Managing the evidence: the context and processes of information use by clinical nurse specialists

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MANAGING THE EVIDENCE: THE CONTEXT AND PROCESSES OF INFORMATION USE BY CLINICAL NURSE SPECIALISTS

by

Jean Yeoh

Doctoral thesis submitted in partial fulfilment of the requirements for the award of Ph.D of Loughborough University

2001

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ABSTRACT

Information need and use literature relating to nurses has tended to treat them as a homogeneous group without distinguishing their role or contribution to service delivery. Clinical Nurse Specialists (CNSs) operate across the whole range of nursing specialisms and their role includes advanced clinical care, education, research, consultation and facilitation of change. They are relatively autonomous in their practice and are able to exert considerable influence on nursing activities.

The purpose of this research is to examine the advanced practice role, the social and organisational frameworks within which CNSs operate and the inter-relationship of these with information use. It aims to investigate the processes by which CNSs access and use the formal literature of nursing and health care from the perspective of CNSs themselves.

This is an inductive study, which uses a grounded theory approach. Prior to the main study data was collected to establish the operational role of CNSs and to test the methodology. The main study consisted of in-depth semi-structured interviews with a purposive sample of CNSs spread across an administrative Health Region. The CNSs were based in acute hospitals, specialist hospitals, community and mental health settings. Interviews were tape-recorded and transcribed verbatim. Following analysis of the interviews the findings were presented and discussed with library managers. The QSR NUD IST data analysis package was used to manage the data during the process of analysing and coding.

The core category emerging from the study was that of 'Managing the Evidence' in the context of the CNS roles of clinical practice, teaching and research and publication. Other main categories emerging from the data include Role Definition, Experience and Knowledge, Information Interfaces and Enabling Frameworks.

As a result of these findings, further research could identify and consider the needs of specific groups within the nursing profession. The findings of previous research, which suggest that nurses use libraries for academic course work rather than nursing practice, does not apply to CNSs who demonstrate an enhanced use of information services. Library services should consider ways in which they can identify specific nursing groups and address their needs.
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My Supervisors at Loughborough University, Janet Harrison and Cliff McKnight, but particularly Janet for her continued friendship, encouragement, support and advice over the period of this study.

The resources of St George’s Library have been invaluable. It is instructive to be in the position of a user, even if one with privileged access.

Colleagues in North Thames and in South Thames (West) who provided information which enabled this investigation to begin.

And finally Seng, my partner, who has been calm and supportive throughout numerous crises of technology and confidence.
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INTRODUCTION

This investigation aims to examine information use by Clinical Nurse Specialists (CNSs) in the context of their work. For the purposes of this study, the definition of information includes the formal knowledge available to nursing through the literature in journals and other texts. Patient data is excluded, as is information generated for patient education and health promotion, although the use of information sources by CNSs to develop and produce educational materials is included. As this study uses a grounded theory approach, there is no formal hypothesis. It is an illuminative, descriptive study that explores a broad research question through an inductive approach.

The main focus of this study is the interaction between key areas of Clinical Nurse Specialist activity, clinical and non-clinical, and perceptions of the need to draw on the literature of health care. The influences which shape attitudes of Clinical Nurse Specialists towards their professional literature, the interface with other health professionals, changing experiences, organisational frameworks within which Specialists operate are all considered in the context of attitudes towards information use. The perceptions of library service managers are discussed within the context of these factors impinging on information use by CNSs.

Chapter 1 will examine the development of CNSs, the significance of their role and place them in the context of nursing provision in the NHS. A rationale for selecting CNSs for this study will be provided. This chapter will also consider the literature on the use of information by nurses. In Chapter 2 there will be a discussion of research paradigms, issues of reliability and validity, approaches to research in library and information science (LIS) and the use of grounded theory in LIS. It will then move on to a description of the research processes involved in grounded theory. Chapter 3 describes the application of grounded theory to the study of information use by Clinical Nurse Specialists. This includes procedures for testing the research methodology together with an analysis of health care provision in the Health Region used for fieldwork. Data analysis tools will be examined and the problems and advantages of using the QSR NUD IST computer analysis package will be discussed. The process of recording and analysing the data will be described. There will be an examination.
of data collection methods with a discussion of modes of interviewing and specific interview arrangements pertinent to this study.

The main body of the thesis will consist of a conceptual analysis of the data and the development of theory. Chapter 4 examines the core category, Managing the Evidence, arising from the areas of clinical and non-clinical activity undertaken by Clinical Nurse Specialists. Chapters 5, 6, 7, and 8 discuss the categories of Role Definition, Experience and Knowledge, Information Interfaces, and Enabling Frameworks. Finally, Chapter 9 will summarise the findings of the research. The implications of the findings are discussed in the context of information provision and there are suggestions for further research.

Literature relating to the development of the Clinical Nurse Specialist role, the context of library and information service provision for nurses and use of nursing literature will be outlined for the purposes of background information. However, in the tradition of grounded theory there will not be a separate literature review section. This is further discussed in the section on grounded theory in Chapter 2. Concepts and theories arising from the relevant literature will also be integrated into the chapters on the study findings.

The abbreviation CNS will be used to refer to Clinical Nurse Specialists throughout this thesis. A glossary of all abbreviations used in this thesis is given in Appendix XII.
Chapter 1

THE NURSING CONTEXT AND THE CLINICAL NURSE SPECIALIST

1.1 Delivery of nursing care

In numeric terms nursing staff dominate the National Health Service and they comprise more than half the total workforce. While lacking the influence and power of doctors, numerical dominance alone ensures that their contribution to the delivery of health care is crucial.

<table>
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<th>WORKFORCE GROUP</th>
<th>NUMBER (THOUSANDS)</th>
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<td>Nursing, midwifery and health visiting</td>
<td>330 6</td>
</tr>
<tr>
<td>Medical and dental</td>
<td>57 1</td>
</tr>
<tr>
<td>Other direct care staff</td>
<td>120 6</td>
</tr>
<tr>
<td>Management and support staff</td>
<td>249 7</td>
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Figure 1.1 NHS hospital and community health services staff 1997
Adapted from Health & Personal Social Services 1998 Table D1

Nursing has moved away from a model of nursing care imposed by the medical profession towards an approach that is nursing led and reliant on a body of knowledge that is distinct. The profession recognises that this view is not widespread outside the nursing arena, particularly among medical colleagues and managers, and that there is still a need for the kind of declarative paper by Clark (1991) which enumerates the intellectual demands of nursing activities. Nursing remains largely a female workforce, and suffers gender stereotyping by society at large and by the medical profession, which assumes a low level of work demanding little cognitive activity (Warner et al 1998).

Much nursing activity occurs at the level of interpersonal transaction between patient and nurse in a manner that makes it difficult to describe the nurse's contribution to patient care. This is especially true in the mental health environment where the nurse may not be undertaking tasks that are physically
visible Ozbolt & Graves (1993) refer to this invisibility of nursing care that is coupled with an oral tradition of exchanging nursing information. Patient care information is often transmitted by word of mouth. Shift changeover reports are an example of this verbal exchange of information.

The difficulties surrounding making explicit the contribution of nursing to health care as a whole have been the subject of considerable debate. One definition of nursing that has been widely employed describes nursing thus:

"The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to a peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge" (Henderson and Nite 1978, p34)

A more recent debate on the attributes of nursing has referred to a 'nursing constant'. This is an analysis of those contributions of nursing that will remain constant however the nursing role develops in the future.

The Nursing Constant

- A co-ordination function
- A teaching function for carers, patients and professionals
- Developing and maintaining programmes of care
- Technical expertise, exercised personally or through others
- Concern for the ill, but also for the currently well
- A special responsibility for the frail and vulnerable

Adapted from Department of Health (1994) The challenges for nursing and midwifery in the 21st century (The Heathrow Debate)

There are still many unresolved contradictions embedded in the various definitions of nursing and one of these is referred to by Warner et al (1998) as a conflict between the technical/rational and the caring strands of nursing. Some of these contradictions are evident in the discussion surrounding what has been described as the extended role of the nurse and the movement towards new modes of practice.
1.2 Models of the delivery of nursing care

The traditional model for delivering nursing care has been that of task allocation where nurses focused on the tasks to be completed rather than the needs of individual patients. There are trends in nursing that indicate the use of larger numbers of less experienced staff at one end of the continuum and the recruitment of a small number of highly qualified staff at the other (Warner et al. 1998). Since the 1970's nurses have continually developed new roles and models of delivery where they are expected to undertake more autonomous and patient-centred approaches to care. Examples of these include Primary Nursing, Nursing Development Units (NDU), Nurse Practitioners (NP) and Clinical Nurse Specialists (CNS). Nurse prescribing in the community, traditionally the sole province of the physician, is another example of the extended role of the nurse.

Among these changes Ward Sisters and Charge Nurses have begun to assume more of a managerial role for the wards under their responsibility. An expected outcome of these and other changes is that care will be improved for patients and will also be more cost effective. The Audit Commission (1991) refers to a widespread concern within the profession for quality of nursing care, although there is no systematic approach to improving care processes nor are the concerns of patients fully utilised.

De La Cuesta (1983) comments that introduction of the nursing process was seen as a means of improving the quality of nursing care. The nursing process, also adapted from the USA, has been defined as

"an organising framework for professional nursing practice
Components include performing a nursing assessment, making nursing diagnoses, writing outcome/goal statements, determining appropriate nursing interventions, and then evaluating the nursing care that has been given." (Ackley and Ladwig 1993, p3)

Primary nursing was introduced to improve the quality of the patient experience and allow the nurse to move away from routines centred on task completion. The main tenet underpinning the organisation of primary nursing is that patients have a single nurse who has responsibility for their total care. The rise of primary nursing began in the USA in the early 1970's and Bowers (1989) links
this development with the acceptance of what is known as the nursing process. These concepts of the nursing process and of primary nursing gained ground in the UK in the 1970's. Primary nursing has been implemented in some wards but it is difficult to measure the effectiveness of this in improving care outcomes although the Audit Commission (ibid) notes that Primary Nurses are liked by patients and the nursing profession itself favours this development.

In his examination of the factors behind the rise in interest in primary nursing, Bowers also notes the lack of critical literature. In some cases the Primary Nurse option has been implemented in a diluted form as Team Nursing where a number of nurses have responsibility for a group of patients. In some cases the task allocation model still operates as particular activities are split among teams (Wright 1990). The introduction of the Patient's Charter (Department of Health 1991) has reinforced changes already taking place with its statement that patients should have a "named nurse".

Another innovation was 'nursing led' care provided through the establishment of a small number of Nursing Development Units (NDUs). NDUs are ordinary wards, which have received some extra funding with the intention of developing nursing practice and publicising beneficial outcomes. The effectiveness of NDUs has been questioned and, for example, Lorentzon (1994) notes that there is no real evidence that NDUs improve patient care and that much reporting of NDUs is highly subjective and anecdotal.

A more recent innovation in nursing has been the NHS Direct initiative (Department of Health 1998a). This is a nurse-led telephone advice centre operating on a 24-hour basis. Nurses may suggest self-care, a GP appointment, a visit to an A&E Department or simply provide reassurance in response to consumer enquiries. New nursing roles such as this do not always have the potential to increase information use. For example, the NHS Direct initiative utilises a protocol-driven approach and allows limited room for independent clinical decision making. Therefore, if the computer system response is to visit a GP within 24 hours the nurses cannot use individual clinical judgement to downgrade that advice to a less urgent response (Snell 1999).
Developments in nursing services are often determined by shortfalls in the medical profession. For example, pilot schemes based in locations such as supermarkets, will provide drop-in nurse-led centres which will provide services in inner cities where there are GP shortages (Mahony & Downer 1999). The changing role of nursing and a broadening of its contribution to the mix of healthcare provision is reinforced by a major government report which seeks to enhance the status and remuneration of nursing and midwifery (Department of Health 1999).

The influential work of Benner (1984), which attempts to identify the characteristics of expert nurse practitioners, emphasises the concept of tacit knowledge. Benner has exerted much influence, with nursing curricula designed around her model of practice. Luker and Kennrick (1992) comment that Benner is responsible for the reliance on experience based knowledge and that practitioners who draw solely on this are unable to provide a rationale for their decisions, and as a result, lack professional credibility. Luker and Kennrick's exploratory study was based around community nurses whose access to libraries was likely to be difficult. However, as they point out in a later study (1995), access to information does not necessarily lead to use although practitioners will use information to influence their practice if it is packaged and marketed in an accessible format. The diffusion model of information assumes that practitioners will actively seek information to update themselves if it is reasonably accessible. Kanouse & Jacoby (1988) discuss the fallacy of this model and note that factors such as motivation, context and presentation are more important.

1.3 Historical development of the CNS role

The Clinical Nurse Specialist role was first developed in the United States in the 1930's and 40's (Hamnic 1989a), in Australia in the early 1980's (Anderson & Hicks 1986) and appeared in the United Kingdom in the 1970's. While the role of the CNS was subject to some re-examination in the USA in the 1980's, as a result of nurse specialists moving away from direct patient care, with some predicting its fall from favour, it remains well established (Gawinski & Kern 1994). There were a number of reasons for increasing specialisation in nursing including the amount and complexity of knowledge and technology in healthcare, the availability of funding for specific areas of practice and the presence of
innovative individuals testing out new practices. It was also felt that it was necessary to re-develop a career structure that had previously forced nurses to move away from clinical nursing to achieve promotion. This process was helped by the new clinical grading system in the UK, which was put in place in 1988, and which rewarded clinical nursing skills (Beardshaw & Robinson 1990). A decade later this grading system was seen as failing to recognise excellence in clinical practice and a new career progression has been suggested for qualified nurses (Department of Health 1999). A replacement for the clinical grading system suggests a three-stage framework for qualified nurses with improved financial rewards at the top end of the structure:

- Registered Practitioner
- Senior Registered Practitioner
- Consultant Practitioner

1.4 Definition of the CNS role

There was no common definition of the specific components of the CNS role. However, it was agreed that the CNS gave direct care to a selected caseload, was a model of expert practice in a defined area of knowledge, had an educational or consultant role, and reported her practice through research and publication. In the USA, it was accepted that a Master's Degree was the usual means of preparing specialist practitioners although this has not been the case in the UK. However, proposals by the United Kingdom Central Council for Nursing, Midwifery and Health Visiting (United Kingdom Central Council for Nursing, Midwifery and Health Visiting) for post-registration education and practice (PREP), while not specific about qualifications for advanced nursing practice, had indicated that Master's level preparation would be appropriate (United Kingdom Central Council of Nursing, Midwifery and Health Visiting 1994). Since then, the United Kingdom Central Council of Nursing, Midwifery and Health Visiting (1998) has withdrawn from specifying a higher degree standard for CNSs. At present, the educational preparation of CNSs is varied and reflects the lack of compulsory or specific guidance.

From 2001 it is likely that advanced practitioners must have a first degree, have completed a post-registration programme in the area of practice, and have practised for a minimum period of time which is as yet unspecified. Widespread access to undergraduate courses in nursing is a relatively recent phenomenon.
in the United Kingdom and the United Kingdom Central Council of Nursing, Midwifery and Health Visiting may have judged that it was too early to enforce higher degree regulation for advanced practitioners

However a distinct change of emphasis concerning advanced practice qualifications is contained in government proposals for a new career framework. A Consultant Practitioner, the equivalent of a CNS, should be educated to the following level

"masters or doctorate level, hold professional registration and additional specialist-specific professional qualifications commensurate with standards proposed for recognition of a 'higher level of practice'"
(Department of Health 1999, p.35)

It is not clear when or if such qualifications will be compulsory. Many existing CNSs are not in a position to match these academic requirements.

There is an important distinction to be drawn between nurses working in a speciality and nurse specialists. Nurses working within a speciality, for example intensive care or renal units, may have undertaken post registration education in that speciality, thus acquiring a more advanced level of knowledge than that provided by a general nursing course. CNSs are also likely to have undertaken post registration training in their specialism but there is more to being a CNS than obtaining a specialist qualification. The Royal College of Nursing (1988, p.6) attempted to tease out a clear role definition and described CNSs as demonstrating

"refined clinical practice, either as a result of significant experience or advanced expertise, or knowledge in a branch or speciality"

However someone fulfilling the role of nurse specialist should additionally have involvement in a

"clinical and consultative role, teaching, management, research and the application of relevant nursing research. Only if a nurse is involved in all of these is she a specialist"

This RCN document is frequently referred to as an authoritative source in defining the practice of clinical nurse specialists in the UK. The second group of criteria described above is crucial to the statement of the CNS role. It is also clear from this definition that a nurse fulfilling all these roles is likely to have a highly demanding post.
The United Kingdom Central Council of Nursing, Midwifery and Health Visiting (1994, p20) also makes a distinction between specialist practice and what it describes as "Advanced Nursing Practice". Advanced nursing practice is the equivalent of clinical nurse specialism and is concerned with "adjusting the boundaries for the development of future practice, pioneering and developing new roles responsive to changing needs and with advancing practice as a whole". The most recent definition of a senior advanced practice role is contained in government proposals. A Consultant Practitioner will be expected to

"provide expert care, to provide clinical or public health leadership and consultancy to senior registered practitioners and others and initiate and lead significant practice, education and service development"

(Department of Health 1999, p35)

1.5 Components of the CNS role

There has been much discussion concerning the various aspects of the role of nurse specialist but there is some level of agreement with a number of common themes emerging. A literature review by Storr (1988) produced six areas of direct and non-direct care including the roles of practitioner, educator, consultant, researcher, change agent and staff advocate. In general, routine direct patient care is not a function of the CNS, although expert care is a fundamental role. Sparacino and Cooper (1990, p11) describe direct care as including "assessment, diagnosis, planning, therapeutic intervention, and evaluation". The job flexibility of the CNS enables her to search the nursing literature, and, in her role as educator, may design and run education programmes for patients and their families in addition to providing other nurses with information. Inherent in this combination of roles is the development of the CNS's own practice and also a contribution to the enhancement of the practice of nursing colleagues. The role of researcher is perhaps the least developed aspect of the CNS. Nursing research has a relatively short history in the UK and only began to gain ground in the 1970's and is largely undertaken by university departments and research units, which have a definite remit for research. Few clinical nurses have the training or background to undertake or supervise research projects. It is unsurprising therefore, that given this background and the diverse pressures on CNSs, they have not been able to address this
element as a high priority. The research element of the CNS role largely lies in the area of application rather than the generation of new research.

1.6 The CNS and improved patient care

While there has been an assumption that the role of specialist nurses should lead to improved patient care, there has been little research on the effect of the CNS on quality of care. Although Castledine (1991, p34) comments that "specialist nurses have helped to initiate change and improve standards of care," Haste and MacDonald (1992) provide clues to this research deficiency in their comments on the difficulty of finding and measuring outcomes of nursing care. It is also difficult to isolate the actions of one group of professionals when care is multidisciplinary. There have been a number of descriptive papers by specialists giving an outline account of their own roles, such as those by Kersley (1992) and Hamilton (1993). These can be viewed as the first stage of the process of establishing a new role where the role itself has to be described before more complex evaluation can occur.

Much of the literature on the evaluation of the impact of CNSs originates from the United States and is not substantial in volume. It is largely based around Donabedian's concepts of patient care evaluation (structure, process and outcome) (1966) which have been applied by Bloch (1975) to the evaluation of nursing care. In this classification, "structure" is the most concrete concept and is regarded as the easiest to measure. It relates to physical resources such as staff. "Process" examines service organisational issues and procedures of nursing care. Finally, "outcomes" investigate changes in the patient's health as a result of care given. Hamric (1989b) in a review of literature on evaluation notes that structure, process, and outcome issues must all be addressed. Structure evaluation is regarded as a first step in the evaluation process and includes the development of time documentation (Akin et al 1993, Robichaud & Hamric 1986). Hill et al (1993) attempted to incorporate all three concepts in the production of a role description evaluation tool. One example of an outcome evaluation study compared the length of stay of patients managed by CNSs and by Physicians Assistants (PAs) who are practitioners who carry out technical duties to free the physician (Lombness 1994).
The difficulty of designing effective evaluation tools is illustrated by Thomas & Bond's extensive survey of literature relating to primary nursing and outcomes of care (1991). Some of the difficulties are attributed to a lack of clarity in operational definitions of primary nursing. They suggest that this lack of clarity may apply to other modes of nursing and if this is the case it may be impracticable to identify the unique contribution of the CNS operational role. Another difficulty was identified by Bloch (1975) who refers to the role of all involved in providing health care who contribute to a patient's health behaviour, knowledge and feelings, making it difficult to isolate the outcomes of nursing actions.

British literature on evaluation of the CNS is rather sparse. Wilson-Barnett et al. (2000) note that while there has been considerable debate about titles, grades and relationships there have been far fewer research studies based on the activities of advanced practice nurses. Smart (1994) asserts that if CNSs are to justify their seniority it has to be based on more than a reputation for excellent practice with a limited number of patients. They must devote effort to advancing practice and developing suitable quality tools. The paucity of evaluation literature can be attributed to the fact that many newly created posts may be undergoing a process of drawing up the parameters of the role. For example Williams' (1993) paper describes such a process in a specific community locality where CNSs and community staff are attempting to create a viable working relationship. Kitson et al. (1987) describe the setting of specific objectives for a CNS post such as reducing the length of hospital stay and reducing the rate of readmission which has resulted from a failure to comply with treatment regimens.

Wade and Moyer (1989) attempted to evaluate the contribution of specialists in diabetes and stoma care although they acknowledge the difficulties of designing a definitive study. Their patient focused studies were on 10 -18 year old insulin dependent adolescents and stoma patients, and indicated that CNS patients were more knowledgeable, were more proficient in self care and more satisfied with the care given. There are no published studies in the UK that have advanced substantially the work of Wade and Moyer (1989) and it is likely that this can be attributed to the technical difficulties involved in showing the relationship between improved patient care and CNS interventions.
1.7 Clinical Nurses Specialists and Nurse Practitioners

More recently, uncertainty about the definition of the CNS/Advanced Practitioner role has been compounded by other changing roles at the nursing-medical interface. A new clinical role of Nurse Practitioner (NP) has been developed as a result of changes in health care delivery and this has been seen by some as a demonstration of advanced practice. For example, some of the work undertaken by junior doctors in Accident and Emergency departments is now performed by Nurse Practitioners in A&E or Minor Injuries Units, leaving medical staff available to deal with more complex cases. While such posts may be underpinned by nursing perspectives they contain a substantial medical component. There has been a merging of the CNS and NP roles in the USA (Snyder and Yen 1995), a trend that is likely to be echoed in the UK. However, a recent assessment of CNSs in the USA indicates that the traditional nurse specialist role remains well-established (Scott 1999). Manley (1997) refers to ambiguity concerning advanced practitioner roles but affirms that advanced practice relates to the development of expert nursing (my italics) practice. These definitions derived from the RCN (1988), the United Kingdom Central Council for Nursing Midwifery & Health Visiting (1994) and Manley will be used as the operational definition for this study.

1.8 Development of CNSs in the United Kingdom

The growth in the number of CNSs in the United Kingdom dates from the mid 1970's. Work by Castledine (1982) on the role of CNSs located 353 employer or self-defined CNSs although few of these actually fulfilled his criteria for the role of a CNS. A survey by Wade & Moyer (1989) found 1,016 officially designated CNSs with a total of 82 different titles in England and Wales. This represented a tripling of numbers since a survey carried out two years earlier. The largest specialties were stoma care, infection control and diabetes and CNSs worked in both community and acute hospital settings.

At the outset of this investigation an attempt was made to establish the number of CNSs to ensure that they would provide a viable group for study. Although there is no central listing of officially designated hospital based CNSs, scanning of conference programmes and the classified sections of the Nursing Times and Nursing Standard journals suggested that new posts continued to be advertised.
and total CNS numbers continued to be at, or above, the levels found by Wade & Moyer (1989) Community nurse specialists were listed in the Handbook of Community Nursing (1994) and the 1993/94 publication contained approximately 1,800 names Added to this total were CNSs employed in general, acute and mental health trusts

An investigation into perceptions of the role of community CNSs in Wandsworth, an inner London borough, identified 13 specialists including physical handicap, HIV, terminal care, diabetes and elderly care The research indicated some confusion over the CNS role, particularly whether specialists should give "hands on" care (Haste and MacDonald 1992) Similar uncertainties were discovered in another British community study (Williams 1993) which suggests that nurses are still working towards a clear operational definition for the CNS Lockyer (1992) points to ad hoc role development, which has not been underpinned by any overall strategy, as the cause of this confusion However this study, using a small sample of CNSs working with cardio respiratory patients, found there were two distinct roles One group had clear management aspects to their role while the other group focused their practice on patient care Current nursing literature indicates that the role of CNSs, although evolving, will continue to meet health needs For example, Lipman and Deatrick (1994) refer to specialist need in paediatric nursing as a result of advances in technology, which have led to the survival of more children who may have serious physical or psychosocial disabilities There are sufficient numbers of CNSs in the United States for a specialist journal, the Clinical Nurse Specialist, to be commercially viable and the first British book appeared on the subject in 1994 (Humphnys)

1.9 Rationale for choosing CNSs to be investigated
CNSs have been selected to be subjects of this study for a number of reasons They are a group holding a distinct identity with common overall areas of practice including advanced clinical care, education, research, consultancy and facilitation of change, and yet they operate across the whole range of specialisms They are relatively autonomous in their work, and are more likely to have some freedom to manage their own time and plan their own schedules For example they are not subject to the restrictive routines of a busy acute hospital ward Work locations include community and institution bases and sometimes a combination of both There is a large body of supporting literature,
even if, in common with other areas of nursing, some is largely descriptive and anecdotal in approach. While the role of CNSs is still evolving, they are now relatively well established in the UK and have the potential to act as role models for other nursing colleagues in a variety of ways, including their use of the research evidence from nursing to support practice.

The literature on CNSs suggested that they were a relatively easily identifiable group. However, the majority of the studies on information seeking and use of qualified nurses have not attempted to distinguish between nursing specialities or specific roles. From the perspective of library service providers, use of information services is dominated by numerically large groups such as pre-registration nursing students and qualified nurses undertaking specialist courses. Other high volume groups in the recent past have included Enrolled Nurses converting their qualification to first level nursing registration. Library users in these groups can be demanding of resources and require high levels of individual support. Other nursing groups, making fewer individual demands on library and information service staff and having latent information needs, appear to be invisible and may be ignored. CNSs, as relatively competent and independent information users, would be part of this latter group.

Of the earlier information seeking and use studies, Williamson (1990) was unusual in attempting to make comparisons between roles. Figure 1.2 below illustrates which British studies have attempted to distinguish different nursing roles and tease out information use by specific nursing groups. Most of these studies have merely described their subjects as “qualified nurses”, a term that can be used to refer to a wide range of roles and levels of practice. The use of the generic term ‘qualified nurse’ is not helpful in teasing out varying information needs at different levels of practice.

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Figure 1.2 Information needs and use studies in the UK: roles of nursing groups studied (excluding studies focusing on unqualified nurses)

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>SPECIALITIES</th>
<th>ROLES/JOB TITLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilbert 1976</td>
<td>Acute, Mental health, Community</td>
<td>Students, Qualified staff, including teaching and administrative staff</td>
</tr>
<tr>
<td>Carmel &amp; Childs 1988</td>
<td>Community nurses, health visitors and midwives</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Williamson 1990</td>
<td>General, Community</td>
<td>Staff nurses, Sisters, Health Visitors, District Nurses, Enrolled Nurses, Teachers, Managers</td>
</tr>
<tr>
<td>Wakeham et al 1992</td>
<td>Acute, Mental health, Community</td>
<td>Students, Qualified staff</td>
</tr>
<tr>
<td>Levine 1993</td>
<td>Midwives</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Bawden 1995</td>
<td>Midwives, Mental Health</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Childs 1994</td>
<td>Not specified</td>
<td>Students, Qualified nurses</td>
</tr>
<tr>
<td>Urquhart &amp; Crane 1994</td>
<td>Acute, Community</td>
<td>Qualified nurses</td>
</tr>
<tr>
<td>Banwell 1995</td>
<td>Acute, Community, Mental Health</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Blair &amp; Wakeham 1995</td>
<td>Not specified</td>
<td>Qualified staff engaged in research Academics</td>
</tr>
<tr>
<td>Yeoh &amp; Morrissey 1996</td>
<td>Acute, Community, Mental health</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Farmer et al 1997</td>
<td>Community nurses, midwives and health visitors</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Davies et al 1997</td>
<td>Primary care, community, acute nurses, midwives, health visitors</td>
<td>Qualified staff</td>
</tr>
<tr>
<td>Pyne et al 1999</td>
<td>Community and acute nurses and midwives</td>
<td>Qualified staff</td>
</tr>
</tbody>
</table>
Some investigations looked at student nurses and trained staff simultaneously (Wakeham et al. 1992) in the early 1990's researchers began to investigate different specialities including cardiac nurses (Corocan-Perry & Graves 1990), midwives (Levine 1993), a joint study of midwives and psychiatric nurses (Bawden & Robinson 1995), acute care clinical nurses (Spath and Buttlar 1996) and researchers (Blair and Wakeham 1995) Urquhart (1998) refers to the problem of identifying specific nursing staff groupings in the EVINCE study (Davis et al. 1997) However the EVINCE study, on the impact of information use, does suggest that stage of practice such as specialist, enhanced or advanced, is more significant than job title, such as staff nurse or midwife and so on There has been some emphasis on community nurses' information use related to the particular difficulties they experience Previous information seeking and use studies have not attempted to examine multidisciplinary practitioners in a specific role

1.10 Nurses and library use
Access to the literature of nursing can be achieved through a variety of routes including local bench collections, personal communication with colleagues and conferences However libraries offer the most organised and systematic access through the provision of databases and journal collections although there is increasing provision of information services on the Internet e.g. PubMed (National Library of Medicine 1999) and the proposed National Electronic Library for Health Information (NELH 1999)

Nurses have generally been characterised as reluctant users of library and information services They experience difficulty in leaving the clinical area in work time and shift work makes involvement in formal information exchange, such as journal clubs, a difficult proposition The literature suggests that nurses' use of libraries is restricted to information required for study and there is very limited use of libraries for information on patient care Wakeham et al. (1992) found that nurses were most unlikely to consult a library for information on patient care This finding was confirmed by Childs (1994) and Pyne et al. (1999) who found little use of libraries by nurses unless they were undertaking a course of study Gilbert's earlier survey of nursing staff in Shropshire (1976) suggests some of the historical reasons leading to this state of affairs Nurse training emphasised the value of ward-based learning and course delivery of theoretical
knowledge did not generate library use. As a result, library provision for student nurses was not a priority and there was no separate development of provision for trained staff. Rather surprisingly, some 14 years after Gilbert (1976), Williamson's study (1990) of a range of hospital, community, management and education nursing staff led to the conclusion that her findings were not significantly different to those of Gilbert.

1.11 The impact of curriculum changes and literature use

The early curriculum model described by Gilbert above has been superseded by the development of knowledge-based courses, following publication of the Project 2000 report on nursing education (United Kingdom Central Council for Nursing, Midwifery and Health Visiting 1986). New curricula were devised containing more comprehensive theoretical components and based on an assumption that student nurses will use research-based journal literature in their coursework. The first of these new courses came on-stream in 1990, after the publication of Williamson's survey. As a result of the new educational programmes, it could be hypothesised that newly qualified nurses are more likely to have established literature-seeking habits. They can no longer assume that the initial nursing qualification is all that is required to practice nursing now that updating of skills is mandatory (United Kingdom Central Council for Nursing Midwifery & Health Visiting 1990). It is too early to say whether educational changes have affected attitudes towards, and use of, nursing literature by practising nurses and whether they are more likely to seek information to change their nursing care.

There is very little research on the links between the research methods content of nursing curricula and the utilisation of research. Parahoo (1999) conducted a large-scale regionally based study which compared pre-Project 2000 and Project 2000 educated nurses' views on their preparation for conducting, evaluating and utilising research findings. There were significant differences in the aspect of research preparation involving the use of libraries to access research-based literature between pre-Project 2000 and Project 2000 qualified nurses. Project 2000 educated nurses indicated significantly greater research preparation in using libraries to access the nursing literature than nurses educated on earlier nursing courses. Only 59% of pre-Project 2000 nurses felt...
they had a reasonable amount of training in using libraries and even fewer (37%) to critique research articles.

Hicks and Hennessy (1997) also suggest that nurses who qualified before the wholesale move into higher education may have placed a far greater reliance on the nursing and popular press. The lack of an academic tradition, and therefore of research training, has led to a fundamental misunderstanding of the nature of research and what it can achieve in the provision of nursing services.

1.12 Use of libraries for patient care

Wakeham et al (1992), who investigated the information needs and information seeking behaviour of students and qualified nurses, found that while 90% of respondents often or sometimes needed information in relation to patient care, the library was one of the sources most likely never (my italics) to be consulted for patient care. The majority of qualified nurses in this study were likely to have been trained under pre-Project 2000 nurse training programmes. Williamson (1990) also found that information resources provided by the library were unlikely to be a first choice for the majority of staff. In addition Spath and Buttlar (1996) found limited use of libraries for patient care information although personal journals subscriptions were seen as an important way of keeping up to date. It remains to be seen whether more recently trained nurses with a stronger theoretical underpinning provided by Project 2000 generated courses (United Kingdom Central Council for Nursing, Midwifery and Health Visiting 1986) will adopt differing approaches to information for patient care.

The literature on general nurses’ use of libraries is limited but that relating to midwives is even sparser. Although direct entry midwifery courses were introduced in the late 1990’s, most practising midwives undertook their qualification when it was compulsory to achieve a prior nursing qualification. There is limited evidence, but what little is available suggests that midwives do demonstrate differing patterns of information use to nurses. A study of midwives produced rather different results compared to those found by nursing based investigations with around three quarters of those surveyed sometimes or often needing information for solving clinical problems or changing clinical practice (Levine 1993). Bawden and Robinson (1995) support this finding in a later study. Libraries were rated as highly as colleagues and personal.
collections although Levine's study does not link this specific issue with clinical practice (Levine 1993)

1.13 Nurses and journal reading

Reading and updating is not always rewarded or encouraged by managers and there seems to be some disparity between nurses' expression of positive views on using the literature and the reality of their actual use. For example, Skinner and Miller (1989) reported in a large survey that nurses found the nursing literature a valuable means of staying updated and that it helped their clinical practice. However, another large scale survey in Australia (Nagy et al. 1992) found 50% of registered nurse respondents could be characterised as frequent readers of journals but only 10% of respondents applied information from nursing journals to clinical practice. This is confirmed in an American study by Corcoran-Perry and Graves (1990) on supplemental information (information not available from memory) seeking behaviour of cardiovascular nurses which found that nurses were unlikely to seek theoretical nursing knowledge which is found in journal literature. It was not clear whether this information was easily available or whether it was regarded as unnecessary. The authors make no comment on the availability of library services for these nurses although they suggest a computised nursing information system could be linked to the nursing literature.

1.14 CNSs and the utilisation of research

Although the utilisation of research could be regarded as the province of all practising nurses, research utilisation is an explicit and important part of the CNS role and it could be hypothesised that this group is more likely to use the research literature on a regular basis. There is a substantial body of literature on barriers to research utilisation, and lack of access to research and to librarians is one such barrier. In a study, which included staff nurses, managers and CNSs, staff nurses are perceived as having less access to librarians than managers and CNSs (Rutledge et al. 1998). This was confirmed by the only published study traced specifically targeting CNSs. In a small sample, the majority reported using research findings in their work although they were unable to articulate specific criteria for evaluating the applicability of research findings to practice (Stetler & DiMaggio 1991). However in a study which asked CNSs to identify factors which facilitated successful role implementation, among a range of
material resources, libraries were mentioned by a relatively small percentage of respondents (MacFadden & Miller 1994)

1.15 Availability of nursing resources
Holdsworth (1991) comments that qualified nurses have been forced to use libraries funded and designed to provide a service for medical staff or for nursing students and that a different form of service provision is needed for trained staff. However she fails to specify what is needed, beyond commenting that qualified nurses may need more individual support. Bawden & Robinson (1995) went further by concluding that nurses are not a homogenous group with similar information needs and usage patterns. The specialities of midwifery and psychiatric nursing, in different ways, exhibited quite different patterns of resource use to those of general nurses. An earlier study had discovered that nurses demonstrated a wider range of information requests than medical staff and were more likely to need information on psychological, social and behavioural aspects of care (King 1987). Analysis of library use by Bunyan (1991) found that while nurses constituted 31% of a hospital's employees only 6% of them were library users. Enquiries by nurses tended to be from those in management positions rather than nurses directly involved in patient care and information sought was management related rather than patient care focused.

In a study of nursing college and multidisciplinary libraries in the North of England, use by qualified nurses not currently studying was found to be limited (Childs 1994). Restricted use of research literature has been attributed directly to the work environment by Blythe and Royle (1993) who suggest that librarians need to acquire more understanding of the ways in which nurses work. Participants in their small-scale study required a rapid response to patient care related questions and were unable to leave their unit to obtain information.

Computersed nursing databases have poor coverage of British nursing literature with lengthy delays before some material is added to databases originating in the USA (Hardaker 1994). With its emphasis on American serial publications, nurses undertaking searches may find little of the indexed material is available in their nearest library. The BNI (British Nursing Index) has become available since Hardaker's study, but cost may prohibit smaller libraries from purchasing simultaneous subscriptions to the BNI, Cinahl (Cumulative Index to
Nursing and Allied Health Literature) and to Medline which also covers nursing literature. These factors, however, provide an inadequate explanation for Wakeham's findings (1992) of library use as a last resort.

Lack of use could be attributed to poorly developed information seeking strategies and Urquhart and Crane (1994) looked at the information seeking skills of 70 trained nurses by using a series of what the authors describe as "vignettes". These vignettes consisted of information seeking scenarios based on enquiries previously made in the library. One third of the participants were regarded as being 'Confident' information seekers. The extent to which the vignettes were piloted in the study is unclear since no reference is made to this procedure. The information seeking strategies elicited are likely to be ideal rather than grounded in the reality of the constraints and pressures of the work environment. Nurses who have developed organised strategies for information seeking may, nonetheless, choose not to use those skills to seek information for patient care in more 'messy' real life circumstances.
Chapter 2

QUALITATIVE METHODOLOGY AND GROUNDED THEORY

2.1 Introduction

This chapter will discuss the positivist and constructivist research paradigms and will address some of the criticisms of qualitative research. Factors influencing the choice of a qualitative research paradigm and some associated issues are discussed. Perspectives on qualitative methodologies in library and information science will be considered along with a discussion of evolving user-centred approaches. The chapter will go on to describe the background and procedures of grounded theory. A rationale will be provided for the use of grounded theory in this study. The application of the chosen methodology of grounded theory to this investigation is discussed in Chapter 3.

2.2 Constructivist and Positivist research paradigms

Constructivism, sometimes described as Post-Positivism, has marked differences in approach to the positivism of research in natural sciences. Constructivism and Positivism have their basis in different epistemologies or theories of knowledge. There are differing philosophical rationales and not simply technical differences in the manner in which data is collected. The contrasting aims of the constructivist and positivist paradigms are summarised in Figure 2.1.

<table>
<thead>
<tr>
<th>POSITIVISM</th>
<th>CONSTRUCTIVISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value free methodology</td>
<td>Subjectivity important</td>
</tr>
<tr>
<td>Internal &amp; external validity</td>
<td>Trustworthiness and authenticity</td>
</tr>
<tr>
<td>Random sampling</td>
<td>Theoretical sampling</td>
</tr>
<tr>
<td>Hypothesis testing</td>
<td>Inductive</td>
</tr>
<tr>
<td>Context removed</td>
<td>Context integral</td>
</tr>
<tr>
<td>Objective – observer separated from thing observed</td>
<td>Observer – interpretative response to reality</td>
</tr>
</tbody>
</table>

Figure 2.1 Positivist and Constructivist approaches to investigation. Adapted from Guba & Lincoln (1994)

Early discussion of the differences between qualitative and quantitative research centred on the technical issues associated with both procedures. Later the
debate moved to a philosophical level as a result of the difficulties of applying scientific methodologies to the study of human beings. The descriptions applied to qualitative and quantitative research came to contain certain assumptions about the aim of social sciences research (Bryman 1988).

One of the difficulties for someone approaching qualitative research is what Lofland and Lofland (1984) describe as "nomenclature chaos." Different labels are applied differently by researchers. Qualitative research has also been described as *naturalism* and the terms may be used interchangeably. Naturalism has links to field biology and is a genre in the field of literature, which involves a close analysis of the ordinary details of daily life. The density of philosophical meanings associated with the label 'naturalism' make it the preferred term of some.

As described above, there are number of alternative terms to refer to the different approaches (rationalistic and naturalistic, inquiry from the outside and inquiry from the inside, constructivist and interpretative), although the usual division is between quantitative and qualitative research. The term paradigm is also associated with the discussion of the two approaches suggesting a set of philosophical issues attached to the labels (Bryman 1988). The view that the scientific method was not appropriate for the study of people lay behind the growing interest in a philosophical rationale for qualitative research rather than an emphasis on technical issues related to methods of data gathering.

Hammersley and Atkinson (1995) summarise some of the concepts central to positivism, which stem from the natural sciences. Positivism is a deductive process of testing to confirm hypotheses. It is dependent upon the control of variables and the reduction of the impact of the observer or researcher. All procedures are standardised so that the research can be replicated and its reliability tested by others. Quantitative research employs tools such as surveys, usually undertaken with a large number of representative people in order to test hypotheses. Schedules tend to be controlled with infrequent opportunity for the participant to influence data gathering. Other quantitative methods include structured observation where events are recorded on a predetermined schedule and then quantified. Content analysis, where instances of
a particular phenomenon are counted, is also quantitative in approach (Bryman 1988)

The explicit standardisation of procedures in positivist research has led to the criticism of qualitative research as being lacking in rigour. However a central issue for researchers is the appropriateness of the methodology for the investigation in question. In an area where the perspective of the participants is essential and where issues of process and context are considered then a qualitative approach is a more appropriate research vehicle.

