendous load off them. I don't think they would cope without us. On the other hand we would not cope without them either, so it is a two-way thing. But they are very co-operative and the relationships between the doctors and the nursing staff are very good.

In the nurturing *knowing environment* the informants experience cordial and open interactions with the *preceptors*. This is unlike their past experiences, and as one nurse, who trained in the 1950s, noted:

> There is far more informality now than in the 1950's. The doctor was a very distant person and a junior nurse did not speak to him at all. He only spoke to the senior sister. Now I find them very human and they are all super. I have great respect for the doctors. *(3:648-57.)*

The same informant also stated:

> The relationships are wonderful. I feel absolutely free to ask the doctors questions. In case presentations the nurses get to know them better besides mixing socially. *(3:536-41).*

The informants place the highest value on the *preceptor's* unconditional support for their advanced clinical role and related endeavours. It motivates the nurses to challenge their personal *limits* and this encourages them to explore *new horizons*. Examples of this are:

- Involvement in clinical research including drug trials.
- Starting new patient care services.
- Presenting papers at local and national scientific meetings in which nurses are usually a minority and passive participants.
- Organising educational events lasting for day or longer aimed at health care professionals from all over the country.
- Undertaking advanced educational activities. One informant registered for a master's degree with a *preceptor* acting as an academic supervisor. When this nurse started working in the clinic ten years ago she was not certain that she would cope with the *knowing content* required for the part-time training

course in chronic disease management. Another informant received an overseas study fellowship.

An exemplar of the mutuality of feeling between *preceptor* and informant is shown in the extract from a speech given by a preceptor when he was Dean of the university's Medical Faculty:

> Obviously, a doctor is closely involved with nurses all his life. Apart from the usual contact on the wards and in OPD I've been fortunate to have particularly close contact with two groups of nurses, and these types of nurses point to some of the future developments that are happening and will increasingly happen within the nursing profession. (...) The other special group of nurses that I have had close contact with are the Advanced Clinical Nurses in my Hypertension Clinics. They function other clinics, such as Diabetes and Endocrinology, as well. They are a group nurses who have been specially trained to manage chronic diseases. At the Johannesburg Hospital they have been an integral part of the Hypertension Clinic for 10 years now. They currently look after about 40% of all our patients. They have conducted audits on their effectiveness and have shown that blood pressure control and the compliance in their own patients is as good as , if not better than the doctors. They too are involved in research, such s drug trials and clinic audits, and present papers at the SA Hypertension congress, many of which are subsequently published in scientific journals. A number of them have achieved higher university degrees for this work. They have design, organised and given their own update courses for nurses from other chronic disease management clinics and for the occupational health nurses in industry. They have written their own educational booklets and planned research projects to optimize chronic disease care in some sections of the community. To these special groups of nurses (...) I would like to say thank you for many happy years of stimulating collaboration. *(Milne, 1987:6-7)*

4 5.10.2 Registrars

When *registrars* first start working in the *knowing environment* they have less knowledge of the applicable *specialist medical content* but often have more knowledge of the *general medical content* than the nurses. Most have heard about the "special group of nurses" before coming to the clinic and some find this threatening. By the end of the rotation most accept the nurses in specialist clinical roles in ambulatory care

The informants recall that a *registrar* brought cakes as a token of appreciation at the end of his stay. Another nurse recalls:

> A registrar once told me that he had trouble at one point. He was scared that the nurses would know more than him. He was very reserved when he came but soon thawed out. The nurse's attitude towards them makes the difference. It is no good getting on a high horse with us because we will kick it out from underneath straight away. *(2:475:86).*

4.5.10.3 Women workers.

The informants have found it surprising that a group of women who work together in such intense circumstances can get on so well together.

> For a group of women to work together as well as we do is fantastic. We can be rude to each other because we are on a nice level. It is super. There isn't the bitchiness that one gets in other places with women working together. *(2:132-41)*

This sense of wonderment is not limited to the nurses but also includes women doctors. Many nurses have experienced problematic relationships with women doctors in the past. An informant recalls a conversation with a particular woman doctor who was leaving the clinic:

> She (the woman-doctor) told me that she had never liked nurses before. Nevertheless, her experience in the clinic had taught her differently. She could see that we were real people: we laughed, we played and we worked. And she had not encountered that before. *(1:1595-1601)*

However, this is as far as the informants are prepared to go in confronting gender issues. And, if the glowing accounts are placed aside, the informants still face normal interpersonal and intragroup conflict and tensions. However, it appears that this is dealt within a more open way. One person within the informant group is officially designated as the charge nurse. The informants prefer an adaptable leadership style from a leader drawn from their ranks. At one point an inflexible and nonspecialist nurse was appointed as charge nurse. One informant describes that time:

> We (informants) were suddenly treated like children again. We were told "you will do this" and "you will do that." And as far as I am concerned for those two years the job lost everything. It lost its vitality and it stagnated. It stopped because none of us were allowed to grow. And you have got to have the growth. The people that you work with must be allowed to explore and to make mistakes and decisions and to implement them and benefit from them.

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4.6 Humanistic Knowing.

The cumulative effect of the parallel processes of *formal* and *humanistic knowing* is empowerment of the nurse and patient respectively. *Humanistic knowing* is achieved in partnership with a clinical nurse specialist and results in a patient who can take control of a life that includes a chronic illness. However, this patient empowering process only occurs after an informant has engaged in *formal knowing* and has achieved a certain level of proficiency with the *knowing content.*

The central activity is called *getting to know* which is a series of interactions between patient and informant. The aim is to enable a patient to take control of his or her life that includes a chronic illness by giving sufficient knowing content. It is similar to, but different from patient education and counselling in that the informants have their own style of interaction. *Getting to know* consists of three stages: initiation *(getting through),* maintenance *(talking through),* taking control *(winning through.)* The most important *knowing content* are the *survival skills* considered essential for patient safety. Patients learn in a problem orientated nonlinear manner *(knowing mosaic.)*

Humanistic knowing commences when an empowered nurse interacts with a patient who is ready to learn. Many factors influence patient readiness. The recognition that *every patient is different* emphasises the need for individualised interventions. *Knowing relationships* between nurse and patient develop and these are characterised by intimacy (*knowing each other*), constancy (*staying with)* and availability (*being there.*)

Some elements of *humanistic knowing* can be found in the work of major American nursing theorists. Paterson and Zderad's (1988) definition of humanistic nursing is similar to *humanistic knowing* that the category name was derived from it. Humanistic nursing is considered an interpersonal process aimed at the development of human potential. Orem (1985) categorized nursing according to a patient's ability to care for self and thus looking at the power relationships in relationship to care. Watson's (1985)conceptualization of caring highlights the importance of dignity enhancing interactions.

Savage (1990) argues that central to the reform in British nursing is the concept of a nurse-patient partnership that is based on mutual trust, respect and

equality of worth. Many of these threads are drawn together by Malin and Teasdale (1991:658) in an analysis of caring versus empowerment:

> Empowerment implies that the nurse must maximize the patients' independence and minimize their dependence. At the micro level, this involves a partnership between nurse and patient in which the nurse puts her knowledge and skill at the disposal of the patient, whom she trusts to make responsible decisions.

As the patient masters the content required to manage the illness, there is decreasing dependence on health care personnel. A successful patient can live as "normally as possible" by knowing "what is going on in his body" and as one informant noted:

> The nurse and the patient have to understand the illness. The patient must have the confidence that the nurses, who treat him, will know sufficiently about the disease and can intervene. The patient must get in touch with his feelings about the disease and his body image. *(1:1120-8).*

Strauss, Corbin, Fagerhaugh et al (1984:79) confirm that:

> the chief business of chronically ill persons is not just to stay alive or keep their symptoms under control, but to live as normally as possible despite the symptoms and the disease.

4.6.1 *Getting to know.*

The central activity of *humanistic knowing* for the informants is to help the patients' acquisition of relevant *knowing content. Getting to know* is a process that is similar to but different from patient education and counselling activities. It is the same aim in relation to *knowing content.* It is different in that it occurs in a patient-centred and problem oriented manner. Informants and patients engage in interactions that enable the patient to live successfully with a chronic illness.

The getting to know process can occur at any location in the clinic where informant-patient interactions take place:

- at "the desk" where the patients are received and weighed;
- "pricked finger room" where blood glucose estimations are made;
- at a distant sight for example: in the patient's home or workplace via the telephone without direct contact;
- in the consulting room when *seeing* a patient on a one to one basis.

The aim of the *getting to know process* is patient empowerment through the acquisition of knowledge and skills. As one informant noted:

> We (informants) feel that many patients are ignorant of what is going on in their bodies. We try to teach them.(...) Patients should know what is going on. For example, they should know the reason for taking a particular pill. They shouldn't just take it because the doctor said they must take it three times a day. People should not be ignorant of what they are taking and what is happening to them. *(4:930-45).*

This is in contrasted to the traditional style of ambulatory care in which scant attention is paid to patient empowerment.

> There was no explaining to the patient: what is wrong, why they must take certain pills, what the pills can do to them. If patients are educated properly much of the fear can be taken out of the disease. They know more and deal with it better. *(4:148-55).*

There are three main stages:

- initiation - *getting through*;
- maintenance - *talking through*;
- taking control - *winning through.*

4.6.1.1 Getting through.

The informants must capture the patient's interest so that the relevant *knowing content* is absorbed. The time for *getting through* varies considerably- it may be instantaneous or take months as this informant points out:

> One young female patient has taken about three years and she is now doing her own pricked finger about three times a week that she didn't do at all before. She used to say "I don't have time for that nonsense." Then she said " ha, ha, look here" and she had actually started. (...) And you can nibble away and eventually get them to be better controlled and get them to accept their disease ... that there are certain things that a patient has to do to survive.

The following exemplar shows that it takes time, effort and creativity to capture the patient's attention.

> We (informants) teach more than we nurse. We teach valuable information. We devise methods and ways of *getting through* to the patient with the hope and objective that the seed will fall on fertile ground in the long-term. *(6:680-688)*

Because *getting through* cannot be taken for granted when it occurs there is cause for elation. This is highlighted in the following excerpt about a "new"

patient. The patient is only "new" to the extent that he had just started attending the clinic after having had diabetes treated at another source of care for years:

> When I have educated a new patient, I come out with a feeling of euphoria because he says: "I didn't know. I've never done that. That makes it so simple." This shows that I am getting through. When he knows more about himself and can live fairly normally because he has learned something. It is of tremendous benefit to people. *(5:853-65).*

4.6.1.2 Talking through.

The *knowing work* in relation to patients requires sustained interactions. These informant-patient interactions are sustained by different kinds of talking ranging from telling to two-way communication. *Talking through* is a way of offering ongoing support without taking away the patients' responsibility for the problem. Some of the many functions of *talking through* are:

- information exchange;
- skill development;
- confidence building;
- empathising and
- and the conveying of respect.

The informants often resist the use of counselling skills because these feel too contrived. An informant acknowledged that her style did not conform to the theory of patient education or counselling:

> I probably give my own view too often on how I would cope with it rather than talking them through it.(...) Rather than saying "you are worried about dying" I would say: "Oh come on you are only 78, look how healthy you are." And that sort of thing. I don't know if it is right or not. But after that we talk of death quite openly. I know I'm wrong I don't lead the patients in and let them speak. I speak too much as well. I make it more of a two-way conversation than just prompting. *(2:809-26).*

Atshul (1983:ix-x) supports this view when she notes that:

> much of what is valuable in nursing is in direct conflict with the ethos of counselling (...)counselling skills do not come naturally to nurses.

4.6.1.3 Winning through.

The criteria for success are relative and often transitory because living with a chronic illness requires constant adaptation by the patient and his significant others (Strauss, Corbin & Fagerhaugh, 1984). The patient's circumstances and motivation influence the chances of success. However, success can be claimed when a patient gains as much control as possible of the illness within the context of everyday life.

The criteria for *winning through* are coloured by world view. In the disease-orientated medical model success is judged by the extent to which the disease is controlled according to objective clinical criteria, e.g. blood pressure or blood glucose levels. Besides these objective outcome measures the nurses use more patient-centred quality of life considerations to judge success. The concomitant use of these softer criteria give the flexibility to adapt to the almost inevitable fluctuations in the control of the illness. Therefore *winning through* or successful disease management is not just a single point on a graph but has many facets and depths that are dependent on the patients own circumstances and stage of illness and the like. For example, during pregnancy many diabetic women attain excellent glycaemic control in the interests of maintaining a pregnancy and producing a child. However, after the birth they never again attain that high level of control.