Constructivism is a tradition, which contains within it several complex strands of debate. However Schwandt (1994) describe its aim as being the understanding of the world of lived experience from the viewpoint of those engaged in that experience. The actors involved in everyday events and social interactions construct their lived experience. Understanding of these phenomena requires interpretation and clarification of the process of constructing reality. The aim is to examine meanings behind everyday actions and to show how meanings are based in the words and actions of the participants or actors. The terms *emic* and *etic* are relevant here. Boyle (1994) describes the *emic* perspective as the participant's view of events and behaviours while the *etic* perspective is the outsider's view or the researcher's frame of reference. The cross-fertilisation between the internal and the external perspectives help the researcher in the production of interpretation.

The Constructivist tradition derives from a number of philosophical origins. Among these is the concept of *verstehen*, that is, the understanding of the meaning underlying events and interactions. Another is that of *hermeneutics*, this being an interpretative approach, which accepts that subjectivity is an integral part of investigation. Pidgeon (1996 p80) refers to the qualitative dilemma whereby there is a commitment to “realism and science and to constructivism through a recognition of the multiple perspectives and subjectivities”. However, the dynamics of the researcher/participant relationship, the search for meaning within the everyday phenomena exposed by the research and the interpretative response to the data are integral components of the constructivist investigative process. Hammersley and Atkinson (1995) affirm that in ethnographic research “accounts of the world are produced through selective observation and through theoretical interpretation of what is
seen however to say our findings, and even our data are constructed does not automatically imply that they do not or cannot represent social phenomena” (p18) The criteria for judging the positivist and constructivist paradigms cannot be the same since the aims of the two are different (See Figure 2.1)

2.3 Selecting a research methodology

Qualitative and quantitative research strategies, or a combination of both approaches were considered for the CNS study. The library and information science user centred theories considered later in this chapter, in section 2.6, do not rely on either a qualitative or quantitative methodology. Therefore, the advantages and disadvantages of both methodologies were weighed in the context of the research question. One option was a large-scale postal survey with a national frame of reference that would require statistical tools to provide a rigorous analysis of the resulting data. A key advantage of a large-scale survey is that it would provide some general descriptions of CNSs across all the health regions. While there was not an extant single listing of CNSs to use as a sampling frame, the pilot study indicated that the compilation of a comprehensive list was a feasible, if lengthy, proposition. The robustness of the resulting sampling frame would be heavily reliant on responses made to requests to individual NHS Trusts and Directors of Nursing. It was deemed unlikely that the response rate would be sufficient for a comprehensive national survey.

Other advantages of survey methodology are its anonymity, absence of interviewer bias in delivery of questions and uniformity of delivery. There are some practical advantages attached to a large-scale postal survey, chiefly the time saving aspect of a desk-based distribution and analysis of questionnaires.

However, choice of methodology was not to be dictated by purely technical considerations of data collection and analysis. There were significant reasons for rejection of the high volume survey option. Most importantly, although a large-scale survey would provide some general descriptions of the processes of information use and provide the opportunity for a national frame of reference, there were crucial disadvantages. Although a large-scale survey could have been preceded or followed by some interviews to ascertain the user
perspective, the need to formulate questions that would generalise to a large population, would largely eliminate insights into the motivations and social structures which impact on user behaviour. It would be impossible to inquire further into responses and develop insights. Open questions can be incorporated into questionnaire design to elicit less constrained responses but they would be unlikely to produce the density of comment required for this study. Survey questionnaires in this context, however carefully designed, are more likely to be constructed from the perspective of the researcher as information manager (Wilson 1981a). Random sampling among a large CNS population could produce a statistically rigorous analysis that would reflect the population as a whole, but would not encompass the richness and depth of data produced by a smaller sample with a qualitative perspective. In addition it was not certain that a reasonable response rate would have been obtained from a large-scale anonymous survey. The smaller sample size usual in the qualitative approach would allow for a direct, personal approach to CNSs, thereby encouraging participation.

2.4 Qualitative research traditions

The purpose of this research was to investigate the use of formal information in the context of the work of CNSs. This involved examining information use in the context of the workplace, inter- and intra-professional relationships and organisational frameworks from the perspective of the CNSs themselves. To achieve this, the research required an approach, which allowed the views of the participants to emerge from the data. It was not intended to make generalisations from the findings but to build up a rich picture of the reality perceived by CNSs in a particular Health Region. The investigation had to be based on a research methodology that allowed the emergence of the subjective views of the participants. The Constructivist perspective provided an appropriate vehicle for this investigation.

Qualitative research has a relatively short history and much of the discussion concerning the inadequacies of scientific methods and the collection of social data only began in the 1960’s. The collection of rich data is dependent upon the greatest possible involvement by the researcher in the social circumstances under investigation. Qualitative investigation is descriptive in approach and it is frequently described as posing the question ‘What is going on here?’ This was
an important preoccupation for this study in that CNSs had not been singled out in previous studies on nursing information use. The nature of the CNS role suggested a different pattern of information use to other grades of nurses but there was no other evidence in existence for this assumption.

Qualitative approaches are usually employed in areas where not much is known already. A central attribute of qualitative research is its inductive approach. Hypotheses, theories and models are developed following or during an investigation rather than prior to the study. In introducing a sourcebook for qualitative data analysis (Miles and Huberman 1994a) describe the constantly shifting paradigms of social research and the numerous ways of undertaking qualitative research. However they do suggest a number of commonalities, viz

- Intense contact with a field in normal, everyday life situations
- Researcher attempts to gain an overview of the context and its implicit rules
- Researcher attempts to gather data on the perceptions of ‘actors’ through understanding or *verstehen*
- Researcher attempts to explain the ways people manage their daily circumstances
- A number of interpretations are possible but some may be more appropriate for theoretical reasons or for internal consistency
- Little standardised instrumentation is used at the beginning. The researcher is the main measurement device in the study
- Most analysis is done with words, which are organised to allow the research to present patterns

### 2.5 Reliability and validity issues for qualitative research

From the positivist perspective the issues of reliability and validity are considered significant weak points in the qualitative approach. Reliability and validity are concepts deeply embedded in the research procedures of the scientific positivist tradition. Reliability relates to the ability of a set of research procedures to produce the same results when replicated. This is achieved by the careful control of variables in scientific research. Replication of qualitative research procedures is made difficult by the dynamic and changing nature of the social processes that are fundamental to viewing phenomenon from the participant’s perspective. However, that is not to say that qualitative researchers can adopt a cavalier disregard to issues raised by reliability. Kirk
and Miller (1986) assert that while the goals of research in the social sciences are different, the issues of reliability and validity are as important as they are in the natural sciences.

Leninger (1994) adopts a purist view not maintained by all qualitative researchers. She asserts that while methods can be mixed within qualitative or quantitative paradigms they should not be mingled across the two paradigms because the philosophical bases of both are eroded. That is, qualitative investigations may use a combination of qualitative approaches but should not included quantitative approaches even for the purposes of triangulation. A less fundamentalist view, which is more commonly held, is that investigations can use methods which work within both qualitative and quantitative paradigms, without harming the integrity of either (Wilson 1981a).

Validity relates to the appropriateness of the research method and how accurately it measures what it purports to measure. Internal validity is concerned with the extent to which research findings correctly measure phenomena and external validity relates to the degree to which findings can be generalised to similar research settings. Assessing the claims or validity of qualitative research findings has been given more attention than issues of reliability (Hammersley 1990).

It is undoubtedly difficult for the reader who is attempting to judge the claims of research reports to examine the data from which the concepts have been derived. Miles & Huberman (1994b) comment that the range of qualitative approaches has resulted in the lack of a standardised way of reporting the methodology section of investigations. They suggest the following as a minimum sampling decisions, instrumentation and data collection operations, database summary, software used, overview of analytic strategies and the inclusion of important data supporting the main conclusions.

Large amounts of data in the form of interview or observation transcriptions cannot be compressed into tables as with numeric data. Collection, recording and transcription of data should be undertaken in a consistent manner and be appropriate for the research method and the data itself. The reader has to rely on a scrupulous explanation of the analysis procedures undertaken and the way
in which the resulting concepts were arrived at. However, quantitative studies deploying analyses of numerical data also rely on the integrity and scrupulousness of researchers to report findings, which represent all the data collected. In qualitative studies data is presented in the form of elaboration and extensive description with the use of typical examples. There may be a temptation to present examples which support preconceptions or which appear more dramatic. However, quantitative studies are not free from the possibilities for data misrepresentation and manipulation. One of the advantages of using a computensed analysis package such as QSR NUD IST (1997) is the automated dated recording of data analysis processes and the resulting possibility of auditing the procedures by working backwards. Potentially the auditing trail could be made available for external inspection.

The activity of the consistent assignment of incidents, comments and views to categories is crucial. Solo researchers cannot rely on the inter-rater reliability which is possible in projects with several researchers where each research worker can compare the assignment of instances to categories. Qualitative research aims to study the actions and values of participants from their perspective. To achieve participant perspective the investigator should develop an understanding of the underlying meanings of phenomena rather than surface meanings. It requires an understanding of the participant's world. This is problematic since the researcher inevitably has areas of particular interest and those may lead to missing or ignoring important issues raised by participants. A full disclosure of the background and interest of the investigator at the outset can overcome some of these pitfalls. Many qualitative studies are self reflective allowing the reader to be aware of the researcher's position, and as Bryman (1988) asserts, studies, which did not include some analysis from a broader perspective, would be of limited value. Hammersley (1990) suggests that we can judge the claims of qualitative research by looking at:

- existing knowledge and assessing the plausibility of claims made in relation to that
- the nature of the phenomenon under discussion and the characteristics of the researcher
- the credibility of the evidence
Hammersley recognises that there are some weaknesses in this position but argues that these are overcome by the ability of the research community to subject claims to scrutiny and dispute.

Reporting on the way in which people interpret their environment and act accordingly is one of the main aims of qualitative research. Bryman (1988, p73) poses a very pertinent question in this respect: “how feasible is it to perceive as others perceive?” The difficulty of providing accounts of the participants’ world and judging whether the interpretation offered is the correct one is unresolved. Respondent validation is one means of addressing this issue. Another method is to provide detail concerning the researcher’s background and interests so that the interpretation of the data can be read in the context of the investigator’s perspectives.

Leininger (1994) has developed a number of criteria that can be applied to the evaluation of any qualitative research findings. These are:

- Credibility or the ‘truth’ as experienced by the people under study and interpreted from the findings.
- Confirmability or obtaining repeated affirmations from those being studied. It may also include asking informants to confirm findings or interpretations of findings.
- Meaning-in-context or data which is understandable in terms of the context or situation under study.
- Recurrent patterning or incidents which are repeated in an identifiable sequence.
- Saturation or obtaining rich data to gain full awareness of particular phenomenon until no further information is available.
- Transferability or whether findings can be moved to a similar context and still preserve the original interpretations. This is not the same as generalisation because the aim of qualitative research is to bring deep understanding concerning particular phenomenon.

A commonly described method of validating research findings is to use what has been called respondent validation. Respondent validation is a form of triangulation where the researcher asks participants to comment on the findings. However, participants could have particular reasons for not recognising the
findings or they may find them unpalatable. Hammersley and Atkinson (1995) believe that respondent validation, if used, should be seen as providing additional data. Triangulation, the collection of different kinds of data and the use of different research methods, is used frequently to validate research findings. Triangulation can be used with the purpose of providing a spurious scientific respectability in qualitative research but as Fielding and Fielding (1986, p31) note “it is naive to assume that the use of several different methods ensures the validity of findings.” Fielding and Fielding further make the point that theories and methods can be combined to add breadth and depth but they will not contribute to the production of an objective truth.

2.6 Research paradigms in library and information science (LIS)
Qualitative approaches to research have come later to LIS although they have been used extensively in other disciplines. In the 1970s there was a movement away from intermediary centred and externally based perspectives towards a view which began to take a more holistic approach to information use and need. Dervin and Nilan’s 1986 Annual Review of Information Science and Technology concluded that there has been a dramatic shift in assumptions and approaches to information need since 1978. They cite the User-Values Approach developed by Taylor (1984) and MacMullin & Taylor (1984), the Sense Making Approach developed by Dervin and others from 1977 onwards and the Anomalous States-of-Knowledge Approach (Belkin 1978). All three strands signal a research paradigmatic change which begins to attempt to understand reality from the perspective of the participant’s information needs and use (Figure 2.2). A review by Wilson (1994) describes Belkin, Dervin and Wilson (1981b) as leaders in developing information needs and studies from a cognitive perspective with the user at the centre.
In the following Annual Review of Information Science and Technology, covering the period 1986-1989, Hewins (1990) suggests a continuation of the user centred approaches identified by Dervin and Nilan above. None of the models for information need and use in Figure 2.2 rely solely on either qualitative or quantitative methodologies.

Two of the most recent and comprehensive studies in the health care sector adopted the value-in-use model (Repo 1986, Repo 1989) looking at the benefit derived by the user (Urquhart and Hepworth 1995, Davies et al 1997). The value in use approach also focuses on the individual user and how information fits into the users decision-making environment. Repo (1989) maintains that qualitative measures are the best means of determining the value of information in use.

<table>
<thead>
<tr>
<th>AUTHORS</th>
<th>THEORY</th>
<th>DESCRIPTION OF THEORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilson 1981a</td>
<td>Cognitive</td>
<td>Phenomenological perspective where individuals construct own social world</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concentrates on every day life</td>
</tr>
<tr>
<td>Taylor 1984</td>
<td>User-values</td>
<td>Users' thought processes are central. The theory is concerned with identifying</td>
</tr>
<tr>
<td>McMullin &amp;</td>
<td></td>
<td>information traits for which users might have preferences</td>
</tr>
<tr>
<td>Taylor 1984</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dervin 1977</td>
<td>Sense making</td>
<td>Studies the constructions used by humans to make sense of their experiences and how</td>
</tr>
<tr>
<td></td>
<td></td>
<td>they use information sources in that process</td>
</tr>
<tr>
<td>Belkin 1982</td>
<td>Anomalous States of</td>
<td>Considers the gap between the user’s knowledge about a problem and what the user</td>
</tr>
<tr>
<td></td>
<td>Knowledge (ASK)</td>
<td>needs to know to tackle that problem</td>
</tr>
<tr>
<td>Repo 1986,</td>
<td>Information value</td>
<td>Considers the subjective value users place on information and the objective value of</td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td>information in terms of the effects information use has on a problem.</td>
</tr>
</tbody>
</table>

Table adapted from (Wilson (1981b), Dervin and Nilan (1986), Hewins (1990), Kulthau (1991))
Wilson (1981b) argued for the use of qualitative methods in identifying socio-cultural factors and the centrality of the user perspective as being pivotal in information seeking behaviour. Use of the methods of the qualitative research tradition of the social sciences has gradually infiltrated the LIS tradition. Bradley (1993) notes that the use of qualitative methods is particularly applicable to LIS. Nonetheless, the publication of a whole issue of *Swedish Library Research* (1990), *Library Quarterly* in 1993, and more recently *Library Trends* in 1998, suggests that although there is considerable interest in qualitative methods, there is still a perceived need for proselytising to encourage more widespread adoption. These journals adopt a tone of persuasion that suggests that qualitative research is yet to be fully established in LIS. Journal editors themselves may come from a positivist scientific tradition, fail to understand the demands of qualitative studies, and suppress unwittingly their publication (Wallace and Van Fleet 1998).

Although there is a growing curiosity about qualitative exploratory research, a review of qualitative methods in information retrieval literature indicates that positivism still maintains a firm grip on research in the information retrieval field. It has been argued that research that purported to be qualitative ignored important aspects of the qualitative approach. There is a tendency to generalise findings and ignore the uniqueness of individual circumstances (Field 1993). The range of methods within the qualitative tradition, not all of which are clearly articulated, and the sheer volume of data produced by such research may have restrained the development of qualitative studies in the LIS field.

### 2.7 Interviews

The aim of qualitative investigation is to gather the richest possible data that has depth and complexity. Lofland and Lofland (1984, p11) summarise this as follows:

"Rich data mean, ideally, a wide and diverse range of information collected over a relatively prolonged period of time. And for the naturalist, that collection is achieved, again ideally through direct, face-to-face contact with, and prolonged immersion in, some social location or circumstance."
The main methods of obtaining rich data are through participant observation and unstructured interviewing. Observation is usually regarded as a superior method of collecting data but circumstances may restrict choice and make interviewing the pragmatic option for researchers.

There are four main interview formats including structured, semi-structured, unstructured or unfocused and group interviews (May 1997). Research studies may deploy a mixture of interview approaches. Interviews are the main source of data in this study. However, the approach to interviewing in qualitative research is totally different to that employed in survey research. In the latter form, the emphasis is on the standardisation of the questions, a structured interview schedule, and the analysis will include some element of counting or quantifying responses.

Interviewing in qualitative research has been described as conducting a purposeful conversation (Rubin & Rubin 1995). As with ordinary conversations, interviewee responses can be unpredictable. However, unlike ordinary conversations, interviewers always need to listen with heightened sensitivity and to be aware of meanings behind the surface expression of words. The interviewer is engaged in empathising with the interviewee and cannot expect to be entirely neutral, particularly as the goal is to obtain richness and depth in the response. Holstein and Gubrium (1995) refer to the necessity of having a good understanding of the lives and interactions of the interviewees and an understanding of their vocabulary. However, the researcher must be aware of the dangers of empathy and needs to constantly check that the data fits with the emerging concepts. In practice, it was frequently difficult to judge fine boundaries between appropriate and inappropriate responses, between a non-committal reply, a sympathetic response, or leading the response according to preconceived ideas. The line between conversation and purposeful interview can be difficult to draw.

Unstructured interviews are those in which the interviewer does not have specific prepared questions, but rather suggests subjects for discussion. Semi-structured interviews guide the discussion by asking specific questions that relate to areas identified in advance. Most qualitative interviews are a combination of the two types described above. Interviewees may find a totally
unstructured approach difficult to formulate a response to. In the early stages of an interview, the interviewee is attempting to grasp what the interviewer requires and is also searching for the meanings behind the questions. A request to simply express views on a topic or event may be stressful for the interviewee. As the interview proceeds and the interviewee becomes more relaxed, a less focused approach may be very fruitful.

McCracken (1988, p19) describes the qualitative investigator as an 'instrument' in data collection and analysis:

“It is necessary to listen not only with the tidiest and most precise of one's cognitive abilities, but also with the whole of one's experience and imagination.”

The advantage of the semi-structured interview is the facility it provides to ask supplementary questions, request clarification or ask for amplification of interesting points. It offers scope for unscripted exchanges between the interviewer and participant but within a framework or structure which ensures relevance. May (1997) notes that whereas studies involving structured interviews can use trained interviewers who adhere to a strictly defined schedule, researchers themselves usually conduct semi-structured interviews to make best use of the freedom to vary the dialogue.

A semi-structured interview is one means of dealing with the participant who “rambles.” There is sufficient flexibility built in to allow the participant to wander away from the issue under discussion. ‘Rambling’ can lead participants to reveal phenomena of importance that the researcher had not considered hitherto. This also allows the participant an element of control over the interview transaction. However, as Mason (1996) rather firmly states, the researcher needs to be armed with the ability to make rapid decisions about interview questions and it is not possible to adopt a totally unstructured approach. There is further discussion of the way in which the semi-structured interview strategy was applied in this research in Chapter 3, section 8.
2.8 Grounded Theory

Qualitative investigations may be undertaken in a variety of different ways and labels are sometimes used in terms of methodology and at other times in terms of epistemological perspective Tesch (1991) identifies three main groups, which are shown in the table below (Figure 2.3) The table positions grounded theory in relation to these three groups of qualitative research

<table>
<thead>
<tr>
<th>RESEARCH APPROACH</th>
<th>SUBGROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Language orientated</td>
<td>Content analysis, discourse analysis, ethnoscience, ethnography of communication, structural ethnography, symbolic interactionism, ethnomethodology</td>
</tr>
<tr>
<td>2 Descriptive/interpretative</td>
<td>Ethnography, life history studies, oral history, document studies</td>
</tr>
<tr>
<td>3 Theory building</td>
<td>Grounded theory</td>
</tr>
</tbody>
</table>

Figure 2.3 Main approaches to qualitative research

Grounded theory has relatively recent origins and was developed by Glaser and Strauss during the 1960's while they were conducting their own research on the dying. They felt that there was too much reliance placed on theories already developed by well established, eminent sociologists. It resulted in the publication of a book explaining this new approach to research (Glaser and Strauss 1967) They advocated an inductive process for 'discovering' theory from the data rather than a reliance on hypothesis testing of prevailing sociological theories. The researcher was encouraged to suspend any previously held ideas and look for patterns in the data. Grounded theory is a form of interpretative research in which the researcher derives meanings from the data that transcends the everyday expression of the participants' view of their social reality. It emphasises the importance of the participants' own account of their world. The original Glaser and Strauss monograph was followed with a further elaboration of the method designed to clarify many of the earlier ambiguities (Glaser 1978)
2.9 Grounded theory in library and information science

Grounded theory is a research method in the interpretative tradition that is highly appropriate for an examination of issues from the perspective of the information user. One information science exponent of the grounded theory method in the United Kingdom has been Ellis in his work on information seeking patterns of academic researchers (Ellis 1993, Ellis et al 1993). Ellis described six general characteristics of the information seeking patterns among social scientists. These included Starting, Chaining, Browsing, Differentiating, Monitoring and Extracting. Others, working under the auspices of the Department of Information Studies at the University of Sheffield, have also adopted Glaser and Strauss’s grounded theory approach. These include Ellis and Haugen (1997) who examined engineers and research scientists and Soto (1992) in a study of the information seeking behaviour of dentists, although the latter appears to use a rather limited adaptation of grounded theory. Otherwise, examples of published research using grounded theory are relatively scarce. A search of the LISA database referred to twenty-seven papers and unpublished research utilising grounded theory methodology between 1993 and 1998.

2.10 Rationale for the use of grounded theory in this study

This study aimed to allow the information user’s perspective to emerge in a world where the organisational structures and social interactions of CNSs were integral aspects of the ways in which they used formal literature. Having established that a qualitative approach was essential to inform the collection of data required for the purposes of this research, the next consideration was which qualitative approach to adopt.

The data was to be collected in the form of interviews. Observation was considered but rejected on the grounds of logistical complexity. Very extensive periods of observation with any single participant would be required to collect any meaningful data concerning the formal use of literature. The three main approaches to qualitative research described in Figure 3.2 (Section 2.8) guided the choice of specific methodology. It should be noted that these three approaches (language orientated, descriptive/interpretative and theory building) are not entirely discrete entities but contain overlapping elements. The language-orientated approach was inappropriate for the purpose of this study.
Some of the descriptive/interpretative approaches such as ethnography could be adopted. However, grounded theory, with its systematic inductive approach to analysis seemed to provide an appropriate vehicle for the examination of interview transcriptions which did not demand a systematic linguistic approach with the recording of hesitations, tone, noises to allow pauses for thought and so on. What was required was an accurate transcription of interviews to allow a search for meaning.

Grounded theory has a relatively brief history in LIS and it has also been said that "quality in qualitative research is a mystery to many health services researchers" (Dingwell et al. 1998) and researchers have been forced to add a quantitative gloss in order to gain funding. Nonetheless, grounded theory has been used successfully in library and information science and it has been widely used in other disciplines involving the study of people. In reviewing qualitative methods in information retrieval, Fidel (1993) describes grounded theory, along with naturalistic inquiry, as the leading approach in qualitative methodology. More importantly, the underlying philosophy and well-established procedures of grounded theory appear to be well suited to the study of CNSs' information use in the context of their organisational environment. Furthermore, grounded theory methodology is familiar to qualitative researchers in nursing and it is probably one of the more widely documented qualitative approaches.

2.11 'Glaserian' and 'Straussian' schools of grounded theory

Glaser and Strauss's original publication was regarded as difficult to follow and lacking in clarity concerning methods, even with Glaser's later elaboration. There has been a much-publicised philosophical rift between the two originators of grounded theory. This was stimulated by the publication of a text by Strauss and Corbin (1990) that was intended to explain the procedures of grounded theory to neophyte researchers. As a consequence, Glaser (1992) produced a vigorous refutation of Strauss and Corbin's work.

Some researchers have continued this difference of opinion. For example, Stern (1994) sees two distinct schools 'Glaserian' and 'Straussian', and she is unequivocal in stating that neophyte researchers require research mentors and that grounded theory cannot possibly be learned from a book. Strauss and Corbin's work has been dismissed as leading to the "forcing of data" and
described as "conceptual description" rather than grounded theory (Glaser 1992, p 122) Yet key texts on qualitative methods have tended to include the Strauss and Corbin development of grounded theory (Denzim and Lincoln 1994, Miles and Huberman 1994a) This may be because the clear exposition of procedures makes their version of the research method easier to follow although some practising researchers e.g Turner 1981, Melia 1996, consider that this has led to a more mechanical approach Researchers in the information science discipline such as Ellis (1993) have also taken this view.

2.12 Symbolic Interactionism
The roots of grounded theory lie in the symbolic interactionism of Herbert Blumer (1996) and his view of the individual's social world as systems of meaning deeply based within a social context Individuals are active participants in the world having an impact on others as well as themselves being influenced by others They interpret the behaviour of others and act on the basis of the meanings they derive from their interpretation of those behaviours Undertaking an action involves a process of assessing how others will view behaviour, and then acting accordingly Such interpretations may be incorrect but are real to participants if perceived as real The researcher aims to investigate the ways in which interpretations affect the actions of the participants Wilson and Streatfield (1981, p173) refer to the social aspects of roles and in addition to cognitive information needs there are other latent affective needs "such as the need to dominate, to achieve, or to demonstrate competence" From the perspective of LIS one of the consequences of symbolic interactionism is that researchers need to understand the particular characteristics of user groups being studied (Glazier 1992)

2.13 Theoretical sensitivity
Central to grounded theory is the process of theoretical sensitivity This provides insight into the data and gives it meaning in conceptual rather than concrete terms Theoretical insight is derived from the researcher's familiarity with related research and literature, professional experience, personal experience of the phenomenon and the analytical process applied to the data (Behrens 1996).

One of the main tenets of qualitative research is that of viewing events and phenomenon from the perspective of the participants In the context of some
aspects of theoretical sensitivity there is a danger of imposing prior conceptions on the study. The cultural and social mores of the researcher affect the researcher’s interactions with the study participants. Knowledge of related literature and research could lead to a form of blindness in ignoring phenomena arising from the investigation, which do not accord with what is already known.

2.14 Coding data
Grounded theory researchers typically handle large quantities of data accumulated through a relatively small number of observations or interviews. The sheer volume of data can be hugely intimidating and create practical problems of management and organisation. The concurrent collection and analysis of data can minimise some of the problems of data management to a limited extent. Grounded theory does not adopt a linear approach to collecting and analysing data. Various writers have attempted to help beginning researchers through the difficulties of data management by setting out the stages in conducting grounded theory studies and clarifying some of more ambiguous terminology (Turner 1981, Pidgeon and Henwood 1996).

Grounded theory is intended to be an iterative and flexible process in contrast to the clearly defined linear stages of positivist research. Nonetheless it is possible to identify a number of steps in the process of moving from a large quantity of unstructured data to the development of theory. The following stages in Figure 2.4 are derived from Glaser and Strauss (1967), Glaser (1978), Strauss and Corbin (1990) and Turner (1981).
<table>
<thead>
<tr>
<th>Process</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Data preparation</td>
</tr>
<tr>
<td>Two</td>
<td>Open coding</td>
</tr>
<tr>
<td>Three</td>
<td>Saturate categories</td>
</tr>
<tr>
<td>Four</td>
<td>Axial coding</td>
</tr>
<tr>
<td>Five</td>
<td>Integrating categories</td>
</tr>
</tbody>
</table>

Figure 2.4 Outline of stages and processes in grounded theory

The first stage of coding begins when data is examined and assigned conceptual labels, which may be concrete descriptions or more abstract tags. In the early stages of analysis there is likely to be a large number of conceptual labels generated by the data. These labels can be at a purely descriptive level and may employ phrases or words directly used by participants themselves. Labels derived from words used by participants are described as *in vivo* codes. Then similar or related concepts are grouped together to form categories. At this stage coding is still very much provisional and categories may collapse, be abandoned, or be amalgamated into other categories and new categories may develop. The naming of labels requires some thought and there may be a number of alternative names that could be given to a group of ideas. Lofland and Lofland (1984) suggest that it is best to use ordinary everyday words but
attempt to use them in inventive combinations. They also comment that striking labels attract more attention than research, which, however excellent, uses more mundane labels.

Categories are derived by a process described as 'constant comparison'. This involves taking each example or incident and comparing it with the next one looking at similarities and differences. Questions are asked concerning how they are similar or different. Concepts derived from constant comparison form the basis for a generalisation or a category. The same process is repeated with each subsequent example. Constant comparison ensures consistency within categories and establishes clear boundaries between categories. If an example fits it becomes part of the relevant category. If a particular case does not fit then it is examined to discover why that is so. This may result in a category description being amended, the example may be placed in another category or result in the formation of a new category.

The next stage of coding is described as axial coding and involves the reconstruction of the data by examining the connections within categories. This stage is a process of constructing a second version of the data from the original transcripts. Glaser and Strauss (1967) refer to defining a category by looking at the conditions associated with the phenomenon, the context basis, strategies used to handle the phenomenon and the consequences of those categories. These conditions, contexts, strategies and consequences form links to bind categories together and create theoretical links between categories.

By this point the central core category should have emerged. This is the core category that subsumes all the other categories. The third and final stage, called selective coding, involves integrating categories together to develop the grounded theory and produce a narration linking major categories to the central category. Strauss and Corbin (1990) refer to a "story line" whereby the categories have to be arranged and re-arranged to produce an integrated narration rather than a listing of categories. This can involve considerable re-writing.

Coding is considered to be complete when all incidents can be classified and some themes emerge. The term 'saturation' is used in grounded theory to
describe the stage when examination of the data only reveals further examples of phenomena which have already been coded and integrated. Qualitative methodology does not involve recording every single example of a phenomenon. Miles and Huberman (1994a) suggest that the question of saturation is most often resolved by pragmatic considerations and time constraints, but that unexpected layers of meaning are revealed the longer the researcher is in the field. It may be difficult for the researcher to accept that at a given point the analysis has to cease.

The coding steps described above are by no means linear and the researcher will move backwards and forwards between the stages while continuing to collect further data. At the same time the researcher is also involved in a process of writing 'memos' to record thinking and ideas about the data. These memos are not designed for public consumption but to increase theoretical sensitivity. This ensures that ideas are not lost during the collection and analysis of data. These memos eventually become the basis for the final narrative and theory development. Memos are also used to develop definitions and descriptions of categories to enable incidents to be assigned appropriately.

The use of terms such as 'categories', 'concepts' and 'codes' can be used in a confusing way in grounded theory and they sometimes seem to be used interchangeably. Coding is the process of labelling and applying concepts to words or groups of words in the data. A category contains a series of concepts or labels that can be grouped together.

2.15 The use of research literature in grounded theory

A cornerstone of traditional quantitative methodologies is the completion of a thorough literature review prior to undertaking the research. The review is usually to be found following the introduction to the research. In grounded theory the approach is radically different. According to Strauss and Corbin (1990, p49) in grounded theory studies the researcher wants

"to explain phenomena in light of the theoretical framework that evolves during the research itself, thus you do not want to be constrained by having to adhere to a previously developed theory that may or may not apply to the area under investigation"
Only after categories have emerged from data analysis will the researcher want to return to the literature. A thorough review of the literature might constrain the analysis procedures and prevent the emergence of categories. In reality, a researcher cannot approach a research project with an 'empty mind' and coding data must have a subjective element. Sensitivity to the impact of influences outside the data itself, such as related literature, has to be taken into account.

Strauss and Corbin (1990) suggest uses that can be made of the literature in grounded theory. Research literature can be used to increase theoretical sensitivity. Recurring concepts in the literature can be checked against the data studied. It can be used as a secondary source of data and quotations and descriptions can be analysed in the same way as the primary data. The literature may also guide and create questions asked of the data during analysis. It may also suggest where you can go to uncover data that you might not otherwise have considered and support theoretical sampling procedures. Lastly, it can act as a supplementary validation process and the literature can be used to reference research findings.

One of the objectives of grounded theory is to develop higher level or substantive theory. That is, the development of a substantive theory into a formal theory that can be applied in other circumstances. However, Bryman (1988, p91) comments that much of the literature citing grounded theory relates to the development of categories and low level theory. Approaches to theory “are often honoured more in the breach than in the observance.” The most that much of the work that purports to be based on grounded theory can aim for is the higher level synthesis referred to by Tesch (1990) in the following paragraph.

There are many types of qualitative research but nonetheless, the principles enumerated by (Tesch 1990, 95-6) and summarised below hold good for grounded theory analysis:

- Analysis is concurrent with data collection or is cyclic
- Analysis process is systematic but not rigid
- Examining data involves a reflective process that generates analytical notes or memos
- Data are divided into meaningful units
- Data units are categorised according to an organising system derived from the data
- Main intellectual tool is comparison
- Categories for sorting data are initially tentative and they remain flexible
- Manipulating qualitative data is eclectic and there is no single 'right' way of doing it
- The processes require methodological knowledge and competence
- Analysis results in some higher level synthesis
Chapter 3

APPLICATION OF GROUNDED THEORY TO THE STUDY

3.1 Background to the study

This chapter describes the researcher's own perspective on nursing issues, the context of the study, the pilot study, the location for the fieldwork and the research procedures involved in the main study.

The researcher has had extensive experience of working in the library service of a large teaching hospital and has developed a well-established network of local contacts in the nursing sector including educational staff, clinical staff at a variety of levels and students. The background includes initial experience as a Tutor Librarian in an NHS School of Nursing, an unusual post in an environment that provided for intimate contact with clinical nursing staff. This relationship with nursing staff offered a different perspective on nursing compared to that usually provided in the librarian/library user interface.

It was felt that the grouping of local Trusts in which the researcher was based, which included specialist and general acute, mental health and community nursing, whilst not necessarily typical as a result of its location in inner London, would reflect sufficiently the position elsewhere in the country. It would provide a reliable basis on which to make some assumptions about nursing elsewhere and to use as a test bed for the methodology.

Through experience in the provision of library services to nurses and extensive contact through the delivery of user education programmes with qualified nurses on educational courses, differences between specialities and roles emerged as did varying attitudes and skills in information use. Some of these differences between specialities appeared from observation to be quite marked. For example, different attitudes towards the use of computer technology, the enthusiasm to search for research and the development of advanced searching skills were very evident among critical care course participants. Participants on courses that dealt with chronic conditions in elderly care were strikingly different. They were less IT literate and much less willing to develop skills in literature.
searching. As a result a decision was made to consider fieldwork with an identifiable group within nursing.

Discussions at local level between the researcher and a Senior Research & Development Nurse at the teaching hospital where both are based indicated that CNSs were regarded as an influential group within that Trust. Contact with the editor of the first book in the UK about CNSs, who was also based in the researcher's own organisation, confirmed this view (Humphris 1994). Following an examination of the literature concerning CNSs in the UK it was clear that there was considerable active debate about the precise nature of the CNS role, which activities were characteristic and what qualifications and experience were required for practice at that level.

3.1.1 Evidence based practice or research based nursing

During the period that this study was conducted the evidence based medicine (EBM) movement was gaining momentum. The Cochrane Database pilot project of reviews of Randomised Controlled Trials (RCT) in pregnancy and childbirth became available in 1989 (UK Cochrane Centre 1989). Since then more medical specialities have been added to the database and nurses have become members of the specialist groups set up to oversee the data collection and review process. This has now become the Cochrane Library and a number of other publications have become available in printed and electronic form such as Bandolier, Effective Healthcare Bulletin and Centre for Reviews and Dissemination Reports. Randomised Controlled Trials are regarded as providing the clearest evidence about the effectiveness of care and other research strategies are seen as inferior. This is an important distinction for nursing where RCTs are sometimes an inappropriate means of collecting data concerning the effectiveness of nursing interventions in the patient care process.

This study was conducted during the period when the evidence based practice movement was gaining momentum and CNSs were clearly aware of this. As with other developments affecting clinical behaviours the initial focus of evidence based practice appeared to be medical. This emphasis changed with a move towards the use of the umbrella term 'evidence based health' and the elimination of the more exclusive term 'evidence based medicine'. A change of
government in 1997 was followed by the publication of documents (Department of Health 1998b) which emphasised the issues of quality and consistent clinical standards. The process of 'clinical governance' has been introduced. This procedure is intended to eliminate differing standards in care delivery and will use evidence-based guidelines to set clinically effective standards. Furthermore, a National Institute for Clinical Excellence (NICE) will provide guidelines for clinicians concerning treatment interventions.

As with the evidence-based medicine movement, clinical governance initially appears to be aimed at medical standards, but nurses will need to consider how this impacts on their care. For example, Robinson (1998) considers that the sociological and philosophical epistemological basis of nursing is somewhat incompatible with the clinical assumptions of evidence-based practice. Clinical governance will at the very least have an impact on the extended role of the nurse and the areas where nurses have assumed roles previously undertaken by doctors (Bloor and Maynard 1998). Evidence-based practice demands easy access to the research literature. The publication of an Information Strategy (Department of Health 1998c) is regarded as central and it states that one of its goals is

"to provide every NHS professional with on-line access to the latest local guidance and national evidence on treatment, and the information they need to evaluate the effectiveness of their work and to support their professional development" (p19)

Working alongside national clinical procedure initiatives, there have been supporting local initiatives within North Thames to develop the use of research evidence by providing training in search techniques. For example, a feasibility study provided literature search training in databases and critical appraisal techniques to clinical teams, some of which were multidisciplinary (Cumbers and Donald 1999).

Hernando (1997), in reviewing initiatives to promote evidence-based practice, notes that few of these relate to nursing interventions and to care outside the hospital environment. The medical focus of the early Cochrane Database may account for findings by Lewis et al (1998) that nurses had less understanding of evidence-based medicine than medical colleagues. It is more likely that a
concept such as ‘research based practice’ would have elicited wider recognition than the term EBM. In 1997 a new journal, Evidence Based Nursing, was launched and this includes quantitative and qualitative methodologies with the application of methodological rigour being the main criterion for inclusion. As a consequence of the potential ambiguity concerning nurses’ use of the term EBM, the phrase ‘research based nursing’ was used in interviews conducted with participants in this research.

In many cases the relationship between practice and evidence is far from straightforward. In some conditions or diseases the evidence, both nursing and medical, may be rather poor (Clinical Standards Advisory Group 1998) and on some occasions there is little evidence to draw on for both professions. There is a particular paucity of nursing evidence with a large number of anecdotal or descriptive articles. For example the Group’s review of 312 articles on nursing care for stroke patients found only 7% had a research base.

3.2 Testing the methodology
Given some of the uncertainties surrounding the CNS role it was decided first of all to collect data concerning numbers of CNSs to ensure that there was a significant population to form the basis for a study. There were no overall national listings available, with the exception of an annual directory of community nurses (Handbook of Community Nursing, 1994) which included a category for nurse specialists. Information was sought from NHS Librarians in the South Thames West Region and their response suggested that most Trusts employed CNSs across a range of specialisms.

Following this, a pilot study was undertaken among staff at three health trusts in South Thames (West)¹ These were an acute trust located next to a large London teaching hospital, a community trust and a mental health trust. These trusts were chosen on a convenience basis. Contacts were relatively easy to make and there would be relatively little travel involved. Some of the study participants were known to the researcher through their use of the combined medical school and NHS library service or through involvement in user education sessions on educational courses. This expedited the process of making initial contacts although their responses in the pilot study will also have
been influenced by this personal contact. A total of 63 CNSs were identified in the three local trusts (Figure 3.1)

<table>
<thead>
<tr>
<th>TYPE OF TRUST</th>
<th>NUMBER OF CNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute general/specialist</td>
<td>36</td>
</tr>
<tr>
<td>Mental health</td>
<td>10</td>
</tr>
<tr>
<td>Community</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
</tr>
</tbody>
</table>

Figure 3.1 Work location of CNSs in pilot study

Following submission of the study protocol to the local nursing Ethics Committee and the receipt of approval to proceed it was decided to collect information in 3 stages
1. Postal questionnaire (Appendix I)
2. Semi-structured interviews (Appendix II)
3. Diary or log book of information use (Appendix III)

The aims of the pilot study were to gain insights into the operational roles of Clinical Nurse Specialists to supplement information obtained from the nursing literature, to test the effectiveness of data collection methods and tools which might be used in the main study and to test analysis procedures. In addition, since the researcher was new to the techniques of grounded theory it allowed the opportunity to gain some experience in managing the data and handling this methodology. It was anticipated that semi-structured interviews would be the chief means of collecting data in the main study and the pilot study would be used to develop an effective interview guide sheet.

A questionnaire was sent to all CNSs, each Trust identified with different colour paper to aid analysis (Appendix I). A reminder was sent if a reply had not been received after a fortnight had elapsed. In all 47 completed forms and two uncompleted forms (persons no longer in post) were returned. Data was collected concerning grade, experience, clinical and management activities, information seeking activities, sources used and reasons for seeking.

1 South Thames West was part of the South Thames Health Region when the pilot was undertaken but is now part of the London Health Region.
The responses to these questions were used to inform the second stage of the pilot study.

Two data collection options were considered for the second stage. These were semi-structured interviews or observation. Interviewing has sometimes been regarded as the less desirable option and less likely to produce the rich data required for qualitative research but there are occasions when interviewing is the preferred approach (Lofland and Lofland 1984). The advantage of observation lies in allowing the researcher to record actual information use behaviours rather than rely on self reported use. However this method was rejected on two grounds. The first of these was organisational and logistical; ethical approval may have been more difficult to achieve given that observation would have involved observing interactions with patients and entry into the clinical area or the client’s home. The geographical spread of the Health Region intended to be the fieldwork base for the main study would also have made observation impractical. The second, more important, reason for deciding against the use of observation was that it would have been unsuitable for the purposes of the research. Patterns of use of the formal literature of healthcare were likely to be irregular even among frequent users. It seems likely that information use might be intensive for particular projects and then be interspersed with periods of little or no activity. Observation would involve unacceptably long periods of inactivity when there would be no relevant data to collect.

Stage two of the pilot data collection involved a schedule that was designed to guide discussion in semi-structured interviews with 14 specialists from all three Trusts (Appendix II). The schedule was revised half way through the interview sequence to present issues in a more natural order. Otherwise the interview pattern followed that dictated by participant response rather than the order on the schedule. The interview opened with a critical incident type question that was used in all cases and asked participants if they had used a library for professional reasons since completing the questionnaire.

The opening question revealed some difficulties with a critical incident type approach that have been discussed elsewhere (Norman et al 1992). The interviews were undertaken 3 months following the return of the questionnaires.
One third of the interviewees had not used a library for professional reasons since the return of the questionnaire. In addition some of those who had used a library service seemed more able to discuss their information use in general terms rather than focus on the significance of a specific use. It may be that unless an event is charged with particularly special significance, rather than woven into a seamless series of other activities, it can be hard to recall specific starting points. Nonetheless the critical incident approach seemed to help interviewees reflect more purposefully about their information use.

Interviews were tape recorded after permission from interviewees had been sought and the tape recordings were transcribed into word-processed texts. Coding of the data commenced with a reading of all the transcripts in order to provide a holistic view of the data. This was followed with a line by line analysis marking key concepts, phrases and memos on the transcriptions. Emerging concepts were compared with each other and if there seemed sufficient density within concepts they were recorded on cards. This procedure was purely manual. Concepts were colour coded and highlighted on the transcripts. They were then cut and pasted onto card. This proved to be an unwieldy and time consuming process particularly as the identification of concepts and categories was relatively tentative in the first stages of coding. It was not easy to change and shift coded data and necessitated the printing of multiple copies of the transcripts to accommodate changes in coding. The alternative of cutting and pasting within the word processing function on a computer was considered, but this too seemed time consuming and discouraged revisions and changes.

Consideration of a qualitative data management software package was initiated at this point following experience of manual manipulation of the data.

The third stage of the pilot study involved testing the use of diaries or Information Use record sheets as a means of gaining further data (Appendix III). This was a potential form of triangulation presenting an opportunity for participants to provide a more reflective and concurrent recording of information use compared to the retrospective nature of an interview. Diaries could have enhanced the richness and depth of data collected in interviews. However, since diaries require a great deal of commitment and motivation over an extended period, it has been suggested that they are not an effective way to obtain data (Goodall 1994).
CNSs who had been interviewed were asked if they would be willing to maintain record sheets detailing the uses of a library or information service over a period of two months. All interviewees agreed to this with some specifically indicating that they already had to maintain records of activity so this would not present problems to them. Information Use record sheets were sent to the 14 interviewees and they were asked to return completed or blank sheets in the envelope provided after a period of 3 months had elapsed. In the event 5 sets of record sheets were returned (Appendix IV), one set being blank. Potential reasons for the non-return of the Information Use record sheets by 9 of the Specialists include the design of the record sheets, the length of time required to record what might be a relatively infrequent activity or pressure of work. Participants may have wished to be seen to indicate compliance but in reality were unwilling to undertake the task. It seemed even less likely that CNSs in the main study, who would not be known personally to the researcher, would be willing to contribute to maintaining a diary. It was decided not proceed with this form of data collection.

The purpose of the pilot study had been to gain a perspective on the way CNSs operated on a day to day basis and to test data collection methods in the light of this knowledge. In a quantitative study, data gathered in this way would not be merged with data obtained and analysed in the main study. In the investigation attempted here the strict separation of pilot and main study data is not necessarily essential. Although the interview data was used to inform the interview prompt sheet and to suggest themes which might emerge it was decided not include the pilot data in the main study analysis. This was largely because the data had been collected from staff within a set of NHS Trusts who relied on the same, rather atypical library service.

3.3 The location of the main study
The main study was conducted in two parts in the North Thames administrative health region. The first stage involved in-depth interviews with CNSs. Following an analysis of the interview data the findings were summarised in preparation for the second stage of the main study. Part two consisted of presentation of a summarised form of the findings to a group of library and information service
providers from the same health region to enhance the data and identify convergences and divergences of perception

North Thames came into being as an administrative Health Region in April 1996, combining the two previously separate entities of North Thames East and North Thames West. Figure 3.2 shows North Thames in relation to other English Health Regions.
Figure 3.2 English Regional Health Authority Areas from April 1994 – December 1998
At the time of writing in 1998 plans for new geographical health regions are being implemented, with much of North Thames and part of South Thames, becoming part of a new London Region in January 1999, demonstrating the constantly shifting environment of the NHS. The North Thames Region reaches to Hertfordshire and Essex in the North and stretches as far as the Essex coastal regions in the East. It contains outer London Boroughs such as Hillingdon in the West and Barking and Havering in the East with a concentration of inner London boroughs north of the River Thames. Figures 3.3 and 3.4 show maps of the Greater London and Hertfordshire and Essex areas of North Thames, which identify the location of interviews.
Figure 33
Interview sites
Greater London
A key lesson learnt from the pilot study was that, even in a relatively confined geographical area, the logistical complexity of collecting qualitative data and undertaking fieldwork, is easily underestimated. The necessity of travelling to a variety of sites was very time consuming and CNSs often specified an interview time outside office hours before beginning work in the morning, or at the end of the working day. The difficulties of conducting fieldwork and personal visits over a much larger geographical area would be hugely multiplied. As a result it was decided that tentative plans to conduct the main study in two Health Regions were untenable and that fieldwork should be confined to a single Region. However the range of health care provision and the size of the health region eventually selected for fieldwork made concentration on a single administrative area advantageous.

Therefore, the North Thames health region was selected for the study for the richness and variety of its health care settings, rather than its physical size. With a population of 6,872,300 (Office for National Statistics 1997) there are diverse demographic profiles with areas of great wealth and poverty existing side by side and with concentrations of various ethnic minority groups. It has been described as the "largest and most complex of the new health regions with a population the size of Switzerland" (Godbolt et al 1997). The region contains a heavy concentration of specialist, acute and large teaching hospitals in the central London area with district general hospitals in the outer reaches of the region.

In serving a diverse population of health consumers, presenting the widest possible range of health and social issues, the North Thames Region also provided a varied cohort of CNSs in order to meet that diversity of need. It was unlikely that a greater range of advanced specialist roles would be found in other regions. It was felt advantageous that the CNSs would be operating within the same information parameters of a single regional library and information unit. While local trust information services had a great deal of autonomy they operated within a regional framework of resource sharing. The sheer variety of acute, tertiary and community provision that was unlikely to be equalled by any other region made North Thames a particularly relevant location for a regional study. North Thames contains all the elements that might be found in other
regions but concentrated in a single health area. From the user perspective there are the challenges provided by working in a crowded inner city environment for some, and the distances to be travelled in the outer areas of the region for others.

Interviews with CNSs were conducted over a twenty two month period between October 1996 and July 1998. The North Thames administrative Health Region came into being in April 1996 and a single Regional Librarian was appointed to be responsible for co-ordinating information service developments over both North Thames East and North Thames West. Prior to this appointment both North East and North West Thames Regions operated library services in an environment where information provision for medical staff and for nursing and allied health staff was not integrated or multidisciplinary. The individual Regional Librarian post holders in East and West Thames may have had differences of emphasis in their co-ordination of services in their areas. However it is unlikely that most library users would be able to detect and identify specific changes in information service provision as result of the administrative re-organisation into a single North Thames Region. Within the overall policy of separate provision individual Library Managers made autonomous decisions concerning the degree to which nurses accessed medical information services and on the way in which budgets were managed. Interviews with Library Managers were conducted following the official formation of the new London Region in January 1999. However the impact of this was minimal as North and South Thames library services continued to operate as separate entities at that time.

The impact of changes in nursing education, whereby NHS Schools of Nursing on hospital sites were moved into higher education institutions followed by the closure of nursing libraries on NHS sites, was of greater significance than regional boundary changes. Other changes, not directly relating to information use that had potential for worrying personal impact on individual CNSs, were the amalgamation of NHS trusts and the accompanying possibility of job losses for some staff. For example, during the period of interviews the Royal Brompton Hospital Trust and the Harefield Hospital Trust were considering amalgamation. The proposed amalgamation occurred after interviews with CNSs in both trusts had been completed.
During the period of the study library services in North Thames were undergoing some restructuring (Regional Policy Board 1995) School of Nursing libraries based on hospital sites were closed and services amalgamated into centralised libraries on university sites where nurse education was delivered. The largest concentration of nurse education provision was at the three institutions of City University, Anglia Polytechnic University and Thames Valley University with bases in Islington (London) Ealing and Slough (West London) and Chelmsford and Cambridge respectively. There were also other institutions with large contracts for nurse education, including South Bank University, Essex University, Middlesex University and the University of Hertfordshire.

The rapid process of closure of a large number of small libraries, which had supplied services to trained nursing staff on a goodwill basis without accompanying funding, caused the North Thames Regional Library & Information Unit to re-examine library services for nursing staff.

Interwoven in this complex picture of nursing library provision by higher education is a number of older universities providing medical education including University College London, Queen Mary and Westfield College, Imperial College and the School of Hygiene and Tropical Medicine. These medical education providers were themselves the product of a series of amalgamations of smaller, mono-technic stand-alone schools of medicine. Historically libraries for medical users were either located in Medical Schools or Postgraduate Medical Education Centres. School of Nursing libraries had existed as separate organisations although they were often located in very close proximity to medical libraries. Furthermore nurses were discouraged from using medical library services. Where access was allowed it was on a 'custom and practice' basis rather than by right. North Thames decided to move towards the adoption of multi-disciplinary approach to library services and this process was taking place during the period of this research study.

The organisation of hospital services into Trusts means that some Trusts consist of two or three hospital sites several miles apart. Library service provision was sometimes concentrated in the larger, more dominant site. Thus physical access to information services was not equal for all staff.
3.4 Negotiating access

A list of all Trusts in North Thames was obtained from the North Thames Library & Information Service. In some cases these addresses also contained the name of the Director of Nursing. Where this information was missing names were checked in NHS trust directories to ensure that letters were sent to a named person where possible to maximise the response rate. Letters (Appendix V) were sent to Directors of Nursing from 63 Trusts in general, community, mental health and learning disability explaining the purpose of the research and requesting a list of Clinical Nurse Specialists. The letters were sent in two batches and a total of 38 replies were received offering lists of Clinical Nurse Specialists. 2 trusts reported that CNSs were not employed and 26 trusts did not respond (Figure 3.5). Reminders were not sent as the responses produced an adequate range of Trust types and nurse specialisms. It was clear from the nature of some of the replies received that some Trusts did not maintain lists of CNSs and had to compile them in response to this request and some replies were delayed as a result.

<table>
<thead>
<tr>
<th>TYPE OF TRUST</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>10</td>
</tr>
<tr>
<td>Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>2</td>
</tr>
<tr>
<td>General Hospital</td>
<td>14</td>
</tr>
<tr>
<td>Combined</td>
<td>4</td>
</tr>
<tr>
<td>Specialist Acute</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
</tr>
</tbody>
</table>

Figure 3.5 Type of Trusts supplying lists of CNSs and/or requiring ethics approval

A total of 504 names of CNSs were supplied. The lack of clarity concerning an agreed definition of the CNS role was reflected in the disparate range of job titles supplied. Not all the named persons listed were specifically titled CNS, but as they were assumed to be regarded as such by their Trusts, they were included in the potential sample for this project. Even if their role was not strictly that of a CNS as defined by the literature they were likely to have sufficient...
seniority to be of influence. Lists were supplied with varying degrees of accompanying information. In some cases, lists included name, job title, work location, and contact number. Other lists were supplied with some of these elements missing making the process of identifying specialisms and workplace difficult.

3.5 Ethics approval

Ethics approval is generally required for any study involving staff time in the NHS, in addition to studies containing direct patient contact. Gaining ethical clearance is an important precursor for any research conducted in the NHS. There was no central system of requesting ethics clearance for multi-centre research studies on a Regional basis at the time contact was made with Directors of Nursing, although guidelines for establishing multi-centre Research Ethics Committees were published during the course of the study (NHS Executive 1997). The existence of a multi-centre research ethics committee would have eased the process considerably.

Individual Trusts operated differing policies on ethics approval and in some cases there were separate approval systems for nursing and medical research. The level of documentation and prescription for ethics approval varied widely between Trusts. Ethics approval forms for the pilot study and a letter of support from the Chair of Nursing Ethics Committee were included with the original letter sent to Directors of Nursing requesting lists of CNSs. This was to avoid the necessity of making multiple ethics approval applications and to demonstrate that the research had already undergone a thorough monitoring procedure.

Of the 38 responses offering lists of CNSs, 8 of these required some form of ethics approval before proceeding further. Of these, three Trusts sought approval on the researcher's behalf by obtaining Chair's Action before replying. One Trust requested the submission of a protocol only and four Trusts requested a full ethics approval application.

Three submissions were made for ethical approval. Of these, one was awarded full approval without conditions. A second received approval but conditions were imposed which made contacting CNSs difficult. Names of CNSs were not supplied and letters requesting interviews had to be directed to a speciality via
an intermediary rather than an individual. As a result no responses were received to the letters and it was not known if they were distributed. In the third case a research protocol was requested but permission was not given to proceed unless further information was supplied. It was decided not proceed as the sampling frame would not be affected by excluding this Trust from the study.

3.6 Sampling strategies

Qualitative research usually employs small samples that are studied in depth and the emphasis is on purposive sampling. That is, the sample is based on the demands of the study rather than on statistical representativeness. Qualitative samples tend to be small. There are pragmatic reasons of cost for this, related to the amount of time involved in the collection and analysis of data (Mason, 1996). Sampling evolves with the concurrent collection and analysis of the data and is not pre-determined at the outset. Later interviews are used to improve the density of categories arising from the analysis and sampling is carried out with this end in view. The aim of the sampling process in this study was to explore processes, differences and similarities with a view to offering explanations and developing theory.

The CNSs were selected on the basis of speciality so that some were working in unusual or unique specialities such as Prion or Faecal Control and others in common specialities such as Diabetes. Some common specialities such as Stoma Care were sampled more than once but in different types of institution. Types of setting such as specialist centres, general hospitals, community trusts and mental health were also used as a basis for sampling. Other factors in sampling included using a range of geographic locations and areas with a variety of socio-economic profiles including inner London locations with concentrations of ethnic minorities to more rural areas well outside the London boundaries. The locations of Trusts used in the interviews are shown on the maps of Greater London and Hertfordshire and Essex shown in Figures 3.3 and 3.4 and listed in Figure 3.6.
### Location of NHS Trust Interview Sites

The numbers on this list refer to the numbers on the maps in Figures 3.2 and 3.3 shown earlier in this chapter.

**North Thames Community & Hospital Trusts - Greater London**

1. North Herts NHS Trust, Stevenage, Herts
2. Royal National Orthopaedic Hospital Trust, Stanmore, Middx
3. St Albans & Hemel Hempstead, St Albans, Herts
4. Mount Vernon & Watford Hospitals NHS Trust, Watford, Herts
5. Harefield Hospital, Harefield, Middx
6. Princess Alexandra Hospital NHS Trust, Harlow, Essex
7. Essex Rivers Healthcare, Colchester, Essex
8. Northwick Park & St Mark’s NHS Trust, Harrow, Middx
10. Royal Hospitals Trust, London E1
11. St Mary’s NHS Trust, London W2
12. Royal Brompton Hospital, London SW3
13. Royal Marsden NHS Trust, London SW3 (and Surrey)
14. Royal London Homeopathic Hospital NHS Trust, London WC1
15. Homerton Hospital, London E9
16. Riverside Community Healthcare Trust, London W6
17. City & Hackney Community Services NHS Trust, London N1
18. West London Healthcare NHS Trust, Southall, Middx
19. Tower Hamlets Healthcare NHS Trust, London E1
21. Enfield Community Care NHS Trust, Enfield, Middx

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Figure 3.6 Location of NHS Trust interview sites
Fifty Specialists were interviewed in the course of the main study and a list of specialisms is contained in Figure 3. They were based in a total of 21 healthcare trusts. However the number of interview sites was larger than this as some Trusts comprised more than one hospital or health centre location, often several miles apart.
### Figure 3.7: Clinical Nurse Specialists Interviewed

<table>
<thead>
<tr>
<th>Specialism</th>
<th>Sex</th>
<th>Age Range</th>
<th>Grade</th>
<th>Years in Speciality</th>
<th>Degree Undertaking</th>
<th>Degree held</th>
<th>Work Location</th>
<th>DPC*</th>
<th>Time on DPC (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stoma care</td>
<td>F</td>
<td>41-50</td>
<td>I</td>
<td>16+</td>
<td>-</td>
<td>-</td>
<td>Combined</td>
<td>Yes</td>
<td>21-50</td>
</tr>
<tr>
<td>Stoma care</td>
<td>F</td>
<td>21-30</td>
<td>F</td>
<td>&lt;1</td>
<td>-</td>
<td>First degree</td>
<td>Combined</td>
<td>Yes</td>
<td>26-50</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>F</td>
<td>31-40</td>
<td>F</td>
<td>&lt;1</td>
<td>First degree</td>
<td>First degree</td>
<td>Hospital</td>
<td>Yes</td>
<td>51-75</td>
</tr>
<tr>
<td>Infection control</td>
<td>F</td>
<td>21-30</td>
<td>G</td>
<td>1-5</td>
<td>First degree</td>
<td>-</td>
<td>Hospital</td>
<td>Yes</td>
<td>11-25</td>
</tr>
<tr>
<td>Tissue viability</td>
<td>F</td>
<td>41-50</td>
<td>F</td>
<td>&lt;1</td>
<td>-</td>
<td>First degree</td>
<td>Hospital</td>
<td>Yes</td>
<td>51-75</td>
</tr>
<tr>
<td>Faecal control</td>
<td>F</td>
<td>51-60</td>
<td>I</td>
<td>1-5</td>
<td>Ph D</td>
<td>Masters</td>
<td>Hospital</td>
<td>Yes</td>
<td>26-50</td>
</tr>
<tr>
<td>TB</td>
<td>F</td>
<td>51-60</td>
<td>G</td>
<td>16+</td>
<td>-</td>
<td>-</td>
<td>Combined</td>
<td>Yes</td>
<td>26-50</td>
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<tr>
<td>Epidemiology research</td>
<td>F</td>
<td>51-60</td>
<td>H</td>
<td>16+</td>
<td>-</td>
<td>-</td>
<td>Other</td>
<td>Yes</td>
<td>51-75</td>
</tr>
<tr>
<td>Sickle cell &amp; thalassemia</td>
<td>F</td>
<td>31-40</td>
<td>G</td>
<td>1-5</td>
<td>-</td>
<td>-</td>
<td>Hospital</td>
<td>Yes</td>
<td>51-75</td>
</tr>
<tr>
<td>Paediatric support &amp; research</td>
<td>F</td>
<td>31-40</td>
<td>G</td>
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* DPC – Direct patient/client contact
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<th>Work Location</th>
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<td>G</td>
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<td>ITU</td>
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*DPC – Direct patient/client contact
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<th>Grade</th>
<th>Years in speciality</th>
<th>Degree Undertaking</th>
<th>Degree held</th>
<th>Work location</th>
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<th>Time on DPC (%)</th>
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<td>Masters</td>
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<td>Community</td>
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<td>&gt;75</td>
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* DPC - Direct patient/client contact
3.7 Profile of the CNSs interviewed

Profiles of the CNSs interviewed in this study can be found in Figure 3.8 below. Most CNSs were experienced nurses in the 31-40 age range with smaller numbers falling in the 21-30 and 41-50 age ranges. There were fewest of all in the 51-60 group. More than half of those interviewed worked in acute general Trusts with the remaining specialists working solely in the community or working in combined hospital and community locations. Length of experience in their specialism was fairly equally divided between the 1-5, 6-10 and 11-15 range of years with a few exceptions. Most CNSs were either on G or H clinical grades\(^2\) with the majority at the higher end of the grading scale. Around two thirds of the CNSs did not hold a degree level qualification. Just under a quarter held a first degree with three holding a Masters degree. Eight specialists were in the process of obtaining first degree level qualifications, six were attending Masters courses and 2 were engaged in research for Doctorates.

Figure 3.8 CNSs interviewed demographic data

<table>
<thead>
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<th>AGE RANGE</th>
<th>FREQUENCY</th>
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<td>21-30</td>
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<td>31-40</td>
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<td>41-50</td>
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Number years working in their speciality

<table>
<thead>
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<tr>
<td>16+</td>
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<tr>
<td>Total</td>
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\(^2\) A newly qualified nurses would expect to be on Grade D
### Degree qualifications currently being undertaken

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<th>FREQUENCY</th>
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<tbody>
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<tr>
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<td>Masters degree</td>
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<td>MPhil/PhD</td>
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### Degree qualifications already obtained

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### Degree qualifications already obtained or currently being undertaken

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### Work location

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### Percentage of time spent on direct patient or client contact (DPC)

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### Clinical grade

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<td>G</td>
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<td>H</td>
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3.8 Interview environments and recording procedures

Researchers bring an "accumulation of their social and cultural inheritance" to any interviews they conduct (Carter and Delamont 1996, pxi) This influences both the questions they ask and the responses they receive Therefore perceptions of the interviewer affect both the quality and type of data collected

Potential study participants were contacted by telephone and asked if they would be willing to participate in the investigation A brief description of the study was given and appointments were made Making initial contact was not a straightforward matter Direct contact with most of the CNSs usually involved several calls over a period of days and weeks and demanded a great deal of persistence Once agreement was reached with each CNS a letter was immediately sent to confirm interview arrangements (Appendix VI) It had been anticipated that it would be possible to interview more than one specialist on a single visit to a Trust site to make more cost-effective use of time In practice it was necessary to make individual appointments on different dates

In this study the researcher made it clear in the confirmation letter to interviewees that she was a Librarian working in a large teaching hospital library
by including her job title and using headed paper (Appendix VI) Nonetheless participants occasionally seemed uncertain, sometimes hesitating in mid phrase to wonder if the interviewer was nurse. It was then made clear that she was not a nurse and her background as a librarian with an interest in services for nursing was explained. The library at which the interviewer is employed has been described as a "major national asset" by external reviewers and is recognised as having an outstanding multidisciplinary health sciences collection used by health professionals and others across south east England. It became clear in the course of the interviews that some CNSs had previously worked at the home site of the interviewer or had visited it. They may have assumed that the interviewer made unfavourable comparisons concerning the smaller collections provided on most trust sites. Interviews also provide an opportunity for participants to present a sanitised view of their activities. An interview with a Librarian might encourage participants to present an exaggerated view of their use of the literature and library services because it might be believed that was what the interviewer wished to hear.

Holstein and Gubrum (1995) regard the interview prompt sheet as an agenda used to guide the interview. They use the term "active interviewing" to describe a flexible process. Areas for discussion may arise naturally in some cases or become irrelevant in other interview situations. Responses are not forced into pre-determined channels and it allows the emergence of new conceptual areas. The lack of a rigid order of questioning demands excellent interviewing skills and the ability to think creatively and quickly in order not to lose opportunities to enhance the richness of the data. Some participants will be less talkative than others and their answers may be very brief, providing very little in the way of leads into other questions. In these cases there is very little option but to proceed to the next area for discussion in the interview prompt sheet (Lofland and Lofland 1984). At the other extreme participants may not keep to the area of discussion that the interviewer had in view. Bryman (1988) notes that in survey research this freedom for the interviewee to deviate from the question in hand would be suppressed. In qualitative research the interviewer views rambling conversations as allowing the participant's concerns to emerge. In survey research the researcher's interests take priority and in the unstructured interview the participants' concerns are paramount.

KMPG 1998 St George's Hospital Medical School review of information services Internal
However this did present dilemmas for the researcher. There had to be a balance between greater freedom for the participants to set their own agenda and the need for the interviewer to focus on issues of concern. Interviews had to be fitted into the tight work schedules of participants and there were time limits on the interview encounters. When interview appointments were made a fixed time limit of one hour was set to encourage agreement to participate. It was clear at the closure of most interviews that participants had appointments immediately following to attend to. Where participants seemed to be going beyond the concerns of the investigation the researcher compromised by allowing some freedom to 'ramble' but moved on to another question if the reply did not appear to be promising in terms of the area of investigation. Valuable leads could have been lost through this procedure as the interview schedule was designed to allow the encounter to be completed within an hour. Some interviews were completed within the hour, but others were incomplete with some leads remaining unexplored in that time.

This study used a prompt sheet (Appendix VII) which covered the areas to be discussed, rather than a list of specific questions. Not all topics would be discussed in the order that they appeared on the sheet and some areas of the discussion arose naturally in the course of the interview. Two participants specifically asked what questions would be asked and in those cases the prompt sheet was posted in advance of the interview. The interviewer opened with factual questions to gather some demographic data and then used a critical incident question similar to that described in the pilot study interviews referred to earlier in this chapter. In later interviews the critical incident question was preceded by an open question asking participants to describe their work. This was felt to aid the relaxation of participants, provided useful leads to subsequent questions and helped to place the response to the subsequent critical incident question in context.

With the exception of one participant who chose to be interviewed in the researcher's office all CNSs were interviewed in their own workplaces. Interviews were undertaken in a variety of environments. These included private individual offices or shared offices where colleagues might be present during the interview. Some CNSs had to search for unoccupied rooms or make use of
coffee areas where there might be traffic in and out. Few interviews were without interruptions including visitors to the office or phone calls. Interviews were frequently interrupted by bleeps and on these occasions the tape recorder was paused in case of emergency and then re-set when the interview resumed. Interviews were usually carried out in normal office hours between 9:00 a.m. and 5:00 p.m., although several took place earlier in the morning.

It was important to be alert to leads and ideas that emerged from the meetings with CNSs. Since the interview prompt sheet was a guide to areas which needed to be covered rather than a list of questions which had to be answered the interviewer needed the ability to follow up interesting leads. Tape recording allowed full concentration on the participants' replies. Contemporaneous note taking was rejected because of the difficulty of recording ideas and listening simultaneously. However, brief notes were jotted onto the guide sheet to provide reminders to probe particular issues later in the interview. The guide sheet was also used to record ideas about issues that emerged immediately following the interview.

At the time of making the initial contact with CNSs, permission was sought for the procedure to be recorded. An explanation of the recording and transcription procedures was provided. At the start of the interview, CNSs were again asked for their agreement to be recorded. All participants readily agreed with the exception of one CNS. In this case, notes were taken during the interview and supplemented immediately following the interview with further notes based on memory of the discussion which had taken place. Most participants seemed comfortable about the recording process, some noting that they themselves were involved in higher degrees and understood how data was collected.

3.9 Transcription procedures
Interview recordings were transcribed as soon as possible after the interview had occurred. As more interviews were completed, the gap between interview and transcription increased as the backlog of tapes awaiting transcription grew. Transcription of interview tapes was a time-consuming process with each interview, which lasted between 45 to 60 minutes, involving approximately six to nine hours of work. Pidgeon and Henwood (1996) confirm the labour intensive aspects of interview transcription, suggesting researchers should allow eight to
ten hours to transcribe a one hour tape. A practical solution for reducing transcription time is to transcribe only those parts of the data which match the analysis to date. This possibility was rejected on the grounds that essential conceptual categories could be missed, important phenomena omitted and that the significance of data could be misunderstood at the transcription stage. Charmaz (1990 p1164) notes that "premature commitment to categories means that the researcher has not fully explored the issues, events and meanings within the research problem or setting."

The use of a professional transcriber was considered but it was felt that listening to the tape-recorded voice allowed the researcher to recall the circumstances and non-verbal aspects of the interview that could lead to greater insights into the data. In retrospect it would have been beneficial to use the services of a professional transcriber to free more time to be spent on the creative aspects of listening, analysing and coding rather than the clerical aspects of producing accurate records of interviews.

Interviews were transcribed verbatim as accurately as possible although sounds, which were often used as pauses for thought, were omitted. Other linguistic aspects of the interview such as tone and emphasis were not transcribed although when statements appeared to be ironic in intention this was noted. However, the main interest in this research was content rather than characteristics of language. Interviews were transcribed in a draft format and a printout was obtained, re-checked for accuracy against the tape recording and amended.

3.10 Field notes
Tentative ideas, questions and issues to be followed up in subsequent interviews were initially recorded on the prompt sheet as soon after the interviews as possible. This usually involved jotting down quick notes while travelling on the train or London underground after the interviewing or in the hospital canteen if there was waiting time between interviews. These notes were later transferred to a logbook. The logbook was also used to record ideas about theories and important concepts as the data was transcribed. Other ideas, notes about research literature and graphical representations were included in the logbook. Often ideas were in the form of rough jottings to be developed later.
and were not designed for public consumption. Ideas in the logbook were later used during the process of data analysis. More notes were taken in the early stages of collecting data when it was not clear what ideas would be central, peripheral or irrelevant. In some cases, ideas were not followed up while others were developed quite extensively. These notes are described as 'memos' in grounded theory.

3.11 Profile of Library Managers

A list of North Thames Library Managers was obtained from the North Thames Library and Information Development Unit website (North Thames Library and Information Development Unit 1999). From this list, Managers were selected to represent university and NHS trust information service providers. They were also sampled on the basis of geographical location to mirror the eastern, western and inner city areas of the region. Other sampling criteria included a regional perspective on Library policy issues, known expertise on nursing information use and day to day contact with Trust library users.

Twelve librarians were invited by letter (Appendix VIII) to a group discussion in a central London location. To provide an additional incentive, participants were offered a tour of the new King's College London Information Service Centre that specialised in nursing information provision. Five Library Managers participated in the group discussion. The Library Managers were:

University Health Sciences Librarian with responsibility for nursing services
Trust Librarian Inner London
Trust Librarian Hertfordshire
Trust Librarian Essex
Manager from the North Thames Regional Library Unit

To maintain consistency in data handling and analysis, the same recording and transcription procedures were used during CNS and Library Manager interviews. The categories derived from the CNS data were used in the process of analysing the library manager interview data.

Those Library Managers who agreed to participate were supplied with a programme (Appendix IX), summary of the research findings (Appendix X) and the discussion guide sheet (Appendix XI) to allow them to reflect on issues in
advance of the discussion. The summary of the research findings included a brief overview of the research methodology and study location.

3.12 Library Managers: group discussion

Group discussion is an efficient method of collecting qualitative data since a larger amount of data can be collected from several people in a single interview event. There are limitations to group discussion as a technique for data collection. It may be more difficult to control the course of the discussion as the interaction of participants can lead to diversions in unfruitful directions. The analysis needs to take account of the fact that participants may change their views in the course of the discussion following interchanges with other group members. It can be difficult to entice a group of people to contribute to a group discussion at a potentially inconvenient location and time (Krueger 1994).

However, there are other major advantages to data collection by group interview (Robinson 1999). These have been summarised as:

a. Participants provide quality control on each other and extreme views can be put into context.
b. Group dynamics help in the assessment of the extent to which there is a consistent or shared view.
c. Participants enjoy the social interaction of the group setting which can lead to a richer depth of discussion.
d. Participants are stimulated by the comments of other participants.

The discussion guide sheet was used in a similar way to that deployed in the CNS interviews. It was used to ensure that main issues of concern were not omitted. However, where discussion naturally occurred in a different order or strayed into other areas that appeared to be fruitful, the guide sheet was not adhered to in a rigid fashion.

The areas covered in the course of the discussion were based on those aspects of findings obtained during the CNS interviews on which Librarians would be expected to have direct knowledge and experience. It was anticipated that although Library Managers would be aware of the CNS role and of CNSs based in their Trusts, it was unlikely that they would be directly aware of some contexts of CNS information seeking and use. In addition, in the collection of library
activity data, libraries do not distinguish between nursing groups or grades on a regular basis.

The library manager data was used to provide a holistic picture of CNS information use, rather than simply as a form of triangulation. It was anticipated that there might be differing perceptions between CNSs as library service users or potential users and library service managers as information providers to the wider NHS community. The highlighting of these differences of perspective might help library managers in service development and identify those areas where communication might be improved.

3.13 Data Analysis

Statistical analysis packages have long been available to quantitative researchers although packages to aid the administrative organisation of data in the form of words are far less widely used. Data produced by qualitative research methods employing interviews tends to be unwieldy and difficult to manage even when relatively small samples are obtained. It had become clear from the pilot testing of data collection and analysis that the use of a computensed analysis package would facilitate speedier analysis and provide better management of interview transcriptions. Category collapse, emergence of new categories and the reformation of categories with new data can be dealt with more easily. Miles and Huberman (1994a) refer to the tediousness of manually revising and changing codes when material has to be relabelled under the new scheme.

Such packages are relatively new and some researchers have argued that their use distances the researcher from the data and mechanises the analysis process. The technical and controlling nature of computers was felt to be in conflict with the interpretative nature of qualitative research (Dey 1993, Lee and Fielding 1991). Gahan and Hannibal (1998 p1) note the tendency towards extremes adopted in some discussion of computensed analysis packages.

"Some researchers harbour a secret desire that a computer will somehow do away with the need to engage with the data – that the computer will distinguish the important bits and then make all the links between these bits. For another group of researchers, it is the underlying
fear and anxiety that the computer will indeed take over the data and do things to it"

This is to misunderstand the use of qualitative analysis software Allatt and Benson (1991) suggest that the use of specialised packages removes some of the tedious aspects of analysis and actually enhances rigour. The researcher is responsible for analysis and the software facilitates the organisation and management of the data that allows the recording of the analysis process and the easy retrieval of the results of the analysis. Moreover, the ability to make changes with relative ease may result in better analysis, rather in the way that word processing now allows text to be changed and moved at the press of a few keys compared to the labour involved in altering hand-written and manual-type written materials. As a result, there is a lower tolerance of error in word-processed documents. Similarly, there is likely to be more systematic matching of instances to categories where analysis has used a specialist computer package.

3.13.1 Using QSR NUD:IST

QSR NUD:IST (Non Numerical Unstructured Data Indexing Searching and Theonsing) was designed to encourage theory development. This is achieved by indexing categories that are assembled separately from the data. These categories can be easily modified and their location can be moved to another part of the structure. Comments and notes can be attached to the categories. The number of categories is unlimited and only restricted by the data itself. All the material collected in a particular category can be retrieved for re-reading. This study used NUD:IST Version 4.

Each conceptual category is assigned to a "node," and the package allows a visual display of the node tree in the form of a hierarchical structure of all the nodes. It is designed to allow the analyst to see a pictorial representation of the relationships between categories as they emerge. When categories collapse, as analysis proceeds, it is easy to move data to new categories. The developers of NUD:IST describe it as being designed to manage the problems caused by an expanding collection of codes and a growing number of memos concerning the data produced by the grounded theory approach (Richards and Richards 1991).
The hierarchical representation of nodes can be cumbersome and limiting when categories relate to each other in a less rigid or hierarchical manner. In this case the researcher can use "free" nodes and develop a conceptual matrix separately either with pen and paper or a dedicated electronic package. The graphical representation of nodes in a hierarchical form is visually poor and it seemed easier to achieve this manually outside NUD IST. There is a facility for attaching definitions and memos or notes to each node and including notes in the transcription texts. Printouts of text assigned to particular nodes or printouts of lists of nodes are dated so that it is easy to maintain careful records of the emergence of categories and the development of the analysis. It is possible to move easily between the stored data files.

One facility of the package allows the user to insert queries into NUD IST to find instances of the use of words or phrases and this function was found to be useful. An example of this is the word "luxury" which was used to describe time spent using a library. At one point in the analysis it seemed that this usage had occurred frequently and could be used as an "in vivo" code. However a search on NUD IST transcripts revealed that it had been used far less frequently than the researcher had thought and it was decided not use this particular word in coding. A similar search was undertaken with the term "evidence based" and by contrast this was found to have occurred more frequently than the researcher had thought. Potentially significant terms can be searched and retrieved almost instantaneously. Such a process would be extremely time consuming if undertaken manually.

Not all the facilities of NUD IST were used in the course of this study. As with any computer application package users select what they find convenient to deploy and some of NUD IST's facilities are more useful in a study involving several researchers. Background literature in the form of references to other studies could also be assigned to conceptual codes or nodes. That facility was not used in this study but instead achieved manually in the form of memos in the writing up of the study. Notes could be added to the text of a transcribed file and this was experimented with but it was found easier to maintain a separate file for these. Using the package was a new learning experience and some prior training was required. In retrospect use of a wider range of the NUD IST functions would have been helpful in speeding up the analysis processes.
Finally, it should be emphasised that NUD IST is a data management package rather than a data analysis package. The researcher undertakes the analysis and coding of the data and NUD IST facilitates the easy management of the results.

3.13.2 Analysis procedures

One of the tenets underpinning grounded theory is the concurrent collection and analysis of data. The analysed data is used to focus further data collection and develop purposeful sampling. The logistics of a single researcher collecting and analysing data meant that the approach to simultaneous analysis and collection of data had to be adapted. Transcription of interviews was a time-consuming procedure taking up to 9 hours. A simplified outline of the process of data analysis and collection is illustrated in Figure 3.9. It does not fully convey the repeated processes of the constant re-reading of data demanded by category collapse, the emergence of new categories, and altered relationships within and between categories.
<table>
<thead>
<tr>
<th>INTERVIEW STAGES</th>
<th>CODING PROCEDURES</th>
<th>CORE CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 CNS interviews completed</td>
<td>Word-processed printouts produced with wide margins for comments. All transcripts read to gain overall sense. Notes or memos made at this and following stages.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transcribed interviews loaded into NUD IST.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Units of text (words, phases, sentences and paragraphs) were identified and assigned descriptive labels in the margins of word-processed transcriptions. Large number of labels generated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analysed documents then re-read and codes examined to see which could be combined, relabelled, or should remain.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transcripts then examined using NUD IST and data was coded and assigned to categories or 'free nodes'. Memos attached to 'nodes' giving a tentative definition of the node.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Printout of nodes obtained and these were examined to identify relationships.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matrices or visual displays were drawn up to represent the categories at a less descriptive level. These were still very tentative but used as basis for further sampling and interviews.</td>
<td>Core category not yet emerged.</td>
</tr>
<tr>
<td>Further 15 CNS interviews completed</td>
<td>Process above repeated. Some of the tentative categories were collapsed or relabelled. Further refinements of the visual matrix were made.</td>
<td>Core category not yet emerged although descriptive heading applied.</td>
</tr>
<tr>
<td>Further 20 CNS interviews completed</td>
<td>Process above repeated and a further version of the visual matrix was produced.</td>
<td>Core category emerges.</td>
</tr>
<tr>
<td></td>
<td>Categories are written up using the data, information from the literature absorbed into the concepts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some final collapsing of sub categories occurs in the process of writing the data.</td>
<td></td>
</tr>
</tbody>
</table>
Interviews were undertaken over a period of 22 months. A first batch of fifteen interviews were completed, transcribed and entered into the NUD IST software package and analysed for concepts. Transcriptions were read to gain a holistic view of participant perceptions. Following this, categories were assigned to most lines of text at a relatively concrete level. This is illustrated in the two examples below taken from two different interviews. The first example is extracted from the beginning of an interview and the second example appears mid-interview. Printouts of the interview transcriptions with wide margins on the right hand side were produced to enable the texts to be annotated with categories and tentative ideas that could be developed further (Figures 3.10 and 3.11). This process is known as open coding. Notes or memos concerning ideas about the data and possible future lines of enquiry were made and attached to nodes.
**Figure 3.10 Illustration of assigning preliminary categories in the first stage of analysis**  
Beginning of an interview (The initials JY refer to the interviewer)

<table>
<thead>
<tr>
<th>INTERVIEW TRANSCRIPTION</th>
<th>CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>JY Can you remember the last time you needed to use a library or information service in connection with your work?</td>
<td>Within one week</td>
</tr>
<tr>
<td>It was last Thursday, yes it was last Thursday</td>
<td>RCN library</td>
</tr>
<tr>
<td>JY What was that for?</td>
<td>Literature search</td>
</tr>
<tr>
<td>It was asking the RCN to do a literature search for me I've been asked to get involved in a project with one of the Ward Managers who works on the Spinal wards looking at family interactions with spinal patients and how that affects the attitude of the spinal patient and the overall care So it's looking really at family dynamics and the effect that they have on recovery, good or otherwise So I just asked for a lit search on families and disability</td>
<td>Special project</td>
</tr>
<tr>
<td>JY I'm interested in why you asked the RCN to do that</td>
<td>History of previous library use</td>
</tr>
<tr>
<td>I'd used them before and it's quite helpful because you just phone them up, do it over the phone It costs nothing and they do quite a broad search for you So I thought well I'll have a go myself, but I'll get them to do one as well to see if they come up with anything different because I don't think they use Medline and Cinahl They said they have their own base so I thought well it does give you a broader range</td>
<td>Convenience-phone</td>
</tr>
<tr>
<td>JY Did you ask the librarians here to do it?</td>
<td>Cross checking results</td>
</tr>
<tr>
<td>No they don't do it for you You have to do it yourself</td>
<td>Cinahl &amp; Medline</td>
</tr>
<tr>
<td>JY Not even if you are staff?</td>
<td>Comprehensiveness</td>
</tr>
<tr>
<td>No, I think if you are a doctor the Medical Library might do it for you but I don't think they do it for nurses I'm not sure, I wouldn't swear to it So I do my own We have got Cinahl in the Nursing Library and Medline in the Medical Library so I do my own anyway</td>
<td>Library policy</td>
</tr>
<tr>
<td></td>
<td>Separate libraries</td>
</tr>
<tr>
<td></td>
<td>Uncertainty about what's available</td>
</tr>
<tr>
<td></td>
<td>Differentiated services</td>
</tr>
</tbody>
</table>
### INTERVIEW TRANSCRIPTION [ABBREVIATED]

<table>
<thead>
<tr>
<th>JY</th>
<th>CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>JY</td>
<td>Has your information use changed over the time you have worked in the specialty?</td>
</tr>
<tr>
<td></td>
<td>When I started here as a staff nurse, even though I had been a Sister elsewhere, I started here as a staff nurse and I was very innocent and naive anyway about postgraduate centres I mean the post grad centres were to me places where doctors went and nurses weren't allowed in I feel strongly that there should be more [about research] in our education as nurses unless they're doing an assignment they would never ever dream of using it to inform their own practice I feel there's a lot, especially as I'm late 30's and colleagues older than myself who would never use any information technology at all, apart from verbally or information they gained from a study day or conference</td>
</tr>
<tr>
<td>JY</td>
<td>Professional boundaries</td>
</tr>
<tr>
<td></td>
<td>Differences in provision</td>
</tr>
<tr>
<td></td>
<td>Nurse education</td>
</tr>
<tr>
<td></td>
<td>Research methods</td>
</tr>
<tr>
<td></td>
<td>Practice not research based</td>
</tr>
<tr>
<td></td>
<td>IT skills</td>
</tr>
<tr>
<td></td>
<td>Barners</td>
</tr>
<tr>
<td></td>
<td>Reliance on colleagues and meetings</td>
</tr>
<tr>
<td></td>
<td>Course related use</td>
</tr>
<tr>
<td>JY</td>
<td>Would you have used a library as a staff nurse?</td>
</tr>
<tr>
<td></td>
<td>Only when I did a course Part of my time when I'm in the library is helping people do literature searches because they don't know how to use the systems They say gosh, I didn't know there was a thesaurus People don't see it as part of everyday practice but then on this site not every ward has access to computers anyway</td>
</tr>
<tr>
<td></td>
<td>CNS role—enabling others</td>
</tr>
<tr>
<td></td>
<td>Ward computer access</td>
</tr>
<tr>
<td></td>
<td>Increasing use</td>
</tr>
<tr>
<td>JY</td>
<td>Do you feel that as you build up a good knowledge base you need to use information sources less?</td>
</tr>
<tr>
<td></td>
<td>No, the more you use it, the more you need I think You use it more</td>
</tr>
</tbody>
</table>
The resulting categories were examined and it became clear that some of these could be grouped together, others were duplications or dimensions of categories. The analysis of further interview transcriptions was a gradual process of abandoning, collapsing and developing categories or substantive codes. This was also accompanied by a process of developing category descriptions or theoretical codes which transcended the concrete statements of the participants and examining how substantive codes relate to each other to form a hypothesis.