4.6.2 Every patient is different.

The recognition of patient and contextual uniqueness is a prerequisite for *humanistic knowing.* Each patient has distinct needs despite having the same chronic illness. This individuality is a function of many factors:

- Illness, e.g. type, stage, severity, complications;
- intrapersonal, e.g. stage of development, motivation;
- illness experience, e.g. knowledge, acceptance, perceptions of care;
- coexisting medical problems, e.g. acute or chronic;
- demographic characteristics, e.g. age, gender, education;

- psychosocial context, e.g. relationships, financial.

Patient individuality stimulates interest and challenge for the informants. It is this continual discovery of *new horizons* that makes seeing patients so absorbing:

> When I get going in an interview *every patient is different.* They know different things, ask different questions and have different inputs. As I get into the interview or education session it changes and becomes different and interesting. Before I start I often think: "Oh heavens, the same boring pricked finger routine again." This changes as I work with the patient. I never finish educating a patient and think "Oh, that was boring." I always finish and think "Ah, that was worthwhile." *(5:899-910).*

Uniqueness affects the content, format and style of patient education so that no two patients *get to know* in the same way with equivalent results. Flexibility is needed:

> Patient education varies from patient to patient. The content that I tell them, the contact, what they understand or want to understand.

Formal group lectures are considered neither appropriate nor effective for conveying the tailored in-depth knowledge needed for living with an illness. The uniqueness of each patient and his/ her circumstances make flexibility and individualised interactions the most important way of intervening. It supports the need for *talking through* with the patient on a one to one basis.

4.6.3 Patient control.

If empowerment is to occur then acknowledging that the locus of control resides with the patient is essential for the informants.

> The nurse tries to reassure the patient about the things that he is doing to help himself. He must help himself because no one else can help him. *(4:1444-48)*

When empowerment is considered from the patient's perspective, the process clearly commences begins with a patient's willingness to learn. At a conscious or unconscious level the patient realises that control over the illness is essential. The process will only proceed at the rate at which the patient is comfortable. The desire to know is like a rate limiting step in a chemical reaction. Empowerment only occurs at the rate at which the patient is willing to learn. A nurse (or other care giver) is powerless when it comes to making a resistant patient know about the illness and its consequences:

> It is a patient's business if he doesn't want to know. I can't make him know if he doesn't want to understand. *(4:1259-62).*

4.6.4 Brickwallers.

A group of patients, the *brickwallers,* do not gain control and are consequently unable to live successfully with the illness. Although nurse-patient interactions are cordial, it is likened to "hitting your head against a brick wall." *(2:532).* The following extract highlights the therapeutic dilemma caused by brickwallers.

> After six to 12 months of contact I can assess that I am never going to get through. All that I try to do is to maintain some sort of level. Some nurses get the patients back and spend an hour with them every month but that doesn't work for me. I think: "You (patient) are never going to listen and I have done the best that I can. If your blood sugar runs at a moderately high level you must accept that this is your level. My part is to try to keep you out of trouble." I don't get them back every month and spend two hours because that patient will not change. The patient will still say: "I have never heard about this or that." And I know darned well that another nurse has done the same thing that I have just done. Sometimes I need a cutoff point so that I do not keep on pouring down the drain. Perhaps I could spend the time on a patient who may benefit more. *(5:140-72)*

Identifying *brickwallers* takes time because there are no outward characteristics to distinguish them from more compliant patients. Rarely, in response to a life-changing event, a *brickwaller* may begin to actively participate. Each informant's belief system and temperament influence whether more or less time will be spent with a *brickwaller.* Although *brickwallers* represent a failure of care in objective terms, the informants resist the *real teams* pressures to refer them to other sources of care.

4.6.5 Knowing content.

Each patient needs to know about many topics, situations and people. Living with the illness requires knowledge and experience of more than the information that relates directly to the chronic illness. Both nurse and patient require similar knowledge and skills. Unlike the nurses who make linear progress through the *domains,* the patient focus is on solving a problem by drawing in content like mosaic from more than one domain at a time. This approach to the acquisition of *knowing content* are shown in Figure 4.7 (p. 153).

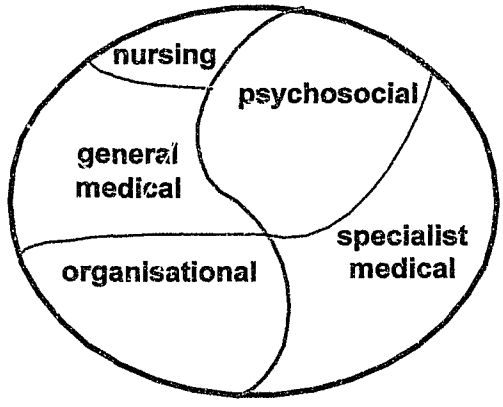

FIGURE 4.7: STRUCTURAL ARRANGEMENT OF *KNOWING CONTENT* IN *HUMANISTIC KNOWING.*

With the exception of the *survival skills*, the *knowing content* is patient-centred. The patient's main concerns may not be related to the chronic illness. For example:

- A pressing economic problem, e.g. retrenchment;
- A developmental issue, e.g. an elderly person moving to more secure housing.

These issues may preoccupy the patient to such an extent that managing the disease adequately is impossible. Although the informants may find it difficult to handle the non-disease related issues, they accept the importance of dealing with patient generated issues. As one nurse noted:

> It is difficult because the patient's expectations of the interview are different from mine. I am there to assess the diabetes or hypertension. Other issues are not my direct concern but it may be the patient's prime concern. When a patient comes to a caregiver they must be satisfied because I can't refer every thing to another source of care. Sending a patient out unsatisfied is hard because it probably breaks down rapport. The next time that patient visits it may affect compliance. A patient will not come back if problems are not dealt with. *(10:215-40)*

4.6.5.1 Survival skills

Survival skills are considered by the informants to be vital for the patient's physical safety (e.g. management of hypoglycaemia in diabetes). Since there may be fatal consequences for not knowing, there is an urgency about teaching this content on the first visit:

> First visits are very much *survival visits*. (...) At this stage it is more important than the emotional aspects of diabetes and personal coping skills. (...) You have got to teach them a lot in those first visits. If you know that you are not getting through to that patient you still have to give them survival skills because we can't send out a patient newly on insulin without knowing how to cope. *(10:1477-1507).*

This usage is supported by the use of the term "survival skills" in the Type 2 diabetes mellitus clinical guideline (Society for Endocrinology Metabolism and Diabetes of South Africa, 1997).

4.6.6 *Knowing relationships* revisited.

The *getting to know* process is based upon and engenders mutual trust and intimacy between nurse and patient. These informant-patient interactions are the *humanistic knowing* equivalent of the *knowing relationships*. Likewise the objective is to increase the *knowing content* or improve the *knowing activities* of one or more of the participants. These interactions are characterised by availability *(being there)* and intimacy (*knowing each other*).

4.6.6.1 Being there -availability.

Being available for interaction is more than a physical presence it also has temporal and psychosocial elements. It communicates concern and esteem for the patient by giving of caregiver time. Time spent with the patient is an important issue in care because it is assumed that a nurse's time is less valuable than that of a doctor. Rationing time is an important way of expressing power in patient relationships.

Being there involves making time to spend with a patient so that the amount of time constructively spent with a patient becomes an important therapeutic tool. Nurses make the time to listen to and work through issues that a patient deems important. Fewer time pressures are perceived when consulting with a nurse.

The informants are based in the clinic area at times when neither the diabetes nor hypertension clinic is scheduled. This increases the access to the service by being physically present. If a patient has a problem he or she can either come into the clinic or phone and speak to a nurse.

> When the patients leave the clinic we say to them "there is always a sister on education. You will see the doctor in three months but there is always a sister on education. Any time you have problems, come in and we can discuss the problem or you can phone." So that is ongoing. *(1:1359-67)*

Being there for a patient also involves informants' availability for emotional involvement in a therapeutic patient relationship. Darbyshire (1992:35) comments on a published account of *being there*:

> Treatment rooms, 'geriatric' wards, mental handicap hospitals, out-patient clinics, antenatal wards ... how many other places are there where nurses say that what they do is not 'real nursing'? (...) When nurses in this country see 'Americanisms' such as 'presencing' or 'being with' they tend to dismiss them as meaningless jargon, but when we start to describe the moments with patients that really matter, such expressions seem absolutely right.

Intimacy (*knowing each other)* and trust develop as a function of the availability. Benner's (1984) "presencing" and Paterson & Zderad's (1988) "being there" and "being with" are similar concepts.

4.6.6.2 Knowing each other - intimacy.

Once the patient is seen to be an individual the informants become trusted confidants with whom significant life events can be shared. It is a function of time, depth of communication and perceived trustworthiness. Maintaining it requires interest, sustained effort and energy. One informant likened it to a friendship:

> Not a friendship in which I have my needs met by the patients except my need to help. I am very happy to listen. I think it is more support than friendship. Just listening, hearing and remembering their problems. There was a patient the other day and I thought that I had a book that she would like to read. Caring and thinking about them. Seeing that they are coming next week. *(10:675-716)*

Nurses and patients share personal information resulting in personalised interactions. Many patients have heard of the clinic's reputation for providing quality care and know what to expect when attending the clinic.

> I have been seeing some diabetics for seven or eight years. I feel almost a part of their lives. I know when their grandchildren were born and so on. So there has been a build up over the years. *(5B:1135-42)*

Knowing each other also depends on the caregiver continuity. Caregiver continuity is doubly important in academic hospital and ambulatory setting. Ambulatory care is episodic since some chronically ill patients only seeing the caregiver once every 3-6 months. If the caregiver is a junior doctor or registrar

who is on rotation through the clinic the patient may never see the same caregiver twice. This adds to the importance of the informants becoming a familiar person in this setting. Patients who encounter a new caregiver at each visit can feel abandoned.

4.6.7 *Knowing* cascade.

The gatekeepers of *knowing* are the *preceptors* who provide the initial stimulus for the *conduit cascade* in which *knowing content* passes from doctor to informant to patient. The context for *knowing activities* is the *knowing environment*

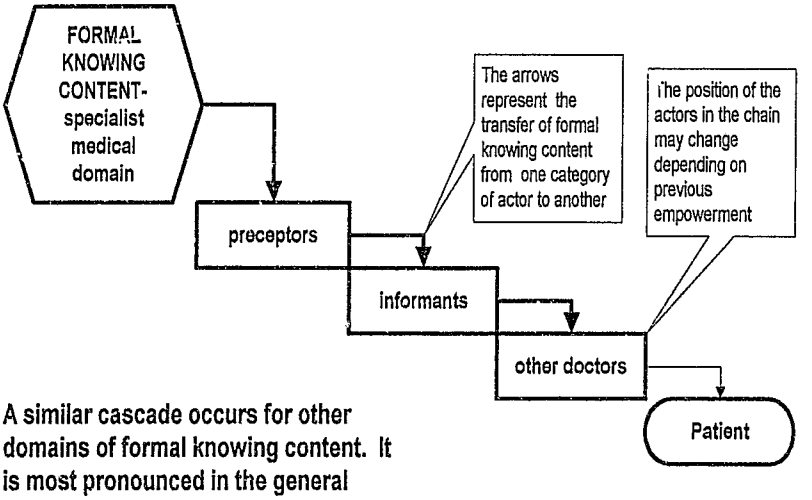

FIGURE 4.8: THE *CASCADE OF KNOWING CONTENT.*

CHAPTER 5: DISCUSSION & CONCLUSION.

The main purpose of this chapter is to discuss the findings. The following issues will be addressed:

- The aims of the study.
- The study's results within the South African context.
- The *knowing* model compared to knowledge management.
- Linkages to selected nursing theories.
- Chronic disease management and managed care.
- Future directions.

5.1 Study aims revisited.

This is an important juncture at which to revisit the aims and reasons for undertaking this study.

- The broad aim was "to discover nursing knowledge" in one setting only (p. 7) and this is the subject of much of this chapter.
- The setting was limited to the ambulatory diabetes and hypertension clinics at the Johannesburg Hospital.
- The unit of analysis was nursing work as undertaken by a unique group of clinical nurse specialists. The results in relation to this aim were presented in Chapters 3 and 4.
- The results were to be arranged as a substantive nursing theory of specialist ambulatory nursing work. The results in relation to this aim were presented in Chapter 4.