The large volume of data makes it difficult to illustrate all the stages of the analysis and coding process to demonstrate the progression from the initial codes to the definitive analysis. Therefore, it is only possible to show samples of stages in coding and the first and final stages are shown here. In the final stages of the analysis, categories were defined and accompanied by the process of writing up the findings in detail. Two examples are shown on the following pages. Figure 3.12 below illustrates the kind of data assigned to the category called the **Nature of Knowledge**, part of the larger category **Role Definition**. (See Chapter 5 for a full account of findings.) This category examines the relationship between the evidence contained in the formal literature and the knowledge developed through experience. It also looks at the way in which CNSs dealt with gaps in knowledge that could not be filled by consulting the research literature. Figure 3.13 illustrates some of the data assigned to the category designated **Meeting Expectations**, a component of the larger category **Experience and Knowledge**, discussed in Chapter 6. CNSs have to manage the burden of expectations placed on them by increasingly knowledgeable patients and from nursing colleagues who expect instant responses to their problems and that Nurse Specialists will act as their advocates in making a case to medical staff.
I actually have to say a lot of mine is acquired knowledge through the years. I'm very much aware of that. In my case, I'm very aware that I haven't got a urology course you see. They employed me because of my experience in the past. I'm very much aware that a lot of my information is from how I've built it up over the years. I'm very much aware that I need to be a bit more analytical in nursing than I am at the moment.

Yes it's part of the CNS role here to ensure that we use evidence based care and the only way that you can find out whether it's evidence based or not is searching the literature.

Well I think counselling might be a skill like riding a bicycle but I think its like any other trade or profession. You can all learn something from each other. I might learn from reading an article. We had a presentation at our journal club last week about a new approach to cancer patients, psychological care in particular that I found very stimulating. No I don't agree that it's innate.

But because we're nurses and we've been dealing with wounds and injuries for a long time [compared to junior doctors on rotation] we have deeper knowledge so we know there are maybe other avenues or access we can use.

Some of them [articles on Hickman Lines] are very confusing. The problem with Hickman Lines is that it's a very specific thing. There isn't a definitive procedure anywhere so you look through the articles and nobody is prepared to say well, this is how we should all be doing it, so its actually quite difficult.

I have to say a huge amount is experience, a huge amount is experience but I recognise that that isn't enough any longer and that is why when you are reviewing policies and procedures even though you know what its going to be you still have to look for evidence to support it. There are some things there isn't the evidence and that's a wee bit hard when you know there is this sort of intuitive side. You're the expert practitioner and you're working at intuitive level from experience [you need] some way of recognising the value of that. But what is good experience, bad experience? That's a problem as well, isn't it?
Because I'm working closely with the Urologists, so I need, not to be on a par with their information, but I need to be aware of what they're talking about when they ask me about something especially at the level I'm practising at they expect my knowledge to be that much greater.

As a nurse specialist you're expected to have the answers as well and so that when the ward staff and patients have a particular problem it's almost expected that you will come up with the answer. Which isn't always possible. And the same kind of thing with patients when they see the nurse specialist.

I think there's a lot of research going on and as a nurse specialist I've got to know more about it than the other nurses in my speciality so I think it's a matter of updating myself.

I don't like to give myself this title of clinical specialist because I think it takes time to build up that kind of reputation. I find all sorts of people really do expect me to be able to answer different sorts of questions.

We have a number of patients who are very skilled on the computer and we have a pair of men involved in Gay Men Fighting AIDS. One of them does the website so there are some seriously skilled people out there.

I think you need to read - things change all the time don't they? If you don't keep up to date then you're behind the times before you need it and you've lost it really. You lose your credibility, you know. I mean the stroke liaison round in X Town, the Physicians want to know boom, boom, boom, what they should be doing. I would have lost it a long time ago if I hadn't been able to give him the up to date information. You can bet your bottom dollar they'll go and check.

Yes the thing is that it's a necessity because we get dieticians and nurses and doctors phoning us from all around the UK and abroad as well to ask us about things. I try to keep ahead of them.

Figure 3 13  Interview data assigned to the category Meeting Expectations
Initially, attempts were made to place the conceptual framework within the hierarchical tree structure system provided by NUDIST. However, after some experimentation, it became easier to assign instances to free nodes or categories and then work more creatively away from the package to produce a relational matrix of categories. The resulting conceptual framework was used as a basis for purposeful sampling and a further round of interviews. Miles and Huberman (1994b, p18) note that "theory building relies on a few general constructs that subsume a mountain of particulars" and they recommend the presentation of conceptual frameworks in a graphical rather than in textual form. This provides a sharper focus and allows the researcher to ask questions about the research. The same procedure was followed with refinements and alterations to the conceptual matrix. This became the basis for the final batch of interviews with some further amendments being made to the conceptual framework that is shown in Chapter 4, Figure 4.1.
Chapter 4

FINDINGS OF THE STUDY

4.1 Introduction

Discussion of the findings in descriptive studies relies on the richness and depth of the data. In the following chapters the richness of the data will be illustrated through direct quotations from study participants. To allow the reader to assess the evidence, where there are a number of very similar examples of concepts or perceptions, these will be grouped together. Where statements are related to specific individuals this will be made clear in the text. Examples of negative or atypical cases will be identified and reported where these present different behaviours from the normal pattern (Morse and Field 1996). The original words of the participants are left intact and included exactly as transcribed. No attempts have been made to “tidy” the spoken word to avoid inadvertently changing the sense of what was said. Where necessary additional words in brackets have been added to clarify the meaning.

The perceptions of Library Managers, which are based on a summary of the analysis of the findings from the CNS interviews, have been interwoven with the general discussion where it is appropriate. Indications of occasions when perceptions accord or differ are highlighted. Library Managers have been assigned individual letters at the end of each direct quote so that sources of statements can be differentiated. Their views tended to be largely consensual with very little divergence. This is not an unexpected finding. The managers were known to each other on a professional basis and attended regional staff meetings for updating, discussion and consultation.

Wolcott (1990) refers to a dilemma faced by researchers reporting qualitative data. This stems from the presence of the subjective in the reporting of data and the effects of the personal nature of the encounters in fieldwork. Those accustomed to the impersonal style of quantitative research may find the reflective subjectivity of qualitative studies difficult to accept. Where the subjective is central researchers may choose to produce reflective accounts in the first person, although in this study the account has been written in the third
person. Where relevant the research literature will be drawn into the discussion of the findings.

4.2 Managing the evidence
This chapter provides an overview of the areas of activity that CNSs perceive as key to their role and how the use of formal literature interacts with these roles. It examines the way in which they manage the evidence required for the delivery of their role. Managing the Evidence was the core category emerging from this investigation. Use of the formal literature, or the evidence of nursing and other health sciences, centred around areas of varying degrees of certainty and uncertainty regarding future courses of action in two key aspects of their work: clinical practice and teaching. A third area relating to research and publication was considerably more embryonic but this last activity was viewed as prospectively significant for CNSs. These three areas were derived from critical incident questions in the interview that asked CNSs to recall their most recent experience of using an information service to seek information in connection with their work.

The need to seek further information on an aspect of work was instigated by a number of motivational factors. In some cases there was an external pressure which was not specifically generated by the work of the CNS, but which nonetheless had benefits for that work. There was considerable crossover between information searching for academic course work and the CNS work role itself. For instance an Infection Control CNS was also working towards a higher degree in infection control and it was impossible to distinguish between information use for work and for academic course requirements. However study was seen as involving time spent on literature seeking activity well beyond the normal demands of the CNS role. In one particular Trust all the CNSs interviewed were engaged in an evidence based practice course run by the Kings Fund which required them to identify an aspect of their practice, investigate the associated literature and assess the evidence. In addition to the external pressure provided by local evidence based training initiatives, CNSs also demonstrated intrinsic motivation to seek out literature and maintain and develop knowledge levels. Curiosity and interest in a strategic view were hallmarks of CNS practice.
CNSs were engaged in a process of 'managing the evidence' in the following three areas of activity

Clinical practice
Teaching
Research and publication

The extent to which use of formal literature was significant to these nurses whose remit was to demonstrate advanced practice, act as consultants and teachers, and to further research is the basis for discussion in this Chapter. Information use is one facet of their role, which is undertaken within the context of a network of health care provision in a system that is based on hierarchies and the dominance of the medical model. A conceptual representation of the categories emerging from the data analysis is shown in Figure 4.1. Figure 4.1 illustrates the core category 'Managing the Evidence' and the relationship of the main sub categories that are discussed in Chapters 5 – 8. The base of the diagram represents the central category with a series of rising circles illustrating the main subcategories and their associated, causes, contexts and consequences. The relationships between subcategories are not static and hierarchical, but rather, they cross link in a shifting movement. Therefore the arrows are intended to show the fluid nature of the relationship between the four sub categories and the core concept.
Figure 4.1  Managing the Evidence  Conceptual representation of analysis
Teaching was regarded as a significant aspect of the CNS role and for many involved about half of their time. The other significant activity involved issues with patients that largely included developing protocols and services rather than specific or individual patient problems. General background updating was used to support both teaching and patient issues. The pressure to provide up to date teaching materials was seen as a way of helping specialists to maintain knowledge levels for other aspects of their role. For instance, a complementary therapies specialist who had responsibility for patients with cancer, in addition to an academic role needed to keep up to date with developments in the therapies she provided for patients. However, she found the updating required for clinical work merged with her academic role.

Undertaking research, writing for publication and preparing conference presentations were seen as challenges that had to be tackled. Very few were involved on a regular basis although there were notable exceptions who had already made a considerable contribution to the development of their specialism. However, it was generally seen as an area which was regarded as important for the development of nursing, but required confidence building to move forward. CNSs are leaders in their profession and it seems likely that in the future more will become involved in formal dissemination of evidence through the explication of practice and research.

The remainder of this Chapter will discuss the three areas of clinical work, teaching and research and publication in more detail.

4.2.2 Library managers and CNSs: recognition
Library managers were unable to identify specific CNS library activity with absolute certainty. Many of their comments referred to nurses in general rather than CNSs in particular. Standard library management statistical data collection in areas such as borrowing levels or inter-library loans, while it may distinguish between health care professions, does not usually identify specific grades or roles within a particular profession. Therefore, overall activity data concerning nurses does not specifically identify CNSs and the managers were relying on impressions rather than hard evidence.
However, they were aware of CNSs to varying degrees in the course of personal contact. The main library activity that documented CNS use was to be found in records of requests for mediated searches. With the move from CD-ROM networks to internet access and the ability to undertake searches at the clinical desk top PC or at home, traditional records of library service activity provide only a partial view in an increasingly hybrid library environment. This is illustrated in the views of one Librarian for whom CNSs were people who had pressurised deadlines to achieve and who accessed services remotely using e-mail:

"I'm not sure I can identify their information use. They're perhaps most likely the people who send you messages on the email in a panic because something's got to be done now and they need it like yesterday.

But in terms of actually coming into the library I would say they don't do an awful lot of that. I suspect they're distant users probably in the sense that they're using the internal e-mail for communication and so on. And I think a lot of them would be registered for things like the Ovid service."

(NHS Library Manager A)

In other Trusts with less developed IT infrastructures the Managers were aware of individual CNS users who made personal visits to their service:

"There's probably about a dozen I think in our Trust in the acute division."

(NHS Library Manager D)

"I would say they're quite heavy users of the library."

(NHS Library Manager B)

There was an assumption that CNSs might present more complex information enquiries than other nursing staff and that this might be a way of identifying this group:

"With us that might be partly because if they were asking more questions and that seemed more detailed."

(HE Library Manager)

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4 The Ovid service provides internet access to key medical and nursing databases which can be accessed remotely off site.
"Maybe we only get the more detailed enquiries from them. Hopefully these would be better trained at using databases" (NHS Library Manager B)

However this was not always the case and CNSs could not always be distinguished by presentation of more complex or thoughtful information enquiries. It was considered that educational level, rather than nursing grade, was a better predictor of the depth and level of enquiry.

"the ones that come through to me on the e-mail – can you do this search on Change Management? You can have three or four e-mail messages before you get to the crux of what it is they want" (NHS Library Manager A)

"I think it would be depending on their own level of recent education and their own interest and qualifications" (NHS Library Manager D)

NHS Librarians in small services were more likely to be aware of the specific roles of nursing staff than library staff in the high volume environment of higher education.

"Actually it's quite difficult to identify them. there's no real communication with the clinical team. I'm guessing that there's three or four [CNSs] that would come in on a regular basis" (HE Library Manager)

4.3 Managing the evidence: clinical work

The clinical work of CNSs tended to revolve around three areas. The first area included specialists who were responsible for the running of nurse-led services and clinics in acute trusts. Some of these would be in common specialisms such as diabetes, or stoma care. Others were in less usual or even unique specialisms and they were often working in areas where the knowledge base was limited. Examples of these include Faecal Control and Neurology & Pnon. These specialists had higher levels of contact with individual patients. Some would be responsible for running clinics relating to chronic conditions such as Rheumatology. These clinics might involve nurses working around disease
management protocols (Department of Health 1998d) The second group of specialists was responsible for offering support at an advanced level in a particular area, such as Tissue Viability or Critical Care, and although they saw individual patients it might be as an initial consultation for expert opinion. They tended not to have an individual caseload and were not counted as part of the regular staff rota. Lastly, the third area included community staff in mental health and general areas who had a caseload and were responsible for seeing patients and clients. Some CNSs also had a research nurse element in their role and were responsible for co-ordinating clinical trials and collecting data.

4.3.1 Macro-micro levels of information use
CNSs usually sought information around patient management issues at a macro rather than a micro level. They were confident about their ability to manage individual patient care. While they were able to describe issues pertaining to managing the care of an individual patient where it was necessary to seek further information, these incidents tended not to be of recent origin. As one specialist said this was “because on the whole I’m fairly sure of what I’m doing.” Examples of information seeking episodes for individual patient issues were relatively few. Examples of individual patient issues included:

“She was very unhappy about the scar after surgery and I had told her that there were some specific lines which Surgeons followed in order to decrease scarring after surgery and she wanted to get the text of that so she could show her Surgeon. I was able to find a surgical book in the library which gave that information” (Breast Care)

“I was asked by a staff nurse on the ward because a little boy had just been admitted for an operation he looked as if he’d got some sort of syndrome. I couldn’t put my finger on it.” (Spinal)

A Psychological Care CNS involved with patients who had been treated for cancer said she would not need to seek further information on a “regular basis” but it might occur with “a very rare tumour.” Similarly a Urology Specialist

5 Change Management is often cited as an example of a poorly framed search request because the term is insufficiently specific to produce relevant references.
provided an example of looking at overall practice and ensuring it had a proper basis in research

"It does affect the patient but it's not directly researching something for a particular patient I mentioned I do chemotherapy and I can open my drawer and show you the literature I photocopied on that just to make sure that ultimately we all understand what we're doing and we do it properly."

This might seem to contrast with a report of the use of research based information by CNSs where most circumstances of use related to complex patient care issues (Stetler & DiMaggio 1991) The differences can be accounted for by the use of different terminology in Stetler and DiMaggio's work and in the descriptions provided by CNSs in this study In fact, roles identified by these British CNSs closely matched the CNSs of Stetler and DiMaggio

Stetler and DiMaggio explored what they described as 'conceptual' and 'instrumental' effects of research utilisation in a small scale, descriptive study Conceptual effects of research use include aspects of cognition such as changing the understanding of a problem, reformulating a problem or extending the alternatives considered Instrumental effects refer to concrete changes such as the introduction of a specific nursing intervention as a consequence of research utilisation Study participants were asked to select a situation that had occurred to them recently from the following
◆ direct care with a complex or problematic patient
◆ development or revision of standards
◆ introduction of a nursing practice innovation
◆ consultation
They then described their related use of research findings in the chosen situation The situations described in the study fell into 3 groups
1 Complex care situations, via consultation or direct involvement (42%)
2 Development or revision of a programme of new activities (33%)
3 Development of departmental documents (25%)

The category of 'complex care situations' included educating staff about care, alerting staff to complexities which might otherwise be missed, using guidelines and protocols to help staff provide better patient care or giving advice This
relates very closely to the CNSs in this British regional study who were looking at overall care practice and guiding staff in delivering direct care rather than providing direct care themselves. Stetler and DiMaggio's CNSs were largely engaged in taking the lead in providing the basis for improving the practice of nursing staff through the use of research. A Tissue Viability specialist provided a concrete example of how he proffered expert support and became involved in direct care without having an individual caseload:

“We don't take over problems that somebody wants on advice on. It's going in assisting with the problems. To me they're just other people's caseloads and we just dip in and out from time to time.”

As the experts in their particular area it is likely that CNSs would be able to deal easily with routine problems which might cause some difficulty for a less experienced staff nurse. Those kinds of queries tended to be generated by ward staff and the CNS might find suitable articles for the staff involved “because generally they're too busy shift work time.” Exceptionally, one specialist who appeared to operate in a very multi-disciplinary fashion with medical Consultants said “we regularly go and research for individual patients” but still felt that information use was related to procedures rather than specific patient issues. Information use is mainly related to overall management of clinical care rather than for very specific conditions. This is confirmed by Joel (1995, p7) who, in distinguishing between the roles of CNSs and NPs, said of CNSs that “they attend to systems of care as frequently as they administer care directly to the patient.” She infers that this role requires special qualities of the CNSs to be able to institute change in “resistant systems.”

In the majority of cases the specialists took an overview of nursing provision in their area. This involved the overall management of a specialism, developing protocols and procedures (either themselves or facilitating the process for others), providing consultancy and what one specialist described as “clinical leadership.” Most nurses mentioned writing and researching protocols. These protocols were frequently intended for Trust wide use. A Stroke Co-ordinator involved in producing multi-disciplinary guidelines said she asked “all the relevant people to write their own guidelines.” While the various practitioners were responsible for doing their own searches and referencing the protocols for
their own discipline the Stroke Co-ordinator had to check that what they had done was clinically up to date, "so I have to research everything really that we do" Multi-disciplinary working to examine procedures was common. For instance a CNS in a specialist centre was involved in a group looking at latex sensitisation and gathering research in that area. Another specialist had just written Trust wide guidelines on male catheterisation that had involved going over to the library to undertake searches.

Examples of information seeking episodes that were concerned with policy issues are given below:

"I've been asked to get involved in a project with one of the Ward Managers who works on the spinal wards looking at family interactions with spinal patients" (Rehabilitation & Counselling)

"I've been picking up a lot of information on the maggot treatment" (Tissue Viability)

"We were looking at some problems with epidurals and we were looking at the literature associated with that" (Pain)

"giving therapy for a borderline personality disorder with an alcohol problem. Just read it, review it to what I'm doing with clients" (Cognitive Behavioural Therapist)

"We've got a particular problem with patients who are in the palliative stages of their illness, go into bowel obstruction " (Pelvic Cancer)

"It was looking at changing our Hickman Line policy" (Chemotherapy)

Providing an overview of policies and procedures and developing new protocols where necessary was an essential aspect of clinical responsibility. This was linked to audit procedures. A community Leg Ulcer Specialist was responsible for pressure sore and leg ulcer audits that will lead to the implementation of new procedures. The main focus of a Burns and Plastics Specialist was in developing protocols for care rather than individual patient problems.
"I use the library here weekly. The Librarians's very supportive and because I'm on different committees of the Trust hospital looking at protocols, so looking for the most up to date, or best research, best evidence, best practice. So I have the ideas and they help me with the literature search."

Similarly a Pain Specialist was more interested in seeking information for procedures.

"Yes, it tends to be policies or procedures for broad things because individual patient things we try and apply some broad principles to, because you can't chop and change it for every single patient."

Infection Control is one area that has a natural hospital wide remit.

"All our literature searches are based around infection control and how to deal with it, be it your own catheter management and to reduce your infection rates there, to actually looking at a specific organism and finding out the mode of its spread. So I'd say all of it is directly aimed at patient care, although, you know, in a roundabout fashion."

Protocols were seen as dynamic instruments that had to be updated. A Senior Emergency Nurse, a Nurse Practitioner described changes in the use of support bandages or 'tubigrips' which had been routinely used for minor injuries to limbs.

"we know it's not effective we're doing a big research trawl."

There was considerable sharing of activities such as seeking out the research basis of protocols. In this department the Senior Emergency Nurse was responsible for co-ordinating a review of Nurse Practitioner protocols rather than collecting the data herself. She facilitated the process in which individual nurses were responsible for a particular limb or an area of injury, and had three months to research the area.

There is no doubt that there is a change of climate regarding the use of evidence in the clinical area. Research based procedures which are fully referenced with identifiable sources are seen as normal whereas a few years ago this would not have been the case. A Chemotherapy Nurse Specialist who had recently written a procedure on chemotherapy administration commented that in the past it would have been possible to write a procedure and "nobody asked, you know."
4.3.2 Establishing parameters: new services

There is a progression in the kind of information needed by CNSs depending upon their experience. Initial information needs centre around the speciality itself but as experience grows the focus changes to what one specialist described as “associate aspects of my job.” CNS posts were often relatively newly established although the specialists themselves had prior experience in the field. Being new in post led to extensive use of the literature

“because this is a new post for me I’ve had to sort through a lot of the literature”

Sometimes this was to increase an individual’s knowledge base but also to provide information for patients that had not been available hitherto

“There was no information for lay people really, on the diseases and so that is still a lot of my work”

On other occasions it may be that specialists encounter new types of problems or new ways of managing conditions. One specialist, who is very well known in her field through publication and conference presentations, commented

“because I am getting referred a lot of patients for biofeedback, and I started with no knowledge on that at all I hope I have captured all the English speaking literature on the subject”

This CNS, who had been in a newly established post for a year, was working in the area of faecal incontinence where “there’s been almost no research [but] there’s a lot of opinion” She described the problems that prompted information need, the processes she underwent to locate what was known and how she managed information gaps

“[I] was looking at biofeedback for faecal incontinence where I’ve gone into a lot of depth and I hope I’ve captured all the sort of English speaking literature in the subject And there, because I’m getting referred a lot of patients for biofeedback, and I’m really started with no knowledge on that at all. So I just started getting referrals and I thought I had better find out what I’m supposed to do here. And therefore it’s made a huge difference to what I do. I actually think I’ve been able to synthesise what is known and what is not known and then build up.”

6 In support of this two CNSs interviewed in the investigation referred to this specialist as key in their field.
not as formal as a protocol yet but it's an approach, an assessment I would do on every patient - I hope a logical approach to therapy for those patients"

4.3.3 The research base for clinical practice.

The evidence based practice movement discussed in Chapter 3 was not referred to directly by most CNSs. However the concept of the use of the research literature to support the development of practice in the form of consultancy advice and written procedures and protocols was, both implicitly and explicitly, frequently aired in the course of discussion. Specifically, CNSs rarely mentioned the phrases 'evidence based nursing' (EBN) or 'evidence based practice' (EBP). The interviewer in the course of the research interviews did not use these terms because it was felt that the concept was not routinely used. There were some exceptions, including specialists employed in a hospital where all the CNSs were participating in a King's Fund evidence based practice course and for whom such terms would be fresh in their minds. Furthermore, as a current political orthodoxy, it was felt that use of the terms EBM, EBN or EBP might lead to 'politically correct' responses to EBP rather than the reality of everyday practice.

However, lack of use of what could be described as the jargon of the evidence based movement did not inevitably mean that research based care was not fundamental to the nursing role. Specialists used terms that implied that the use of research literature was crucial to their role. An HIV Specialist expressed it bluntly:

"I'm paid for it, it's in my patients' best interests. I think that's [finding and using research evidence] incumbent on my job, I mean that's what we do."

Library Managers were well aware of the significance of the CNS role and, like the CNSs themselves, regarded their evidence based practice contribution as central:

"I think the major role that we see is that we see them as key people in the evidence based practice role as far as nursing is concerned. And it's interesting reading this [findings from CNS interviews] that they see that
as well I'm not sure we've ever had that exact dialogue with them” (NHS Library Manager A)

CNSs tended to talk about using research to provide a rationale for procedures or to get “the facts straight” on information sheets for patients. For instance a Senior Nurse for Practice Development in a paediatric surgical unit discussed his role in terms of facilitating nurses to investigate and change practice and make it “research based”  Another nurse in the same hospital working in ITU described the process in much the same terms of facilitation and the importance of nursing staff knowing for themselves that “research has shown that” a particular way of carrying out a procedure was best practice. Searching the literature has become subsumed into a normal part of the CNS role so that that sometimes it was not always a conscious activity A Urology specialist who mentioned administering chemotherapy had obtained policies and procedures from specialists in other hospitals but reinforced that by collecting her own literature but “you don’t realise you’re searching out all the things formally all the time but you are”

The distinction between articles that were based around research and descriptive articles or case studies which are common in nursing literature was rarely referred to Some specialists used the literature to investigate the possibility of instigating new services and were seeking case study format articles rather than research based articles For example an Anti-Coagulant Specialist searched the literature to find out about a computensed dosage system which she wanted to introduce Diabetes Specialists sought examples of case studies of diabetes clinics for adolescents as a way of avoiding mistakes in setting up their own services These published articles provided contact names which could be followed up with phone calls or letters

There was an awareness of the limits of textbooks, exemplified by a Cognitive Behavioural Therapist working on an Alcohol Team, who felt reference books were too dated “they don’t seem to be on the edge I suppose” A Burns and Plastics Specialist noted that while books could be recommended reading, what was needed was “current evidence” By contrast conferences were regarded as an excellent source of ‘leading edge’ information Sometimes this information
was received second hand from medical colleagues rather than by attendance in person.

4.4 Managing the evidence: teaching
Teaching is viewed as a central function of the CNS role whether it involved teaching directly themselves or facilitating a series of teaching sessions. It is mainly associated with a certain amount of background reading and updating. A chemotherapy nurse from a general hospital explained that

"I've got a role of having to educate patients and staff. So yes I would probably say that I do look at references and what have you quite a lot."

Nurses who were newly appointed commented on the volume of work involved in putting together teaching packages and having to spend a significant amount of time on looking at literature, but this was not confined to staff new to post. Specialists involved in teaching qualified staff generally felt it was vital to update their teaching materials on a regular basis.

Audiences varied from one-to-one teaching with nurses in the clinical area to group teaching with a wide spectrum of health professionals, or very large groups of Pre Registration nursing students. Some teaching might be at quite a basic level providing training for health care assistants or orienting new staff to procedures in the clinical area. However, much teaching was at an advanced level to questioning and demanding audiences. As experts in their field CNSs were often invited to contribute to specialist post-registration courses for qualified nurses at Diploma and Degree level. Included in information seeking activities described by CNSs was evidence of the role of consultant described in the literature on the role of Nurse Specialists discussed in Chapter 1.

Examples of information seeking episodes elicited from critical incident questions during interviews included the following.
"It's the Sheffield University – you know they have the database for the web sites with all the nursing information in the UK and abroad. And it was for getting stuff on venous Cannulation for training on the wards in Cannulation" (Critical care)

"I've recently done a teaching programme with General Practitioners in conjunction with a kind of group that sorts out GP education" (Coronary Heart Disease)

"I teach on the ENB998 so I need to be up to date with information" (Continence)

Teaching involved various degrees of seeking supporting information. A diabetes specialist working in a community and hospital setting commented that

"we teach on the ENB928\(^7\) and we do teaching sessions with Practice Nurses and District Nurses. Like we've just done one on complications and I had to go off and find some bits and pieces. I'm doing one in June on diabetes in pregnancy in younger women so I'll read up on diabetes in pregnancy."

Teaching materials were usually regularly updated although some specialists felt that more frequent renewal was important. For instance a Transplantation specialist would check new literature if she had not taught a particular topic for six months. In some cases specialists highlighted the speed of change and the need to look at practice elsewhere. An Infection Control specialist noted

"A lot of the time you have to compare what's going on in the States, what's going on here, what's current in the literature."

There was a belief that there is a much greater expectation by nursing audiences that CNSs would provide evidence to support their teaching. There is a more questioning approach and CNSs would usually provide reference lists. A Pelvic Cancer specialist expressed this change in strong terms commenting that the audience has "got a lot bolshier" and they were "demanding" to know sources and evidence. This was associated with the introduction of degree level courses. There were a few dissenting voices to the idea that audiences were

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\(^7\) ENB928 Post Registration qualification in Diabetes
more demanding in terms of questioning the evidence. For example, a Dermatology Specialist made a comment on District Nurses and Health Visitors, saying, “no they don’t” The questioning approach of students was a stimulus for keeping up to date for a Cystic Fibrosis Home Care specialist.

whether they be foreign doctors or dietician students or any students of any kind, or people who are new in the field. And they're always questioning the information I think that's actually made me up to date.”

A Child Protection specialist involved in training programmes at local and national levels and widely involved in affairs on a national basis described the importance of being up to date as a process of “feeling good” in providing people with information that they needed to function effectively. CNSs felt that they “owed it to their audience to” present the most up to date information. This might involve supplementing a previously prepared presentation by doing a search to check that nothing new had come out. A new teaching topic would involve a formal search for literature. It was also a question of being familiar with the content of the papers. It was rare for specialists to be satisfied with re-using previously prepared materials without updating content. One specialist referred to “tried and tested stuff” and another to a “set programme” but in general teaching materials were seen as dynamic and were constantly being updated. The production of reference lists to accompany teaching sessions was commonplace.

Patient education was seen as significant for many CNSs and the search for information was aimed at ensuring that information sheets were accurate and reliable. An Allergy specialist used journals when she wrote patient information sheets “just to make sure that I had actually got the facts straight.” Talking to patient support groups was an important element in the role of a Rehabilitation and Counselling CNS. Patients and their carers were often demanding audiences because they were knowledgeable about their condition and the CNS had to be sure of her ground.

“I'm going in April to talk to one [support group] about using alternative or complementary methods for pain relief and the relief of anxiety and I'm just sort of talking about visualisation, relaxation, that type of thing. So I will update myself because they're a very active group and they're very into the latest research in their area because it is a very rare
disease so they're very keen on knowing everything there is so that I still feel I need to be completely up to date I still need to be sure why I'm recommending it"

4.5 Managing the evidence: research and publication

Undertaking research, writing for publication and conferences presentations were mainly seen as challenges which had yet to be tackled Very few were involved on a regular basis although there were notable exceptions who had already made a considerable contribution to their specialism However it was generally seen as an area of activity which was regarded as valuable, although many CNSs were diffident about their ability to make a worthwhile contribution. However, it was generally seen as an area of activity which was regarded as valuable, although many CNSs were diffident about their ability to make a worthwhile contribution. Most specialists were not actively involved in research or publication although they were often urged to be so by managers. Job descriptions did not contain writing and publication as specific requirements. However, there was a general feeling that they were aspects of the specialist role which ought to be developed. There was a sense that there was some 'kudos' to be gained from publication for themselves and their organisation, but this was not the main reason for wishing to publish. Rather, the impulse to publish was motivated by a sense that, as CNSs, they should be disseminating good practice. One aspect of writing for publication or presenting papers at conferences was the element of role modelling. If senior nursing grades such as Specialists were not visibly engaged in writing for publication then they could not expect other staff to do so.

Giving presentations at study days and conferences could be seen as a precursor to writing for publication. A number of specialists were involved at this level. For example, a Cystic Fibrosis (CF) specialist had "spoken on quite a few of the study days that are given around the country and also on the international CF scene" Examples of some information seeking episodes concerned with research and publication are given below.

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"I'm preparing something for a conference in October. So I'm using a resource there [in the library] to prepare an abstract and presentation material." (Paediatric Surgery)

"I'd say very recently with writing. That's been ongoing since last summer." (Transplantation)

"Well I'm just about to start my own research project. I am also committed to writing a chapter on asthma within a nursing book so I used a library to check a couple of references." (Paediatric Support and Research)

The three areas of clinical practice, education and dissemination by publication illustrate differing roles between these advanced practitioners and nurses whose roles are pre-defined by others. The continuance of the nursing role at an advanced practice level does depend upon use of the nursing knowledge base. Nurse Specialists are less likely to be engaged in a constant round of the daily routines of care and are more likely to take a larger view of practice in order to develop the boundaries of good care. They have had the opportunity to articulate the nursing research base through the development of procedures, teaching and publication in a form that had not occurred in previous roles. CNSs are not the only nurses engaged in writing and publication but these activities are increasingly likely to be seen as an integral component of their role. Nurses in general, in their capacity as preceptors to student nurses and more junior colleagues, are expected to teach. However CNSs as teachers to nurses, doctors and other health professionals spend a much larger portion of their time on this activity than other nurses do.

There are a number of parallels in the findings of research with medical staff in the NHS where information need differed by grade and types of post (Urquhart and Hepworth 1995). Urquhart and Hepworth investigated information need and use by surveying critical incidents and search requests. The broad categories of purpose of information needs based on literature search requests and critical incidents, derived by Urquhart and Hepworth, did not differ very greatly from the categories generated by the CNSs. These are shown in the table below.
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<th>BROAD CATEGORIES OF INFORMATION NEED</th>
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<td><strong>Medical Staff</strong></td>
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<td>Patient care</td>
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<td>Including administration, therapies,</td>
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<td>standards</td>
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<td>Education</td>
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<td>Including patients, staff and students</td>
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<td>and personal continuing education</td>
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<td>(it should be noted that the CNS</td>
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<td>use relating to formal education and</td>
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Figure 4.2 Broad categories of information need amongst physicians (Urquhart and Hepworth 1995) compared to CNSs

The balance of time spent on activities in these broad categories differed between CNSs and medical staff. Medical staff devoted more of their time to research and publication while teaching was a central activity for CNSs. However, a further breakdown of information need and use by medical grade reveals differences between junior and senior grades as shown in the following table (Figure 4.3)
The different staff groups required different types of patient care information. Consultants were more likely to require information to assess changes in patient care management in terms of audit and therapy evaluation compared to more junior grades such as Senior House Officers who required information for basic patient care issues. Registrars, who largely required information for patient education issues, CNSs, who could be viewed as the nursing equivalent of medical Consultants, showed similarities in the focus of their information use. Nurse specialists also reported the development of procedures and protocols as central to their role rather than specific individual patient care issues. CNSs differed from their medical Consultant counterparts in the strong element of education in their role. There was requirement for information to support teaching patients and for teaching nursing and other health care staff.
Chapter 5

ROLE DEFINITION

5.1 Definition of category
The previous chapter examined the extent to which the key areas of clinical practice, teaching, research and publication required the support of nursing literature to underpin advanced practice or 'Manage the Evidence'. Chapters 5, 6, 7 and 8 consider the main subcategories of 'Managing the Evidence'.

The category of 'Role Definition', shown in Figure 5.1 illustrates the related concepts of 'Knowledge Base', the 'Nature of Knowledge' and 'Dissemination'. The circular relationship demonstrates the fluid inter-linking of concepts. This chapter discusses the kind of knowledge required by nurse specialists. CNSs need to be more open to the fluid nature of evidence and understand the impact of differing perspectives. A major responsibility of CNSs is to disseminate and share their knowledge base and use this and their advanced clinical skills to improve overall areas of practice. The CNS role is partly defined by the way it acts upon the research literature and as a Pelvic Cancer Specialist commented, it was a core “part of the CNS role to ensure that we use evidence based care”.
Figure 5.1 Role Definition
5.2 Knowledge base

CNSs have a demand for sources of literature that goes beyond the requirements of nurses operating at other levels. The facets of the concept of Knowledge Base are shown in Figure 5.2 below.

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<td>Specialist / generalist journals</td>
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Figure 5.2 Facets of the category ‘Knowledge base’

They require a different knowledge base to function as specialists. This is not only because they concentrate on a specific area of practice but because of the nature and expectations of their role. It is the depth and breadth of understanding of their specialism which partly exemplifies their role. These CNSs, by definition, are focusing on highly specialised areas of care. Therefore, they need to draw on all the sources around their specialism, irrespective of philosophical models of care. They need to look beyond the nursing model of care. One CNS said:

"I think because my practice is specialised in one area, everything around the area is focused on Warfann and its side effects, and patient care, which I wouldn’t get in the nursing library (CNS Anti-Coagulant Service)

Similarly

* because of the way my job works I monitor jab interactions and drug side effects so I need to know that as well. I need to know enough to know what’s going on” (Rheumatology)

* it’s mostly medical I have to say because we need more in-depth information related to treatment, outcomes, combination drugs" (Chest Clinic Sister/Visitor)
This view was echoed by a Diabetes Specialist who also felt patients required medically orientated information and that her lengthy experience in nursing meant that

"it's more medical than nursing information that I need because the nursing part is just like I do it all the time. It's the medical information I need to treat the patients to the best of my ability"

5.2.1 The value of nursing literature

Most specialists regarded access to the nursing literature alone as insufficient and they were open to any sources that were useful to them. One Specialist felt very strongly about the importance of using nursing sources "because I'm a nurse because I've had completely different training" Nonetheless she looked at medical studies because she was working with medical colleagues and needed to know what they were talking about. There is evidence of a conflict between using the technical (medical) literature and the caring humanism of nursing literature and a need to assert the value of nursing literature. The decision to use medical literature was sometimes seen as a partial concession to the expectations of medical colleagues and of patients. Medical staff assumed they should be conversant with the medical literature. In referring to patient expectations a dermatology specialist said

"I try to make it more nursing. Because I deal mainly with patients on the whole and they can get the facts from the Consultant but I'm there to tell them how to look after, to go over how to apply, how often"

It has been suggested that nurses working in specialisms, not necessarily at advanced practice level, should use Medline as their database of first choice because of the type of information they require (Brazier 1996) However it would seem that CNSs are keen to assert the value of nursing literature while drawing on medical material when necessary. A sense of professional ownership of databases may operate and while Medline, with its subset of the International Nursing Index, contains a comprehensive, if slightly different coverage, of nursing literature, Cinahl employs nursing orientated index terms. A community specialist felt that the balance was largely in the direction of nursing

"A combination, if you're talking about journals I would say the majority would be nursing, actually pure nursing journals like the Advanced Journal of Nursing [sic] I would say probably 70 to 80% would be
nursing journals The 20% would either be medical or some managerial journals* (Continence)

This emphasis on medical literature followed as a result of a high level of confidence in nursing knowledge and a wish to explore the discipline further. For some it was not a simple split between medical and nursing but there were differences between types of printed sources. A Paediatric Specialist picked up two books from his desk distinguishing between what was required for teaching and what he used for other purposes.

"Just look at this – this is a medical intensive care book and this is a paediatric, a nursing intensive care book. I think I blend the two together to help me as a teacher [to get] that deeper understanding that I think teachers need, even if they are talking at a simplistic level in their teaching. I would say in textbooks it's probably a mix and probably in published literature [journals] more nursing. I mean my personal focus is underpinning nursing literature, nursing research".

For a Metabolic Bone Specialist there was a need for medical information but she also required information about pain and the depression associated with chronic pain and drew on psychology and social work journals. An Allergy and Clinical Immunology Nurse distinguished between the type of information available from different sources.

"From the nursing point of view there would be case studies and just little articles. Obviously all the research was from medical journals".

This reliance on medical literature appears to be a distinguishing mark of advanced practice nurses.

Many Nurse Specialists felt that they operated in a medically orientated way and that they already possessed a solid nursing knowledge base. This view conflicts to some extent with ideas expressed about the need to keep up to date and not rely on past accumulation of knowledge and experience (see Chapter 6 for further discussion of this). For some, patient expectation was another factor in the need to access medical information. An HIV Specialist felt it was largely medical information that her clients were interested in. She too felt she was up to date concerning “changes in nursing, philosophies and stuff”. Patient perceptions of the CNS role directed literature use, and contributed to an
emphasis on medical sources. One specialist recalled a patient remarking that “you’re like a doctor aren’t you” Where patients and clients had information gaps they would clearly use whichever health professional they had access to and who was seen as being in the possession of expert knowledge.

The nursing literature was felt to be valuable for information about the role of the specialist, for management focused articles and “patient contact” but was otherwise regarded as having large gaps in coverage which had to be met in other ways. For a Prion/Neurology CNS “nursing journals have just been for things on my role [because] there’s nothing written really in nursing journals and that’s something I’ve got to do” A Diabetes Specialist expressed a preference for nursing journals partly because medical journals contained “technical biomedical stuff” but largely because nursing articles contained more of a patient perspective. CNSs generally used a combination of medical and nursing literature in virtually equal proportions.