5.2 South African substantive theory.

An important reason for undertaking the study was that existing inten ational nursing models and the literature did not cater for local conditions and developments in nursing (p. 1 et seq.). Benner (1989) and Rogers (1989) state that nursing cannot be separated from the context of care. The preponderance of nursing research literature from developed countries reflects this reality. Whilst this may not be a popular standpoint in an era in which the ideal of internationalism flourishes. However, the quotation below, written a decade after this study began, reaffirms the need for research into local responses to nursing problems.

> Nursing practice is at different stages of development around the world. Although there are many common problems, solutions have to suit the particular needs of each country and must be sought. The active participation of nurses, nurse educators and nursing managers, together with other health care workers and representatives of the communities with whom the nurses work in partnership. (*WHO Expert Committee on Nursing Practice*, 1996: 21)

The South African context still differs considerably from that of developed counties. Whilst democracy is relatively well entrenched there are still many major lingering socioeconomic and political problems.

> South African society has been torn by conflict, rapid change, apartheid and challenges to authority. The effects are very evident in the high crime rates, financial corruption in the private sector, services and rates boycotts and many other forms of social fragmentation and lack of discipline. These impose an additional burden on the task of achieving a spread of prosperity. This may be South Africa's most serious problem and one least likely to be corrected by planning and policy initiatives. (Schlemmer, 1996:vi)

This excerpt from a political and business report emphasises that, as the millennium approaches, South Africa still faces many painful and fundamental challenges. While many of the health sector policy changes may be to the ultimate good, the short- to medium-term consequences may be negative. For example, the rationalisation and restructuring of nursing education facilities and posts has resulted in a number of nursing colleges being closed with a concomitant reduction in the number of student nurse and nurse educator posts. In the Western Cape in 1994/5 there were four nursing colleges with about 450 first year students taken in each year. In the same period the three university nursing departments educating undergraduate basic students shared an intake of about 100 per year. The four nursing colleges have been amalgamated with only 100 first year students to be admitted in the year 2000. The university intake has been halved with one university no longer training at an undergraduate level (Coetzee, 1999). Another province, Gauteng, has implemented similar but less stringent measures (Armstrong, 1999). The long-term implications of these reductions may be catastrophic for nursing as a profession if the budgetary constraints are not carefully monitored in relation to the nation's need for nurses.

Despite the South African macro-environment, this study is not a national model for it is only a substantive theory as are all grounded theories. In order to be considered a truly a national model, it needs validation in other health care

settings beyond the single setting in this study. Clearly that is beyond the scope of this study. It is a South African substantive theory only to the extent that it is was conducted in this country.

5.3 Knowledge development and related concepts.

More than a decade ago Cull-Wilby & Pepin (1987) felt that knowledge development, especially in clinical nursing, had an "exiting future." Nurses working in clinical areas were seen to be essential to uncovering the knowledge relating the that area (Benner, 1983; Silva & Rothbart, 1984).

In the following sections the *knowing* model developed in this study are compared with knowledge management as a concept. Knowledge management per se is not a nursing concept or theory but rather allied to business management and information technology. When the concepts contained in *knowing* were compared with a number of nursing theories there was an imperfect fit. Surprisingly, the closest fit came from the concepts contained in knowledge management. The following sections explore the marked similarities and some differences between *knowing* and the knowledge management. Although knowledge management has its origins at the time of Confucius and Moses, the modern variant is a relatively new discipline with a developing content and practice area (Grzanka, 1999). Due to the developmental status of the discipline only the key concepts will be discussed in relation to the *knowing* model because there is still fluidity in the concepts and their inter-relationships.

5.3.1 Knowledge management.

The focus of this study was broadly stated as: the discovery of nursing knowledge (p. 7) and, in particular, the uncovering of tacit knowledge (p. 9). However, this presupposes an understanding of the concepts related to knowledge development. This was a difficult task because at the time that the research commenced there was a expressed, but limited conceptual understanding of the issues. In the intervening decade the discipline of knowledge management (which incorporates knowledge development) has undergone exponential growth. This is especially in relation to conceptualisation and implementation.

> Knowledge has become the primary ingredient of what we make, do, buy and sell. As a result, managing it–finding and growing intellectual capital, storing it, selling it, sharing it–has become the most important economic task of individuals, businesses, and nations. (Stewart 1998:12).

As the information age gives way to the digital age, knowledge has a much wider relevance than just for those persons traditionally identified as knowledge workers (e.g., academics and educators). It underpins the way society operates in an increasingly digital environment. Knowledge management is a comprehensive term that incorporates knowledge development. It consists of one or more processes or systems for creating, using and reusing organisational knowledge (Hoyt Consulting, 1998).

The world of work, usually within an organisation, is the context in which knowledge management flourishes. Many of the organisations in which knowledge management is most powerfully demonstrated are knowledge intensive global, or at least multinational, organisations like Dell Computers or the professional services firm of Pricewaterhouse, Coopers, McKinsey (Hansen, Noria, & Tierney, 1999; Havens & Knapp, 1999). However, single institutions also derive benefit. This study describes this process within one functional unit at a tertiary level hospital. In knowledge management terms, this is a relatively small unit.

Organisational knowledge is founded upon the personal knowledge of each individual's experience and expertise (Hoyt Consulting, 1998). This coincides with the focus of this study in which the work of the nurses within one organisational context was examined. Each informant contributed her personal perspective of the world of work to the content of this study and these were amalgamated in to the model using the grounded theory methodology.

Beyond the processes of knowledge management is its status as a rapidly expanding discipline closely allied to information technology. Its language resonates with information technology and business jargon (Elliot, 1999). At times the information technology terminology is seems inaccessible, however, this echoes systems theory with its engineering origins (Van Bertalanffy, 1981). Today systems theory concepts are an integral part of everyday language. Concepts such as "input", "process" and "output" are well understood and the scenario seems set to be similar for knowledge management. In the new

millennium the concepts used in knowledge management will become part of the generic management armamentarium.

A focus on information technology and computers in relation to knowledge management is one way in which this present study is completely dissimilar. Apart from the patient record system, there was no way to capture or manage the knowledge development. Confucius and Moses too had a similar problem as the beginning of knowledge management existed in those ancient times! The need for technology is one of the hotly disputed areas within in knowledge management . Currently a lively debate rages around the emphasis on information technology as opposed to the more human aspects (Davenport, 1997). While information technology is important, it certainly is not the complete solution to knowledge management problems no matter what the purveyors of information technology products would like us to believe. Leonard feels that:

> The human brain is the most sophisticated computer ever devised, and its content cannot be captured on a database– especially the not the tacit dimensions of knowledge. By tacit dimension , I mean unarticulated knowledge embodied in people's heads and hands. From where I sit, I cannot see any information technology that would be able to transfer tacit knowledge. (Internet Week, 1999:1)

At present there is huge interest in knowledge management, so much so that many are not seeing the full reality of its importance. There has been an explosion in the business of knowledge consulting and information technology products for managing knowledge(Davenport & Prusak, 1998). Despite the current fad with its attendant buzzwords, the crux should not be overlooked: knowledge management is a major and important concept for organisations and individuals alike. As the digital world becomes a reality, so too will the usage of knowledge management, its concepts and thinking.

Silverstone (1999:1) describes knowledge management as:

> a very active process, more like a verb than a noun. It has been said that knowledge as an activity is a 'process of knowing.'

The use of "knowing" in relation to knowledge management marks a very significant similarity for *knowing* is this study's core variable. *Knowing* it is a process whereby a target (nurse or patient) is empowered by increasing *knowing content.* Although the reasons and methods of *knowing* are different for the two target groups, both *formal* and *humanistic knowing* are active processes and the broad content is similar. The parallel between knowledge management and

knowing is apparent, with both being active processes involving the acquisition, use, re-use and dissemination of knowledge.

To understand the richness that occurs due to the juxtaposition of *knowing* and knowledge management one has to be slightly schizoid. For one has to visualise multiple dimensions simultaneously and these are represented diagrammatically in Figure 5.1. The great twist that occurred in the literature comparison phase (Pandit, 1996) is that the theory is both an attempt to develop nursing knowledge and is also a process of knowledge development and management. The profession-wide dimension relates to a generic academic pursuit in which there is a search for new nursing knowledge and it is considered to be the primary domain of nurse academics. In another dimension the findings or results of this research are formulated into a substantive model of ambulatory chronic disease management nursing in one setting which describes how a group of nurses within an organisation act in relation to their work. The primary focus of this work is upon knowledge: its acquisition and use. This is the model of *knowing* or ambulatory specialist nursing in the chronic disease management setting (the blue ellipse). It parallels and shadows knowledge management as a process as described in this chapter (the second blue ellipse). Within the model there are the parallel dimensions: *formal* and *humanistic knowing* that occur in nurse and patient respectively. Both are the intellectual creation of the nurses (informants). However, *knowing* emerges at the epicentre: how to get it, maintain it, and pass it on to peer and patient alike.

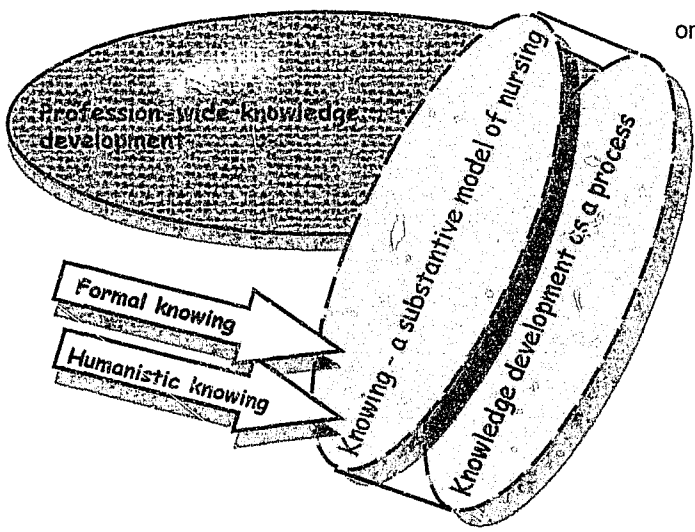

FIGURE 5.1: MULTIPLE DIMENSIONS OF KNOWLEDGE DEVELOPMENT

5.3.2 Links to grounded theory.

> There is an important distinction between knowledge as an "object" versus knowledge as a "process." As an object, the management of knowledge is basically the same as the management of information. Explicit information can be captured and moved around like a piece of goods. For anyone involved in individual learning, knowledge is not something that you can move around like and object. It is embedded in people. (Silverstone, 1999:2)

It is the very "embeddedness" in people as described in the above excerpt that is so important in relation to this study. For it is in this form that the data has been captured, that is, the world of tacit knowledge as described over 40 years ago by Polyani (1958).

> Tacit, complex knowledge, developed and internalized by the knower over a long period of time, is almost impossible to reproduce in a document or database. Such knowledge incorporates so much accrued and embedded learning that its rules may be impossible to separate from how an individual acts. (...) In other words, they cannot be *effectively* codified, at least in print... (...) That is why the codification process for the richest tacit knowledge in organizations is generally limited to locating someone with knowledge, pointing the seeker to it, and encouraging them to interact. (Davenport & Prusak 1998:71-72).

Tacit knowledge has to be made explicit and it is the reason that the grounded theory methodology was used. Furthermore, the codifying of tacit knowledge is seen as the method in which it is externalised and made more permanent (p. ?). It will be noted that this is remarkably close to the systematic coding in grounded theory (p. 38). The extraction of tacit knowledge as described in knowledge management is selective and goes where the knowledge is to be found which is very familiar in the world of theoretical and purposive sampling (p. 42).

Not only is there an uncanny similarity to the term grounded theory but also to a very similar sounding army term "ground truth." The latter describes the difference between real-life situation and the armchair theory perspectives. Yet another of the fundamental differences between theory constructed by the grounded theory method and much of extant nursing theory. In army parlance the battle theory does not match reality and in a battle situation that can mean the difference between life and death. Davenport & Prusak (1998: 8-9) argue that:

> ... the rich truths of real situation experienced close up: on the ground, rather than the heights of theory or generalisation (...) share the detail and meaning of real experiences because they understand that knowledge of the every day, complex, often messy reality of work is generally more valuable than theories about it.

The broad similarities between the methodologies of knowledge management and grounded theory as described in the previous paragraphs are remarkable. It highlights the real beauty of qualitative methodologies that focussed on the situation and the processes. Quantitative methodologies require comparisons to extant theory and the reality of the nurses as knowledge workers would have been lost. What emerged is a model of *knowing* as it occurs in one ambulatory chronic disease management setting.

However, there are major differences in the specificity of the methodologies. Grounded theory has at its heart a core variables with clear linkages of all concepts to it throughout the theory (the paradigm model). There is no such obligation within knowledge management which stipulates only that "frameworks" are developed. This is a major and profound difference.

5.3.3 Knowledge embedded in practice.

The emergence of new practice settings in the US in the 1980's, particularly in extended care facilities and hospitals, is similar to that experience by the informants in this study. Much of this role expansion is called "delegation by default" because the change to practice is unplanned and undocumented.

> A wealth of untapped knowledge is embedded in the practices and the know how of expert nurse clinicians, but this knowledge will not expand or fully develop unless nurses systematically record what they learn from their own experience. Clinical expertise has not been adequately described or compensated in nursing. This lag in description contributes to the lag in recognition and reward. Furthermore, adequate description of practical knowledge is essential to the development and extension of nursing theory. (Benner, 1983:41).

This is a powerful statement which supports the development of theory from new practice settings using the knowledge embedded in emergent practice or work routines.

5.3.4 The nature of knowledge.

An important consequence of the increased focus on knowledge management is that the concept of knowledge has become more concrete.

> Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations it

> is often embedded not only in documents or repositories but also in organizational routines, processes, practices and norms. (Davenport & Prusak, 1998: 5).

This "working definition" acknowledges its pragmatic nature, highlighting that knowledge is not "neat or simple." However, this functional definition has profound implications for the present study because it confirms many dimensions or categories that relate to the core variable or concepts *formal* and *humanistic knowing.* In the following sections the nature of knowledge will be discussed as it relates the model.

- Fluid mix.
- Sources.
- Framework.
- Knowledge transfer.
- New knowledge.
- Knowledge workers.
- Time and experience.

5.3.4.1 Fluid mix.

Knowledge is adjustable and dynamic consisting of different components or elements. Both *formal* and *humanistic knowing* use the same basic knowing content made up of the five domains (p. 128, 131). Although *formal knowing* is represented linearly, there is no real upper limit thus leaving the domain content dynamic and open-ended (p. 134). This content is held in dynamic tension between the known and unknown. This fluidity is more clearly demonstrated in the content of *humanistic knowing* which is nonlinear and more organic and it is the *knowing mosaic* (p. 156).

Knowing content consists of five *domains* or content areas (Table 4.3, p. 130). When involved in either *humanistic knowing* or *formal knowing* different aspects of the *knowing content* is selected. This *knowing mix*, depends on individual and professional factors (p. 133) and the situation at hand. Persons who attempt to live successfully with a chronic illness also use a mix of different *domains* according to the problem to be solved (p. 152). Not only do patients and nurses seem to emphasise different *domains* but it appears that doctors the same kind of knowledge in different ways (p. 153). Fehrsen & Lor (1984) outline a similar process occurring amongst general practitioners and suggest that a probable reason for a selective worldview ,or frame of reference, may be due to the paradigm in which a professional group is socialised.

Knowledge is a living growing system which changes as it interacts with the environment. This means that there is a flexibility to knowledge that is able to exclude that which does not fit and incorporate that into new knowledge. So at the same time that it is dealing with new knowledge it is aware of what it does not know (Davenport & Prusak, 1998: 10). This is reminiscent of *limits* (including the positive, *new horizons)* and the *limits protection strategies* used by the nurses (p. 136 et seq). It will be recalled that the aim of *limit protection* is to reduce the possible negative effects by *bouncing, referring, checking* (p. 139).

During the data collection and analysis research phase the concept of *limits* was discussed at a peer debriefing session (p. 79). One of the peer participants remarked that it was very sad that the nurses, after so many years of practice, were still so concerned about what they did not know, that is the negative *limits*. In reality it appears that this is not just part of a nursing psyche, rather it is part of an intensive search for new knowledge. In a knowledge management environment this should be accepted as part of the organisational culture.

> To make your company smarter, you have to not just manage knowledge but also increase the frequency and volume of error. (Weinberger, 1999:2).

5.3.4.2 Knowledge sources

Knowledge is more than information and data because it is coloured and enriched by different activities, experiences, personal and shared values, etc.. Not only is knowledge found in embodied in people who gather together in groups or communities, but also in organisations where it is incorporated into documents, work routines, processes, practices and norms (Prusak, 1998). The multiplicity of sources of knowledge is reminiscent of triangulation of data collection used int this study (Chapter 2, p. 44). An illustration of the differing and unexpected sources is occurs in Chapter 3 (p. 89) when the OPD job descriptions were unexpectedly obtained inestimably enriching the important typology of ambulatory nursing work (p. 98). Later, by attaching values to that typology the low status category of *handmaiden work* emerged (p. 122 et seq.).

5.3.4.3 Framework.

A framework or model is a way of structuring the information to make it more valuable. So the use of a model or framework is the "value-adding" that converts information and data into knowledge. The need for frameworks, models or

theories was outlined in Chapter 1 (p. 12). Indeed, this study was prompted by the need to make sense of the information that was contained within the context and the nurses' experiences. The research outcome is a model that allows the CNSs to capture and frame their world. However, the most important aspect of the study is that it is an extrapolation of the unconscious model that they have been using and making it explicit. The knowledge that is contained in the research setting was investigated, described, categorised, and shaped into a model or framework. It is this model that was underlying the practice of ambulatory chronic disease management by nurses that emerged and can now be made explicit and used in other situation.

5.3.4.4 Knowledge transfer.

The main reason that knowledge is structured in a meaningful way, in a framework, is to enable new experiences and information to be evaluated and incorporated. The transfer of knowledge to others is essential for the survival of the organisation. However, tacit knowledge transfer generally requires extensive personal contact such as: relationship mentoring, apprenticeships, partnerships (Davenport & Prusak, 1998: 88, 95). This aspect of knowledge management is often called "knowledge sharing". Too often, because information technology can be used to assist knowledge transfer, it is assumed that it is the essence of knowledge management (Davenport, 1997). However, this is hotly debated with just as many proponents supporting information technology as the core (Chabrow, 1999; Ross, 1999).

However, knowledge management without the human interaction that enables the sharing of ideas and best practices, there would be no knowledge transfer.

> The more multidimensional knowledge is, the more difficult it is to stuffed it into a flat report. It flourishes and is nourished by conversation. (Prusak, 1998:2)

This is certainly reminiscent of the informants and the way in which they shared knowledge by engaging in *limit protection strategies* (p. 139). Knowledge transfer is an important part of the nurses' work in relation to patients in the *getting to know* process and its phases which involve different types of talking: *getting through*, and *talking through.* Unless it is well managed, knowledge transfer can be haphazard and the outcomes variable.

The transfer of knowledge does not always occur easily, like water flowing down a waterfall. It often has to be extracted in an active process as in this research (Prusak, 1998; Stewart, 1998). The transfer of knowledge in the *knowing* model is described in the *knowing cascade* (Figure 4.8, p. 155). In its complete form *knowing content* is passed along a conduit from caregivers to the patient.

Since this study was completed, the informants have increasingly taken on the preceptor role and are training new generation of knowers in this field. One informant has developed a chronic disease management course within a university setting. Others have become consultants in chronic disease management. The nurses have been acting as preceptors to other nurses within the clinic and the organisation for some time. However, it is the first time of which that they have taught *specialist medical domain* content when preceptors were available. While the informants have been involved in educating other nurses and doctors for more than a decade, their complete self-sufficiency in passing on the *knowing content* to other is new. Has a stage been reached at which some of the informants have taken on a full *preceptor* role for others? Does this mean that the day-to-day clinical and educational situation they feel that they are the equivalent of the *preceptors*? Is a revision of the *cascade of knowing* necessary? Figure 5.2 shows a revision of the *cascade of knowing* that might be necessary at a certain stage of specialist practice when the informants are able to act as preceptors.

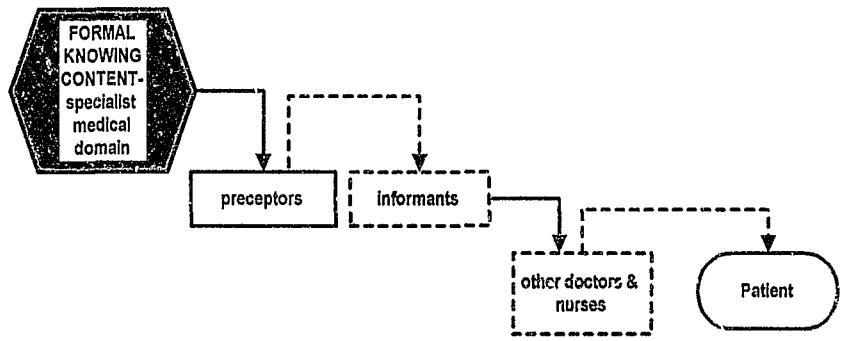

FIGURE 5.2: HYPOTHESISED REVISION OF THE *KNOWING CASCADE*.

It appears that this *knowing cascade* can adapt to the *knowing content.* Since the end of data collection and analysis there is evidence that the formerly tacit knowledge described the model has been incorporated into *formal knowing.* An informant presented the following to an audience of nurses interested in chronic disease management. the patient's need to learn to live with a chronic illness and explained that to do this successfully a patient has to be empowered by gaining sufficient knowledge, skills and attitudes about the illness. It was stressed that the nurse has the responsibility to ease this process by developing a relationship with the patient. If this is the case, then it is possible that *humanistic knowing* is being transformed from tacit knowledge to into formal nursing knowledge. That is, that this *knowing content* now goes beyond individual and group knowledge and is being made explicit through teaching and related resources. If this occurs, then this knowledge will be incorporated into the *nursing domain*, splitting the *domain* into advanced and basic elements. The *advanced nursing domain* will have content other than medical concepts clothed in nursing language. This transfer and transformation of *knowing content* represents an advance in nursing knowledge in this setting and is shown diagrammatically in Figure 5.3 (p. 170)

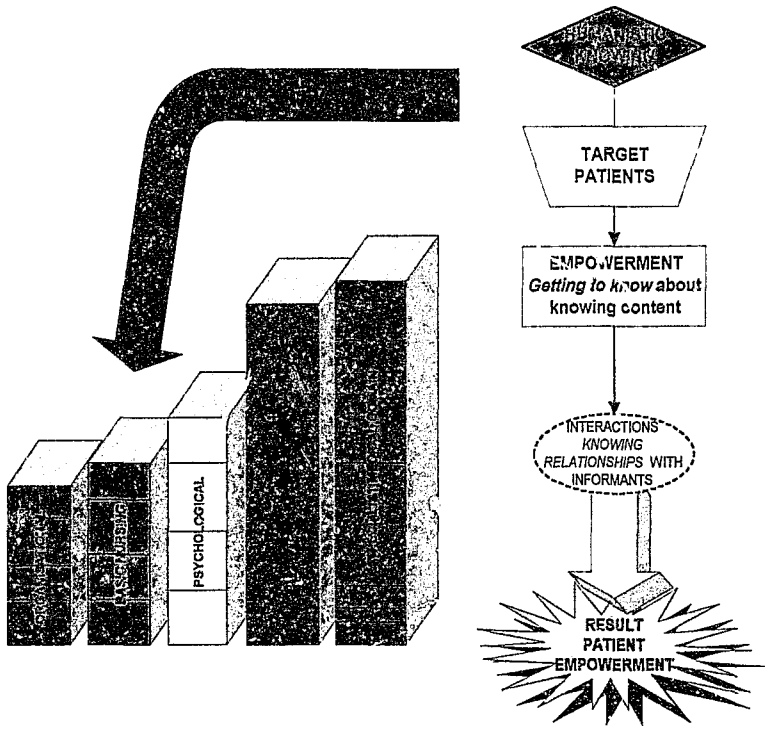

FIGURE 5.3: INCORPORATION OF *HUMANISTIC KNOWING* INTO *KNOWING CONTENT*.

5.3.4.5 Knowledge workers and communities.

A knowledge worker or a knower is a person in whose mind knowledge originates.

> But in the age of intellectual capital, the most valuable parts of those jobs have come the most essentially human tasks: sensing, judging creating, building relationships. Far from being alienated from the tools of his trade and the fruit of his labor, the knowledge worker caries the between his ears. (Stewart, 1998; 51)

When it comes to nursing, Benner (1990: 33) feels that the recognition of nurses as knowledge workers has been patchy and that a "new vision as the nurse as knowledge worker is needed." Neither of the terms "knower" or "knowledge worker" was used in relation to the informants. However, this appears to be an oversight given that the core variable is *knowing*. The concept of knowledge management has clarified the importance of recognising a broad but important occupational category: the knowledge worker. In the digital age more and more people are classified as knowledge workers and the knowledge content of work is increasing (Stewart, 1998).