For some specialists medical sources predominated

“some of it's nursing but it tends to be medical. Yes mostly medical information” (ITU/CCU Specialist)

“A combination I think Because the articles in the Tissue Viability journal are not just designed for nurses - it’s quite broad based so that makes it quite interesting” (Tissue Viability)

“Where sometimes I think it [nursing literature] falls down is some of the background, some of the physiology technical aspects are sometimes missing” (Pelvic Cancer Specialist)

Sometimes this emphasis was due to a need to gain approval for changes from medical colleagues

“if we're actually trying to prove a point there has to be something from the BMJ there” (Senior A&E Practitioner)

A GU Health Advisor commented that she needed a mixture of sources but “we work very much a medical model” Easier availability was another reason for focusing on medical journals. A Pain Control Specialist described a 60 40 ratio in favour of medical journals. Medical journals were the only titles available in
the anaesthetic department in which she worked. Using other titles would involve more effort.

Some specialists saw nursing literature as reacting to a medical agenda:

"So yes a mixture I think, but in order to keep up to date it has to be medical stuff because the nursing literature comes out later" (Breast Care Specialist)

"It's not so important to keep right bang up to date with the nursing because it changes at a slower rate" (Breast Care Specialist)

5.2.2 The North American dimension

Sometimes Specialists felt that there were gaps in the British nursing literature which were filled by American nursing journals but these were not always available in libraries and therefore nurses used medical literature as a substitute. This contrasts with a study in North Thames which suggested that nurses were happy with their access to paper based information. However the role or grade of nurses interviewed was not specified and it is not known if CNSs were included (Pyne et al 1999). A Gastroenterology Specialist felt that much of the nursing research in her field was only available in American journals and she found herself reading medical journals because there were no nursing alternatives in her Postgraduate Centre Library.

"I thought it was unfair that I couldn't get one [nursing] gastroenterology magazine. It's a very good one and it's world known and there's four gastroenterology magazines for the doctors."

Other CNSs mentioned unavailability of nursing journals in NHS libraries. For example a Dermatology Specialist used nursing journals at the university where she was undertaking a course and the Postgraduate Education Centre Library "had all the medical magazines but not nursing so it's not that easy actually." An ITU Specialist commented that "most of it is American." An Anti-Coagulant Specialist working in a teaching hospital and who used separate nursing and medical libraries on the same site commented that because of the focused nature of her specialism most of what she needed would be found in the nursing library.
One Librarian viewed the CNS perception of being disadvantaged compared to medical colleagues in the range of journals available to them as a misapprehension.

"I think the picture isn’t as bad as they feel because if you look at the medical field there are so many specialist titles, but we’re only taking a few. We may only have four ‘obs and gynaec’ journals out of the thirty-five titles available. And we’ve got twenty nursing journals out of one hundred and fifty available" (NHS Library Manager D)

In reality the provision for medicine and nursing was seen to be roughly in proportion to the range of titles on the market. For another Librarian inter library loan requests were used as the basis for assessing potential subscriptions.

"I’ve always gone by weight of inter library loan requests" (NHS Library Manager B)

There was no evidence of a policy of avoiding the purchase of American titles although one Librarian, in describing discussion concerning the purchase of new titles which were rejected by senior nursing staff, felt that this was partly due to the American origins of the titles. However, both titles were online journals, not available in a print format, and it may be that the electronic format rather than country of origin, was given more weight in determining whether the titles should be considered.

CNSs naturally related their experience of access to journals to their local library service. Library managers took a more strategic perspective on the acquisition and deployment of journals titles. Users are often unaware of the broader collection development policies that underpin local resource management. One library in North Thames has a specific remit to provide a larger collection of nursing journals and is used as a document supply service for other libraries in the region. One of the Library Managers explained the regional journals collection development policy.

"I don’t think any of these libraries would be taking these decisions [journal purchase] just dependent on what we have locally. Somebody wants this journal but there are at least three other libraries in the Region I can get it from. And I think that increasingly is the case, which again wouldn’t be transparent to the user who might just expect to see it all on the shelf and then may make these assumptions about the decision behind what’s on the shelf" (NHS Library Manager C)
In common with other NHS regions North Thames is experimenting with delivering journal access through Ovid Full text databases and in selecting full text titles has attempted to avoid “replicating the popular stuff”. It was felt that nurses could feel disadvantaged in using the full text option

“I think the difficulty for nurses within Ovid is there are very few nursing titles. There's three hundred and maybe thirty are nursing” NHS Library Manager A)

In any case the Region still regarded this as an ‘added value’ service rather than a core service because

“We're conscious a lot of titles we're already paying for two or three times, probably less so than in the HE sector but the main focus to get people to access something outside” (NHS Library Manager C)

The difficulty of explaining regional library policies concerning collection development strategies was recognised by Library Managers

“...may be that needs to be highlighted more. We need to say we only take this collection of journals but there are three thousand or whatever it is across the Region which we can get within 24 hours. And that's why we don't take these other titles” (NHS Library Manager C)

Another Manager had used a survey as a vehicle to clarify some of these wider policy issues

“I've responded to everyone who made comments. It was an opportunity actually to make some of our policies transparent and explain the reasons for the discrepancies they can see. This is quite difficult to do that in a general way for the library population” (NHS Library Manager D)

5.2.3 Specialist/generalist journals

Nursing journals read on a regular basis by CNSs naturally tended to relate to their specialisms in a direct way. For example the Journal of Tissue Viability and Journal of Wound Care for a Tissue Viability Specialist and Dermatology Practice and Dermatology Nursing for a Dermatology CNS. Few of those Specialists, who seemed to rely mainly on a small range of personal subscriptions or circulated journals, read outside a fairly limited selection of
nursing titles. An experienced specialist working in a Trust whose library appeared to have an exceptionally wide collection of nursing journals mentioned the reliance on personal subscriptions.

"I don't use the library very often here. It's probably the end of last year. But I do keep up to date. I have all the journals at home." (Stoma Care)

This Specialist did not appear to use the library regularly, appeared to be lacking confidence in using databases and tended to ask a colleague to undertake literature searches for her. Inability to use databases with confidence seemed to be a factor in the range of nursing literature drawn on. A CNS who had been on a course concerning evidence-based practice commented on the difference it made.

"Now I know how to do it properly. It's definitely the best way of doing it." (Tissue Viability)

In addition to specialist journals, general titles mentioned by name included Nursing Times, Nursing Standard, Health Visitor and Professional Nurse. Only one specialist (Research & Practice Development) referred to the Journal of Advanced Nursing, a highly respected British Journal with an international reputation and a wide-ranging coverage of nursing issues. General medical titles such as the BMJ, the Lancet and occasionally the New England Journal of Medicine were more likely to be mentioned than a general nursing title. Although there has been a significant number of new British titles in nursing which have appeared in the nineteen nineties, these were not mentioned, for example Journal of Clinical Nursing and Journal of Nursing Management. In some cases this reflects the inability of CNSs to browse large collections of nursing journals on a regular basis and to be familiar with a full range of titles.

For nurses who regularly undertook literature searches this would not represent a problem, but CNSs who relied on a small core of titles were limiting the development of their knowledge base. This was illustrated by a Pain Specialist who used both medical and nursing journals, largely in the field of anaesthetics and surgery, but noted that a cardiac nursing colleague had come across good material on pain in other journals. However she felt it was too difficult to keep up to date with a broad range of journals. An understanding of what database searching could offer was expressed by another specialist who said.
"I use mainly the databases because it's the ability to cover such a wide range of nursing, medical, psychological literature and I can pick out the essence if that's what I want to do" (Coronary Heart Disease Liaison Nurse)

Library managers' comments reflected the views of CNSs concerning the paucity of nursing journals in some specialist areas. One Librarian took the view that

"there may not actually be the critical mass [of nursing specialists] to buy a specialist title. They may not have enough staff in the subject area to warrant the purchase of a journal, which may be American anyway" (NHS Trust Librarian)

Whereas for another trust Librarian, local circumstances affected provision of journal titles

"That's where my situation is sort of different because there are specialised areas we stock because we've got a critical mass. If you've only got one nurse specialist in respiratory care you're hardly going to buy five journals for that person"

In addition, the library policy of developing exceptionally strong collections to service the demands of document delivery in one or two locations also had an impact "that affects physical collection policies". A specialist title might not be economically viable for an individual trust library but it could be more sensibly placed in a specialist supply centre.

Some specialisms are particularly prone to being in receipt of all kinds of information from drug companies. For example, Continence specialists can influence how budgets are spent on continence products. Some of those CNSs who appeared to make relatively little use of formal information services placed a heavy reliance on information supplied by drug companies. They adopted a passive stance in seeking information by waiting for it to come to them.

"We get a lot of journals come through. We get Practical Diabetes that has a lot of papers. Again that's sponsored by a drug company but the people who write the articles are nurse specialists. They're free, they just come through the post. Most of them are sponsored by the drug companies. So, yes, they might advertise a product in them" (Diabetes)
A community Leg Ulcer Specialist used drug companies for information, asserting that only those engaged in research needed research papers. If patients asked about the basis for a particular product, she requests papers from product companies.

Not all specialists adopted an uncritical assessment of drug and product company information. One who appeared to be a proactive information user viewed product companies circumspectly and was explicit about their limitations:

"The companies can do literature searches for you but sometimes there's a bias in it — it's their product. There's no way you could ask a catheter company about a pad and there's no way you could ask about a company's rival product" (Continence)

A Stoma Specialist expressed the same scepticism:

"Articles wise, publications wise, it's quite funny reading them. Never mentions whose the product is — you can recognise it if you know your products and they're very biased. The publications all are."

A Tissue Viability specialist found product companies useful for a particular kind of information:

"Dubious sources — company reps. They are invaluable for their information about their products and maybe I'm cynical enough to turn around and say 'of course your product's going to come out on top' as source for research information, no, perhaps they're not the best in that respect."

CNSs who were able to get beyond the sales pitch and make direct contact with technical staff were at a considerable advantage. One CNS who was able to take advantage of a previous role as director of a national charity had excellent contacts through this route:

"If you want to know, say about skin adhesives or something, you can find through a network of contacts the top national expert on skin adhesives through that network. Now you're not going to find that through a database or through a literature search" (Faecal Continence CNS)

Use of medical literature was sometimes caused by a lack of good research articles in nursing journals. A paucity of nursing research was a problem for a Stroke Co-ordinator who noted that there was not much "really good [nursing]
research. Similarly a Clinical Nutrition and Intestinal Failure CNS said that for his field "there's not much in the nursing press." Community staff had particular difficulties. For instance a Cardiac Liaison Nurse noted that Critical Care Nurse was useful "but [its] very hospital focused."

5.2.4 Nursing/social care borders

Nursing draws on a broad base of literature and CNSs needed access to an eclectic range of sources. This applied particularly to those working in the community or in mental health roles where a more multi-disciplinary approach to working applied. For example a Psychological Care CNS working in a specialist hospital was based in a multi-disciplinary department that included "psychiatrists, psychologists, child psychologists, a research person, and epidemiologists and medial sociologists and we all update each other." The loosening of boundaries between health and social care were exemplified by a community specialist worked in a team where half were employed by the Health Authority and the remainder by the Local Authority and had access to literature circulated by both sides.

For some the need was for information concerning social care. A Child Protection Specialist said what they needed was "up to date information to enable debate and discussion." That information was available in journals but there was also a requirement for what might be termed 'grey literature' including guidance documents and NHS Executive Letters (EL). Most of these documents came via Trust managements. A GU Specialist needed what she described as "social type information" on areas such as benefits, housing and legal issues because her client group, mainly HIV and Aids patients, had difficulty in accessing it themselves. A Rheumatology Specialist needed information about local services. Management sources were also important. An ITU Specialist used the Internet to access a variety of organisations such as the United Kingdom Central Council for Nursing, Midwifery and Health Visiting and the Department of Health.

A Continence Specialist drew on a broad spectrum of materials for her sources.

"I scan the shelves [for journals] to see if there's anything at all related to continence. So it can be anything from the Professional Nurse, it can be..."
Carers’ Weekly, Social Services guidelines, it can be the GP magazine it can be anything at all”

This Continence Specialist used visits to general bookshops and newsagents and sometimes found magazines aimed at carers which were useful. Another Specialist who drew heavily on health care literature but saw other mass media sources as making a useful contribution to her knowledge base reflected this in comments

“I get a lot through other media. I read papers, I listen to the Radio, Radio 4 – huge information source [as well as entertainment]”

5.3 Nature of knowledge
As expert nurses CNSs have an enormous fount of experience based knowledge to draw on. This experience in practice has to be balanced with demonstrable research based care. As a result of their extensive experience CNSs are in a particularly strong position to identify clinical issues which require the application of research (Hickey 1990). However, drawing on the literature does not always produce certainty. The facets of the Nature of Knowledge category are illustrated in Figure 5.3

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<td>Balancing experience and knowledge</td>
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Figure 5.3 Facets of the category ‘Nature of Knowledge’

5.3.1 Differing perspectives
These CNSs experienced the slippery nature of knowledge and ideas. In spite of a plethora of evidence based sources there were still large areas of uncertainty. A Paediatric Support Nurse described writing a book chapter on asthma, jointly with a colleague based in adult nursing, where she ascribed differing views to different approaches which could each be justified and that “realities” changed. The difficulty of relying on colleagues for information was that their perspective might be different. One specialist said
"If you're not doing a course it's easier to turn around and ask somebody else. And that can be a danger because their interpretation of what you're interested in is often quite different." (Continence)

One way of acquiring a solid understanding of the research base is to undertake higher degrees. Most advanced practice nurses recognised this as a future qualification route for CNSs. The balance between searching the literature and relying on what one urology CNS described as "acquired knowledge through the years" was something considered by them all. She felt she had been employed because of her experience but that she needed to be a "bit more analytical in nursing" and might find it difficult to work elsewhere without a formal academic qualification. She compared the demands of a rather dated and undemanding ENB (English National Board) validated qualification (1989) with evidence-based modules of a urology degree she was interested in. The move to higher education has placed post-qualification courses on a firm academic basis.

5.3.2 Getting by with experience

However, there were exceptions and two CNSs were sceptical about the value of the outcomes of further academic qualifications. A few nurses expressed resentment at the requirement for academic degrees. One expressed scorn at exhortations as to the necessity of undertaking Masters qualifications for her role but nonetheless did discuss practice in her area as being carefully audited and researched. The second CNS, specialising in work with Ethnic Elders in the community who made little use of the literature, except when undertaking a course, described her approach to her practice in the following terms:

"I just do my work. I know what I'm doing when I'm doing it and just get on doing it really."

She was near to retirement age and had reached a stage in her career where she no longer wanted to think about academic qualifications. Completing the day to day routines was her main priority.

This was very different to the attitude of a very experienced Senior Stoma Care Specialist who described her "experience of years." She emphasised the importance of direct patient care and talked vehemently about her team.
"none of them are going to the library, they're all going to do hands on care, they're going to look after those patients"

She described "knowing it when I see it" as a result of her extensive experience when other nurses did not understand what they were looking at. She described a number of innovations that had originated with her such as using a hair dryer to dry wet sore stoma skin, using a syringe to apply paste and treacle enemas. None of these had been documented formally, but she says now people are "putting it into books".

At the other end of the age spectrum a young Stoma Care CNS who had been in post for six months and had not used the library. She relied on informal contacts and a bench collection of books, and yet she said that she had been accustomed to using large libraries with good collections in a previous post. She talked knowledgeably about other libraries she had used in the London area and appeared to have been a confident library user. Easy access to a known expert, who also happened to be her manager, may have been the reason for her current reliance on a local personal contact.

"I have to say I have not been to the library since I've been in post. Not because I've been scared or put off or anything, but I've not felt the need. Our manager used to be originally the stoma nurse and she's published, so I would go to her. If it's queries about patients' conditions we've got quite an extensive library of books for conditions, rather than articles I've used them to look up, I've used videos, I've asked doctors I tend to do it verbally."

5.3.3 Balancing experience and literature

Benner's much quoted text (1984), used as the basis for nursing curricula, on understanding what is involved in expert practice refers to:

"A wealth of untapped knowledge is embedded in the practices and 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" (p11)

The lack of explication of expert practice is a difficulty that has yet to be resolved even among CNSs. One nurse commented on this dilemma of how experience and knowledge of the literature had become so intermingled that they could not be distinguished.
"You've got this tacit knowledge but I think a lot of that can be research based. It will be something that you have read, and may not have taken in at the time. But if a situation will arise and you will think, I know what to do. But you wouldn't be able to quote the reference" (Allergy and Clinical Immunology)

A balance between the knowledge gained from experience and the theoretical knowledge gained from the literature was explained by a Senior Emergency Nurse working in a role previously undertaken by junior doctors.

"But because we're nurses and we've been dealing with wounds and injuries for a long time we have a deeper knowledge so we know maybe there are other avenues we can use. All the Nurse practitioners are Grade and above so they're senior nurses with years under their belt. It's their thing, it's their speciality".

The division between aspects of the role that require formal knowledge from the literature and intuitive skills was expressed by a Rheumatology Specialist in terms of her patients who mainly needed support to come to terms with accepting the disease and what it brings, although that support may be made more effective by being based in research knowledge. She also described aspects of responses to pain where logically it might be expected that following a hip replacement operation, patients would require analgesia. In her experience, Rheumatology patients responded differently in that they had already experienced high levels of pain due to their chronic condition and therefore the pain following hip surgery is less than that experienced prior to surgery. This understanding of high pain thresholds is to do with experience not formal knowledge.

Some aspects of work, such as that of a Diabetes Specialist, coaxing patients to inject themselves, "you are not going to find that in a book." A similar phrase was used by another CNS, who said of her ability to handle children and communicate with families, "it's so wrapped up in my own character and my own intrinsic abilities." 

Another specialist who was internationally recognised for her expertise speculated that "some people are just more intuitive rather than literature search people" although clearly she did not fall into this 'intuitive' category.
herself. She suggested that this might have more to do with whether people had formal degree training or not. Some CNSs provided examples where there was very little published evidence. Here experience and intuition had to be foremost.

The potential consequences of relying purely on responses derived from length of experience and operating in a way, which a Dermatology Specialist described as "parrot fashion", were recognised and so it was important to continue to read the literature. She felt it was important to consult the literature more than ever even though she might be seeing similar conditions every day.

“there's always this fear that because you have been doing it for such a long time you kind of repeat yourself”

She advised treatment because she had seen it work so many times before, but the recommendation was not merely based on intuition, but was also based on following a planned series of questions or a care pathway.

The dangers of relying on past experience and knowledge developed in different disciplines was expressed by a CNS looking at basic nursing practices to see how they could be adapted to her specialist area. She had been surprised by the changes that had taken place.

“You know, with the gastroenterology which I've had very little to do with, and now you're suddenly finding out they have pegs and new developments that have gone on and if you went to speak to nurses in the units it's old hat to them but for me it's all new stuff" (Pelvic Cancer)

Urquhart (1998) refers to the dichotomy of the application of clinical experience and of the research evidence in the literature. It is difficult to assess the impact of EBP and Clinical Governance. They may work against individual approaches. While leading to general improvements they could stifle the creative instincts in high quality practitioners such as CNSs. The EBM view of Randomised Clinical Trials as the gold standard in research has its critics as health care, including nursing, also involves improvisation and use of individual skills and knowledge in response to a particular situation (Dingwell et al 1998). Most CNSs find themselves in the position of having developed a core of clinical experience that they could apply to their own cases or to nurses they support. However their role is also to demonstrate the application of research to practice and give less prominence to their intuitive responses.
One specialist distinguished between types of research evidence and expressed a preference for quantitative, scientific research findings.

"There isn't enough hard data research. There's a lot of opinion columns, there's a lot of American stuff, but it's not necessarily relevant to the work that I am doing. And so for real concrete research as opposed to, however interesting, some qualitative research, it's not necessarily going to forward me in the work that I am doing."

(Paediatric Support and Research)

The changing nature of knowledge had come as a surprise to some CNSs. A Breast Care Specialist who had done research on hot flushes as part of a Masters Degree was now seen as the person to whom such issues were referred. She was the 'expert' but it meant regular updating to keep her expertise reliable. The knowledge base required regular maintenance. It was also a case of recognising that there was a changing paradigm in health care delivery and there was less emphasis on the value of experience and more reliance on evidence in the literature.

Similarly, a Stroke Co-ordinator found that continence was an area where the literature search did not indicate what was clinically effective. In that case, experience took over in stating that a particular course was best practice.

"There are some bits [of stroke management] that aren't done as well as others. I mean continence is one of the issues that we're fairly unclear about what we should be doing. Having done the literature search, I'm still a bit unclear about what we should be doing."

The lack of nursing evidence in stroke care is confirmed in a study undertaken to illustrate the theme of clinical effectiveness. For the most part, acute stroke care is the responsibility of medical staff but there are a large number of associated areas where nurses have a significant role including initial nutritional assessment and maintenance, assessment of dysphagia, prevention and management of pressure sores, prevention and management of shoulder pain, prevention of deep vein thrombosis, management of depression, discharge planning, and informing patients about their condition.
For some there was simply a dearth of literature in their fields and they relied on adapting what was available. In some cases there was a lack of literature in well-established fields of nursing but in other cases greater longevity of patients meant that there was not a body of knowledge to draw on for nurses and other health care professions. It would seem that there will always be a necessity for practitioners to improvise responses to individual circumstances but knowledge of the literature and best practice allows for greater confidence in improvisation.

On occasion the literature itself was a cause of confusion and did not immediately help decision-making processes. Conflicting or non-definitive literature gained from a search on Hickman Lines did not provide an unassailable answer.

"The problem with Hickman Lines is that it's a very specific thing, there isn't a definitive procedure anywhere so you look through the articles and nobody is prepared to say, 'Well this how we should all be doing it', so actually it's quite difficult" (Chemotherapy CNS)

This CNS had undergone a series of procedures to gain her information. Her first strategy was to search for information in a formal manner by conducting a literature search. Even with the assistance of library staff she had been unable to locate what she needed (at this point she produced the search from a desk drawer and indicated the different search strategies used). She describes the frustrations thus.

"Well last time I tried to do a literature search it just didn't work out. Because when I did this with the Librarian here it was just a nightmare. We tried on Cinahl, we tried on Medline - I couldn't get it down to what I wanted really. We tried lots of different ways and it just wasn't working."

You can see all the various words that have come up like Hickman Line, Central Line, Central Venous.

This was followed by hand searching, that is, reading articles she already knew of and following up likely references from these. In these circumstances where there is no clear published protocol the ability of the CNS to use her knowledge and experience to assess all the available evidence becomes paramount. She describes the process thus.

"I think it's just going through and looking at the information and finding what the infection rates are and then making a decision as to how we proceed with it."
One area that has received publicity is the lack of research concerning the impacts of interventions on children. For example, clinical trials with drugs are usually undertaken with adults. A paediatric surgical specialist felt there was less research in his field than in adult nursing, giving the example of suctioning patients on a ventilator. As a result, he had to "borrow" from studies on adult patients when presenting arguments for changes in practice. His experience gave him the ability to assess evidence to ascertain whether it would apply to his patient group.

A Clinical Nutrition & Intestinal Failure CNS talked about the issue of parenteral nutrition and self-care because patients were living longer and became unable to provide self-care. CNSs such as this who worked in tertiary referral centres were working at the leading edge of care. Nursing such patients created new problems and there was no literature to draw on and he described the environment he worked in:

"I think at X it's quite a unique position because a lot of our patients - there is no literature on them. So if you talk to the doctors, talk to the dieticians, they exactly say the same thing as well. Because the patients are living longer because parenteral nutrition is quite a new therapy anyway, there isn't the research."

It became a question of learning from each patient:

"The next patient comes along and you remember what you did. It's like having a clinical care pathway in your brain. You know you do X, Y, Z for parenteral nutrition or the last time I did that and that didn't work, so I went down that avenue."

Another area identified as lacking in solid research-based information was skin care during radiotherapy. In this case, the response of the CNS was to be involved in generating new research:

"I'm now in the position where we are the people generating the research and in order to do that we have to understand basic things about wound healing and then we have to build on it because there is no research material. So that's why we need to go back from the specialty down to the general." (Breast Care CNS)
Some of the less glamorous areas of care were characterised by a lack of research literature. Continence is one such area mentioned by two CNSs. In one example the CNS looked for evidence to support bowel care advice given to patients:

"I teach some patients to digitally remove faeces themselves so I was interested to see if there was any literature on that—the work is non-existent."

In another example the CNS described the shortage of appropriate research and a lack of easy access to nursing literature in her local library service:

"Stroke is coming up on the agenda. There isn't an awful lot of really good research and there's very little for nursing. So most of it is medical journals." (Stroke Co-ordinator)

Much of the material located in a literature search, undertaken as background in preparation for written medical and nursing guidelines on incontinence, was not available locally. This applied to medical sources but even more to nursing references.

The experience of patients is another area that is not formally documented but those who have chronic conditions are knowledgeable and bring ideas that can be shared with other patients. Patients who had been referred to tertiary centres tended to be particularly knowledgeable and had a great deal to share:

"We tend to get patients who are reasonably articulate, either who have known where to ask to be referred or have to push for referral—they've put together information for themselves so I've actually had huge help from patients." (Faecal Continence CNS)

CNSs regarded patients as a valuable source of information in terms of the way that their care developed but also because they brought in the results from their own searches for more information. Patients brought in examples of "dietary things, lifestyle changes."

Patients, particularly those with chronic conditions, often discussed alternative therapies with CNSs. This is an area where there is very little research although nurses are sympathetic to this kind of approach. Some CNSs who were dealing with chronic conditions described how they handled an issue that could not be referred to a body of research literature. One CNS gave the example of aloe
vera for patients who are incontinent deflatus. Several patients had said it was helpful but

"There's no research base on it and I can't find anything in the literature about it, other than anecdotal stuff. So I'd say to some patients who are particularly bothered by wind, some people have said this helps. I can't recommend it, there's no research on it, but you might like to give it a try." (Faecal Continen ce Control)

This response, which gave patients the responsibility for making the decision about adopting alternative therapies, was typical. A Rheumatology CNS, who worked in a department that offered some alternative therapies including acupuncture and osteopathy and who had some expertise in homeopathic medicine, proffered various examples where she had responded in a similar manner.

**Vitamins**

"They quite often come in with 'I heard of this vitamin, I've heard of that vitamin and they say it's good for arthritis. Can you tell me?'

'Well that's a tricky one because the orthodoxy doesn't necessarily view vitamins as very important so I tend to encourage patients to find out for themselves and decide for themselves on that sort of issue because I know the doctors are not going to'.

**Cod Liver Oil Tablets**

"But things like cod liver oil tablets have been known to be good for arthritis so the doctors are fine with that'.

**Musseltone**

"But there's another one called Musseltone, which is like a mussel extract that's a frequent one that appears. That's quite expensive if you're embarking on that for a long time"
5.4 Dissemination

CNSs had a crucial role in the dissemination of information to colleagues in their own organisation, to nurses from other Trusts and to patients from within their own Trusts and outside. Facets of the category Dissemination are illustrated in Figure 5.4 below. They were not simply increasing their knowledge base in order to improve their own practice but also to pass on their expertise. Some felt that they had more time to spend on seeking information and that part of this role was to undertake that function for other nursing staff, either to solve particular problems, or to develop protocols and procedures.

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Figure 5.4 Facets of the category 'Dissemination'

5.4.1 National roles

Some of the more unusual specialisms had a specific national role in terms of dissemination both to the lay public and to other health professionals. For example, a Prion/Neurology CNS provided a helpline for the general public but has also provided information for Nursing Homes. Another Specialist had a job that specified acting as a national resource. These specialists felt a particular pressure to ensure that their knowledge was up to date. In some of the more uncommon specialisms giving of advice at a national level to the lay public and to professionals was an integral part of the role.

"We do act actually as a sort of helpline for the general public nationally as well - like a lot of nursing homes some doctors, not requesting information to be sent to them but asking about a specific problem, specific questions about genetics or something, the tests we do" (Prion)

This national responsibility placed the onus on the CNS to be aware of the current literature.
"I get enquiries from other health care professionals, maybe from doctors, physios, OTs" (Macmillan Nurse Complementary Therapies)

This process of CNS dissemination to other staff was usually confined to nurses and PAMS (Professions Associated with Medicine) rather than physicians. More rarely a Pelvic Cancer Specialist said, "Sometimes even the medical staff will ask what is the current practice, what is the school of thought on a particular issue" Sometimes specialists acted as an intermediary between nurses and other staff. An ITU Specialist described some equipment bought on loan by an Anaesthetist without any discussion. The Specialist collected together articles on the equipment so that its usefulness could be discussed by all the staff on the basis of some knowledge.

5.4.2 Initiating or responding

In general it seemed that CNSs felt they were under-used by other nursing staff. For most CNSs the dissemination of information to less experienced nursing colleagues was a process which they initiated. In general nurses did not make direct ad hoc approaches concerning problems in the clinical area. This was a matter of regret for some CNSs who would have liked to contribute to patient management issues. However this is similar to the circumstances described by Miller (1995) where ward nurses were unwilling to approach nurses working in specialist areas such as intensive care. Miller however thought that CNSs were the solution to what she saw as a problem of hierarchy. One CNS said she would "like the nurses who are actually on the ward and grafting to be able to step back but they don't have the time to even step back and ask." It was seen as difficult move to make and it was usually a case of CNSs volunteering information and saying to nurses that they could provide some relevant articles or help in some other way. In general CNSs had to adopt a proactive and less obviously direct approach.

The exceptional case involved general nurses initiating requests from a Psychological Care Specialist for more information in an area that might be considered outside their everyday expertise. She spent "a lot of time advising on the management issues of patients under stress." CNSs were more likely to exercise their dissemination role through planned casual contacts during visits.
to clinical areas, dropping in during tea breaks and teasing out problems and difficulties. This was often the time when they could say "I've got a paper somewhere, let me go back to the office." The experience of a Rehabilitation & Counselling CNS was typical in this respect.

"Often it's done very much ad hoc when I'm on the wards or just chatting to someone and it's 'I've got something on that, I'll drop it by.' It's rarely done formally."

Reluctance to approach Specialists directly was also ascribed to the availability of resource packages kept on the wards that covered issues that came up regularly. A Sickle Cell Specialist used the opportunities of working with individual nurses caring for particular patients and would give them articles to read after the shift but was unsure as to whether the material was used.

5.4.3 Spoon-feeding and facilitating

There was a concern to encourage nurses to seek information independently. A Gastroenterology Specialist who had recently moved to a District General Hospital where she was able to develop practice felt that dissemination of expert knowledge had been achieved through seminars. This had stimulated nurses to seek out literature themselves and bring it to her.

"I know now some of them are going off and using the library themselves because they're interested. Certainly 50% of my colleagues are going off and finding literature themselves."

This strategy enabled nurses to develop their own literature seeking skills.

The issue of de-skilling nurses by the introduction of specialist nurses was not addressed in general terms. However, it was hinted at by a Chemotherapy Nurse when discussing relationships with other staff.

"They won't acknowledge me as a specialist nurse, they're very protective of their patients."

The issue of an available body of evidence and how nurses accessed that knowledge exercised another Specialist who saw that process being developed through the establishment of a journal club.

However, promoting independent information seeking and providing information that involved little or no effort by the recipient was an issue that seemed to concern nearly all the Specialists and they often described what they did as
“spoon-feeding” By assuming some of the responsibility for literature searching on behalf of staff, CNSs could be contributing to the de-skilling of nurses (Chan et al 1994) But they also felt there was no alternative because nurses did not have the time, even if they had the inclination, to seek out information for themselves. It was also seen as more cost effective to do this on behalf of a clinical area. Where a single person took responsibility for information collecting there was less duplication of effort. This could lead to the exclusion of other nursing staff from their literature base, a passive approach and poor development of their information seeking skills.

There would appear to be possibilities for a more organised partnership between CNSs and library managers in promoting and encouraging library use by other nurses. The value of making an early contact with new staff was not underestimated by Library Managers:

“It’s the initial contact — they tend to come back then. It’s getting them through the door that can be difficult. And certainly in our Trust there’s a very poor internal communication system. The mailshot with the payslip was almost the only way of talking to people. There don’t seem to be management structures that feed on where I could go and talk at one level and it would get fed through” (NHS Library Manager D)

One Library Manager used the term “champion” to describe influential nursing staff who provided significant support in publicising services:

“I think sometimes it’s having a champion in a department. We’ve got a couple of departments where they always bring new staff on orientation without fail. And the senior nurses will bring them around and is very supporting of them using the library. That definitely has impact in terms of how much they come down.”

There were other additional advantages in having “champions” in terms of integrating library training and publicity into NHS wide programmes:

“I mean we’ve got a place on the induction programme in the trust so in theory all the new staff know about them. And for the first time this year we’re actually put our library training sessions in the formal training programme of the trust” (Library Manager A)

Without this kind of contact library services had to rely on nursing staff seeking out services.
"We have posters in the library they've still actually come in through the door to find out I think it probably tends to be mainly word of mouth" (NHS Library Manager D)

Library Managers regarded the training of junior grades of nurses in searching skills as essential and would be less likely to undertake mediated searches on their behalf. Librarians were intrigued by the pragmatic perspective adopted by CNSs who were willing to undertake searches on behalf of more pressurised junior colleagues. As one Library Manager remarked

"[CNSs] see the junior staff as not necessarily having the time and being unable to get out of the routine whereas they can. We've looked at it exactly the other way round interestingly enough" (NHS Library Manager A)

CNSs were unanimous in being irritated by nurses who were engaged in study writing to them asking for information on a broad subject area. Usually these would be areas that would be relatively easy to locate with a small amount of effort. Specialists working in areas which were widely discussed in the media such as Aids were susceptible to requests for information from students in a variety of academic disciplines on university courses and 'A' level students from local schools and colleges. However, Specialists saw these requests from nurses as an opportunity to introduce nurses to a wider range of journals. For example, one Specialist discussed introducing Enrolled Nurses undertaking Conversion Courses and other staff undertaking undergraduate courses to the Journal of Advanced Nursing. She said

"... sometimes you have to sit and make them think because they have only ever looked at the Nursing Times and Nursing Standard"

CNSs were keen to support nurses on courses and would offer help where they could but were clear about expecting the nurses themselves to make an effort. One expresses it thus

"I expect them to make an effort I don't like to spoon feed people particularly if they're doing an ENB [Post Registration] qualification"

Willingness to support nurses in providing articles and references was rationalised on the grounds that although ideally nurses would seek out
information for themselves, the reality was that they had so little time it was unrealistic to expect them to search for references for their professional work.

Some specialists saw themselves as providing quite formal information centres as a way of disseminating information. These provided both a range of specialist journals, books, patient education materials and expert opinion. A diabetes specialist described her arrangements:

"If anyone's doing research in fact they come to us rather than the library because we actually took over the library information from the library to put in this room."

In this case, the hospital library was small and overcrowded and the transfer of stock to departments may be one way of managing an acute space problem. This arrangement does provide convenient access that combines expert clinical advice and printed information. However, it could not provide a total substitute for the facilities provided by a library service. Specialists had the ability to act as information gatekeepers and other nurses may prefer to go directly to a resource held by a specialist although there could also be occasions when a library service might be perceived as a more neutral source. This collection of materials was also provided as a resource for patients and carers, providing an accessible information source that could be combined with hospital visits.
Chapter 6

EXPERIENCE AND KNOWLEDGE

6.1 Definition of category: experience and knowledge
The previous chapter discussed how the use and understanding of both the formal knowledge base and intuition drawn from experience were defining aspects of the CNS role. In this Chapter, the category of 'Experience and Knowledge' examines how experience of information use by nurses has changed as a result of becoming a CNS, the need to take a longer view, a reliance on personal information seeking skills and the pressures caused by raised expectations from others. Figure 6.1 on the following page illustrates the main category of 'Experience and Knowledge' and the inter-linking sub-categories of 'Changing Experience', 'A Bigger Canvas', 'Self Reliance' and 'Meeting Expectations'.
Figure 6.1  Experience and Knowledge
CNSs are experts with an in-depth understanding of a specialised area of nursing and a broad base of experience and knowledge. This involves operating at strategic levels rather than concentrating solely on day-to-day routines and their accompanying emphasis on the completion of core nursing tasks. They can take a longer view and are working on a bigger canvas. In looking at the larger picture, they are thinking ahead and identifying problems and issues that might need to be addressed in the future.

A Transplant Nurse exemplified this by commenting that it was essential to be aware of what was likely to happen in the next five years. This was partly patient driven because patients wanted to know about new developments to improve their prognosis. However, it was not wholly an extrinsic motivation to keep ahead but part of an intrinsic interest and drive to develop and share that knowledge. Because of this broader perspective, CNSs have a different view of the nursing knowledge base and can be more innovative about the application of information. There is a distinct change of role and they experience differences in the way they seek out the nursing literature. Their specialist role also allows them flexibility not afforded to other nurses.

They have developed a greater self-reliance and an ability to locate and access the nursing knowledge base. The recognition of greater levels of expertise brought with it increased pressures. Colleagues and patients had higher expectations of performance and expected instantaneous responses to problems.

6.2 Changing Experience

The Changing Experience of CNSs category examines the ways in which the specialist role altered their mode of functioning. CNSs reflected on their past experiences of limited information use and referred to factors which brought about change (Figure 6.2).
CHANGING EXPERIENCE

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Figure 6.2 The facets of the category ‘Changing Experience’

6.2.1 Attitudes to innovation

CNSs invariably referred to their specialisms as being subject to considerable change with new thinking about the management of care. Nearly all felt that there was a great deal of new information to keep up with. Specialists experienced a striking change in attitude towards and experience of information use when they moved into a CNS position. This applied to mental health and general specialisms. The following example is taken from mental health:

“You have to keep moving. We can’t say we know how to do it. When I think how I looked after my clients years ago compared to what happens today” (Cognitive Behavioural Therapist, Alcohol Team)

A Stoma Care Specialist felt there was no alternative but to keep up to date whereas “as a ward nurse and even as an outpatient sister you could do nothing.” She felt this was coupled with a feeling that as a ward nurse there was an unspoken expectation that she was not expected to exercise her intelligence. Another specialist described the difficulties encountered by ordinary nurses who wanted to promote new practices:

“here some of the very motivated nurses have wanted to instigate change and its been trampled on by the manager” (Gastroenterology)

She referred to an article by Faugier (1992) which discussed the problem of innovators describing them graphically as “tall poppies” whose ideas are suppressed. Now, as a specialist, expectations were entirely different.

Specialists referred to the pressure they had previously felt as ward nurses regarding the centrality of the completion of physical tasks. While there might be
receptiveness to changes that were introduced there was not time to reflect on them

"When I heard about a new practice that was fine I'd do it I was always open to change But I wasn't going out working out what was really happening and whether it was worth taking on board or not" (Paediatric Support & Research Nurse)

Properly synthesised research based care requires time for assessment and implementation The rushed routines of ward life were echoed by a Research & Practice Development Nurse who commented on the lack of careful reflection on what was really effective and thoroughly researched

"lots of nurses quote they do provide research based practice They'll pick out something that's not very good - 'this is what we should do' - which will probably mean that practice should be changed on the basis of this article I have read And you've got to turn around and say, well, let's look at the detail, let's see if its researched, perhaps we should look at more research Again it all comes down to time really"

There was a willingness to innovate but insufficient time to do it properly

Most specialists felt that they did not go beyond what was provided for them in terms of reading in the early years of their professional life but being a CNS had made a significant difference Rather ironically one CNS in describing the constant questioning and resulting visits to the library work said

"When I was on the ward it would never had occurred to me because I would think there's a specialist nurse out there who's going to deal with that" (Diabetes)

6.2.2 Influencing factors: the educational experience

An increased or changed use of information to support professional practice was not entirely linked to movement into nurse specialism and there were other contributory factors Undertaking an academic course was very influential and was often a turning point One specialist, who had always carried out background reading, felt that this reading activity had increased markedly in the last four or five years as a result of the impetus provided by undertaking an academic course
"I've always been a great one doing a lot of reading, probably not in the beginning but certainly in the last four or five years." (Chemotherapy Specialist)

A Paediatric Surgical Specialist who had used the library on a regular basis, but to read textbooks rather than journal literature, felt that undertaking a degree "developed a whole different appreciation of academic literature searching" Academic training had inculcated attitudes towards library use and "that sort of habit has stuck." A TB specialist referred to the fact that she had "discovered" the library as the result of undertaking a course in her speciality and had realised that new information was appearing at a rapid rate and her reliance on static, dated reprint files was entirely inappropriate.

Library Managers felt that nursing staff were more likely to view membership registration with the library as an automatic process when joining a new Trust than hitherto. This was partly a result of a growing recognition of the centrality of the NHS library by Managers. New staff induction programmes were much more likely to include the provision of information or a visit to the library. As one Library Manager expressed it:

"I would say all new staff register with the library now, almost all of them."

A Library Manager whose Trust, which had been amalgamated with other Trusts and lost some of its services with a consequent reduction in staffing levels, had not noticed a decline in the number of new library registrations. They had in fact been maintained at previous levels. Library managers felt that a combination of factors had lead to this interest in library membership. It was partly the experience of undertaking educational courses but the evidence based practice movement was also a contributory factor.

The HE Library Manager asserted that library users were more likely to be those nurses who had previously undertaken academic courses with the institution and used information services for academic course work:

"I think a lot of the clinical staff that come through have been, at some point, on a course with us and that's how they've got to know us. I would say that ninety per cent of the people who come in have at some point done a course with the university."

However post qualification courses were also an influencing factor in library use.
"it's older staff who maybe haven't done courses for a while, been in post for a long time that have not used libraries very much"
(NHS Library Manager D)

It was not entirely the changed role that precipitated a changed attitude towards reading. Some felt that they had an inclination towards reading that would be evident, even if they were in other posts. Indeed an interest in spending time on the literature may be one reason for gravitating towards a CNS post. The view that time spent on reading and reflection, rather than more obvious nursing routines, is unacceptable seems to stem from periods spent in busy ward environments where completion of day to day routines took priority. CNSs often seemed to take pleasure in making use of literature beyond what was required for their work.