The informants can be classified as knowledge workers even though they are outside of the accepted academic terrain in which nurse knowledge workers are traditionally thought to be found (Stewart, 1998: 41). As knowledge workers, the informants spend a large proportion of their working time in the pursuit of knowledge, not only for personal gain but for the benefit of the patient. This is evinced by whole *getting to know* whereby the nurses learn more about the patient, illness and then empowering the patient to do like wise.

The ambulatory setting is traditionally one in which nurses are seen as *handmaidens* who perform low level *handmaiden activities* (p 122). This is hardly a simile for a knowledge worker! It is easy to extend the description of knowledge worker to patients because their primary function is to *get to know* about the illness (p. 150).

Knowers are usually grouped together in knowledge communities (Stewart, 1998: 92). These communities of practice are groups of people who share knowledge continuously (Hoyt Consulting, 1998). The nurses have been welded into a tight community of practice in which they are constantly involved in sharing knowledge with each other, preceptors and patients.

> A group of professionals informally bound to one another through exposure to a common class of problems, common pursuit of solution and thereby themselves embody a store l of knowledge. (Internet Week. 1999)

Communities are important because knowledge generation is not a solitary activity, rather it occurs in teams doing meaningful work together (Internet Week, 1999). Despite occasional intragroup conflict, the nurses together with the preceptors are a knowledge community

5.3.4.6 Experience and time

The most frequently occurring undifferentiated category was *time* (Annexure F, p. 213). A great deal of analytic effort went into confirming or excluding it as a potential core variable. Even though it was not confirmed as the core variable, it proved to be an important subtext in all most all of the *knowing* codes. Some of examples are featured in the following section.

Knowing, as distinct from information collection, takes a long time. Precisely how much is unknown but sufficient amounts are necessary for the nurses to master the *domains* required for specialist practice. The exact amount varies from nurse to nurse (p. 133) and is similar to the concept of mastery learning (Block, 1971; Bloom,1971). When it comes to the patient, time is needed for the empowering effects of the *getting to know* process to be internalised rather than for the content to penetrate. The intimate and trusting interaction between patients and nurse (*knowing relationships*, p. 142) require time to develop and needs it to be maintain .

So too, time is important in the knowledge management perspective.

> Knowledge develops over time, through experience that includes what we absorb from courses, books, mentors as well as informal learning. Experience refers to what we have done and what has happened to us in the past. (...) One of the prime benefits of experience is that it provides an historical perspective from which to view and understand new situations and events. (Davenport & Prusak, 1998: 7-8)

When the nurses use different kinds of talking they are sharing their experiences and framing them in such a way as to benefit the knowing community and patients alike. By doing this they form a collective experience bank which helps to develop those patterns of recognition and hence new knowledge.

The impact of time on knowing relationships and the getting to know process warrants further study within the South African context. South African nurses are increasingly becoming the largest category of primary ambulatory care providers in the public sector. In many instances the nurses are expected to perform according to patient quotas that is leaves that amount of time for *knowing relationships* severely limited. In changing the amount of time for practice in this way is the fundamental nature of the knowing relationship and the getting to know process going to be irrevocably changed.

5.3.5 Final threads.

The previous sections and the attendant discussion make apparent the relationship between the concept of knowledge management and *knowing*, the core variable and processes described in this research. Although there are a number of similarities, the divergent aspects as already mentioned in the preceding text should also be summarised.

- In the digital age knowledge management has clear links to information technology. At the time that this study was conducted this was not the case with the nurses. However, this study predated the digital age in which there has been such an emphasis on the use of information technology.
- The informants themselves were not aware of being involved in any way in knowledge management. They were not involved in codifying their information which is a key aspect of knowledge management. However, the processes that they used to check, transfer and assist the knowing of others all fits into the knowledge management concept. The work undertaken for this study has codified and classified this tacit knowledge. However, this has happened to a greater or lesser degree because the nurses now overtly use the same terminology contained in the knowing process to teach chronic disease management nursing to other nurses.

5.4 Philosophical underpinning.

Meyeroff's (1971) treatise on caring represents the philosophical harbinger of *knowing* the core variable for this study.

> To care for another person, in the most significant sense, is to help him grow and actualize himself. (...) Caring is the antithesis of simply using the other person to satisfy one's own needs. Caring, as helping

> another to grow and actualize himself, is a process, a way of relating to someone that involves development, in the same way that friendship can only emerge in time through mutual trust and a deepening and qualitative transformation of the relationship. (Mayeroff 1971:1)

The closeness of fit between the dimensions of caring and *knowing,* is exceptionally tight. This closeness was noted during the analysis phase when secondary data sources where searched to validate the developing model and its concepts (p. 81). Through Mayeroff's work there is a link to the generic body of caring literature. However, this was limited to the nursing component and none fitted as closely in a number of dimensions as this work does. A brief comparison of the dimensions of caring is shown in Table 5.1 (p. 175). It will be noted that most of these dimensions are contained within the *humanistic knowing* component of knowing.

TABLE 5.1: COMPARISON OF MAYEROFF'S CARING WITH THE *KNOWING* MODEL.

Dimensions of Caring (Mayeroff)	*Knowing* (Pinkney-Atkinson)
Basic pattern is to help other and self to grow. Not directed by caregiver.	*Knowing* is an empowerment process that increases the *knowing content* of nurse and patient. *Patient control* shows it is not fully directed by the caregiver.
Knowing -general and specific knowledge about many thing including personal and factual knowledge.	*Knowing content* covers many different domains including *humanistic* and *formal knowing. Knowing each other.*
Alternating rhythms –perseverance and trying again in some other way.	*Being there. Staying with.*
Patience–enabling the other to grow in own time and own way.	*Time this was the most frequent category and is very important in readiness to learn.* *Every patient is different, Patient control, Brickwallers.*
Honesty – seeing the other for what they truly are and not what I would like them to be.	*Brickwallers. Limits. Limit protection strategies.*
Trust that the other to grow in its own time and in its own way.	*Brickwallers. Patient Control.*
Humility– to learn continuous learning.	*Limits. New horizons.*
Hope and courage	No real comparison.

5.5 Links to nursing theory.

It is possible to link many of the individual categories and concepts found in this model to parts of existing nursing theories. Indeed this was done as part of the comparison that was undertaken with using the nursing literature as a data source. However, if the composite model is used as the unit of comparison, then the goodness of fit is small and inexact. This was discussed to a limited extent in the introductory comments on humanistic knowing where the similar elements to theorists Orem (1985), Patterson & Zderad (1988), Watson (1985) (p. 146). Two other examples are shown in the following sections.

5.5.1 Leininger (1988)

Leininger divides professional nursing care into two main components scientific and humanistic. A comparison with the knowing model is shown in Table 5.2 (p. 177). At one stage of the data analysis Leininger's concepts were very seriously considered as possible category names for the parallel knowing processes. This is bourne out by the concept "scientific knowing" appearing in Annexures B and C. However, on long and careful scrutiny it was clear that these were not the same kinds of terms because scientific caring is a narrower term that *formal knowing* as the former emphasises that the *knowing content* is verified and tested in the traditional science paradigm. *Humanistic knowing* and its parallel humanistic caring, are significantly different, with the former being much more specific and directed at the patient.

5.5.2 Benner (1984).

Benner (1984) compared the practice of expert and novice nurse clinicians in an acute care setting. On superficial examination there would appear to be great similarities in the scope of the study. And, there are some clear similarities such as the seven domains of nursing practice. The domain that deals with the teaching-coaching function of the nurse is parallels the *getting to know process* as described in *humanistic knowing* (Table 5.3, p. 178). However, the main focus is on the way in which expert decision making develops, what it is like, and how it differs from that of the novice (Field, 1990). The present study did not focus at all on the nuances of decision making.

TABLE 5.2: COMPARISON OF LEININGER'S CONCEPTS OF CARING AND THE *KNOWING* MODEL.

Professional nursing care.	***Knowing* model (Pinkney-Atkinson).**
Scientific caring: those judgements and act of helping others based upon tested or verified knowledge	*Formal knowing.* Is a nurse-centred process during which the informant increases her knowledge and skills enabling her to manage chronically ill patients competently. It includes knowledge that would not count as tested or verified.
Humanistic caring creative intuitive or cognitive helping process for individuals or groups based upon philosophic, phenomenolgic and objective and subjective experiential feelings and acts of assisting others.	*Humanistic knowing*: A patient empowering interactional process that occurs in partnership with a nurse. The nurse acts as a conduit for the knowing content needed by the patient in order to take control and live with the illness.

TABLE 5.3: COMPARISON OF TEACHING-COACHING WITH *GETTING TO KNOW*

Teaching-coaching (Benner)	*Getting to know.* (Pinkney-Atkinson)
Assisting patients to integrate the implications of their illness and recovery into their life styles.	The 3 steps in the getting to know process are all relevant. *Getting through, talking through, winning through.*
The coaching function of nursing, making culturally avoided aspects of an illness approachable and understandable.	*Every patient is different:* recognition of patient and contextual uniqueness. Not two patients *get to know* in exactly the same way. What the patient wants to know (*knowing content*) and in what order also varies.
Eliciting and understanding patients' interpretation of their illness.	*Being there:* making the time to spend with the patient for *getting to know.* More that physical presence also temporal and psychosocial presence allowing for listening. See also *every patient is different.*
Providing the interpretation of patients' condition and giving a rationale for procedures	*Talking through:* offering ongoing support without taking away the patient's responsibility for the problem. Also linked to *being there* above.
Timing-capturing a patient's readiness to learn.	*Brickwall*: Those patients who are unwilling or unable to gain control of the knowing process *Patient control:* process of *getting to know* starts with the patients willingness to learn (p. 164) and only continues at the rate at which the patient is willing to learn.

5.7 Developments in chronic disease management.

In the last three years there have been many developments in the ambulatory management of chronic diseases that reaffirm the model of care described in this study.

5.7.1 Public sector.

Of great significance here is the development of public sector policy. In 1994 the African National Congress' national health plan noted that there should be programmes for the cost-effective management of chronic diseases (African National Congress, 1994a). Late in 1994 the government, as part of the policy for reconstruction and development, outlined the need for a national chronic disease

programme (African National Congress, 1994b). By 1996 the national government department responsible for chronic disease policy published a strategy on key chronic illnesses. At the meeting held to discuss these issues the responsible government official noted that specialist nurse-run clinics were part of the agenda for dealing with chronic illness (Department of Health, 1996).

Based on the preliminary results of the first national demographic and health survey, the minister of health, Dr Manto Tshbalala-Msimang noted that:

> The enormous burden of both communicable and chronic diseases... illustrates the huge task and challenge facing the health sector, to continue to improve the health status of South Africans, now and in the new millennium. (Harvey, 1999: 2)

However encouraging these developments, they must be seen against the backdrop of increasing difficulties in provide adequate service levels.

5.7.2 Private sector.

In the private sector there is increasing recognition that chronic illnesses require different management strategies. Although managed care is not solely responsible for these changes, this mainly US phenomenon has played an increasingly important role since late 1994. Today most managed care companies use strategies that include disease management to contain costs and improve the quality of care. Although managed health care techniques have been implemented, there is still divergence and many medical practitioners openly resist its influence. Unfortunately cost containment was the first level of intervention and not maintaining or improving the quality of care. Improvements to the quality of care usually bring down costs provided excessive expensive technology is used.

Disease management has many variants in this country but in essence it places special emphasis on the prevention, adequate treatment and rehabilitation of persons with chronic illnesses. Increasingly it is recognised that it is often necessary to spend money more effectively in the early days of an illness to prevent catastrophic consequences later in the natural cycle of the illness. Many similar models of ambulatory care have developed in the private sector for the management of diabetic patients. This presents opportunities for further testing of the model.

The advent and spread of managed care has increased the number of nurses who are active in this sphere. Of particular relevance to this study is that disease management has become a reality and at an operational level this is performed by nurses on a scale not previously envisaged. Some of the informants are training new generations of nurses to manage those with chronic disease using the model that they developed as part of their daily practice in the years since 1976. However, the following excerpt taken from a newsletter of the Southern Africa Hypertension Society show the difficulties of getting recognition for their work in chronic disease management. Please note that this was written nearly a quarter of a century after the nurses began working in these expanded clinical roles!

> Nurses have contributed vastly to research and clinical care of hypertensives but have received little recognition for this work. It is time that we appreciate the major contributions made by our caring nurses, towards our hypertension society! (Potgieter, 1998: 7).

5.8 Limitations and possible future directions.

In concluding this study it must once again be stated that the grounded theory methodology is aimed at developing substantive micro-level theory. While it is a part of the methodology it may be considered a limitation because there are always requests to generalise the theory to other setting and incorporated other theories and literature applicable to very different circumstances.

The *knowing* model of ambulatory care should be tested in other setting and further expanded. This is especially important because the field of ambulatory chronic disease management nursing is growing so rapidly.

5.9 Conclusion.

So just as this thesis began with a quotation about future of nursing so to can we end with one written over a decade later highlighting very similar sentiments.

> Nursing is currently experiencing an intense debate over its future. Throughout this century first doctors then strong nursing theorists and leaders have shaped professional and public thinking about nursing. Now nurses agree that the art of nursing needs to be underpinned by a foundation in science. That scientific foundation is being built, and nursing is emerging as a scientific discipline that is distinct from but complementary to medicine. Politicians, however, increasingly see nurses as the lower part of a medical pyramid of knowledge and skills. This is unhelpful and wrong. If we treat nurses as "minidoctors" then patients will lose the enormous benefits that only nurses can offer. (Casey & Smith, 1997, p.617)

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ANNEXURE A: ETHICS CLEARANCE.

DOCUMENT A/9/5

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
OFFICE OF THE DEPUTY REGISTRAR (Research)

COMMITTEE FOR RESEARCH ON HUMAN SUBJECTS

CLEARANCE CERTIFICATE PROTOCOL NO: 10/11/88

PROJECT : NURSING ROLE IN AMBULATORY CHRONIC DISEASE. MANAGEMENT - PRESENT AND FUTURE

INVESTIGATOR/S : V J PINKNEY-ATKINSON

DEPARTMENT : NURSING EDUCATION

DATE CONSIDERED 25/11/88

RECOMMENDATION OF COMMITTEE :

NOT APPROVED [ ]

APPROVED [X] subject to the following conditions:

Date : 30/11/88 CHAIRMAN : Professor P E Cleaton-Jones

"INFORMED CONSENT" forms attached - where applicable.
FURTHER "I/C" FORMS AVAILABLE AT FACULTY OFFICE

DECLARATION BY INVESTIGATOR/S

To be completed in duplicate and ONE copy returned to the OFFICE OF THE DEPUTY REGISTRAR (Research), ROOM 10002, 10th Floor, Senate House, University.

I/we fully understand the conditions under which I am/we are authorised to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions.

Should any departure be contemplated from the research procedure as approved I/we undertake to resubmit the Protocol to the Committee.

DATE : 3/12/88 SIGNED : V J Pinkney-Atkinson

ANNEXURE A: ETHICS CLEARANCE.

DOCUMENT A/9/3

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
OFFICE OF THE DEPUTY REGISTRAR (Research)

COMMITTEE FOR RESEARCH ON HUMAN SUBJECTS

CLEARANCE CERTIFICATE PROTOCOL NO: 10/11/88

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INVESTIGATOR/S : V J PINKNEY-ATKINSON

DEPARTMENT : NURSING EDUCATION

DATE CONSIDERED 25/11/88

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NOT APPROVED [ ]

APPROVED [X] subject to the following conditions:

Date : 30/11/88 CHAIRMAN : .....
Professor P E Cleaton-Jones

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ANNEXURE A: ETHICS CLEARANCE.

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DATE : 3/12/88 SIGNED : .....

ANNEXURE B: CODES WITH DESCRIPTION

CODE/LABEL	DESCRIPTION
ACCEPTING	Acceptance of the nurse by doctor and/or patient; acceptance by patient of chronic disease.
ADMINISTRATIVE BLINDNESS	Inability & /or unwillingness by hospital administration to acknowledge the reality of the patient care environment.
BE SAME	Other registered nurses could be the same as the CNS if they tried.
BE THERE	Being available for the patient (phone or physically)
BLANKET	Team member who acts as a **security blanket** when CNS are uncertain/ limits or the need for a security blanket
BOLSHY	CNS characteristic: pushy outspoken, ?assertive opposite of handmaiden behaviour.
BOUNCING	Kind of team talk: bouncing ideas and solutions off team members.
BRICKWALL	Type of patient. Can't get through also encompasses type of interaction in which there is an inability to get patient to change behaviour on a sustained basis.
CARING	Specific mention of the word by the CNS.
CHRONIC DISEASE DIFFERENT	Differences between patients response to different chronic diseases as noted by CNS.
CHANGE	Topic of change: direct mention by CNS.
CHECKING	CNS checking of patient care actions; strategy to combat limits ?
CLINICAL PROBLEMS	Type of clinical problem related to physical illness/s or a discussion of the types of problems encountered by patients.
CLOSE	Characteristic of CNS relationship with patient: close feeling dropping of ego boundary.
COME BACK	Patient come back to the clinic. Return visit.
COMPLICATIONS	Complications of diabetes mellitus or hypertension.
CONDUIT	The process of passing of scientific knowing from doctor to CNS/ CNS to patient.
CONFIDENCE	CNS feeling of confidence about work and also personal confidence.
CONFLICT	Disagreement among team members particularly CNSs.
CONTINUITY	Seeing the same patient again and again. Follow through.
CONSULT	CNS consulting with patient ? same as "seeing".
CONTACT	Direct contact and interaction between CNS and patient. Usually refers to an a clinical interview.
CONTENT	A reference to the actual content of the patient education.
DEPTH	Depth of the interview. between patient and CNSs/doctor patient contact interaction.

DESK	Physical thing in the clinic and also a range of activities.
DIFFERENT RELATIONSHIPS	Type of relationship between CNS /doctor ? Is it only wit some doctor?
DIRECTING	CNS action in relation to patient: showing the patient where to go next.
DON'T CARE	HC worker who doesn't care for patient or what happens to him/her within the system.
DON'T KNOW	Health care worker who does not have sufficient knowledge to do the job.
DOCTOR KNOWLEDGE	Extent of and type of doctor knowledge about matters relating to patient care in an ambulatory setting.
DOCTOR SHARING	Doctor shares knowledge/ time with CNS ?Is this part of conduit.?
DOCTOR STATUS	Position or status of doctor in relation to the Registered nurse ? past ? handmaiden
DYING	Life problem: focus on the content of the interview/ patient wish ? kind of look ahead.
ENERGY	Characteristic of the CNS/patient interaction: It takes energy to talk through/ communicate/ do the patient consultation work.
EXPECT US	Expectations that patient's have of the CNS
EXPERIENCE	Practical knowledge gained over time in clinical environment. Time/ knowing link.
FRIEND	Type of contact/ relationship of CNS with patient in which close feeling resembling friendship.
FUTURE	A way of looking ahead by the CNS in relation to self, clinic & tertiary health care.
GET HELP	CNS way of behaving in relation to obtaining limits.
GET THROUGH	Part of the getting to know process: act of CNS establishing effective interaction with patient so that they respond.
GET TO KNOW	The process of the patient getting to know about the chronic disease. ? self learning to live with the chronic disease. Patient education.
HANDMAIDEN	Type of registered nurse behaviour/ interaction with doctor -nurse is of lower status. unknowing also release from this role.
HELPING	type of CNS work: acts of mentoring or helping.
HOLISM	CNS nursing model or way of viewing the pat as a whole biopsychosocial being.
INDEPENDENCE	Characteristic of CNS: favours independence and autonomy.
INSIDE	Seeing patient in a room as opposed to being on education, pricked finger room, or desk.
INTENSITY	Description of patient/CNS interaction. Involves energy.
INTRUDING	Type of patient/CNS interaction. Negative and intrusive of patient privacy by going to far.
JOB	Feelings of satisfaction as felt by CNS.

SATISFACTION	
KNOW THEM	CNS knowledge of patient as a biopsychosocial being.
KNOW US	Patient knowledge of CNS as a health care worker & biopsychosocial being.
KNOWING	
LEADERSHIP	References to CNS leadership type & consequences in THC.
LEAVING	references by CNS leaving the clinic. Relate to job satisfaction.
LEVELS /HIERARCHY OF KNOWING	Levels of knowledge: interaction with patient. ? relate to depth.
LIFE PROBLEMS	Kind of problems: relating to psychosocial problems.
LIMITS	Boundaries of CNS knowing and action.
LISTEN	*Characteristic of CNS/patient interaction ? part of talking through.*
LIVE WITH	Goal of patient education/ get to know process. References to being able to live with a chronic disease.
LOOK AHEAD	Patient looking into the future. CNS helping the patient to look into the future.
MATURING	CNS growing older as a person. Maturation as an individual.
MEDICAL MODEL	Disease orientated doctor centred care with limited patient empowerment and interaction.
NAGGING	Kind of talking to patient; harping, repeating endlessly.
NEW HORIZONS	CNS wanting to learn/know/experience something. New growth emphasis.
NURSING CHRONIC DISEASE	Nursing perspective of chronic disease. Often the disease that they would least like to have as it reflect their own fears.
NURSING KNOWLEDGE	*Kind of knowledge: belonging to nursing-spread, content, depth.*
NURSING MODEL	Way of viewing patient care: holism, patient centred, time, talking.
NURSES SHARING	*CNS sharing ideas/experience with other CNS*
NURSING SPECIALISATION	Mention of specialisation in other areas of nursing.
NURSING VALUE	The actual value of the nurses as people and health care workers and recognition thereof.
NURTURING ENVIRONMENT	Supportive, caring and growth orientated environment.
OPD SYSTEM	The knowledge required about the functioning of the OPD & clinics including doctor type of knowing.
OTHER PROBLEMS	Kind of problem: non-specialist medical or clinical problems. e.g. cardiac
OUTSIDE	*CNS condition when not involved in seeing the patient (inside)*

PASS BUCK	Act of passing on responsibility when it should be kept by the CNS. ?others (relate to responsibility)
PAST NURSING EXPERIENCE	Previous nursing experience: description of these. From training days onwards.
PAVING	Doctor paves the way with new doctors (juniors) and/or patient so they accept the CNSs.
PHONE	Instrument (references to the phone): & refers to a medium of interaction.
PLAYING DOCTOR	CNS acts like a doctor but not for real.
POWER	Empowerment?
PRECEPTOR	Doctor or CNS who acts as a mentor and teacher for the CNSs.
PROBLEMS	Kind of a problem: generic problems. undifferentiated used at the beginning of other problems.
PATIENT CONTROL	Patient control over the knowing process.
PATIENT EDUCATION	Only use for direct references to patient education/ educating. Very broad concept
PATIENT KNOWLEDGE	The status and content of patient knowledge about care.
PATIENT LIMIT	Setting limits for patient or actual limits by CNS.
PATIENT DIFFERENCES	Differences between patients: acknowledging that every patient is different. Uniqueness.
RELEASE VALVE	CNS/patient interaction acting as a release valve for patient.
RAPPORT	Description of interaction between patient/CNS; CNS/doctor.
REAL PROBLEMS	Kind of problem: very severe or that require referral.
REAL TEAM	Identification of the real team members as opposed to co-workers.
RECORDS	References to clinical records of all sorts.
REFER	Act of referring to other care givers.
REPEAT	Repetition of the patient education content by CNS.
RELAX	Feeling of the CNS and patient.
RESEARCH	References to the research function/ component of CNS job.
RESPONSIBILITY	CNS assuming responsibility for patient care ?consequences.
REWARD	The rewards of the work as perceived by the CNS- part of job satisfaction.
SCIENTIFIC KNOWING	Generic concept: scientific knowing differentiated from problems.
SEEING	Act of consulting with a patient. Interview conducted inside. ? Includes first visit education.?
GENERIC SHARING	CNS to doctor; Doctor to CNS.