"I mean I'm quite happy to go to the library on a Sunday afternoon and lose myself for an afternoon reading. It sounds very sad, you come in for one particular reference and then you end up staying for hours looking for other journals" (Burns and Plastics)

"So I do it for pleasure sometimes. But when I was a kid I used to read dictionaries for pleasure so I quite like written information" (Rehabilitation and Counselling)

The comment by one specialist contains a consciousness of an element of disapproval that might be felt by other nursing colleagues because time was not being spent on a visible physical activity.

"Well, yes, I use it [literature] a lot more than I did. People wonder what I do because it's quiet without patients" (Pron)

6.2.3 Time and fatigue: the physical routine
The inability to spend time on reading the professional literature was associated with the physical tiredness of working shifts and coping with the daily routine. This did not leave room for thinking creatively about work and "on the wards you could always follow a routine." A specialist now working in Rehabilitation and
Counselling, who had previously worked as a Ward Sister, had undergone a change.

"I now see using information as a major part of my job whereas in the past as a Sister if something came up I'd go off and find out what I could about it. But certainly I didn't feel that was the basis from which I worked and now I think it is. Well I think it's one of the foundations. It has to be."

In a ward environment there were more possibilities for sharing the load. There was an additional sense of greater ownership particularly when CNSs were establishing new services and held responsibility for a particular area of care.

"As a junior sister I used research to write, we did some care plans, did some standards [but as a CNS she was] having to do much more research and reading around. And also I felt that it belonged to me more." (Allergy and Clinical Immunology).

The ability to devote time to seeking information was a facet of the CNS role that was simply not possible in other roles. For a Diabetes Specialist there were now opportunities to "take more time to digest information" and even in the relatively senior post of Ward Sister she would not have considered going to seek out information.

"[Now] I use many more areas to pick up my information. I would never have perhaps gone across to the medical library unless I had to do an essay for college."

This was partly to do with the assumption that there was always someone else to deal with information gaps. But the main issue was lack of time and for a ward manager the demands of administering the ward were too pressing. It was not possible to take time out of clinical activities to read or search for information. There was a feeling that this pressure was greater now than even a few years ago. A Research and Practice Development Nurse felt that she had addressed issues in a much more superficial way as ward nurse and as a CNS she was able to devote more time to keeping up to date.

"I think that working in a ward environment a lot of time is spent doing the day-to-day business of patient care and we don't really particularly have time to look at development. I mean we do, but we didn't tend to do it in great detail. But all of a sudden I was able to look at things in great
detail and really be up to date I wasn’t up to date at all then really I thought I was but I wasn’t”

A CNS who had earlier managed a Cardiac ITU and had previously been an ITU Sister also considered the superficiality of much previous information use. She found she was now looking at things in more depth. Rather than reading the kind of descriptive reviews common in nursing journals her interest in research papers was focused on articles where she could see a practical clinical application. The range of reading expanded with a move into the CNS role and “rather than one paper which somebody had given us you need to be able to review a broad range of articles and papers” (Coronary Heart Disease Liaison). This quotation also reflected an attitude of avoidance of being a passive recipient of information, not relying on what was given, but getting the whole picture by looking at a wider range of information.

The process of changing from previous roles to one of advanced practice was quite often different from expectations. It was sometimes anticipated that with a specific focus there might be a narrowing of the knowledge base and an ability to have a better grasp of the speciality. The reality proved to be rather different.

“It actually opens up and becomes a huge subject and you can never know everything that’s around” (Tissue Viability).

Another dimension to changes in the use of literature by CNSs was the need to use it in a way that enabled them to identify future trends rather than just immediate needs. The difference in approach to the use of literature highlights the vital role that CNSs can play in establishing research-based care. They are more likely to have time to take responsibility for updating their knowledge base even when compared with other relatively senior clinical nursing staff at Sister level.

6.2.4 Changing attitudes

Nurse Specialists took a backward glance at themselves in earlier posts “but they could also recognise their own previously held attitudes in nurses around them. A Burns and Plastics Specialist felt that nurses paid “lip service” to research-based care and “unless they had an assignment they would never ever dream of it [doing literature searches]”. She too said that as a staff nurse she would only have undertaken literature searches if she was doing a course. A
Stoma Care Specialist commented that even as a fairly senior staff nurse in a London teaching hospital she was not expected to know as much as she is now as a CNS. A Stroke Co-ordinator who had previously been a ward manager commented on her changing priorities:

"I suppose as a Ward Manager you have to focus first on managing your unit. I mean, I did try to keep up to date, but not as up to date as I do now."

Others felt there was a significant difference between their ability to access the library as staff nurses and as CNSs:

"I just can't get over how much, because I can access it so much easier now rather than accessing [on] my days off and in my own time, although that still happens, now I can say without a doubt that I use the library more." (Tissue Viability)

No I never ever did that. There wasn't the time and I didn't have the incentive. I was always too tired with my duty. I was doing one week in four weeks night duty so I didn't have any energy to think. To have the creative energy you need to be feeling good about things." (Rheumatology)

It may be that nurses with a particular interest in developing practice naturally move into posts such as that of a CNS to widen their horizons. Hence, the following comment contrasts somewhat with the generally expressed view that it is not possible to find sufficient time:

"I don't think it's a demand that is unique to nurse specialists. It is I think every nurse who should be ensuring they're using evidence based care." (Pelvic Cancer)

CNSs changed their approach to material they read and adopted a more critical approach "whereas when you picked up an article years ago you read it at face value". Reading an article now meant looking at the research methodology much more closely and assessing the validity of claims:

"Now I would be much more analytical about what I want – is that relevant, is that research?" (Burns & Plastics)
As Specialists they found there were opportunities to investigate areas of interest in much greater depth and detail. There was also a recognition of the greater number of nursing journals published than hitherto and the larger body of more rigorous research based papers whereas previously "a lot of the articles were like projects."

The change described by a relatively inexperienced CNS was unusual.

"When I was first qualified if I wanted to know something, I was that scared of everyone that I'd go off and look it up in the library rather than go and ask this big, important Stoma Sister somewhere. Now my viewpoint has changed. It's not personal going to the library. So yes, I have changed, I used to use the library more" (Stoma Care)

Increasing use of personal contacts to gather information was not typical of most responses.

6.2.5 Security

Some CNSs have moved into a speciality different from the clinical area they had previously worked in. For a Psychological Care CNS this had actually lead to less anxiety about keeping up to date than she had experienced as a staff nurse. She attributed this to the change in speciality.

"I was working [as a staff nurse] in a very acute area in haematology and I needed tons and tons of information if I happened to hear about a new chemotherapy that came out. I felt very insecure without that knowledge."

However much of this information would have been laid on for her as a staff nurse and it would not have been her responsibility to seek it out. There was an accumulated security in the knowledge base as a result of immersion in a speciality. This occurred after a relatively short time in post.

"I'm more confident about what I know. And I know that I know it to the point that I'll argue a fact with Senior Infection Control Nurses from other districts."

One of the changes brought on by the CNS role, after a period of undergoing a "steep learning curve" and obtaining information from colleagues and libraries, was a growing importance of networking at conferences.
"if you're in a specialty longer you probably gain more by networking and getting information that way in terms of conferences and things like that. I think it's a good opportunity to go to conferences and get your name known and network like that." (Cardiac Liaison)

This was equally true for a widely known expert who was frequently an invited speaker at conferences at home and abroad.

"I get quite a lot from going to conferences and meetings nationally and internationally. Proceedings from those conferences are a source." (Faecal Continence CNS)

"I attend spinal conferences to keep myself abreast of what's going on and around the other spinal units. That's a good source of information because it's everything that's going on around the other spinal units." (Spinal Cord Injury Practice Development Nurse)

Only one Specialist felt that she had less need to seek out information as a CNS although she did not make comparisons with a previous role working on wards and as an A&E Sister. In her current role of working with Ethnic Elders in the community there had been a period of information seeking about the background of ethnic minority groups and care of the elderly when new to the post but now "I just accept the ground work and deliver the job."
6.3 A bigger canvas

The move to a Nurse Specialist post has meant a changed perspective and changed view of the world with far less emphasis on the needs of daily routines (Figure 6.3)

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Figure 6.3 Facets of the category ‘A Bigger Canvas’

This makes CNS information needs very different than hitherto. A Child Protection specialist expressed it thus:

“I think when I was first in post, your focus is much more micro than macro in a way I’ve moved from thinking smaller to thinking bigger. And bigger thinking is much more strategic, what’s going on nationally. So yes it’s a lot broader than it was.”

For this specialist there were two stages in the change process. Part of that change included developing a political role as well as clinical skills:

“there’s the initial when you’re learning it and developing and then [you’re] in a post which is seen to be more strategic and political. You know it operates on a trust wide level as opposed to a department or directorate level.”

In addition to adopting a more strategic view in a political sense there was a need to take a longer view in clinical affairs. One CNS saw it as looking at “what is going to be happening in the next five years” (Transplant nurse). The same Specialist noted:

“I’m looking more progressively now at what we are going to be doing and what people are researching now. So I think its more I feel competent in the knowledge of what I do but the next step is what else is going on, what are we working towards”
6.3.1 New perspectives on 'old areas'
However it was not merely a matter of taking a broader perspective but also trying to look at fairly basic practices and apply them to their own specialisms. A Pelvic Cancer CNS provided an example of a widely discussed procedure such as wound care and having to re-read the literature with a different specialist perspective, using expert practice as a basis for this:

"It's looking at information in a different way or a different light to see what you can actually use that will apply."

Another specialist made the same point saying for some things she needed to go "back to basics" and she had found this surprising. In trying to develop the boundaries of nursing practice an understanding of the fundamentals of nursing was essential. A thorough understanding of basic nursing procedures was also linked to the need for CNSs to demonstrate "creativity and innovation" in applying them to specialist circumstances. CNSs themselves were unprepared for having to return basic nursing literature. They had assumed that as CNSs they would move away from the more commonplace aspects of nursing. While requiring more specialist nursing literature they needed to maintain contact with standard nursing literature and utilise it in different ways.

6.3.2 Doing it for themselves
In most clinical areas, particularly in hospital settings, information packs with photocopied articles relating to the clinical speciality are provided for nursing staff to consult. This is a requirement for any area that takes student nurses on placement but is commonplace elsewhere. There was no particular impetus for individual nurses to go to libraries or other sources and seek it for themselves. Nurses new to an area would use the packs and also rely on colleagues for information. By contrast Nurse Specialists find themselves in the position of having to "start doing it all" themselves. They were themselves often the source of articles left in ward files and at some point they would need to make intensive use of literature sources. For most this was a continuous process although for one or two of the older specialists it might have been undertaken when initially taking up the post but was no longer important.
6.3.3 Pushing the boundaries

The specialist role not only required a broader perspective but also an enriching of the depth of the knowledge base. A Gastroenterology Specialist noted that she "had to introduce a lot more theory into practice". Again this was part of the process of attempting to pushing against the boundaries of nursing knowledge and she said of herself and gastroenterology specialists elsewhere that they "were the ones that are going to shape the future". Another specialist discussing skin care during radiotherapy treatment saying echoed this: "There isn't any research about it. We are the people generating the research" (Breast Care)

This depth of knowledge was also needed to enable CNSs to educate others. But specialists needed to be highly selective in their information seeking activities although they were far more likely to be "aware of the value of the library as a resource".

6.3.4 Environmental culture

For Specialists who had undertaken higher degree courses, these had been instrumental in providing an impetus to seek information. Sometimes the culture of the environment was a driving force. For instance a nurse working in a specialist hospital remarked on the "buzz around the place". In general CNSs seemed to feel that the local research culture had an impact on their perspective although there were examples where specialists felt that the medical culture of research excluded nurses. A Coronary Heart Disease Liaison Nurse working in the community commented that an attribute of the CNS role was the recognition that "your practice is very much dependent on what your knowledge base is".

6.4 Self Reliance

The development of experience and knowledge of CNSs has grown in tandem with an increasing self-reliance on their own information seeking skills. This contrasted with earlier years in their professional life when the practical and theoretical knowledge was made available for them. As one specialist said: "You got your knowledge from other members of staff or publications that happened to be lying around on the unit".

CNSs need to establish their own methods of keeping informed and develop their own information networks. So they become more expert in the sources of
information available and in the techniques required for accessing those sources (Figure 6.4)

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Figure 6.4 Facets of the category 'Self Reliance'

There was a perception among library managers that nurses had developed a greater maturity in their approach to information seeking:

"They seem more determined I mean they used to give up far more easily than they will now They'll come back and they're actually prepared to make appointments and see it through" (University Librarian)

"I wonder if actually there's a change of attitude in nursing generally though about using information A few years ago it might have been, 'well, I'm doing this - it's a bit of an extra really and therefore if I can't find it easily I'm not going to bother too much' Whereas now I think it's perhaps, particularly at this sort of level, I think there's more of a recognition that actually they've got to do this They can't just think, oh it's going to be difficult, I'll just give up" (NHS Trust Librarian)

This view that information seeking required effort on the part of information consumers was echoed by a specialist who commented:

"You have to struggle for things a bit You don't expect something without making an effort You don't have minions running around doing a literature search" (HIV Specialist Nurse)
6.4.1 Improved techniques

Along with a growing awareness of the necessity for practice being based in research evidence most CNSs have evolved better techniques in searching the literature. Self-reliance in access to information was linked to acquiring a degree of computer literacy. Some Specialist Nurses referred to the skills of computerised literature searching developed on Post Registration courses at university that forced them to become competent and helped them to seek information with confidence. Another who had been educated under a modern university based Project 2000 first level nursing course programme said:

"Within the first couple of weeks of doing Project 2000 you were using information technology, library skills."

This is confirmed in a study comparing pre-Project 2000 and Project 2000 qualified nurses which found that Project 2000 nurses were better prepared in their ability to use libraries to locate research literature (Parahoo 1999). One specialist commented that the change to CD-ROM databases, which she had learnt to use on an ITU course had made a difference because it was easier to access the literature once she had understood how to do so. However she "could understand why a lot of the older nurses don't use the library facilities as much as they should do because it's not the way we were taught really" (Infection Control).

Older CNSs tended to be less able to use electronic sources to access information. They were trained before the development of CD-ROM databases and in the days of hand searching. They relied on colleagues to help them out or on more informal networks to acquire information.

"I just wanted to go down and start to know how to do a search and I shall probably take one of these three [colleagues in office] down with me" (Stoma Care).

Another specialist was uncertain about the whole process.

"I think you can do it on the computer. I wouldn't like to say I tend to use other professionals" (TB).

A few Specialists relied on following up references given in published bibliographies. For instance a Chest Clinic Sister, who had undertaken a recent specialised post registration university course, had not had literature searching.
training as part of that course and tended to follow up reference lists in articles she found to obtain her information. Other strategies for information seeking were used by a minority of specialists who were unable to literature search or regarded themselves as not being good at literature searching. Surprisingly they did not seem to make use of library mediated searches compared to CNSs with searching expertise who sometimes did. They talked about obtaining one article and following up articles in the reference list or going “to someone who has the knowledge already”

6.4.2 Developing Skills
More inexperienced specialists currently undertaking courses on evidence based practice commented on the difference the acquisition of literature searching skills made. They would now undertake a literature search first, rather than find information in books, because it was faster. One of these specialists said:

"Before I just tended to work the way I knew, tended to go to what I was familiar with"

Another specialist from the same Trust on the same course also compared the speed with which she was now able to perform literature searches against that of colleagues who had not been given that training. Most specialists were relatively confident about searching for information and were self reliant in that aspect of their role in spite of varying degrees of computer literacy.
"We just sit at the computer and do it ourselves so we can access information" (Diabetes)

"I would say as time has gone on I'm much more aware of how to access things" (ITU)

I'm no longer feeling my way as to where I get information" (GU Health Advisor)

* I do them [searches] myself I'm fairly computer literate and prefer to do it that way" (Paediatric Surgery)

"I can use Cinahl and Medline painstakingly I'm not a computer technical person" (Burns and Plastics)

"You need to get into what key words are and that sort of thing otherwise you go round in circles" (Stoma Care)

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<th>The newly introduced Ovid database and full text journals service will make competency in searching electronic sources essential as printed sources are scaled down in the longer term. There was a perception that, although nursing staff made less use of these services based on records of the numbers of searches undertaken, levels of use were good given their constrained access to the Internet. Community Trusts had a particularly poor IT infrastructures and their staff were at an even greater disadvantage in terms of their ability to access the Internet than acute nursing colleagues</th>
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<td>It was clear that Library Managers gave information skills training a high priority and sought innovative ways of taking training to staff rather than expecting health care staff to go to the library. Finding the training formula to match training need has been difficult. There was a consensus that drop-in sessions were unpopular</td>
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"there can be occasions when someone comes in for a particular need and you train them then and they don't come in for a year. The you end up doing it all again really because they haven't used the library much in between" (NHS)

"We tried doing group programme training, and we've actually not bothered with the group training any more, more simply because of the number of people who can't get there - so we've gone back to doing informal" (Higher Education)

"Whereas the more formal booked training session does seem to be working more successfully. The drop-in sessions I don't think have been very popular at all" NHS

"Managers are unlikely to free someone for a hour's training in the library, they don't regard it as a proper training course" NHS

Taking training into the clinical area was also problematic and did not lead to the delivery of optimum training as in the following examples

"One of the things that X picked up when she was doing our training in the wards A they may not turn up at all B they may turn up, but late C they may turn up, but then twenty minutes later the bleep goes. They rush out and they may come back, but they may not"

"They trained in the doctors' mess basically there'd be comments about her presentation by the doctors sitting behind who weren't part of the training programme" NHS Library Manager

Poor training environments and the conflicting demands of the workplace meant that it was difficult for nursing staff to commit time to training. Information Managers' attempts to be flexible and deliver training in the clinical area, rather than expecting staff to come to the library, appear to have been less successful than anticipated. Rather perversely it might be that training held at venues away from the clinical area, although potentially more inconvenient, is far more attractive for NHS users.
6.4.3 Negotiating access to the information

Making use of the library as well as developing skills to search the literature themselves was part of that process of self-reliance. In circumstances where access to a range of library services was unpredictable, having well-honed skills of persuasion and being able to negotiate access was important. A Stroke Co-ordinator who regarded herself as being a competent information seeker but worked some distance from the library site requested searches by telephone and noted that

"I don't think they do it for everybody though but they're very nice to me because somebody told me last week they can't get the library to do anything."

She had undertaken clinical effectiveness training that had included searching for evidence in the Medline database and the Cochrane Library. The course had been invaluable in improving her skills. However, for many specialists who were able to do computerised literature searching, the infrequency of doing it meant that there was a re-learning process each time which was frustrating. The ability to have desktop access and to do searches in spare moments was mentioned by one CNS as really making a significant difference. He mainly undertook his own searches because the library was inconsistent in their willingness to undertake mediated searches

"If they're quiet they will do them."

The attitude of Library Managers towards requests for mediated literature searches was at a variance with those CNSs who felt it was difficult to have search requests accepted. Libraries were willing to undertake literature searches for CNSs on the grounds that they were more likely to be for a serious clinical purpose than for other nurses undertaking educational courses

"And I think perhaps we are more likely to do it for them [CNSs] than we are for other staff. Because of the role they do, I think perhaps with more junior staff, we would perhaps hope they would do more themselves."

NHS Library Manager D

This approach was rationalised on the grounds that literature searches required for patient care should be undertaken by information specialists because they were more likely to be possess better search techniques and produce more effective results.
"You can only make a very subjective judgement [on] how important is it in this case that a good search is done. If it's something that is working up into a guideline or protocol maybe somebody with a bit more expertise in searching does need to be involved" (NHS Library Manager A)

However there was no clear policy in most libraries

"It isn't written down I suppose because in a sense you do it by - you make a judgement I think very often" (NHS Library Manager A)

"Yes I suppose it's fairer to say we would be much more likely to do a search for a Clinical Nurse Specialist perhaps. That's not to say we would never do them for a Staff Nurse. It just depends on circumstances. So no there isn't a guideline" (NHS Library Manager D)

Concessions were made for community staff and they were offered a postal loans service in addition to mediated searching

One Library Manager commented on the lack of clarity for library users when apparently ad hoc decisions are made on undertaking mediated search requests. Libraries had an agenda that involved training health professionals in transferable skills but did not always convey this to users

"And there is a view that what we are imparting is transferable skills to their own [searches] and it's an important view. And may be it does need to be articulated more clearly in documentation. Because otherwise we're imposing on users the tensions we feel as professionals about which way to go and making a decision on each case." (NHS Library Manager C)

HE libraries generally adopted as approach of self help and did not encourage mediated searches

"We don't really do any mediated searching at all but we have staff to help" (HE Library Manager)

This was confirmed by a CNS from the local trust using this HE library service

"We were looking at some problems with epidurals and we were looking in the literature associated with that. And as someone who doesn't have specific time to take time out to go and do it - if I could have phoned somebody up and said could you do a search on X topic that would have been wonderful" (Pain Control Sister)
This expertise and self-reliance in information seeking was viewed as important not solely to support clinical practice but it was a skill which could be passed on to more junior staff. Some CNSs felt that many nurses saw using the library to seek information as stressful and that obtaining information was always a struggle. An Infection Control CNS described the process of educating nursing colleagues in an encounter with a nurse who wanted more information on pre-operative shaving:

she was going to get an article and go through all the references and I just said to her ‘Why don’t you go and use Medline or Cinahl?’

6.5 Meeting Expectations

The role of CNS is usually regarded as that of a senior nurse and most of the Nurse Specialists interviewed were at the higher end of the clinical nursing grade system. While some CNSs had previously held senior nursing posts at Ward Sister level, some had moved to a new specialism on their appointment as CNSs. Glen and Waddington (1998) document the stages in the transfer from senior staff nurse posts to Clinical Nurse Specialist posts in case studies that describe “role overload” as a characteristic of the CNS role. Role overload was a combination of excessive workloads and a perception of the abilities required to undertake the role successfully. Stress is compounded by the unrealistic expectations. For example, Woods (1999) describes “key stakeholders”, who include managers and senior medical staff, as having unreasonably high expectations concerning what can be achieved by CNSs. Patients, nursing colleagues, junior doctors and allied health staff contribute to unrealised expectations.

Co-existing with an assumption of seniority is an expectation of exceptional knowledge of the specialism itself. These expectations may sometimes be entirely unrealistic for those who had moved to new or unfamiliar specialisms. Unrealistic or not, these expectations create pressures for the CNSs who have to find a way of coping with them. The facets of the category Meeting Expectations are shown in Figure 6.5.

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Figure 6.5  Facets of the category 'Meeting Expectations'

6.5.1 Knowledgeable patients and clients
CNSs have to meet the expectations of a number of groups. Among these are knowledgeable patients. Some with chronic conditions have undertaken thorough searches for information so they will expect their specialist to be acquainted with these sources and perhaps be able to tap into additional sources. One CNS working in a specialist centre acknowledged a high level of expertise among patients and carers and the pressures it placed on her:

"I think you have to be up to date. I don't think you could get away for very long. Have to justify our role. But I have a lot of patient contact and they're the sort of patients who have a lot of questions to ask and their families often have a lot of questions." (Metabolic Bone Disease)

Another CNS working at the same centre said that after patients had been discharged they would come back bringing articles with them:

"The last patient I had in did have some articles and he just wanted to discuss them. You know, what do they think, what are they doing about this." (Spinal Cord Injury)

A Cystic Fibrosis Home Care Nurse said:

"Most have BNFs⑧ they have the latest knowledge and the latest articles and if you haven't seen them they'll present them to you."

Her role in the community meant a far greater self-reliance because there was no one on the spot to turn to.

Growing access to the Internet at home and work has given patients and their families easier and quicker access to information and the ability to research their conditions. Conditions such as HIV and Aids now have a substantial history.
of self-help. One Specialist, who had clients who were themselves involved in providing information on web sites explained, “there are some seriously skilled people out there” Another specialist described these knowledgeable and determined patients as knowing “where they’re going and they know what they’re going to get out of the system”

Patients frequently looked at treatment options on the Internet and would want to know why their condition was being managed in a particular way. This use of the Internet by patients and families was not universal, particularly for CNSs working in areas where a patient’s illness might be more unexpected, such as ITU. Another CNS described the local population she served in Essex as being economically disadvantaged and less likely to possess Internet access as a result. Nonetheless lack of access to the Internet meant that CNSs were at a disadvantage in comparison with their patients and clients.

6.5.2 Medical and allied health staff
Many specialists referred to the need to be able to discuss clinical issues from a sound knowledge base with medical staff. There was no sense that Consultants or other medical staff made concessions to the different training they and CNSs had received. The specialist label of CNS was deemed to make this unnecessary. Nurse Specialists made comments such about the expectations of medical colleagues as

8 BNF British National Formulary
to be on a par with their information they expect my knowledge to be greater" (Urology)

“They expect me to understand what they’re talking about” (Gastroenterology)

“I have to be able to argue at the same level as doctors” (Burns & Plastics)

Figure 6.6 Expectations of medical colleagues

Other health professions had similar expectations of CNSs. A Sickle Cell & Thalassemia CNS described encounters with physiotherapists and a dietician who seemed surprised at an apparent gap in the knowledge of the CNS when “she raised some important things I hadn’t even thought of” A Stroke Co-ordinator expressed concerns about unreasonable expectations and she said, “you have to take on medicine and physio and OT”

6.5.3 Nursing colleagues: raised expectations

Expectations from nursing colleagues are raised as a result of the Nurse Specialist label. Some CNSs felt particular pressure because they were the main or only source in a particular specialism. One expressed it thus

“I’m the person that everybody comes to and my advice does need to be ‘spot on’ and does need to be, I suppose, evidence based as well”

Another compared her previous limited reliance on a few general nursing magazines but felt that her responsibility to colleagues made a significant difference

“I have to keep abreast I’ve got a responsibility at the end of the day to share my knowledge” (Gastroenterology)

A Tissue Viability Specialist would call on Tissue Viability Specialists elsewhere, particularly earlier in his career, because “I was the fount of knowledge here” Specialists did not necessarily have an alternative answer to difficult or unusual problems but they felt they had a role in reassuring nurses that they really had exhausted various options. It may also be a case of reassuring local colleagues or peers from other trusts as in the case of a Face & Neck specialist consulted by a senior nurse.
"They weren't absolutely 100% sure and they wanted the reassurance"

Sometimes it was a battle to gain acceptance. The Chemotherapy CNS who described difficulties in being accepted as a source of specialist knowledge was unusual:

"It's taken a while for me to get people to acknowledge the fact that I am a specialist and I'm here to help and make them realise I do have lots of information"

She had moved from a specialist cancer centre to a district general hospital and this may have led her new colleagues to feel particularly vulnerable to criticism.

There was an awareness that the expectations of colleagues were enhanced as a result of being a CNS. One specialist described being "more cushioned" on the ward because there were always other people to ask and there were doctors available to resolve something that was more difficult. By contrast as a Specialist she would go to find out herself, something she never did as a ward nurse. This was not the case for all CNSs although a distinction was made between nursing knowledge that they would be expected to have in depth, and medical knowledge that they usually ask consultants about.

6.5.4 Unrealistic expectations

Sometimes expectations were totally unrealistic and specialists had to disabuse nursing staff of this assumption. For example there was an expectation that CNSs would possess every single paper published in their area. Similarly both patients and nursing staff would expect CNSs to be able to deal with any clinical problems. This applied to what a Pelvic Cancer Specialist described as "something different, or special, or unusual". CNSs had to develop coping mechanisms by explaining that they did not have a definitive answer but would deal with the problem by going away and attempting to find an answer. They had to feel comfortable within their role to respond in that way. Patients felt that being seen by a CNS meant they could expect much more in terms of information giving. Tissue Viability Specialists from 2 separate trusts felt that when they were called in to see patients with major wound problems, patients believed that they would sort out their wound problems but "nine times out of ten you can't". This failure to meet patient expectations, however unrealistic from
any objective assessment, could be disheartening. There was sometimes the combined pressure of expectations from both patients and their nurses.

"When the ward staff and the patients have a problem it's almost expected you will come up with the answer."

There was additional pressure for specialists appointed to clinical areas that were outside their previous specialist knowledge. An Intensive Care specialist who had moved to this CNS post from cardiac intensive care felt a greater weight of expectation but he was able to ameliorate this additional pressure by contributing higher levels of expertise in cardiothoracic issues. One CNS who had difficulty in gaining acceptance as a Chemotherapy Specialist felt this due to local political problems rather than a failure of expectation arising from the role itself.

6.5.5 Burden of expectations

This sense of heightened expectations was felt by CNSs working in specialist centres to be even greater than in other environments. A Clinical Nutrition and Intestinal Failure CNS noted that this was partly because there were expectations from other practitioners both from the UK and abroad.

"We get dieticians and nurses and doctors phoning us from all around the UK and abroad. I try to keep ahead of them."

While being conscious of the raised perceptions of colleagues, CNSs had to take a realistic view of their own abilities. Some felt rather uncomfortable with the title of CNS, particularly those who were relatively new in post or had moved to a new specialism. A Face and Neck Specialist felt uncomfortable about the pressure to demonstrate advanced levels of knowledge and was unhappy about calling herself a Specialist. One specialist discussed colleagues elsewhere in similar roles, but without the nurse specialist label, who did not suffer from such raised expectations. Another CNS she was "a bit uncomfortable about that but I find that all sorts of people really do expect me to be able to answer different sorts of questions" (Rheumatology). A Tissue Viability specialist noted that she was always introduced as "the specialist", and the fact that she did not wear a uniform provided an extra visual prompt that more might be expected. For some CNSs the burden of expectations in respect of their knowledge base was
made easier by confidence in being able to demonstrate excellent hands on clinical skills

Nurse specialists used language that reflected the way in which they viewed expectations of their performance in terms of their knowledge levels. They described having to keep ahead and having to provide answers. This was particularly difficult for staff who were new to their post and sometimes moving into different specialities. The pressures were threefold, patients, nursing colleagues and medical colleagues. It was not the kind of pressure which lessened as experience grew, and CNSs found that as they began to understand more, they also became aware that there was so much more yet to know.

The burden of expectations:

PATIENTS

“We have to be one step ahead of the patient. Our patients are much more informed than they were 10 or 15 years ago” (Continence)

“Because I’ve got to send information out to people I’ve obviously got to read everything that comes out” (Pron/Neurology)

“When the ward staff and patients have a particular problem it’s almost expected that you will come up with the answer” (Pelvic Cancer)

“You could tell them anything and they’d believe you which I think puts more pressure on you to know what you are telling them because they’re not going to question anything” (Stoma)

“You’re automatically introduced as ‘this is the specialist’. Um, Oh dear” (Tissue Viability)
The burden of expectations

NURSING COLLEAGUES AND MEDICAL STAFF

"especially at the level I'm practising at they expect my knowledge to be much greater" (Urology)

"I'm very much aware that I'm the person that everyone comes to be sure of what I'm saying, not worry that I've taught somebody the wrong thing" (Urology)

"Its put me under a little bit of pressure" (ITU)

"I don't like to give myself this title of Clinical Nurse Specialist because I think it takes time to build up that kind of reputation" (Sickle Cell & Thalassemia)

"Everyone thinks you've got every single paper that's ever written" (Pelvic Cancer)

"As a specialist nurse I've got to know more than other nurses in my speciality" (Gastroenterology)

"I still feel that I've got my L plates up because I'm training in post" (Rheumatology)

"More and more we have to prove we're a value to the service" (Tissue Viability)

"If you don't keep up to date you've lost it really, You loose your credibility" (Stroke Liaison)

"I feel very much the pressure's on to know more" (Face and Neck)

"It's a learning curve that persists for ever" (Burns and Plastics)
Chapter 7

INFORMATION INTERFACES

7.1 Definition of the category

The previous chapter examined the way in which CNSs were faced with high expectations concerning the way they demonstrated their practice and knowledge base and developed an independent mode of information seeking. In this chapter, the category of Information Interfaces (Figure 7.1) examines the way in which CNSs interact with the broader information interface. The related concepts of ‘Professional Domains’, ‘Networks’ and the ‘Wider World’ are shown in the inter-linked circle. Relationships and information sharing and exchange between CNSs and other health professions are one aspect of this information interface. The power relationship between nursing and medicine is examined in the context of the impact of CNS information use. Among the networks, which go beyond the confines of the local environment, are national links between specialists with similar areas of interest. This category will also explore the impact of CNSs’ involvement in nursing issues at a national level and how an engagement with issues at a national level affects CNSs’ ability to develop their knowledge base.
Figure 7.1  Information Interfaces
7.2 Professional domains

CNSs discussed their relationships with other professional groups largely in terms of their interactions with the medical profession in the course of their work (Figure 7.2) This is unsurprising given that medicine is still the dominant profession in health care.

An example of the difficulties of the medicine-nursing relationship is discussed in research looking at Practice Nurses who work in GP surgeries They experienced difficulty in revealing educational needs and the fact that they might have to go beyond the limitations of their competence to GP employers Jones (1996) describes the pressures placed on Practice Nurses as 'Fear of disclosure' as if the expression of a need for further training was evidence of weakness If CNSs need to discuss professional issues relating to their specialism they are more likely to discuss issues with Consultants or possibly Registrars They are both specialists in their fields This is an indication of the depth of their knowledge in their specialism and the possession of greater knowledge than most junior medical staff.

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Figure 7.2 Facets of the category 'Professional domains'
7.2.1 Value of nursing knowledge

An experienced Senior Emergency Nurse Practitioner, undertaking work previously performed by junior doctors, described a traditional anecdotal medical view of nurses

"the doctors, you're not going to change them, the mentality, the tradition, 'Oh they [nurses] should be there rolling their sleeves up, scrubbing the floor"

Wicks (1998), through an analysis of discourse, postulates a view that the subordination of nurses to medical dominance is over simplistic. Relationships are uneven, and on occasion nurses will challenge medical authority but in other cases doctors will use their power to overrule the views of nurses. Individual nurses were able to act in a way which challenged tradition class and gender structures. Annandale (1998) too concurs with this view and asserts that interprofessional divisions within nursing and medicine should not be ignored. CNSs are an elite group of nurses who are not regarded in the same way as other rank and file nurses.

It was suggested by one CNS, who had recently moved from another hospital to her current post, that cultures varied considerably between institutions. She was now consulted by medical colleagues far less frequently than hitherto.

"Where I was before I used to being more involved by medical staff than I am now. And I think a lot comes from the culture of the medical staff who are working around" (Senior Nurse Practice Development ITU)

Wilson Barnet et al (2000) found that resentment and barriers erected by both medical and nursing staff made difficulties for a significant minority of advanced practice nurses. In some cases nurse managers felt unable to offer support to new roles and in other cases medical staff responded negatively to changing boundaries of practice.

The exchange of information between CNSs and senior medical staff was usually seen as a one-way process from physician to nurse. However CNSs and Ward Managers were more likely to be seen as "legitimate sources of information" than other nursing staff. Staff nurses were perceived by CNSs to be undervalued as sources of knowledge by medical staff but that CNSs gained legitimacy, because, by being able to "support your point, you can put forward
your arguments in a coherent fashion" They were able to support arguments with the underpinning knowledge of the relevant evidence A Spinal Cord Injury Specialist expressed it thus

"the Consultant will say 'where's your bit of research to prove that one'"

Junior doctors would come to CNSs for information but there was a feeling that medical staff were not quite comfortable with this There was a view among CNSs that the overall development of a more academic base for nursing through pre-registration education and post qualification development might eventually make a difference to overall perceptions of nurses

Usually senior medical staff would not expect to consult CNSs regarding their professional nursing knowledge A Breast Care Specialist attributed this to the medical view of nursing as not being

"a separate and important discipline They're the experts in their field and I don't think they feel that the nursing discipline has got anything different to add"

This Specialist did feel that her role and experience was valued, but not in terms of her having a different body of knowledge Yet, for instance, in meetings discussing treatment options where she feels the medical model is followed she is able to state that a particular option is unacceptable By providing a rationale her view is taken seriously

"Quite often I'll put a spanner in and say well I don't think that's acceptable and they'll take that very seriously My view is respected I think that's partly the role I'm in"

However another specialist said that medical staff would regard herself or her colleagues as the "last person they would ask, I think its that magic word nurse" She went on to say

"in this trust I would say we have a tremendous problem persuading doctors we have specialist knowledge" (Diabetes)

In most areas CNSs deferred to the medical view although there are exceptions For example, a study of the inter-professional relations between doctors and nurses (Walby and Greenwell 1994) found that doctors were much more likely to accept nursing research in areas which they regarded as outside their responsibility For example pressure sore management was considered to be a
nursing issue although management of pressure sores was complex and difficult. This was confirmed by Tissue Viability CNS who had previously worked in intensive care.

"You were quite autonomous practitioners on ITU so there was never quite the doctor-nurse divide as perhaps there is on the wards. But I do think when you don't wear a uniform any more doctors are more willing to discuss. It's written in the notes 'discussed with the Tissue Viability' rather than 'discussed with the nurse' they perhaps accept that you know a little bit more about wound care than they do."

Other areas in which nurses saw themselves as possessing superior skills to medical staff included pain control and care of the dying (Wicks 1998). McKee and Lessof (1992) suggest that nurses work as equals in inter-disciplinary teams in psychiatry and geriatric medicine and this appeared to be the case with a Stroke Care Co-ordinator and a Cognitive Behavioural Therapist interviewed in the CNS study. However in the case of wound care, nurses still need to approach doctors to sign prescriptions for wound care materials. Walby and Greenwell (1994, p43) noted

"We found that some doctors would listen to nursing research, others had to be approached 'diplomatically' if nursing staff were to succeed in having their prescription agreed, and a small number of doctors flatly refused to look at research papers, or listen to the views of nursing staff."

This is certainly reflected in the experience of CNSs who had to use a great deal of tact in expressing views.

"Nurse medical relationships have to be carefully handled" (Paediatric Surgical CNS)

Nurse Specialists generally felt that the nursing-medical relationship had to be handled with care. For example whenever one CNS felt he needed to intervene on a specific issue he had to do it as "tactfully as possible otherwise you don't get anywhere". Similarly a CNS who had been in post for only a few months in the same trust said

"the senior nurses who have been round here a bit more know how to tackle them [medical staff] because they know them." (ITU)
An ITU specialist illustrated some of the difficulties of the medical-nursing relationship

"Of course a lot of doctors are scared of nurses who actually have knowledge because they don't necessarily like being challenged"

The integration of the roles of doctor and nurse to provide optimum care for patients does not occur even in circumstances where a multidisciplinary, team working approach is most appropriate. Blane (1991) notes that doctors tend to adopt a team approach where members of the team allocate their main loyalty to other members of the same profession and to traditional role breakdown. This seems to apply in what might appear to be more neutral ground outside the clinical environment illustrated in an analysis of literature searching training. The territorial nature of information is reflected in a study in North Thames that aimed to provide literature search training, evidence appraisal skills with easy access to computer databases. Some of the training was undertaken in multidisciplinary teams yet

"the training was perceived as being aimed at a particular profession depending on the trainer's background and was seen as irrelevant by other professions in the group" (Cumbers and Donald 1999)

One of the Library Managers referred to a suspicion that doctors were unwilling to attend training delivered by librarians who were perceived to be from a nursing environment

"We cannot get the doctors to come interestingly enough it's offered as multidisciplinary but the doctors don't come and whether that's because they perceive the librarians coming from what they see as being a nursing library" (NHS Library Manager A)

A study of registered nurses in Sweden concerning the use of research indicated that a lack of authority made it difficult for nurses to implement research findings (Kajermo et al 1998). This is supported by the Clinical Standards Advisory Group (1998) in the UK in a report of stroke care. A nursing stroke co-ordinator required the support of a physician to make improvements in the stroke service. Nurses are not in a position to develop their own profession and CNSs seemed to occupy ground somewhere between other nurses and
medical staff. A Paediatric Support & Research Nurse expressed the difficulties of this position graphically:

"I think if you use the analogy of the great house of the nineteenth century I'm probably the governess. I'm not part of the family, a great aristocratic family of the medical profession, neither am I the twee maid on the ward as a nurse any more. But I'm the governess and probably not socially in either camp."

Walby and Greenwell's study of nursing and medical inter-professional relationships (1994, p81-2) found that in general there was considerable support for specialist nurse practitioners. Interviews with doctors also revealed some of the difficulties and conflicts caused by a perception that CNSs' skills could be threatening. The following comments by a Consultant and a Senior House Officer from Walby and Greenwell's investigation illustrates this:

Consultant: I think nurses can get too much theory. Nurses often feel they know best and often there is competition between doctors and nurses which is unhealthy.

I think, yes, to have the sort of [ICU type] nurse specialist in great evidence on the wards would create more potential for conflict, because of the reason I was saying earlier.

Senior House Officer: “Specialist nurses can be tedious, they think they’ve got total knowledge. They tell me what to do.”

Doctors' hostility towards highly skilled nurses who were seen to trespass into the medical arena is illustrated in the following extracts concerning a Nutrition nurse specialist. The third quotation indicates that nurses sometimes conspired with senior medical staff in this view.

Medical House Officer: HQ’s [House Officers] hate dealing with [the specialist nutrition nurse], she hates having to ask HOs to do things she is not allowed to do.

Medical Ward Sister: The nutrition nurse was pooh-poohed at first, attitudes are changing.

Ear, Nose and Throat Ward Sister: [The Nutrition Sister] changed patient's management without my or consultant's knowledge. She’s been booted out of the department, but doesn’t know it yet. She will not be invited back.
Some specialists were working in areas that junior medical staff might encounter fairly infrequently and there was no choice but to rely on CNS expertise. For the most junior house officers CNSs might seem a less intimidating, but reliably authoritative, source of information than senior medical staff.

"the houseman will come and ask me things because they feel happier asking me than some of the senior doctors because they don't want to look idiots" (Spinal Cord Injury CNS)

Green and Walby suggest that junior doctors were more likely to be hostile towards skilled nurses and these medical staff were most likely to be aware of their own skills deficiencies and yet feel they should be in a leadership role. Consultants, confident in their own expert knowledge base, saw skilled nurses as an asset rather than a threat. Most Senior House Officers did not know a great deal about some of the specialities when they started. A Metabolic Bone Disease CNS said she liked to see her relationship as a partnership. However, she was hesitant about saying that this was precisely how medical staff viewed it. A CNS from the same hospital felt some medical staff accepted her expertise but she saw the Consultant as her source of expert knowledge.

"The Registrars that come in are quite happy to take information from the "sisters in blue" or myself because they know we have got the experience behind us. If I want any information I'll go to the Consultants I know" (Spinal Cord Injury CNS)

The attitudes encountered by CNSs, where their expertise is not regarded highly, must act as inhibiting factors in the implementation of change.

Another group who were seen as being able to respond more appropriately to CNSs were General Practitioners (GP). There were occasions when CNSs were knowledge gatekeepers themselves. For example, some CNSs were required to disseminate information to GPs. A Coronary Heart Disease Liaison Nurse discussed lowering lipid treatment thresholds of people with high blood fats and the increased prescribing costs this would incur. She felt that it was important in contentious areas such as this to review a broad range of papers "because you know somebody is going to say what about such and such." A Diabetes Specialist contrasted a relationship of equality with GPs and a much more difficult relationship with Registrars in the hospital. She felt...
"You can write something in the notes and it's completely ignored and our Registrar can come along and write 'ditto' and they'll do it we have tremendous problems persuading doctors that we have specialist knowledge"

By the time the nursing profession had achieved professionalisation through the establishment of grades for trained nurses and nursing schools to provide training, the medical profession was already well established Blane (1991) summarises some of the arguments for nurses' lack of autonomy that is normally associated with professionalisation Among these are the lack of an independent body of knowledge and a consequent reliance on medicine and a weak monopoly position where shortfalls in recruitment are filled by less qualified health care assistants Nursing is regarded as having acquired the essential economic attributes of a profession but lacks the social recognition that is crucial (Dietrich and Roberts 1987) Crucially, a predominantly male medical profession dominates a large female nursing profession In this respect librarians and nurses share professional attributes Library workers also suffer from a lack of professional recognition since they too lack the requisite social acknowledgement and library posts can be filled by unqualified staff (Sparks 1980)

7.2.3 Pseudo-medical roles
There was a feeling that sometimes CNSs could stray into a medical role One said, "I don't ever try to be a mini doctor" A critical care specialist commented that the Consultant recognised the CNS as a point of stability among a transient population of medical trainees As a result he had acquired what he described as a "pseudo medical role" There was felt to be a potential conflict between the medical model and the more holistic model of nursing He felt that Intensive Care was different to other clinical areas and that inter-professional interactions tended to be different and that there was a "good collegiate relationship" The issue of gender cannot be entirely discounted in the example just quoted where the CNS and consultant are both male The traditional gender behaviour patterns of female subservient nurses and patriarchal doctors is irrelevant in this case (Davies 1995) The highly technical nature of critical care sets it apart from other areas of care and Walby and Greenwell suggest that here doctors are not threatened by nursing skills In the technical environment of critical care, nurses
are highly skilled and assume responsibilities that non critical care doctors would be unable to handle

7.2.4 Appearances

Appearances were felt to be an important factor. CNSs often did not wear a uniform and felt that this affected the way in which they were perceived by medical staff and by patients. Examples of this perception included

"You can be on more equal terms with the physician not wearing it".

"I do think when you don't wear a uniform any more doctors are more willing to discuss "

A Stroke Co-ordinator was able to attend the same conferences as her local consultants "and they put me down as a doctor". This was unusual and specialists usually tended to receive information about conferences second hand. They regarded conferences as excellent sources of the latest ideas about a specialism and identified them as ideal opportunities to network and make new contacts. However they were reduced to obtaining feedback from consultants who had attended. A TB Sister/Visitor referred to Asthma Society and British Thoracic Society conferences as being valued sources of information but that updating was "done through the grapevine really, through the networking rather than directly". Nurse Specialists were at a disadvantage in their ability to attend conferences and they rarely had the same access to funds as Consultants to attend major conferences. An HIV Specialist Nurse felt unable to justify attendance at the World Aids Conference in spite of the advantages of being able to make connections with other specialists. It was relatively rare for CNSs to have equivalent funding to their medical counterparts. The Stroke Co-ordinator was also the person who tended to initiate the sharing of knowledge by scanning journals on a weekly basis and sometimes sending relevant articles to Consultants.
7.3 Networks

Use of colleagues as a source of information is a preferred and convenient means of dealing with problems and gaining reassurance is common to most professional groups, including nurses. One specialist who was relatively new to her post used the library rather than colleagues when she was first appointed but this position was now reversed.

"When I was first qualified I would use the library but that was because I didn't know so many people round the hospital."

CNSs generally have a number of years experience behind them, working in several different places, and as a result are likely to have an extensive network of colleagues they can rely on for assistance.

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Figure 7.3 Facets of the category 'Networks'

7.3.1 Peer Groups

As is common with other healthcare professionals CNSs use a variety of networks and personal contacts as a means of exchanging and sharing information. Some of these networks were very informal, ad hoc groupings. Some trusts arranged regular meetings where all their CNSs met to discuss general issues pertaining to their role. Local area practitioner meetings were the commonest means of formalised networking. Some of these meetings are the venue for much fruitful information exchange. For instance the London group of Child Protection specialists circulate local guidelines, forms and training information. A regional grouping of Dermatology CNSs was used to

"discuss treatment options there and see what everyone else is doing and bring pieces of literature there."

CNSs also identified areas of work where the peer group network was the most fruitful source of information. A diabetes specialist who viewed her work as addressing psychosocial issues as much as medical problems gave examples..."
of diabetes and employment or diabetes and under age sex. If she needed other sources of information then "it might be just as easy to ask somebody with diabetes or ask a colleague who deals with it from another area". Where CNSs were bombarded with information from product companies, peer group contacts were invaluable. A Tissue Viability specialists relied on colleagues for more disinterested information.

"We tend to use each other a lot more for trying to get information about how equipment is used – certain mattresses. We pick each other's brains."

Other networks operated at a national level with formalised means of contact. Peer group support was considered to be very important for most CNSs but particularly for those in specialities where there were few CNSs elsewhere. The ability to telephone colleagues elsewhere in the country to discuss problems was an important part of their support network. One specialist gave an example of diabetes and HIV which none of her local colleagues had much experience of, but which she was able to discuss by ringing a colleague elsewhere. Another specialist working in a unique post commented:

"I tend to use my peer group quite a lot, so if I've got a current issue whenever I see somebody who I think has any expertise in this area I find out what they know about, what their practice is" (Faecal Control Advisor)

Networks involving CNSs working some distance apart tended to involve personal contact either by phone or at meetings. There was little reference to virtual networks on the Internet where discussion lists tend to be dominated by contributions from American nurses. Only one specialist in gastroenterology referred to the discussion lists on the Internet although this is not surprising since very few CNSs had direct or easy access to the Internet at work.

7.3.2 Multidisciplinary Networks

Relationships with health care professions, other than medical staff, tended to be less fraught with difficulty. They seemed to be conducted on a basis of equality with mutual respect for differing bodies of knowledge. CNSs referred to Pharmacists, Physiotherapists, Dieticians, Chiropodists and other practitioners where each would draw on the knowledge of the other. A community
Continence Nurse Specialist described how she might call on medical colleagues for further information and how she herself provided information for medical colleagues

1 Describing how she might deal with a knowledgeable patient with treatments found on the Internet by contacting a medical colleague

"I mean most of it tends to be women from sort of Muswell Hill and Hampstead area of London. I think what I would do is query Dr X. She has all the up to date on the pelvic floor"

2 Describing how she assisted a medical colleague

"The Senior Registrar was doing some work and I showed her a report I had written"

Information sharing between professional groups was common especially among those who worked in multidisciplinary teams. There was evidence of information exchange on a basis of equality between CNSs and allied health staff. In addition, there was also evidence of team working and knowledge sharing

"I think because our speciality is a small speciality and its multidisciplinary we all work as a team, OTs, physios [Occupational Therapists, Physiotherapists]. My physio will say have you seen this or have you got something on. And we do share information that way. Particularly if I get information from companies on new products I need to share it with team members" (Burns and Plastics CNS)

"I work with a team where we are all equal and you feel that its everybody sharing information" (Continence)

"We work really closely with chiropody, dietetics. We can use their, access their information. A lot of the chiropodists have their own written information" (Diabetes CNS)

However the Consultant was the most frequently quoted source of information in the form of oral exchanges, articles, books and conference papers. The expectation was that they would be rich sources of information in terms of collections of reprints, knowledge and expertise, and in easier access to funding
support for attendance at conferences and meetings. Consultants were expected to have papers readily available and for this reason were convenient starting points in information seeking procedures. This was exemplified by a CNS who described her information seeking processes at the start of a project looking at links between pain management and length of hospital stay.

"I think first I would have probably asked the consultant because he has a lot of papers in the office so I would have started with him first I think" (Sickle Cell & Thalassemia)

The CNS followed this by undertaking a formal literature search on Medline but the following excerpt from her enumerates the range of information networks a practitioner might draw on.

"I belong to a group of counsellors and specialist nurses that work with haemoglobinopathies. I contacted a couple of my colleagues who are now lecturers and we had a meeting of the counsellors, specialist nurses, consultants and registrars of hospitals in the East and North London area and at that meeting a couple of the consultants said if anyone would like more information, give them a call, so I did that"

Nonetheless, information exchange between nursing and medicine was not always a one way process. A CNS with a responsibility for co-ordinating services to stroke patients seemed to operate on a basis of equality with the local consultant. She saw it as part of her responsibility to update the multidisciplinary stroke team.

"it does tend to be me sending to them before they've seen it the therapists are quite good, they'll copy things and send them to me, but not an awful lot from the doctors"

For a Coronary Heart Disease Liaison Nurse both medical and nursing networks were vital. She was part of a loose association of four or five nurse specialists involved with heart disease but cross disciplinary networks were just as important.

"Nursing looks at one thing, medicine looks at another and information and audit look in different directions if you can pull different strands together when you're trying to do something yourself, it gets you outside your own way of looking"
CNS working in the area of mental health seemed to share information and operate in a more multidisciplinary fashion. For example, a Psychological Care CNS worked closely with a variety of other professionals.

“We’re multidisciplinary in the sense that we have Psychiatrists, Psychologists, Child Psychologists, and a research person and Epidemiologists and Medical Sociologists.”

CNSs used national associations as significant sources of information. A Urology specialist gave examples in the area of erectile dysfunction and continence. Sometimes these contacts are to provide information which can be given to patients but also to underpin the CNS’s own information needs. Although nurse education is based at universities, there was still some teaching undertaken at a few hospital sites, and nursing lecturers were regarded as excellent sources of information and able to provide papers and articles. A Spinal Cord Injury CNS made quite extensive use of locally based nursing lecturers.

“Well if I hadn’t got it myself then I’d usually ring X in the School, well one of the lecturers that are up in the School [of Nursing] worked on the spinal unit with me and one of the other lecturers I did my teaching course with. So you know I don’t have a problem with, I know who to go to if I want information, put it that way.”

This specialist was unusual in appearing to be very dependent on this kind of assistance in seeking information that was difficult or time-consuming to locate.

“If you’re looking for something then X does all the phoning for you. If you’re looking for something and you can’t find it she will take it over for you and she will find it.”

National groups such as the RCN specialist fora were commonly mentioned. For example, a Burns and Plastics CNS referred to a number of organisations including the RCN such as the British Burns Association, British Association of Plastic Surgery Nurses, and the RCN Critical Care Forum. Product company representatives were also part of this information network, and the same CNS referred to a wound healing company who “would not do a search for you but if it’s really difficult to get hold of they do have good contacts.”

Local networks such as journal clubs and research groups were also valued.
"There was actually a multidisciplinary meeting on a Wednesday lunchtime for everyone to be invited to. Sometimes it would be a nurse speaking, sometimes medics or outside speakers" (Senior Nurse Practice Development ITU)

The grouping together of two or more hospitals in a single trust made such arrangements difficult where travel between sites was necessary. One such trust was located in central London and at another site just outside London.

"They did have a wonderful meeting at the X, the journal club. That's just for breast cancer so there's always new areas of interest and the latest things. But unfortunately we don't have anything like that at Y so it's a bit restricted" (Breast Care CNS)

7.4 Wider world

The extent to which CNSs were involved in their profession outside their work location affected the ease in which they were able to obtain really up to date information and the latest thinking in their specialism (Figure 7.4) Library Managers were aware of CNSs who had national profiles.

"I would say four or five of them are very heavy library users and quite a few are well known nationally in the writing up of research" (NHS Library Manager)

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Figure 7.4 Facets of the category 'Wider world'

Because of the autonomy inherent in their roles CNSs had more opportunities to become involved in professional activities at a regional or national level, either through writing or through contributions to national committees and specialist groups, if they were inclined to do so. Involvement in the wider world involved writing for publication, presenting at conferences and actively participating on national and regional committees. Some attended conferences abroad and spoke at overseas conferences. CNSs commented on this saying.
"You know we’re meant to be these forward thinking professionals and part of what we’re meant to do is write" (Coronary Heart Disease Liaison)

“So it’s something that I see as a challenge or something that is lacking personally from my CV or whatever” (Pelvic Cancer)

“I feel that I can’t legitimately carry on in my post without publishing and my nursing boss is very keen that I publish some work” (Paediatric Support and Research)

7.4.1 Writing for publication

It was often the case that CNSs, while seeing publication as something they should undertake, found it hard to do so. Some mentioned work done for Master’s dissertations which was as yet unpublished. While managers encouraged publication, it was not regarded as an essential component of the job. CNSs faced the dilemma commonly encountered by practitioners in all professions who feel they may have a contribution to make to the literature of their profession but it not seen as a sufficiently strong priority or a core part of the role. Undertaking a Masters level qualification had provided a basis for learning to write in an academic style and removed some of the fear which could be experienced by neophyte writers.

There were three responses to participating in external activities among the CNSs interviewed.

One
A group who were little involved outside their local area although they might meet with other CNSs in their region and attend national conferences. They expressed little interest in moving beyond this stage and were not interested in writing for publication. About half of the CNSs interviewed were in this group.
Two
The second group had been actively engaged in making local presentations and had written reports for home consumption. They viewed the idea of writing for national publications or presenting papers at conferences as something they would like to engage with and which would be encouraged by their managers but that they had not yet achieved.

Three
The third group of CNSs were active on national committees, some had national and international reputations in their field, had been involved in contributing to substantive textbooks, written journal articles, were involved in journal editorship and presented papers at national and international conferences.

CNSs who worked in specialist hospitals were more likely to be engaged in writing for publication by contributing chapters to books. For example all the specialists interviewed who were working at a hospital treating cancer patients had contributed chapters to a well-known nursing procedure manual (Mallett and Bailey 1996) and were also involved in other major oncology publications. Involvement in writing for publication or presenting at conferences forced the CNSs to search the literature much more thoroughly.

"I go to the library and particularly if I have to do a presentation on something That's where I would update myself And also for doing literature reviews and referencing and things like that" (Psychological Care)

One commented that " it's not acceptable to stick together a few slides and go and give an opinion" Being accountable for statements was felt to be a good discipline. The same specialist, who was contributing a chapter to a book, said the basis for her contribution had been scrutinised carefully by her editors with comments such as

" you're saying this is the safest way to manage an angry person, how do you know that, where's the research?"

CNSs employed in distinct general hospitals were less likely to regard dissemination of practice beyond the workplace as a priority.
"I kind of base my hierarchical importance as patient care. That's why I'm in the job and not standing in a conference. So long as I do that, I'm quite happy for the time being." (Dermatology CNS)

The progression from undertaking an academic course, which required an ability to access the literature, to being subject to professional and public scrutiny was a major step to undertake. Essay writing and academic coursework assessment demands can generate the process by which the writer makes a statement and then forcing references to 'fit'. The work involved in researching a book chapter was seen as being substantially different. Effective searching strategies were vital, and CNSs who lacked these experienced difficulties as in the following description of preparing to write a chapter on handling violent patients:

"Nine thousand articles I had to plough my way through for that really, really hard work actually trying to get information. It was actually terribly specific and it wasn't like writing an essay." (Psychological Care)

7.4.2 Engaging with the profession

Several nurses described the way in which information came to CNSs who engaged with their profession at a wider level. A community Child Protection Specialist who had been actively involved in the Community Practitioners and Health Visitors Association would receive documents of national importance before they were more widely circulated. She gave the example of Department of Health guidance. A Complementary Therapies Macmillan Nurse who worked in a specialist hospital was also involved in national committees as well as working as a Deputy editor for a journal. She automatically sees papers coming through for publication in the journal. She also peer reviews papers for other journals and has early information on any new work being reported. Her description gives a vivid picture of the multiplicity of connections, which make a rich source of information:

"Partly you hear word of mouth or something you come across, people doing it and through the committees and so on. I see papers coming through, I often get asked to peer review articles. I tend to get involved in a number of different committees. And I'm involved in helping some of the research and projects at a national level."
Being involved at a national level and becoming a recognised name in the specialism had a further 'knock-on' effect in providing access to information at a higher or more technical level. For example, some Nurse Specialists, in areas such as Continence, Diabetes, Tissue Viability or Stoma Care have a large amount of contact with sales representatives who are promoting products. However, a CNS with a national reputation could access product company staff at a senior technical grade, rather than at sales level, and therefore could obtain information of a different quality.

"I had a meeting yesterday with a skin care company and their Technical Director came along. Now he knows a lot more than I do about skin care and enzyme reactions and that sort of stuff. There's a network of technical contacts on the product." (Faecal Control Continence Advisor)

A few of the Specialists were active in some capacity with centres of the evidence based practice centres such as the Cochrane Library or the York Centre for the Dissemination of Reviews. These tended to be CNSs operating in unique or unusual specialisms.

Many Specialists had given conference presentations at a national level. Some also contributed papers to international conferences. Presentation of papers at conferences was regarded as a first stage in disseminating knowledge or research. A number of Specialists had no history of writing for publication but felt that it was an aspect of their role that they should develop even where it was not a specific part of their job description. It was felt to be an activity that was explicitly or implicitly required by managers. Nursing lecturers who had links with particular clinical areas encouraged clinical staff to publish.

"X at City University is the only person who applied the pressure she does breathe down our necks." (Intensive Care)

There was a particular pressure for CNSs and publication was seen as an aspect of professional activity which legitimised the post of CNS. Peer pressure was one incentive. An Intensive Care Specialist commented that he had friends working in similar posts to his who were "well-published". Although he had presented papers at conferences, publication in journals was seen as the next step.
Chapter 8

ENABLING FRAMEWORKS

8.1 Definition of the category
Moving from a discussion on the ways in which CNSs interacted with the external world and formed networks of varying extensiveness, this category of Enabling Frameworks, examines the ways in which CNSs cope with the pressure of the workload, their approach to information collection and how they assess their priorities. The strategies deployed in surmounting obstacles to obtaining and using information in their work are examined and these are put in the context of the type of enabling frameworks which are in place to maximise use of the research literature. Some of the factors that impinge on CNSs’ use of information relate to access to resources and availability of appropriate resources and services. This category looks at the logistics of access and how CNSs track down the resources they need. The extent to which organisational and structural factors facilitate access to resources by CNSs is also examined. Figure 8.1 demonstrates the category ‘Enabling Framework’ encircled by the inter-linked sub-categories of ‘Workload and Intentions’, ‘Obstacles and Logistics’, ‘Access and Resources and Services’.
Figure 8.1 Enabling Frameworks
It might be assumed that the role of the CNS with its emphasis on advanced practice and the development of a research base for care would lead to the provision of a formal organisational framework which allowed CNSs to achieve access to literature. This could be enabled through explicit provisions in the job description and in the workload expected. Without this, the tendency of nurses towards the completion of tasks and incessant physical or administrative activity could make the transfer to a more autonomous independent role difficult. Implicit, rather than explicit acknowledgement of a requirement to read the literature and apply research to nursing practice, would make the development of true autonomy difficult.

8.1.1 Recognition
For some CNSs there was a very explicit recognition of the need for sufficient time to enable them to keep up to date. Some specialists had job descriptions that required them to keep up to date but CNSs differed to the degree in which they felt supported in this. There seemed to be an institutional ethos that provided a framework that could either encourage or discourage information seeking. CNSs in different specialities, but from the same trust, tended to feel similarly about the level of management support for time spent solely on reading or research. CNSs from particular trusts were more positive about being encouraged to devote time to investigating research-based care. CNSs based in specialist tertiary centres seemed to feel more able to use time for libraries and reading. Whether this was because patient admissions are more planned or due to individual trust ethos is hard to detect. While other activities might divert them from time to time, nonetheless they usually managed to achieve regular use of the library and reading. One specialist from such a trust noted that

"I should as my job description says I have a certain amount of time that allows for research and development. And it should be about a third of my time."

A specialist from the same trust remarked that

"You know it [my job description] does enable me to have time to spend in the library. It's what we're expected to do as part of our job, is to keep up to date with the latest publications. The Business Managers or our Senior Nurses make sure we actually have time written in our job plan to do these things and I know they consider it important as well."
However even in such a research friendly environment CNSs had to be
determined to fit information seeking activities in on a regular base A
distinguishing factor among nurses in general might be that CNSs were more
willing to assume this particular part of their workload in their own time More
frequently there seemed to be an institutional recognition of the need to set
aside time for reading and searching the literature but the rhetoric did not match
everyday reality A Pain Control specialist commented on this mismatch

"Theoretically I would say it should be better now because it's actually
recognised as part of my job description but time is just filled up with
other things"

One newly appointed specialist expressed reservations in her comments where
it appeared that institutional support was not entirely certain

"I can justify it a lot more [spending time using the library] I've got to find
out more about it, I can justify getting information" (Tissue Viability)

As a result of their greater seniority and experience CNSs might be expected to
be in a better position than most nurses on more junior grades to assert their
right to make time available for reading and research One Specialist was
perhaps exceptional in adopting a particularly proactive approach

"My current job description kind of states that I'm there to develop
research based practice and teaching so I have to turn around and make
a sort of overt statement to my bosses and say if this is what I'm meant
to do"

Certainly CNSs felt themselves to be in a better position than their colleagues in
finding time for information use One specialist commented on the 12 hour shift
pattern as mitigating against library use and as a result he would visit the library
on behalf of staff in his more traditional ‘office hours’ day It was sometimes a
considerable culture shock moving from a ward area to a Nurse Specialist role

"I was used to working in a ward environment where your day was
organised for you when I had this job I thought what am I going to do
with myself all day" (Research & Practice Development Nurse)

Autonomy made a big difference to some specialists

"I suppose its very much being your own boss So it's actually taking
yourself out of the clinical area, locking yourself away and getting on with
it" (Clinical Nutrition)
“The difference being a Nurse Specialist compared to working in ITU, you can do it in your work time” (Tissue Viability)

Blythe and Royle (1993) refer to the reasons often postulated for nurses’ under-utilisation of research literature. Among the most commonly cited is lack of time and yet Blythe and Royle consider that “nurses would surely demand access to information sources they believed essential to their job” (p433). Largely, CNSs had to contend with an implied rather than actual recognition of the need to make time for research and reading in order to carry their roles. One specialist commented that

“I was supposed to be utilising and drawing on knowledge of nursing research”

Often CNSs were not able to recall such clauses in their job description apart from the usual United Kingdom Central Council of Nursing, Midwifery and Health Visiting (1992) requirement to remain up to date although they felt that it should be included. The United Kingdom Council for Nursing, Midwifery and Health Visiting Code of Conduct states that all nurses should

“maintain and improve professional knowledge and competence”

It also seemed to be a matter of individual interpretation of statements in job descriptions. If there was an obvious explicit statement it might be easier to break away from the clinical and administrative demands. As a result of discussing this in the course of the research interviews some specialists said that they would consider including a specific clause when they had an opportunity to have a review of their job descriptions.
### Specific clauses in job description not identified

"I don’t think so but it does say generally about education required to educate on the diseases" (Prion)

"That’s a good point actually No I think there’s something about keeping up to date" (Complementary Therapies)

"No, except I’m expected to keep my eyes open to new things" (ITU)

"It doesn’t specifically stipulate that I need to spend time updating my knowledge I think its more of an assumed thing" (Face & Neck)

I think there was something about keeping up with national trends or something but not necessarily subscribing in the journals or anything (Ethnic Elders)

### Specific clauses in job description identified

"Yes it is part of the CNS role here to ensure that we use evidence based care And it is recognised that library time and reading is part of the job" (Pelvic Cancer)

"Yes, it is certainly specified that I need to keep professionally up to date" (Chemotherapy)

"It was written there that you were expected to join the professional bodies related to that" (Allergy & Clinical Immunology)

"Yes its keeping up to national and international thinking on nutrition" (Clinical Nutrition)

"There’s going to be an element of research and development and audit as an explicit part of the job description" (Community Alcohol Nurse)

### Specific clauses solely related to training

"The Consultant that I was working with at the time said that she expected me as part of my orientation as it were to spend quite a lot of time reading" (Allergy & Clinical Immunology)

"I had been going to the library a couple of hours a week before then because I’m training in post" (Rheumatology)

Personal motivation to spend time on reading and research was crucial combined with a willingness to spend their own time on reading CNSs involved
in running clinics had a heavy workload that freed little time for library use. One such specialist who allocated some time mainly relied on cancelled clinics to provide free hours for reading. Another community mental health specialist had four hours allocated a week which could be used for updating and reading or alternatively for undertaking courses. A CNS from specialist hospital described the support required to implement care based on research:

"It is actually recognised here that library time and reading are part of the job. So you wouldn't find that management would be getting upset if you're spending time in the library or just in the office reading papers." (Metabolic Bone Disease)

8.2 Workload and intentions

Some specialists undertook their role with either very little or no administrative support. CNSs running clinics might be responsible for correspondence, clinic bookings, contacts with GPs and other administrative work associated with the management of their patients (Figure 8.2)

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Figure 8.2 Facets of the category 'Workload and intentions'

The pressure of dealing with so much routine paperwork made it difficult to find time for using the library. Library use was described by some as outside the norm and undertaken "in a quiet week when you haven't got quite as many patients." For some, such quiet times often never came. There was a sense that spending time in the library or reading articles was almost illicit or involved breaking an unwritten rule. This is exacerbated when library services are some distance away and this sense of illegality is confirmed from another study in the following quotation:

"There is a library 3 miles away but there is a problem in that respect - we have a right to study leave but we feel guilty if one of us is off." (Clinical Standards Advisory Group 1998)
One specialist commented that "I'm a bit of everything and I'm out of my office for an hour and there's five or six phone messages". In addition to a lack of administrative support, the clinical workload was too great for a single person. Once CNSs had become established in their posts and acquired a heavier workload finding time to use the library became more problematic and "as your workload increases I find it [using the library] will be in the evening or at weekends". It then became a case of appraising the urgency of the information need. Information seeking for protocols and committee work would be done in the CNSs' own time but "there are times if something's crucial, if it's something to do with a patient, an unusual condition you need to go there".

CNSs conveyed a sense of being overwhelmed by their workload as exemplified in the quotations below:

"There's no secretarial support so I do all the clinic letters, outpatient bookings and all that's necessary really, phone calls, the lot" (Pnon/Neurology)

"One of the main things we have to overcome is our recruitment problem we only have 50% of our establishment in post" (ITU)

"When it was just me I didn't have time to do anything" (Diabetes)

"I block out times in my diary and then I get phone calls to say, you know, there's 3 new patients admitted. I'm just in the process of writing a job description to get some help" (Stroke Co-ordinator)

"It's dashing from one end of the borough to the other" (Ethnic Elders)

"I'm just on my own. I work 3 clinics a week. I co-ordinate all the referrals throughout the Trust. I get bleeped, I go to the wards" (Anti-coagulant)

"the numbers of patients we have got and the number of clinics that we're running and staff shortages are making it more difficult" (Chest Clinic)

It was not clear from discussions how much the heavy workload was a forced imposition from above and how much was in the gift of CNSs to decide themselves. Those CNSs who were relatively new to their posts were more
conscious of having a greater amount of time available to use library services. One CNS who was just over two and half months into her CNS post was aware of possessing much greater freedom than previously in her ability to make choices about the use of her time.

"I just can't get over how much, because I can access it so much easier now, rather than accessing it in my days off and in my own time. Although that still happens, now I can say without doubt that I use the library more." (Tissue Viability CNS)

8.2.1 Information use as a luxury

Some CNSs referred to the greater degree of autonomy and control over their own diaries that made it easier to set aside specific time. Those who did so described the process of going to a library as a pleasurable aspect of their work and a time for reflection. One specialist who travelled some distance to make use of a library and therefore usually planned a visit well in advance described the pleasure of having time to absorb the literature and catch up.

"It's about reflection. It's quite nice to come in and do some reading and see if it all makes sense." (Coronary Heart Disease Liaison Nurse)

This ability to sometimes find time to access the library was seen as a 'luxury' not available to other nursing colleagues. A Coronary Heart Disease Liaison Nurse said, "I suppose it's a luxury to have time to go." The idea of time spent in the library as a 'luxury' was associated with the idea that using a library or spending time reading was a pleasure and not a chore. One Specialist expressed this in referring to being allowed time out from the ward.

"you were Sister's pet if you were allowed to go to the library to spend time in it. That was a real treat. But I do see it as a treat".

Using a library was sometimes a means of escape.

"It's quite nice to just go to the library and sit down." (Clinical Nutrition & Intestinal Failure)
8.2.2 Priorities

The unpredictability of clinical work was an intervening factor that meant that what CNSs wanted from library services was flexibility. The necessity of booking for access to literature searching facilities was regarded as a barrier since it was not always easy to anticipate clinical responsibilities. Time to use library services tended to be “a grabbed half hour here and there.” Certainly in the overall scheme of activities reading the nursing literature is a low priority on the list of things which must be done. There was a desire for more instantaneous access to databases based on the need to be able to provide quick answers in response to an enquiry or urgent preparation for a presentation.

Whether to use time to visit the library was a balancing act between the pressures of everyday work and the need to keep up to date. Problems of access due to unavailability of local resources, which undoubtedly existed and caused difficulties, were not the prime reason for being unable to spend time using a library. Only one community specialist who did not have access to a Trust library service specifically mentioned geographic problems as posing difficulties and these were combined with professional pressures. The issue for these CNSs seems to be one of personal motivation rather than physical access.

CNSs coming into specialist posts anticipated being able to use the library far more frequently than they actually did. A Urology specialist expected that the new post would enable her to have greater freedom and one of her plans was to set aside regular time to visit the library but “you become busier and busier and unfortunately unless you have got something that is a burning issue you don’t necessarily set time aside.” A Face and Neck Specialist who was relatively new to post was advised to make regular time to spend in the library and had thought it would be easy to plan in an afternoon every month “and then it’s the last thing.” Her use of the library has therefore become “reactive rather than proactive.”

Most specialists planned to make a regular time for using the library and community and hospital based specialists and a community alcohol specialist echoed each other in finding that other aspects of their work took precedence. As a Community Alcohol Specialist explained that in spite of her best intentions
to set aside regular time, "try as you might you always tend to find things to fill that space"

8.2.3 Changing Behaviour

The questioning of prioritising work activities was an issue for some specialists whose good intentions had failed. For others there was an element of guilt and a recognition of poor time management skills. For a few specialists other activities were the priority and there was no question of library use being one of those. Specialists reflected the comments of others in saying that

"A lot of it is the fault of my own really I should be more strict with myself" 

"But I know that in the past the way that I've worked I haven't done things in a planned, structured or timely way I've always worked pretty close to the deadline" (ITU)

There was a recognition of the need to make good use of time. One specialist who felt her post gave her "freedom and creativity" commented that "you have to manage time very well" (Rheumatology). For the specialist who visited a large library in South Thames, some distance from her work base, organisational strategies were essential and she managed her information needs carefully

"So what I tend to do during the course of my working hours, anything I come across I'll stick a note on a 'Postit' pad and by the time I go off to the library, or I've got five minutes to look at the hospital library, where I do work sometimes, I've got a list of things" (Cardiac Liaison)

A Stoma specialist mentioned some literature searches she had undertaken which would have been done in her own time when she worked on the ward but as a CNS "you might stretch the day to be longer " but she could leave earlier at other times to compensate. This was echoed in the comments of a community alcohol nurse who found spare time rapidly filled up and felt that she needed to reconsid the use of her timetable to enable her to set aside regular time. CNSs have mainly come from environments where there was little scope for individual management of time and some now find themselves in a position of
prioritising activities themselves. A phenomenological study of the role of CNSs by Bousfield (1997) found poor time management was one of eight elements that acted as a barrier to the fulfilment of role

Unless there was a specific task that could not be completed without resort to the literature or a library it was accepted that it was difficult to set time aside for updating or reading the current literature. It had to be, as one specialist commented, “a burning issue” A Tissue Viability specialist definitely felt it was a balance of priorities and library use could be a priority but only if there were deadlines for the type of project which required the use of library materials

“I won’t go around the wards today, I’ll wait for them to contact me because I need to go to the library today”

Another specialist whose means of accessing the literature was through examining the results of literature searches also expressed a similar view

“...generally for literature searches Very rarely am I going in just for upgrading of current journals because of time I don’t have it” Paediatric Support and Research Nurse

Some found it easier to maintain a regular pattern of setting aside time for updating and often those that did were able to continue using time that might previously have been set aside for attending a course. However it was unusual for anyone to have time which was as inviolate as that mentioned by a specialist working in community mental health trust

“Well I give myself 4 hours a week to do my bits and pieces, my own reading, research and reviewing”

Others managed reading and updating by doing it in evenings and weekends. A Burns & Plastics specialist aimed to spend a couple of hours or half a day a fortnight looking at the latest journals. This was usually done in her own time. Another specialist noted that she could not think of any information collecting which had been done in working hours. The transformation of moving from a ward environment where time was organised for nurses by other people to a CNSs role where there was control over how the day was spent was sometimes difficult to manage at first. There seemed to be plenty of time in the early stages of a CNS post but this was quickly followed by a much more pressurised work pattern.
For most specialists use of libraries was ad hoc and in response to particular problems although for a few CNSs it was possible to set aside regular time

"I probably don't use more than once every couple of months " (Breast Care)

"I usually go down once a week just to check what's new and what's come up" (Paediatric Surgery)

"I usually block off an afternoon or a couple of hours at least monthly"

8.3 Obstacles and logistics
This section examines the practical details involved in accessing library services and the kind of decision involved in choosing a particular service (Figure 8.3). The factors that are taken into consideration when opting to travel some distance to use a library are examined

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Figure 8.3 Facets of the category 'Obstacles and logistics'

8.3.1 Service hours
The majority of NHS trust libraries in North Thames, as in other health regions, are small-scale services based in postgraduate medical education centres. Staffed opening hours tend to be restricted to a nine to five service on most days. An analysis of opening hours based on information provided on the North Thames Health Libraries web pages provided the following information

- Open office hours to 18:00 24 NHS libraries
- Open one or more evenings to 19:00 or later 20 NHS libraries

Some library services offered more extended staffed opening hours, usually to seven in the evening, on one or more evenings a week. Few libraries operated opening on every weekday evening with the same closing time every evening. Most NHS libraries offered nine to five opening with later opening on one or
more evenings. However, the benefit of later opening on some evenings, albeit the same evenings each week, could be offset by the difficulty of users remembering which were late evenings. Only one NHS library offered staffed opening hours on Saturdays (North Thames Library and Information Development Unit 2000).

CNSs who had access to higher education libraries providing services to the NHS often had the benefit of late evening and weekend opening. This was not always the case as the following quotation shows. There was a recognition by the HE Librarian that opening times could be restrictive and unsuitable for busy practitioners:

"the opening hours don't suit them always. Although we open early and we do have some late closures, we don't open at weekends and that sort of thing, which is probably quite unusual [for university libraries]"

In some NHS services it is possible to obtain library keys to access resources outside official opening hours and therefore theoretically the resource is available on a twenty-four-hour basis. It is not clear from library documentation whether the key is available to all types and grade of staff or whether twenty-four-hour access is widely publicised and encouraged. Where twenty-four-hour access was available it was not intensively advertised:

"twenty four hour access I don't actually emblazon it over the door but people steadily come in outside hours" (NHS Library Manager B)

At locations where staff had access to libraries on higher education sites longer opening hours were more common, particularly during term time. However, for the majority of CNSs libraries had to be used between standard office hours and therefore information use had to be planned within the working day. Opportunities to stay behind after work were limited and required an organised approach. Paradoxically library opening later on some, but not all evenings in the week, can be difficult for users to manage. They need up to date information on opening hours to avoid wasted journeys. Access to such information on the Internet would only be helpful to the small minority of CNSs who have access to a computer. A CNS who currently worked in district general hospital trust library...
had previously worked in a large teaching hospital with long opening hours described the difference it made

"at X they just have fantastic facilities down there and they were also open late and at weekends and it was just much more convenient to use it And I did use the library more there because it was more convenient for me to do so As I lived nearby I often popped in when I wasn't working" (Sickle Cell & Thalassemia CNS)

8.3.2 Balancing, time, cost and convenience

For some it was a straightforward decision because "our Postgrad library here is so good and anything not here is inter library loans at zero [cost]" For some there is a balance between cost and inconvenience The cost of inter library loans was a factor in the equation in the decision whether to travel to national library services Sometimes the overcrowded nature of the RCN library was a factor that caused CNSs to rely on their local service This was not always the case and sometimes it was felt worthwhile to have immediate access to the journals especially where the local library had a poor collection in a specialism

A Paediatric Surgical Specialist said

"It's sensible if I'm going to run a batch on inter library loans and go to the RCN and pay much less to actually physically do it and I can go down there and look at the books and stuff"

Another specialist commented that she had used the library much more in a previous post because it was open late and at weekends and she lived nearby and was able to use it outside working hours A community specialist which had no formal arrangements for access to a library for its staff had maintained his registration at an NHS library in the East Midlands and used it on trips back to see family and friends

There was sometimes an expectation that searching for information would inevitably involve a degree of difficulty but it was an integral part of the role to deal with this One specialist commented

"you always have to struggle for things a bit You don't expect something without making an effort" (HIV)

A similar level of pre-planning was required for other specialists who used meetings at centres with major collections as an opportunity to access journal collections Another said she "would rather spend money on tube fares" to
enable her to undertake literature searches and find a good proportion of the articles in one visit. A community alcohol specialist for the homeless used at least three different information services for different kinds of information but she had been considering whether she could locate a single service in London which would meet all her needs.

However most specialists who used library services regularly said they were less likely to use a number of different libraries for work purposes compared to when they undertook courses. CNSs described a reduced level of use, which might be expected, compared to nurses in general who limited their use of libraries altogether to periods when they were undertaking courses (Wakeham et al 1992, Childs 1994) CNSs reduced their usage of libraries and were less likely to travel to other library sources when they were not engaged in study. Instead they managed their library use around the demands of their work and relied more on local library services.

Given the pressure of the work role CNSs developed a range of strategies for making the best of limited available time. A profound professional motivation was required to work the long hours needed to find additional time for reading. "If I'm interested in something I don't resent two or three hours of my own time in the library."

Working longer hours was one strategy. The other was to take work home. "because there's not enough hours in the day to do the job properly and do all your literature searches and read every article as well." Some might use the library in working hours because there was no choice about that, but the resulting reading would be done outside work hours.

Opening hours of libraries were felt to be a particular problem where there was Monday to Friday daytime opening only. Maintaining a running list of things to be checked was another strategy to save time and achieve several objectives in a single visit.

Those who had access to the Internet at home tended to use it frequently for work related activities. Fewer of the CNSs in this study have home access to computers compared to national ownership figures. Over the decade between
1989 and 1998 home computer ownership almost doubled from 19% to 34% and all the indications are that this figure will grow (Office for National Statistics Social Survey Division 2000). Those who were on academic courses or had undertaken courses recently used time in the university library to find work related information. A more drastic strategy for a specialist who enjoyed the stimulation of using the library and exploring the literature further was to leave her post and become a nursing lecturer “because I thought I'd have more time then to go to the library.” One way of overcoming problems of geographical access or limited time would be to request SDIs9 (Selective Dissemination of Information) or regularly updated literature searches through their Trust library service. These provide access to the latest information from a wide spectrum of journals including those not directly related to particular specialisms. Although some CNSs mentioned being on mailing lists for library updates few seemed aware of facilities for requesting SDIs tailored to their needs.

8.4 Access

While some specialists had no problems in gaining access to library services in Postgraduate Education Centres, uncertainty of access and the rules associated with using library services in both Postgraduate Education Centres and higher education site libraries was an issue of concern to many CNSs (Figure 8.4).

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Figure 8.4 Facets of the category 'Access'

Universal access to library services is still an issue of concern at a national level. Individual districts were not identified in a national study published in 1998 and it is not clear if North Thames was one of the regions surveyed but it’s assessment of access for clinical staff, other than medical staff, is rather

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9 SDIs are regular updates of the latest publications on a specified topic which can be provided by library services or set up by users themselves on electronic databases.
While conceding that NHS library services had improved considerably over the last five years the report noted

"although library facilities in general are excellent, the capacity to reach all relevant clinicians, whatever their profession and wherever they work with the right information with the right information is still relatively limited" (Clinical Standards Advisory Group 1998)

8.4.1 Privileges
Sometimes it was felt that CNSs had been conferred with special privileges not available to other nurses because of the nature of their role or the connection they had with senior medical staff such as consultants For instance two specialists, one at a London teaching hospital and another at a district hospital outside London encountered similar differential access

"I’d either go to the library here, the nursing library, or I was able as a nurse specialist to join the medical school library The medical school library is open to everybody to use but you can only take things out if you’re a medic However because of where I was working I was allowed to join and I was able to take things out" (Allergy and Clinical Immunology)

"I think they can be helpful but it’s not an open thing They have been helpful to the other nurse specialists in the service Its there if you’re in the right The doors are not open for people to use" (Tissue Viability)

The experience of privileged access to library services associated with higher status is confirmed by Rutlege et al (1998) who reported that CNSs and managers had better access to libraries than more junior nursing grades

8.4.2 Gate Keeping
At another teaching hospital a CNS said of a medical library that she used, that many nurses did not realise they had access to it and restricted their library use to the nursing service, depriving themselves of pertinent literature The gatekeeping role of library staff is shown in her comment that “they’re slightly less approachable in the medical library than they are in the nursing library" A community trust which was described as “having absolutely nothing” meant that staff were reliant on hospital based library services and “you rely on charming your way through” Outside London a specialist said
"I'm lucky because I can use the Postgrad centre but they're selective as to who they allow in. I've been in and they've actually escorted people out" 

This specialist felt that she needed to use the name of her Consultant to gain unfettered access to the library and "if you haven't got a consultant you can use to get in, you can't get in"

Expectations of what library services could or should provide are illustrated by two comments below from specialists, working in different London teaching hospitals. LIS seemed to vary considerably, not in core services themselves, but in the way those services were provided. Sometimes this was dependent upon personal responses and relationships. It was unclear whether such services were offered to all library users or to some who had special privileges for one reason or another. One specialist mentioned the significance of developing a responsive relationship with library staff.