SCIENTIFIC KNOWING	Scientifically based knowledge. Traditional science and evidence. Opposite of social and soft science
SMOOTHING	Type of handmaiden work: involves little or no direct patient content. Ensuring the smooth running of the clinic.
SPECIALIST PROBLEMS	Specialist problems: type of clinical problem relating directly to hypertension or diabetes.
SPREAD	Spread of the tertiary health care/ CNS type of system.
STAY WITH	Stay with brickwall patients. Not abandoned.
STYLE	Expression of individualism by the CNS in the way that they act. Every CNS is different.
SUCCESS	The criteria for CNS success with a patient.
SUPPORT	Encouragement & support by CNS for patient acts. Motivation.
SURVIVAL	Specialist clinical knowledge essential for patient to know first.
TALK TWO WAY	Two way communication between doctor and CNS.
TALK ABOUT	Kind of talking: gossiping about other team members
TALK THROUGH	Kind of talking: discussion depth and back and forth between CNS & patient.
TALKING	Generic talking: cover term for all talking between CNS and patient.
TALKING TO	Kind of talking: implication of unidirectional implication.
TEAM	Non-specific undifferentiated references to the team.
TEAM TALK	Kind of talking: between team members.
TELLING	Kind of talking: Unidirectional caregiver to patient.
TERRITORY	Territorial imperative in relation to some functions relating to other health care workers.
THIN LINE	Overlap of clinical functions.
TIME	All references to time: direct or indirect.
TRUST	Characteristic of CNS/patient relationship.
WANT KNOW	Desire to have more knowledge ?only in relation to other.
WE'RE DIFFERENT	CNS are different from other OPD nurses.
WHAT TAKES	Knowing what it takes to be an CNS
WOMEN WORK	References to women at work.
WOOL EYES	Act of discussing limits.

ANNEXURE C: CODE FREQUENCY BY INTERVIEW

CODE/LABEL NAME	*INT 1*	*INT2*	*INT3*	*INT4*	*INT5*	*INT6*	*INT 7*	*INT8*	*INT 9*	*INT10*	*INT 11*	*TOTAL*
ACCEPTING	5	4	1	3	4	3	1	3	1	7	2	34
ADMINISTRATIVE BLINDNESS	2	0	0	1	2	5	0	2	1	0	0	13
BE SAME	2	0	0	1	1	0	0	0	0	0	0	4
BE THERE	2	0	0	1	1	1	0	0	2	6	0	13
BLANKET	0	0	2	0	3	0	0	1	1	5	0	12
BOLSHY	0	0	0	0	0	2	4	1	0	0	0	7
BOUNCING	0	0	0	0	2	0	0	1	0	1	1	5
BRICKWALL	0	1	1	3	1	1	1	1	0	2	0	11
CARING	1	1	4	0	3	2	0	0	0	1	0	12
CHRONIC DISEASE DIFFERENT	4	3	0	2	1	0	0	1	3	1	0	15
CHANGE	0	0	0	1	0	0	4	0	1	1	0	7
CHECKING	1	4	1	0	2	1	0	1	0	1	0	11
CLINICAL PROBLEMS	0	0	0	0	0	0	0	0	1	8	0	9
CLOSE	0	0	0	0	1	0	0	0	0	3	0	4
COME BACK	0	1	2	0	1	1	0	1	0	3	0	9
COMPLICATIONS	0	1	0	0	0	0	0	0	0	1	0	2
CONDUIT	9	4	0	3	3	0	1	2	0	0	0	22
CONFIDENCE	3	5	2	4	2	1	8	3	2	3	2	35
CONFLICT	0	1	0	1	0	1	2	0	3	1	1	10
CONTINUITY	0	0	0	0	0	0	0	0	0	1	0	1
CONSULT	0	0	0	1	0	0	0	0	0	0	0	1
CONTACT	1	4	4	7	5	0	0	0	2	4	2	29
CONTENT	0	0	0	0	2	0	0	1	0	5	0	8
DEPTH	4	5	0	1	1	0	0	0	0	3	0	14
DESK	1	2	3	0	0	0	1	0	0	0	1	8
DIFFERENT RELATIONSHIPS	3	5	3	5	3	1	0	3	0	0	1	24
DIRECTING	0	0	0	0	1	0	0	0	0	0	1	2
DON'T CARE	0	8	1	0	4	0	0	0	0	0	0	13
DON'T KNOW	3	3	0	6	4	0	0	0	0	3	0	19
DOCTOR KNOWLEDGE	3	2	0	0	2	0	0	1	0	0	0	8
DOCTOR SHARING	1	0	0	0	0	0	0	1	0	0	0	2

CODE/LABEL NAME	*INT 1*	*INT2*	*INT3*	*INT4*	*INT5*	*INT6*	*INT 7*	*INT8*	*INT 9*	*INT10*	*INT 11*	*TOTAL*
DOCTOR STATUS	5	1	1	1	2	0	0	1	0	0	1	12
DYING	0	5	0	0	1	0	0	0	0	0	0	6
ENERGY	1	2	2	1	6	0	0	2	1	2	0	17
EXPECT US	1	0	0	1	0	0	0	0	0	1	0	3
EXPERIENCE	0	0	0	0	0	0	0	0	0	6	0	6
FRIEND	0	0	0	0	0	0	0	0	0	3	0	3
FUTURE	0	0	1	2	0	1	6	3	0	0	1	14
GET HELP	0	0	0	2	0	0	0	0	0	0	0	2
GET THROUGH	0	0	0	1	6	3	0	0	0	7	0	17
GET TO KNOW	4	2	2	6	9	2	1	2	1	10	2	41
HANDMAIDEN	1	1	0	4	4	1	1	4	1	0	3	20
HELPING	2	2	0	7	0	0	6	0	3	2	2	24
HOLISM	3	1	0	0	0	1	0	3	1	7	0	16
INDEPENDENCE	6	3	0	1	0	3	0	6	0	1	0	20
INSIDE	1	1	2	1	0	0	0	0	0	0	0	5
INTENSITY	0	2	0	0	4	0	0	0	0	0	1	7
INTRUDING	0	0	0	0	0	0	2	1	0	0	0	3
JOB SATISFACTION	6	8	6	4	5	5	6	2	5	5	4	56
KNOW THEM	1	1	2	3	5	4	2	2	0	5	2	27
KNOW US	2	1	2	2	1	1	0	2	0	1	0	12
KNOWING	1	0	0	0	0	0	0	0	0	0	1	2
LEADERSHIP	1	0	0	0	0	2	2	4	0	0	0	9
LEAVING	0	3	3	1	3	2	2	4	1	0	0	19
LEVELS/HIERARCHY OF KNOWLEDGE	3	3	1	4	0	0	0	2	0	1	1	15
LIFE PROBLEMS	2	4	0	1	0	1	1	0	1	7	0	17
LIMITS	5	7	3	4	2	1	0	6	7	7	4	46
LISTEN	0	0	0	0	0	0	0	0	0	2	0	2
LIVE WITH	7	1	0	3	4	0	0	0	0	9	1	25
LOOK AHEAD	6	3	0	0	2	0	0	0	0	0	0	11
MATURING	2	0	0	0	0	0	0	2	2	0	0	6
MEDICAL MODEL	3	2	0	3	3	0	0	1	0	1	0	13
NAGGING	0	0	1	0	0	0	0	0	0	1	0	2
NEW HORIZONS	3	3	2	6	7	7	2	6	6	1	4	47

CODE/LABEL NAME	*INT 1*	*INT2*	*INT3*	*INT4*	*INT5*	*INT6*	*INT 7*	*INT8*	*INT 9*	*INT10*	*INT 11*	*TOTAL*
NURSING CHRONIC DISEASE	0	2	0	1	2	0	1	1	0	0	0	7
NURSING KNOWLEDGE	9	4	4	11	2	1	2	3	11	3	4	54
NURSING MODEL	3	7	0	3	1	1	4	3	1	1	0	24
NURSES SHARING	1	0	0	0	0	0	0	3	2	0	0	6
NURSING SPECIALISATION	0	2	0	1	0	0	0	1	0	0	0	4
NURSING VALUE	0	0	2	3	2	0	0	0	0	1	1	9
NURTURING ENVIRONMENT	6	2	0	3	1	4	0	1	0	0	3	20
OPD SYSTEM	0	0	0	0	0	0	0	0	6	0	3	9
OTHER PROBLEMS	1	0	2	3	3	0	0	1	0	2	1	13
OUTSIDE	2	1	0	2	0	0	0	0	1	0	0	6
PASS BUCK	0	2	0	0	0	0	0	0	1	1	0	4
PAST NURSING EXPERIENCE	2	3	1	1	0	2	0	1	1	0	1	12
PAVING	1	1	0	0	0	0	0	2	0	0	0	4
PHONE	11	3	1	3	1	0	0	1	0	4	0	24
PLAYING DOCTOR	0	0	1	0	1	0	0	0	0	0	0	2
POWER	3	0	0	0	0	0	0	2	0	0	0	5
PRECEPTOR	0	2	1	2	2	0	2	6	2	3	0	20
PROBLEMS	0	0	0	0	0	0	0	0	1	15	1	17
PATIENT CONTROL	1	2	2	6	6	1	0	2	0	6	0	26
PATIENT EDUCATION	7	5	2	4	7	2	0	1	1	2	0	31
PATIENT KNOWLEDGE	5	3	0	2	2	0	0	0	0	0	0	12
PATIENT LIMIT	0	0	0	0	0	0	0	0	0	5	0	5
PATIENT DIFFERENCES	2	1	4	3	4	1	0	1	3	2	0	21
RELEASE VALVE	0	1	0	0	0	0	0	0	0	0	0	1
RAPPORT	0	1	0	0	2	1	0	0	0	2	0	6
REAL PROBLEMS	0	0	1	1	0	0	0	0	0	0	0	2
REAL TEAM	0	1	0	0	0	0	0	1	0	0	0	2
RECORDS	2	0	0	0	0	0	0	0	0	1	0	3
REFER	3	1	0	3	0	0	1	4	2	10	1	25
REPEAT	0	3	1	2	4	0	0	1	0	2	0	13
RELAX	0	1	0	0	0	0	0	0	0	5	0	6
RESEARCH	0	6	2	0	1	1	1	0	0	0	0	11
RESPONSIBILITY	0	0	0	0	0	0	0	0	1	3	1	5

CODE/LABEL NAME	*INT 1*	*INT2*	*INT3*	*INT4*	*INT5*	*INT6*	*INT 7*	*INT8*	*INT 9*	*INT10*	*INT 11*	*TOTAL*
REWARD	0	1	0	1	1	5	1	1	1	5	1	17
SCIENTIFIC KNOWING	0	0	0	0	0	0	0	0	0	2	2	4
SEEING	9	3	2	7	2	3	2	0	2	1	3	34
GENERIC SHARING	1	1	1	1	0	1	3	1	0	3	0	12
SMOOTHING	5	3	4	4	2	2	0	0	6	0	1	27
SPECIALIST PROBLEMS	0	0	0	0	0	0	0	0	0	1	2	3
SPREAD	2	0	0	3	1	0	0	0	2	0	0	8
STAY WITH	0	3	1	3	5	1	0	3	0	3	0	19
STYLE	0	2	3	2	0	0	2	0	1	4	0	14
SUCCESS	0	0	0	1	12	0	0	4	0	3	0	20
SUPPORT	0	0	1	0	0	2	0	0	0	8	2	13
SURVIVAL	0	0	0	0	0	0	0	0	0	2	1	3
TALK TWO WAY	2	1	0	0	0	0	0	1	0	0	0	4
TALK ABOUT	0	1	0	0	0	0	0	0	0	0	0	1
TALK THROUGH	3	3	0	5	1	1	0	0	0	7	0	21
TALKING	0	0	0	0	0	0	0	0	4	14	1	19
TALKING TO	3	5	1	12	1	0	0	0	4	0	0	26
TEAM	3	9	0	3	1	1	5	4	0	0	2	28
TEAM TALK	0	4	0	1	1	1	0	1	3	2	2	15
TELLING	4	2	0	1	3	1	0	0	0	9	0	20
TERRITORY	1	1	0	0	0	0	1	1	0	0	1	5
THIN LINE	3	2	2	2	0	0	2	2	0	1	0	14
TIME	5	14	7	11	11	2	2	4	4	0	2	62
TRUST	0	0	1	0	0	0	0	0	0	0	0	1
WANT KNOW	0	1	0	1	0	0	0	0	0	0	0	2
WE'RE DIFFERENT	1	0	0	6	2	1	0	0	2	0	0	12
WHAT TAKES	0	2	0	1	0	0	0	0	0	0	1	4
WOMEN WORK	0	1	1	0	1	0	0	0	0	0	0	3
WOOL EYES	0	1	0	2	0	0	0	0	0	0	0	3
TOTAL NUMBER FOR INTERVIEW	212	224	100	219	198	89	82	133	108	272	75	1712

ANNEXURE D: CODES IN DESCENDING ORDER

TIME 62
JOB SATISFACTION 56
NURSING KNOWLEDGE 54
NEW HORIZONS 47
LIMITS 46
GET TO KNOW 41
CONFIDENCE 33
ACCEPTING 34
SEEING 34
PATIENT EDUCATION 31
CONTACT 29
TEAM 28
KNOW THEM 27
SMOOTHING 27
PATIENT CONTROL 26
TALKING TO 26
LIVE WITH 25
REFER 25
DIFFERENT RELATIONSHIPS 24
HELPING 24
NURSING MODEL 24
PHONE 24
CONDUIT 22
PATIENT DIFFERENCES 21
TALK THROUGH 21
HANDMAIDEN 20
INDEPENDENCE 20
NURTURING ENVIRONMENT 20
PRECEPTOR 20
SUCCESS 20
TELLING 20
DON'T KNOW 19
LEAVING 19
STAY WITH 19
TALKING 19
ENERGY 17
GET THROUGH 17
LIFE PROBLEMS 17
PROBLEMS 17
REWARD 17
HOLISM 16
CHRONIC DISEASE
DIFFERENT 15
LEVELS/HIERARCHY OF
KNOWING 15
TEAM TALK 15
DEPTH 14
FUTURE 14
STYLE 14
THIN LINE 14
ADMINISTRATIVE
BLINDNESS 13
BE THERE 13
DON'T CARE 13
MEDICAL MODEL 13
OTHER PROBLEMS 13
REPEAT 13
SUPPORT 13
BLANKET 12
CARING 12
DOCTOR STATUS 12
KNOW US 12
PAST NURSING
EXPERIENCE 12
PATIENT KNOWLEDGE 12
GENERIC SHARING 12
WE'RE DIFFERENT 12
BRICKWALL 11
CHECKING 11
LOOK AHEAD 11
RESEARCH 11
CONFLICT 10
CLINICAL PROBLEMS 9
COME BACK 9
LEADERSHIP 9
NURSING VALUE 9
OPD SYSTEM 9
CONTENT 8
DESK 8
DOCTOR KNOWLEDGE 8
SPREAD 8
BOLSHY 7
CHANGE 7
INTENSITY 7
NURSING CHRONIC
DISEASE 7
DYING 6
EXPERIENCE 6
MATURING 6
NURSES SHARING 6
OUTSIDE 6
RAPPORT 6
RELAX 6
BOUNCING 5
INSIDE 5
POWER 5
PATIENT LIMIT 5
RESPONSIBILITY 5
TERRITORY 5
BE SAME 4
CLOSE 4
NURSING SPECIALISATION 4
PASS BUCK 4
PAVING 4
SCIENTIFIC KNOWING 4
TALK TWO WAY 4
WHAT TAKES 4
EXPECT US 3
FRIEND 3
INTRUDING 3
RECORDS 3
SPECIALIST PROBLEMS 3
SURVIVAL 3
WOMEN WORK 3
WOOL EYES 3
COMPLICATIONS 2
DIRECTING 2
DOCTOR SHARING 2
GET HELP 2
KNOWING 2
LISTEN 2
NAGGING 2
PLAYING DOCTOR 2
REAL PROBLEMS 2
REAL TEAM 2
WANT KNOW 2
CONTINUITY 1
CONSULT 1
RELEASE VALVE 1
TALK ABOUT 1
TRUST 1

ANNEXURE E: CODING FOR JOB DESCRIPTIONS

CATEGORY	*EXAMPLES OF CONTENT FROM JOB DESCRIPTIONS*
Bookings/ appointments	• Patient made bookings/ bookings book and list • Telephonic. Ward beds. • Consult with others about bookings • Checking and changing bookings. • Calling staff for appointments.
Compliance	• follow-up why have come phone and or write
Direct care advanced	• help– with echos/ Bennet's machine/ nebulising/ peak flow / ERCP/ PI / cardiac catheterisation / effort ECG/ halter monitor • interviewing patients– progress interviews • conducting participating in – day patient meeting • Assess – patient for emergency to be seen by dodtor • doing visions • dressings • plasters, screws, wires
Direct care basic	• monitoring vital signs – weight/ measure/ pulse respiration temp. • taking bloods/ injections/ • dressing ulcers • helping patients: infirm/ on and off bed • general nursing care– • dilatation of eyes • visiting staff patients when admitted • listening skills
Directing/ refer	• Routing patients to different caregivers: registrar, dilatation, social worker • keep patients flowing • organising transport/ wheelchair • Take to theatre/ward • general supervision
Direct care (education and advice to patients)	• advising • explanation • telephone advice • how to use equipment and devices (e.g. glasses) • explaining procedures
Equipment and cleaning	• check/ control (emergency trolley, special dispensary, drugs, stocks • set/setting clinic rooms • replace - syringes, stationery • tidy - consulting rooms • Store- packs • Clean/ clear - dust rooms/ clean it/ supervise cleaning by others • Security- lock up/ check empty • Label - specimen tubes etc.
Help clerks *whole category subsumed*	• arranging transport– moved to directing • calling porters–moved to directing • relieving pressure • help with queries and complaints
Help doctors	• assist as required • phoning • calling • chaperoning (of female patients)

CATEGORY	*EXAMPLES OF CONTENT FROM JOB DESCRIPTIONS*
Help - general	• Help - generally where needed/ odd jobs/ out in clinic/ • running smoothly/ pouring oil on troubled waters/ non- specified/ queries and complaints (patients and clerical.=) • Assist - with clinics unspecified • answer – telephonic queries • organise – staff/ doctors/clinics • ensure – care and treatment of patients • help when staff away • smooth running • general work
Helping nurses	• assisting in the wards when there are no sisters • get medicines for matrons • relief for lunch and when others away
Knowing others	• teaching about members of staff and students
Knowing	• Handover • Rounds - professorial/ patient/ ward • Journal club • discussion on patient management • administration lectures • matrons report liaison/ meeting • inservice education • liaison with other –matron/ doctors others
Patient contact/ psychological	• being there/ being available for patients to discuss problems • dealing with problems and queries (telephonic and fact-to-face) • lending a sympathetic ear – listening • greeting and asking patients how they are
Personnel Clerical	• motivate • encourage
Personnel (house-keeping/ domestic/ cleaning)	• supervise • check • motivate
Personnel - unspecified	• send to clinics when not well • check attendance of all staff unspecified
Personnel records	• Obtain- leave forms: sick and annual and other • Check attendance against duty roster • compile duty roster
Personnel nursing	• Check / supervise – staff on duty/ dress/ work • allocate – duties • report – sister in charge for allocations
Records	• Check - lab, x-rays, special exams • distribute to files • put out prepare– continuation sheets with carbon, files for new patients • supply lists – get records for special clinics • messenger records – collect

ANNEXURE F: PRELIMINARY GROUPING OF CODES

Time 62

Nursing Knowledge
Nursing knowledge 54
Levels/hierarchy of knowing 15
Scientific knowing4
Don't know 19
Knowing 2
Power 5

Limits
New horizons 47
Limits 46
Checking 11
Confidence 33
Bouncing 5
Pass buck4
Records 3
Wool eyes3
Get help 2

Patient education process
Get to know 41
Patient education31
Brickwall11
Patient control 26
Live with25
Get through 17
Patient knowledge 12
Stay with 19
Be there 13
Refer 25
Survival 3
Success 20
Patient limit 5

Talking
Talk two way 4
listen 2
Talk through 21
Nagging 2
Talking 19
Talk about1
Telling 20
Talking to 26
Phone 24
Desk 8
Team talk 15

Team relationships.
Contact 29
Team talk 15
Team 28
Real team 2
Women work 3
Generic sharing 12
Conflict 10
Leadership 9

NURSING WORK
Smoothing 27
Helping 24
Handmaiden 20
Directing2
Research 11
Caring 12

Ways of caring for patients
Medical model 13
Nursing model 24
Style 14
Nursing specialisation 4
Holism16
Depth 14

ENVIRONMENT.
Nurturing environment 20
Administrative blindness 13
Leaving 19
Future 14
Past nursing experience 12
Outside 6
OPD system 9

Patient nurse relationships
Seeing34
Release valve 1
Patient differences 21
Friend 3
Expect us 3
Intruding3
Know them 27
Know us 12
Energy17
Conduit 22
Rapport 6
Come back 9
Want know 2
Continuity 1

Nature of patient problems
Clinical problems 9
Other problems 13
Specialist problems 3
Nursing chronic disease 7
Dying 6
Chronic disease different 15
Real problems 2
Life problems 17
Problems 17
Look ahead 11
Complications 2

Doctor nurse relationships
Preceptor 20
Doctor knowledge 8
Consult 1
Territory 5
Thin line 14
Paving4
Different relationships 24
Accepting 34
Security blanket 12
Doctor status 12
Conduit 22
Doctor sharing 2

NURSES AND THEIR WORK
Job satisfaction 56
Reward 17
What takes 4
Don't care 13
Repeat 13
Support 13
Playing doctor 2
We're different 12
Generic sharing 12
Nursing value 9
Independence 20
Bolshy 7
Content 8
Spread 8
Change 7
Intensity 7
Experience 6
Maturing 6
Nurses sharing 6
Be same 4

Relax 6
Responsibility 5
Close 4
Trust 1

ANNEXURE G: DIABETES AUDIT FORM.

DIABETES CLINICAL QUESTIONNAIRE.

Case number _/_/_/ (1-3) Patient last name:_____
Hospital number: __/__/__/__/__/__/__/__/ (5-11) sex: 1)f---- 2)m----- (13)
Suburb (town also if outside Johannesburg. Randburg. Sandton):

(15-30)
Year of birth:__/__/ (31-32) Year of first visit to clinic__/__/(33-34)
CLINIC TYPE: (36)
1) ADULT------- 2) PAED------ 3) ADOLESC-------- 4) RENAL------- 5) MATERNITY---
CAREGIVER LAST THREE VISITS:1)DR------- 2)SR--------- 3)MIXED----------(38)
DATE OF LAST VISIT TO CLINIC: YR__/__/ MO__/__/ (40-41)
LAST VISIT MORE THAN SIX MONTHS AGO? 1)NO----------2)YES---------(43)
IF YES TICK REASON:
1)moved-------2)Referred/transferred or under care elsewhere--------3)NOT known-------4)death---------5)yearly/6 monthly appointment_____
Diabetic treatment: 1)insulin_____ 2)oral agents_____ 3)diet only_____(47)
Last GhbAi:(only record if within the last 6 months since last visit) __/__/__ (49-50)
BP AT LAST VISITSBP__/__/__/(52-54)
DBP__/__/__/(56-58)
(Do not record if BP not measured / recorded at last visit tick NR----------)
Antihypertensive medication 1)no----------2)yes----------(60)
Last creatinine __/__/__/(62-64)
Calculate weight group according to chart: (adult and renal clinic only).
Weight at first recorded visit:----------(65)
weight group at last visit: ----------(67)
largest number subtracted from smallest number----------(69)
tick if weight gained---------(1)or lost---------(2)during this period (70)
State amount lost or gained if over 5 kg----------(71-74)

ANNEXURE H: HYPERTENSION AUDIT FORM.

HYPERTENSION CLINIC SURVEY 1986

1. Case No. (To be allocated later) _____
2. Hospital number: _____
3 Patient Surname _____
4. Sex- Male _____ Female _____
5. Year and month of birth: Year ____Month _____.
6. Last known residential address - suburb and town _____

---

7. Last given financial class_____
8. Caregiver type for the last 3 visits: Dr ___ Sr ___ Mixed ___ Unknown ___
9 .Date of first visit to the clinic: Year_____ Month_____
10 .Date of last visit to the clinic: Year_____ Month _____
11. SPB + DBP last visit (sitting): SDP _____ DBP _____
12. SBP + DBP 2nd last visit (sitting) SDP _____ DBP _____
13. SBP + DBP 3rd last visit (sitting) SDP _____ DBP _____
14 .Last HT treatment - tick the relevant answers:
None _____ Diuretic _____ β-blocker____ Combined β-blocker + diuretic_____
Adrenergetic blocker____ Ca channel antagonist ____ Ace inhibitor _____
Other _____ Missing information _____
15. Non-attenders reasons: Tick the answers where known:
Not applicable____ Not hypertensive____ Moving____ Financial____
Death____ Unknown____
16 Cause of death - where known: _____ _____

SISTER PATIENTS ONLY

17. List active problems:

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19 .Date of last revision to problem list: Year _____ Month_____

2 September 1999 (6:29AM) C:\notes\My Documents\PHD\Master phd document chapters and annexures aug 30.wpd