"I've a very close relationship with the Librarian and I can just ring him up and say I'm interested in this list of articles and he will say I've got it and will copy it"

This user/Librarian relationship is contrasted by these comments from another CNS who said, "If I could have phoned somebody up and said could you do a search on X topic, that would have been wonderful. I don't mean personal learning where obviously you have a responsibility to do your own literature searches."

8.4.3 Ambiguity in access

Changes to library services resulting from amalgamations and reductions in the number of site libraries by higher education institutions had affected access for nurses in the east of the region. The level of access available prior to higher education changes had not been replaced by other mechanisms. Where access was available it was not seen as a clear and unambiguous right, and for the specialist who felt that access had been reduced by higher education changes the Postgraduate Centre was not wholly welcoming either. One CNS, working on an NHS site which contained separate nursing and medical libraries, illustrated the complexities of access. She described an information-seeking
incident where she first used the national RCN literature search service and then conducted literature searches on nursing and medical databases in each of her local services. Mediated searches provided another example of differential access.

"I think if you're a doctor the medical library might do it for you but I don't think they do it for nurses."

Library Managers were familiar with issues to do with access to higher education services by NHS staff but, at first, expressed surprise at the notion raised by CNSs of differential access according to grade.

"Really, even within a trust?"

Library Managers accepted that for historical reasons there were differences in provision between the eastern and western sides of the region but felt that these has been eradicated.

"I do think that may have been the case a few years ago. Partly the libraries in the east were much lower resourced and that has changed a bit by re-targeting money there" (NHS Library Manager C)

Changes to medical education, the incorporation of London medical schools into large multi-faculty universities and the consequent move of some stock to other sites had also made a difference to immediate physical access to materials. One such example was provided by a CNS based at a hospital that was previously attached to an independent medical school. The movement of printed journals holdings across a newly combined medical faculty to meet medical education needs deprived access to local NHS users.

"Even in the med school it's fairly limited. A lot of things are over at X now and I don't go over there" (Prion)

For specialists based outside London and away from easy access to alternative library services visiting a library could involve complex or lengthy travel arrangements. A CNS based in Bishops Stortford described her circumstances.

"I have to go to the library in Harlow. There's nothing here, not a medical library, nothing. Having said that the library in Harlow is really good. There's a nursing library at Epping but the School of Nursing is being wound down. It's all moving to Chelmsford. That's 25 miles away..."
We don't have easy access I think. It doesn't encourage you" (Stroke Co-ordinator)

Lack of access to library services was managed by considerable sharing of resources. Colleagues who were undertaking courses and who had access to their university service were used by Specialists to obtain materials. A number referred to colleagues who had library membership at various higher education institutions and the sharing of materials and resources. There is evidence that nurses, being users rather than generators of research, (Humphns 1999) also demonstrate greater tendencies towards sharing what knowledge they locate (Davies et al 1997) Reference was also made to using national or large specialist resources elsewhere. The RCN Library was used by some but was considered to far to go for those working outside London. One specialist working in a Trust that appeared to have a particularly comprehensive nursing resource collection in the library no longer relied on the RCN.

"I did use the RCN library a lot and I wouldn't think of going there now because our resource is so good. You need never buy a nursing journal again because they have them all there" (Urology)

It was generally felt that Trust libraries were good in relation to their size but a few specialists travelled some distance to meet their needs. One CNS who travelled to a large specialist collection rationalised her behaviour as follows.

"What you may lose out in time away from work by coming down to a bigger library you know you're more likely to get 75% of the information you want whereas locally I get about 20%"

Some projects required a broad information base and large scale literature searches. The search results produced reference lists that could not be found in local Trust libraries. One example was that of a project to investigate multi-professional patient held notes and another related to background reading for publication.
"the majority of the journals were American and there are only two or three Quality10 journals in the library so we had to go to the RCN to look at them before we could really start" (Research & Practice Development Nurse)

"if I was doing something for publication and wanted to do something for publication, and wanted to do a thorough literature search, that's what I would do [travel to a large library] if I wanted a thorough literature search I'd have to be prepared to order more or go elsewhere so I would start by going elsewhere" (Stoma Care)

The immediacy of seeing the full text of articles was regarded as important even when there was no urgency related to direct clinical problems. Even when Projects were being undertaken on a long-term basis CNSs often preferred to see copies of the articles at once rather than wait for inter-library loans. One CNS, who appeared to be a heavy information user, used her local NHS library but visited the Royal College of Nursing and the Royal Society of Medicine to gain immediate access to journal articles. She did not use the local inter library loan system.

"I usually go to the RSM to get it (inter library loan) and not here it's easier if I'm chasing an article I tend to want to read it and see if there are any other further references" (Specialist Continence Adviser)

Preference for larger collections also seems to be linked to previous experience of library use. One specialist who had moved from an East Midlands teaching hospital to a general trust in London felt that when issues had to be addressed quickly it was more rewarding to go to a bigger library.

"It's quite frustrating if you go to a small library and you really need it" However one of the NHS Library Managers felt that most staff preferred the intimacy of the smaller NHS library to the more impersonal higher education library.

"although the local nursing university library has far better stock than the trust libraries, some people prefer to use trust libraries"

10 Journals on the subject of Quality
8.4.4 Physical or virtual access

Access to secondary resources in the form of databases, rather than on site provision of a relevant physical collection of journals was the best that was available to most specialists. This was not always enough and specialists felt the need to visit libraries that contained a physical collection of titles. One specialist mentioned the need to sometimes access the physical resource:

"I physically went down to the RCN and spent two half days just actually flipping through journals and I thought that was actually probably a more efficient way of doing it. It might have seemed time consuming but I don't think it was." (Complementary Therapies)

Another specialist who had worked at two different teaching hospitals in London and undertaken a course at a large university, also in London, saying, "I have always used big libraries". She felt frustrated at undertaking literature searches and then not being able to find the material immediately in her local general trust library. This dilemma was resolved by travelling to another library and paying to use a service where she could find a large proportion of resources in a single visit.

The inconvenience of travelling some distance to use a library is mitigated by the satisfaction of being able to examine a wide range of materials. This was also evident in a study of students on Post Registration nursing courses (Yeoh & Morrissey, 1996) and confirmed to a certain extent in the findings of a later project which also focused on continuing education (Davies et al, 1997). Blair and Wakeham (1995) also found that nursing researchers preferred to travel to consult resources rather than use interlibrary loans. This evidence contrasts with earlier studies which had suggested that nurses tended to use the information service that was most convenient. However, the similarity between nurses on post registration courses, researchers and CNSs may lie in their need to complete specific pieces of coursework or particular projects within deadlines. In these circumstances it is more effective to use a resource which will answer most needs.

The contrasting experience of a large higher education facility was described by a specialist who had studied at Southampton University: "where the facilities
were extremely nice, computers everywhere" She compared this to a locally provided nursing library that was part of higher education provision but contained poor facilities She expected that "nursing libraries in major London hospitals [ought] to have decent facilities" She advocated integrated facilities to ensure that nursing provision was equal to that of medical provision

The King's Fund library was mentioned by a number of specialists not only for its resources but also as a more suitable place to work Some libraries used by pre-registration student nurses were regarded as too frenetic to provide a calm working environment The HE Library Manager felt that nurses dealt with competition for quiet space by choosing visiting times carefully and didn't see this as a source of friction or complaint However student nurse attitudes towards library materials were less responsible and caused problems

"Where it might be [a problem] is if they're looking for particular journals when the students have just done a big trawl of it and things have gone missing They have a different attitude to the resources in that sense, unfortunately that the students don't have"

Some CNSs were willing to travel to more than one organisation to satisfy different kinds of information need

"I use three different kinds of libraries The medical library if I was doing a presentation, say the effects of alcohol on the brain I would go to Alcohol Concern if I wanted anything general for students for handouts the Institute of Alcohol Studies if I want anything between" (Community Alcohol Nurse)

Inter-library loans were regarded by some CNSs as too much trouble or too costly although there was uncertainty as to whether they would be charged One commented that obtaining inter library loans was "such a blooming complicated procedure that I try not to do it and they're so expensive as well" One problem for library users is that demand for inter library loans was caused by a combination of clinical work and academic coursework and the two strands were difficult to disentangle Library managers expressed differing views on how requests, which appeared to be for academic coursework, were handled One Manager stated that requests for academic coursework and those for clinical work would be treated in exactly the same manner However another manager
was far more cautious and would encourage the user to access their university base for such materials.

"It makes no sense financially not to have that discussion" (Library Manager C)

On other occasions library managers were surprised by lack of use of document delivery services when they appeared to make processes as easy as possible. They were intrigued by CNS comment concerning the complexities of using interlibrary loan procedures and felt nurses did not make full use of document delivery services available to them.

"That's interesting actually I'm just thinking back to the last couple of searches I've done for senior nurses and you always put in we've got this, this and this, but the following are available if you want them. And I don't think on either the last two have come back and said yes could you get me those."

The development of the National Electronic Library for Health (NELH), proposed in a NHS strategy document (Department of Health 1998c), aims to overcome access barriers by the provision of full text documents. It remains to be seen whether a willingness to travel to large libraries to gain immediate sight of journal texts will be superseded by a fully functioning NELH. The government appears to be placing great reliance on the development of NELH to deliver a broad range of information, including databases and guidelines, to clinicians at the bedside. The timetable for the development of the NELH seems unclear, and while suitable technology is available for delivering the NELH there are other problems that have to be resolved before substantial progress can be made. The process of negotiating copyright agreements with different vendors, download formats and a plethora of passwords required to gain access has made the introduction of full text electronic journals into the higher education community a complex procedure. NELH will have the advantage of following higher education in its negotiations with publishers but the NHS will, nonetheless, face a difficult task. The success of the NELH will also depend upon substantial investment in computers for staff of all disciplines and grades.

8.5 Resources and services

By virtue of experience of working in different organisations and the use of university libraries through academic courses CNSs possess a broader
perspective of library service provision and were able to make knowledgeable comparisons about what was on offer. Almost two thirds of the specialists were either undertaking, or held, First and Higher level degrees (Figure 8.5)

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Figure 8.5 Facets of the category 'Resources and services'

8.5.1 Gaps in provision

Availability of the range of journal resources required by CNSs was problematic in both libraries based in specialist hospitals and those based in general trusts. CNSs who worked in specialist centres were satisfied with the specialist journals available although they were not particularly nursing orientated. They felt that the gap in provision lay in the unavailability of standard general nursing journal titles that they also needed. One specialist said:

"they don't have anything ordinary like — there's nothing about psychology or psychiatry, there's no wound care journals, there's not journals of infection. These are the sort of things you might get in an ordinary library"

Similarly a Transplant CNS relied on visits to the RCN for nursing journals in addition to general news titles:

"I mean this is very medically focused. It really is for medics and academics. So although they stock probably four or five nursing journals, if you actually want to get or read articles you've really got to go to the RCN"

Conversely for specialists employed by general trusts the range of titles was seen as limited:

"I need to see a variety of journals, particularly the American journals. There are only 2 or 3 quality journals in the library"

The suggestion by CNSs that they are disadvantaged in access to journals and other services is confirmed in a UK wide study which states that
"library services, including not only their available databases and journal holdings, but also such facilities as their location, opening hours, and, where applicable, pricing scales, in general appeared to be targeted towards doctors and acute services, rather than towards other clinical professions and community services" (Clinical Standards Advisory Group 1998)

Library staff were regarded as an invaluable resource and they were almost invariably regarded in a positive light although a few specialists referred to some librarians' information gate-keeping activities as unhelpful. These particular incidents were seen as being the result of personalities rather than policies. One small specialist trust had no staff support for its library and a specialist said

"I think actually if we had a well trained libranan that would make a massive difference"

The main resource for literature searching is the CINAHL (nursing) database although most specialists felt that half of the resources that they needed to refer to were medical. This may be a reflection of a preference for nursing sources where they exist. More rarely a specialist might start with Medline but there was an interest in Psychlit even among general nurses. Information from searches was supplemented by information from other sources such as product or appliance companies, professional specialist organisations, and specialist organisations aimed at the public and nursing directorates. Pharmacists and Drug Information services were regarded as an important service and in possession of the specific skills required to access a particular kind of information.

There appears to be little use made of the Cochrane Library. A small minority was involved in contributing to the Cochrane collaboration. Specialists from two hospitals had attended a course on appraising evidence but, with these exceptions, there was little awareness of the availability of the Cochrane Library in local library services and no sense that CNSs regarded it as a crucial resource. One comment about Cochrane seemed typical

"I think with a lot of various databases like that I'm not sure how to get at them. I must admit I've not gone beyond knowing the name really"
8.5.2 Information Technology

One CNS new to the Internet described the wonder and the value of easy access to information

"It’s fascinating I could spend the whole day on the Internet. We’ve got Medline as well as the BMJ which is quite good. I came across it as if by magic" (Clinical Nutrition and Intestinal Failure)

However it was unusual for CNSs to have desktop access to the Internet at work. The importance of the Internet as a resource for specialists was reflected in a number of CNSs purchasing access through subscriptions at home. One specialist had purchased access to the Internet for a home computer "because I don’t have the finance to do it here". Another specialist who did not have any access to the Internet felt it was important to have access to the same information as patients "so you can appreciate where they’re coming from". A Pain Control specialist cited differential access to scarce resources such as the Internet. Junior anaesthetists had a computer access code but she, as a senior nurse, did not. Medical staff appeared to have greater IT access. One CNS who had used the Internet for professional purposes in a previous role, relied on using a computer in the office of a medical colleague while planning to obtain her own

"I’ve tried to get it. It’s been promised there’s another office for the research registrar and I use his occasionally" (CNS Pnon)

This is reflected in the literature (Meah 1996). For example midwives have expressed frustration at the Cochrane Library being available in the medical library but not in the library they had access to.

Access to general IT facilities for CNSs was generally very poor and was a cause of frustration for most specialists. The following comment by a Face and Neck CNS when asked about library access to the Internet is typical

"Well I suppose there would be, but it hasn’t been advertised at all. My first priority is actually getting a computer at all, or more easy access to a general computer, let alone the Internet."

There was uncertainty among most CNSs as to whether the Internet was available in local library services. Generally for those CNSs who were interested in access to the Internet there was a reliance on home computers and colleagues in other departments to produce information. None of the CNSs
interviewed in this investigation referred to access to NHSNet, a private NHS network. Targets derived from Information for Health (Burns 1998) suggest that by March 2001 twenty five per cent of trust based clinical and other relevant staff will have access to NHSNet (Green 2000) This indicates that a considerable amount of investment is required before IT access is anything approaching universality although the NHS Plan (Department of Health 2000) has given information systems infrastructure a high priority. NHS access to the wider Internet is still inhibited by security concerns (Department of Health 1998c).

The provision of Internet access in the libraries of the Managers interviewed ranged across a spectrum between no provision at all, to a charged service, an established free service to the developed infrastructure of higher education and access through JANET. Comments made by Library Managers indicated that Internet access and training were still in the early stages of development. One of the libraries did not offer Internet access in any form although the Manager regarded this as atypical:

"the Trust will not support the costs to date the Trust has got a very poor IT base, no IT resourcing, no Internet resourcing. There aren't the funds for me to provide it" (NHS Library manager A)

Another Manager was uncertain about appropriate Internet charging policies or about what constituted suitable approaches to training users:

"We've done a little [training] I've done it with specific groups - it was cancer- it ended up they seemed to know far more than me We try to show them certain search engines I mean it's quite difficult to do internet training you have to be on top of the subject to do it" (NHS Library Manager B)

The growth of cheap public access in Internet cafes had made an impact on charging policies in NHS libraries:

"you can't charge much in central London because the cafes you go to charge something like fifty pence for half an hour" (Library Manager A)

"We will benefit more when we get it through NHSNet When that happens I think we will advertise it more At the moment because we're charging we don't get a lot of use" (Library Manager B)
The IT infrastructure established in higher education made it easier for university libraries to provide adequate facilities and training.

"We do a fair amount of training for the internet, but what we've also done is set up a series of bookmarks on the browsers of those machines, that point them to the information gateways" (HE Library Manager)

The HE Library manager felt that use of the Internet was increasing and more importantly that nurses were beginning to be more effective users with improved information retrieval skills. This was reflected in the comments of one of the NHS Librarians concerning a community based training project:

"a lot of the demands that are coming through are for Internet training, not for database training" (NHS Library Manager A)

Internet access at home was viewed as providing a convenient and rapid ad hoc response to information needs for the few Specialists who subscribed to Internet services privately. One Specialist said

"now I have the Internet its much easier for me to go home and think about something and just go into that" (HIV & Aids)

Among the population she serves are a substantial group of Brazilians and she described a specific incident where she used the Internet to locate an article in Portuguese for one of her clients. A search on Medline would have produced articles in Portuguese but home access to the Internet made the latter route more convenient.

Among those CNSs who discussed using the Internet there was uncertainty about what was available through the use of WWW or how to find it.

"Well I've got a couple of sources on my 'favourites' list I tend to generally search I've got the Department of Health site No for clinical stuff I do just tend to try and fish around, which isn't perhaps the most productive way of finding information" (ITU CNS)

One CNS mentioned specific training provided by the Trust library but on the whole there seemed to be a complete lack of support or training available. There was limited knowledge of sites providing free Medline, such as PubMed or GratfulMed. At this point in the interviews, factual queries were dealt with at
the end of the interview and the researcher posted leaflets produced by her own library service

A specialist from a general trust described the perceived level of access when he said that he thought there was "only two Internet points in the whole hospital One's at Trust Headquarters and one is in the Pharmacy". A few CNSs were aware of Internet facilities either in Librarian's offices, in public points in Postgraduate Centres, research departments and Trust IT departments. There was no evidence of desktop access and those who had home access preferred to use it there. For some material on the Internet was acquired second hand

"Our research department here is on the web site. It has a web site and if I talk nicely to the Information Manager he gets me things off the Internet" (Macmillan Face & Neck)

"One of the young lads who does data input for me, he has access to the Internet, so he comes in and says to me I looked this up on the Internet" (Continence Specialist)

Many specialists were working in high profile areas or with patients with chronic conditions. These were often the kind of areas where patients were well informed about their conditions and would be obtaining information from the Internet directly or via intermediaries. A Diabetes CNS, who did not have access to the Internet herself, was conscious that her patients obtained information from the Internet. She was concerned about the accuracy of information available saying, "I don't know who puts information on there"

Because of difficulties in finding time to access library services in the form of personal visits the potential of desktop Internet access was valued

"the way people have been able to use the library on the Internet and been able to do literature searches and things like that. So you've got it at your fingertips. You don't have to go and queue up to use the computer in the library and things like that"
8.5.3 Divided Services

The changes in library provision caused by changes in the education of health professionals and the geographical problems as a result of varied work, home and study locations were perceived as producing barriers of varying difficulty. There were a number of examples of Postgraduate Education Centre libraries that were welcoming and offered access to all health professionals. These provided a single access point for all information although nursing resources were perceived as being weaker than medical resource provision. On medical teaching hospital sites CNSs were required to use two different libraries if they were to meet all their information needs. Medical information was important although there were barriers to use in these libraries. In some cases there were barriers in place in nursing libraries that were now the responsibility of higher education. In most cases these changes were seen as offering a poorer level of service than hitherto. In only one case was there seen to be distinct advantages in current arrangements because the library stock had broadened to include areas related to nursing in the psycho-social sciences rather than purely nursing material.

Library Managers also felt that although the reorganisation of nursing education and the resulting closures of School of Nursing libraries had occurred some time ago there were still some outstanding problems to resolve. The distribution of educational contracts in London had lead to some universities largely concentrating on nursing education while others focused on medical education.

"I think some things are actually continuing in the HE sector where there are medical universities and nursing universities still separate. You may still have a situation where a Trust has a nursing library and there is a medical school library which are separate because they are in different universities" (NHS Library Manager)

The other issue for NHS Library Managers was the impossibility of identifying the manner in which funding was spent on resources for NHS users in higher education libraries.

"Yes, it's difficult in the sense of understanding costings in the sense of wanting to bid for more money to ensure resources are the same in most places because you can't do any sensible monitoring that relates back to the investment going in" (NHS Library Manager)
One community specialist described the problems faced by a colleague whose circumstances are probably fairly common

"[she] was doing an MSc when she arrived here, she was doing it in Birmingham and she's desperate to get stuff from our library so she made contact with X University library and she made contact with Y University's nursing library and they all said you don't work here whatever, you're not doing a course with us and you can't use it. So the fact that she's employed here doesn't carry any weight

So we do need links you know, those of us who are working, well any employee I think does need links with their local academic institution."

However Library managers felt that library users often relied on out of date information in respect of library access. One manager commented on a change of policy that had occurred several years ago concerning access to a local university but nursing staff were still unaware of such changes.

"We've found it takes a very long time to get the message across that people have access. I mean X University, what, it's four years ago I think they banned nurses for six months. And still today, after having done pay slip adverts to the whole of the trust staff, people still say I'm not allowed to use the library." (NHS Library Manager D)

University institutions acting as information service providers had even greater difficulty in communicating with NHS trust staff and publicising services.

"So far it's been mainly based around leaflets but there isn't in my opinion anyway, very full communication between the trust and the university and on that level it's very hard to break through. And it's certainly an area we could improve in. It's as basic as putting up a few posters and a few leaflets in specific trusts that we serve, which is a shame." (HE Library Manager)

The impact of the loosening of regulations concerning access to IT services delivered via JANET had resulted in improved services for NHS staff using HE
There were very few databases that NHS staff could not access, although licensing issues associated with electronic journals were seen to be a problem. NHS staff would notice very little difference in the service they were entitled to use compared to HE nursing students.

"A lot of people who are regular users who have probably known the library for a long time and there's probably not a lot of distinction between them and the students they have access to the Internet, the same access to the databases" (HE Library Manager)

The value of proactive and responsive library and information services was highlighted as one the criteria used to make a decision as to whether to use the service or try alternative routes to obtain information. Speed of response was regarded as a priority because the demands of their clinical work made need for information unpredictable, frequently urgent and usually unplanned. Many specialists were confident about undertaking literature searches themselves but appreciated the time saving element of mediated searches. One was particularly appreciative of the service provided.

"If you want a literature search done you can just ring them up, give them your subject and they'll have it all in an envelope posted to you the next day" (Gastroenterology)

A similar view was expressed by a specialist from another trust who used the RCN rather than her own library service and responding to being asked why she used the RCN in preference to requesting a search from her own library.

"I'd used them before and it's quite helpful because you just phone them up, do it over the phone. It costs nothing and they do quite a broad search for you" (Rehabilitation and Counselling)

Some information services were seen as recognising the peculiar pressures incurred in clinical practice and provided a service to reflect them. Drug Information Services were highly regarded by some CNSs because they "seemed to have the infrastructure to respond to your needs and it's a fairly clinical based service". Libranes appeared not have achieved this degree of responsiveness. Interlibrary loans were usually needed urgently and experiences of services varied. The slowness of document delivery response times has been discussed elsewhere (Cumbers and Donald 1999). A two-week
response time was regarded as being too long by a Dermatology Specialist who would probably 'make do' with second best information instead

"We're very badly looked after here [journal provision] You have to wait up to two weeks to get articles in for you after two weeks you've either got something else, you've forgotten or moved on about a particular treatment or condition You might ring someone up and say 'oh that will do'"

Library Managers were well aware of the urgency of need for information required for clinical purposes:

“You know if it's course work or higher education related, they probably have got time to do things like inter-library loans But if it's a clinical need or protocol to be done in a week's time when they haven't got time and they just have to cope with the abstract and what's available” (NHS Library Manager D)

The delivery of an efficient document delivery service and the need for rapid supply was regarded as a priority The issue of document delivery response times was an area that Library Managers were concerned about

"I mean it's something as a Region we take very seriously we've done a lot in terms of trying to speed up delivery, trying to look at ways of improving the quality of delivery" (Library Manager D)

In an attempt to speed supply the Region used a small number of centres that supplied all other libraries They used a specialist nursing supplier and specialist medical supplier These 'suppliers' are NHS libraries that concentrate on developing their journals holdings This approach was intended to eliminate delays that might occur in hard pressed libraries Yet there was evidence that libraries operated a filtering approach to interlibrary loan requests,

"We would ask them generally how soon do you need it And we would maybe try and find out if they really did need it that soon, which again is difficult because it's all these subjective ideas you've got and everything else But the service is there" (NHS Library Manager D)

The same Library Manager felt that potential document delivery service users relied on outdated concepts when assessing the range of services offered In the past NHS libraries were not funded to serve nurses and these perceptions tended to linger
"Once someone has used the service, they'll use it again, but it's getting them past the first barrier of not even realising they can. Particularly if they still have a medical library perception or they do perceive there to be differential services" (NHS Library Manager D)

The Regional library network, through union lists and specialist providers, aims to provide access rather than local holdings. Ultimately this is more cost effective and provides access to a greater range of journals than might otherwise be available. The costs of providing a document delivery service are also reduced compared to using a national service such as the British Library's Document Supply

"by using things like union lists of journals, whichever library you go to you effectively have access to these three thousand journals at minimal cost" (NHS Library manager C)

Current awareness lists were highlighted as an aspect of the library service that was regarded as useful and a way of saving time. Sometimes these lists were circulated within departments rather than the library, based on bench collections of journals. North Thames offers a region-wide current awareness service aimed at nurses and PAMs (Professions Associated with Medicine). This is based on the Region's own resources and is circulated in electronic and hard copy form, although CNSs did not refer to this service specifically. Library Managers, for differing reasons felt ambiguous about the provision of an SDI (Selective Dissemination of Information) service tailored to individual information profiles. One Library offers an SDI service but demand has been minimal

"We've offered it but it hasn't been taken up. It's been taken up by one department actually, the Dieticians" (NHS Trust Librarian)

Another Library was concerned about it's ability to cope with demand but also felt that unless the SDI request profile was very specific it might create an artificial impression of comprehensiveness

"If you advertised it I don't know how you'd cope because it has to be for everyone. If you did an SDI they'd think, great, I know everything that's been written in the last month about this topic. And of course that wouldn't be the case" (NHS Trust Librarian)
However one CNS was enthusiastic about the SDI service she received because they made more effective use of her time:

“The library here are very good and they send me a monthly printout of anything on incontinence. They’ve got an updating service, a search thing, so once a month I get a long printout which I flick through, and anything that’s particularly interesting I’ll asterisk and next time I’m in the library I’ll see if any of the asterisked ones are accessible” (Specialist Continence Adviser)

Current awareness list circulation was regarded by one CNS as a way of keeping track of areas where there is an established body of research and individuals only needed to know about new developments:

“There wouldn’t be much mileage in keeping popping back [to the library] just to check that nothing had changed” (Specialist Continence Adviser)

Current Awareness provision freed time to allow the CNS to focus on investigating new areas of work. A CNS from another institution valued the local current awareness bulletin:

“We have to a certain extent a bulletin that comes around with articles that have come out and perhaps that in more depth and more regularly would be helpful rather than having to go to the library” (Head & Neck CNS)
Chapter 9

CONCLUSIONS AND RECOMMENDATIONS

9.1 Introduction

The central outcome of this study was the emergence of a grounded theory of the process of 'Managing the Evidence' by CNSs. This process occurred in the context of the three key CNS roles of clinical practice, teaching and research and development. Within the framework of the central category of 'Managing the Evidence' a number of other interrelated aspects operate to provide the supporting network of contextual processes of information use by CNSs.

Firstly, in the context of information use, CNSs arrived at a position of 'Role Definition' which was confirmed by a greater awareness of the research base of nursing, a range of differing perspectives and a responsibility for knowledge dissemination. Secondly, the development of higher level of 'Experience and Knowledge' was a consequence of working as a CNS. The experience of using information has been transformed by moving into a CNS post with the need to adopt a more strategic perspective on the knowledge base. There is a greater reliance on personal information seeking skills and greatly increased pressures caused by raised expectations of colleagues and clients.

Thirdly, in the context of the 'Information Interface' CNSs operated at different level to most other nurses. The authority invested in the CNS role further complicated power relationships between medical staff and other health workers. Information exchange networks, formal and informal, were of importance to CNSs. Information advantages accrued to those CNSs who engaged with the wider world and were active in the fields of publication and dissemination. Finally, 'Enabling Frameworks' looked at the organisational and structural barriers faced by CNSs in their efforts to access information services. Tensions existed between an explicit recognition of the CNS role in leading change and providing a research basis for nursing developments and between organisational frameworks that impeded access to information support. Some of those tensions were rooted in personal approaches to managing workload and to priorities.
This remainder of this chapter will briefly summarise the research context, and then continue with a discussion of issues of importance and conclusions arising from this research, linking these to relevant user centred theoretical concepts. Finally the chapter will identify some areas for further research. Conclusions are considered under the following headings:

- User centred theories of information need and use and the research findings
- Factors triggering CNS information need
- Factors inhibiting information use
- Inter-professional relationships and their impact on CNS information use
- The impact of Informal information networks
- Information technology and information skills
- User provider tensions local access and regional strategies
- Role modelling CNSs as library champions

In drawing conclusions from this study it should be noted that this was a descriptive, inductive investigation. The data collected in the course of fieldwork was dense and rich, and the aim of this qualitative investigation was to provide an understanding of the world-view of CNSs themselves rather than generalise from the findings. This study was undertaken in a health region, with an earlier tradition of separate medical and nursing library provision, which was attempting to make multidisciplinary information services widely available to nursing and other non-medical staff. It should also be emphasised that this study excluded information use in connection with educational courses. The investigation was solely concerned with information use arising from the professional activities of CNSs. Theory development was attained through data collected from intensive individual interviews with CNSs and by group discussion of the resulting CNS perspective with library and information managers.

Before turning to the implications arising from this study, attention should be drawn to a major report published at the conclusion of this investigation (Department of Health 1999). New proposals for increased financial rewards and a career structure that encourages expert nurses to remain in practice reinforce the significance of the advanced practice role. The proposed new grade of Consultant Practitioner offers recognition and status for an undervalued group of advanced practice nurses.
The findings of this study need to be considered in the context of the variations of perspective derived from the data collection. As individuals, or collectively within their Trusts, the majority of CNSs are influential nursing leaders in their organisations. Their information use is directed towards systems of care, protocols, teaching colleagues, acting as quasi-national advisors and publication. Deviant cases, the minority of CNSs whose views differed to those of the majority, were inactive information users who lay at one end of the continuum with a larger group of high fliers at the other end of the range. CNSs’ attitudes towards their role and information use varied along this spectrum. It should also be noted that the title of CNS was sometimes a means of rewarding a long serving member of staff with a particular salary level (see Section 3.4) and the person concerned did not perform the role of CNS as it is usually defined. This may account for more limited use of formal information sources by those specialists at the information inactive end of the continuum.

For most CNSs the move to this advanced practice role had allowed them time for the assessment and implementation of research. However, some CNSs were limited users of formal nursing literature by choice rather than by organisationally imposed constrictions on their role. An example of the inactive end of the continuum was of a CNS at the end of her career who expressed no further interest in her role other than the adequate performance of daily routines. A contrasting case at the same end of the information use continuum was a CNS, well known in her specialty who relied on her very extensive experience, and saw the use of information services as a low priority. More than sixty percent of the CNSs interviewed were under the age of forty but some of the older CNSs were uncertain about using electronic databases and tended to use colleagues and other informal sources for information. Two CNSs at the younger end of the age range, who made little use of library services, had access to experts who were willing to provide them with information in the form of papers and articles.

At the other end of the spectrum in this study were a significant number of CNSs who differ vastly from the stereotype of nursing. Some, but not all, worked in tertiary referral specialist institutions. They are proactive high fliers, involved in publication, journal editing and are active participants in national initiatives.
Some are in unique roles with a remit to act as a national resource. They are confident in clinical practice, educated to a high level and some are undertaking PhDs. These CNSs represent the changing face of nursing, and they demonstrated the emergence of a new breed of nurse in the UK who is highly educated and who adopts a significantly different approach to information use. Library provision has been based around old stereotypes of nurses as handmaidens to medicine and does not recognise the differing needs of these influential expert practitioners.

9.2 User centred theories of information need and use and the research findings

The philosophical approach of 'user centred' theories of information use were used to underpin the approach to this study of the processes involved in the use of information by CNSs. The user centred paradigm relies on an understanding of user context. That is, the environment in which users seek out and use information becomes a crucial factor in the information seeking approach. A number of these theories have been discussed earlier in Chapter 2 and some elements of these contribute to the basis of the approach adopted in the CNS study (Belkin 1982, Dervin 1977, Taylor 1984, Wilson 1981a). Some of the models derived from the person centred paradigm, including those of Belkin (1982), Dervin (1977) and Ellis (1993) have produced stage models. That is, models which describe information seeking and need in terms of a number of discrete stages. Ellis's model (1993) is an example of this breakdown into a series of the identifiable stages of Chaining, Browsing, Differentiation and Monitoring. The CNS study has focused on the intellectual demands placed on CNSs in their work role and the social and organisational processes that impact on information seeking and need. Wilson's cognitive-phenomenological theories have particular resonance in the findings of this research study. A brief summary of his concept of information user behaviours is provided in order to link key findings from the CNS study to theoretical concepts postulated by Wilson (1981b).

Wilson attempted to make sense of information seeking and use by merging the concepts into the term "information-seeking towards the satisfaction of needs" (Wilson 1981b, p8) and focusing on cognitive processes. His model of
information seeking processes centres on physiological, affective and cognitive needs. For the purposes of this study, affective and cognitive needs are especially pertinent. Affective and cognitive needs function in conjunction with personal, interpersonal and environmental barriers. Cognitive needs, generated by planning and decision making, interplay with affective needs generated by the individual's personality and organisational factors and lead the researcher towards a more holistic view of the user. An understanding of the underlying social, cultural and work context is fundamental and is instrumental in the qualitative approach adopted in the examination of the processes involved in CNS information use.

The key cognitive drivers of CNS information use are the processes of CNS work that underpin their need to manage the research evidence available. These are clinical practice, teaching and research and publication. The extent to which CNSs were willing to use formal information systems and draw on research literature was in part a consequence of individual personality, but to a large extent the socio-organisational setting of the health service in which they operated was pivotal. Cognitive needs were influenced and diluted by such affective factors. The conclusions will be discussed in terms of the social and organisational world in which CNSs operate on a daily basis.

9.3 Factors triggering information need

♦ The role of the CNS is very much bound up with the use of information to underpin central aspects of professional activity. The key finding emerging from this study is that most CNSs used research literature to underpin their work. CNSs are concerned with the processes of managing the evidence of nursing and integrating it into care delivery. Their use of research evidence is much more related to strategic issues rather than day to day aspects of care.

♦ Most CNSs use information sources and the formal literature of healthcare in a way that differs from other nurses. Previous research has suggested that nurses do not use libraries for professional reasons unless they need to complete academic work for educational programmes. This applied to senior
and junior nursing posts alike, CNSs who had previously held influential senior posts, including that of Ward Manager, had been unable to use research literature in a systematic way due to the inexorable pressure to complete day to day routines of care. In contrast, most CNSs in this study used information to support their work activities in the areas of teaching, clinical development and research and publication. This tends to support the view expressed by Davies et al (1997) that the pattern of information need is more likely to be affected by stages of practice defined as primary, specialist/enhanced, or advanced.

- Nurse specialists are less concerned with individual clinical problems and more involved with audit and the development of policies and protocols. Therefore, their use of the literature is different to that of students who may need a few references to support essay writing. CNSs require thorough literature searches, access to evidence based reviews and access to journal literature to ensure that they recommend the most effective practice. Library and information services must be able to identify and differentiate between different types of information use by employing discriminating reference enquiry procedures at library service points. Conversely CNSs must be able to articulate their needs clearly to ensure they receive appropriate library service support.

- Research and publication were not undertaken by all CNSs in this study, although a small but significant number are actively and intensively involved in disseminating practice in the public arena. Most CNSs who were not currently engaged in research and publication identified this as an area they expected to address in the future.

- Some specialists are working in unique or rare nursing specialisms and they have a significant national role in disseminating accurate and reliable information to other health professionals and to the lay public.

- CNSs are conscious of the necessity of balancing their intrinsic abilities and tacit knowledge with use of research literature. They are aware that the literature does not always produce definitive answers and that expert clinical judgement is a vital aspect of their advanced practice role.
9.4 Factors inhibiting information use

• Factors which inhibit information use relate to work patterns and the degree to which NHS Trust managements clearly demonstrate support, or otherwise, for allocating time to reading and research. There was little evidence of an unequivocal recognition that the CNS role was dependent upon the ability to devote time to locating and synthesising research evidence. Job descriptions need to be explicitly framed to ensure that information use is seen as core rather than peripheral.

• Geographical distance to libraries was not an inhibitor of the use of information services in all cases. CNSs were willing to travel to have the opportunity of perusing large, comprehensive collections of journals at first hand. Although it should not be over-emphasised, this informal approach to information use can be underestimated. The future substitution of electronic journals for paper copies will contribute further to a loss of an ability to browse. This is exacerbated by the nature of nursing topics that do not always lend themselves to the kind of precisely focused literature searching techniques of medicine. While it is unlikely that many nurses would be willing to travel any distance for information in connection with their everyday work, those who have specific projects to undertake appear to be willing to do so. They may find this a more effective way of using their time when a number of information needs can be served in a single visit. Some persuasion is needed for users to rely on access via inter-library loan request rather than a physical collection.

• A few CNSs used the Internet at home and there was uncertainty about the availability of the Internet in local NHS libraries. They were conscious of the use of the Internet by patients and clients as consumers, and furthermore, that some clients were information providers on the net. There was awareness of the variability in quality and reliability of information but little evidence of having strategies for searching or awareness of key web sites. Libraries can play an important role in navigating the net for users and ensuring that users have information made available about significant web sites. Local library managers need to be much more active in promoting intelligent use of Internet services.
The growth of the Internet at home and the ability to personalise the major medical and nursing database passwords for home use will provide easier access to the literature for staff working in organisations with WWW access to the databases. The provision of remote WWW access to databases should be a priority for NHS libraries.

9.5 Inter-professional relationships and their impact on CNS information use
Sociological analyses of nurses and doctors in the workplace refer to the professional status of medicine and the attempts by nursing to move from sub-professionalism to increasing recognition of their contribution to the delivery of health care. Although there are an increasing numbers of women entering medicine it is not clear if this has affected traditional gender structures and the disadvantaged role of females. Gender issues necessarily spill across any analysis of nursing activity, including perceptions of the value of literature produced by each profession. The perceived superriority of the 'curing' role of doctors, the inferiority of the 'caring' role of nurses and the power wielded by medical staff over nursing staff are social and organisational factors impacting on the processes of information use by CNSs.

Traditional professional boundaries between nursing and medicine remain predominant. This leads to a lack of recognition of the knowledge and experience of CNSs. The medicalisation of movements such as EBM and clinical governance excludes important role models for nursing practice. Although medical colleagues have higher expectations of CNS levels of knowledge, they do not accept that nursing is a separate or equivalent professional discipline. This limits the status and contribution of CNSs in the overall delivery of care.

Two issues are of particular relevance for information use by CNSs. Firstly, there is limited acceptance of the contribution made by nursing research among medical and nursing staff, with the exclusion of a few areas such as pain control, wound care and care of the dying. Secondly, CNSs with their expert knowledge are in a position to challenge medical staff, but junior grades of
doctor found this difficult to accept CNSs referred to these issues in their interactions with workplace colleagues. These aspects of inter-professional relationships affect the way in which CNSs chose sources of information. Furthermore, some CNSs felt that nursing staff were at a disadvantage in the array of nursing journals provided in NHS libraries and that medical staff had priority in information provision, although library managers refuted this. There was evidence of conflict between the humanism of nursing and the technical rational nature of medicine, which had to be balanced against the need to provide a medical source for research evidence. On some occasions the influence of the medical-nursing power relationship was a contributory factor in nursing selection of information sources.

- CNSs require breadth and depth in health care literature. Their holistic view of care means that access to a multi-disciplinary collection is of paramount importance.

- They use medical journals very heavily to provide the depth of information needed for specialist practice.

- They also require nursing journals related to their specialism, some of which are American, but find general Trust library services do not provide this specialist support.

- Core nursing journals are also essential and are generally available in Trust libraries. However nurses working in tertiary Trusts with a strong research profile often find that specialist titles are available but core nursing journals are not provided.

- The problem of providing a collection of stock on limited budgets inevitably curtails choice. Journals have to be limited to core titles and some specialist titles reflecting specialities within the Trust. CNSs felt that nursing specialisms were not fairly represented in the range of titles available compared to those offered to medicine.

- The CNS role has been accused of leading to the de-skilling of other nurses in the clinical aspects of their work, denying them the opportunity to...
experience or resolve problems in more advanced aspects of care. The degree to which this occurs is affected by the way in which CNSs manage their role. In the context of information skills acquisition and information use, CNSs could play a role in encouraging the use of a wider range of journals than ordinarily used by nurses. As consultants, they are in a position to advise nurses about the ways in which they gather and use information. CNSs have the potential for influencing other nurses and libraries should identify and target nurse specialists to enable them to do so.

CNSs required access to medical and nursing information in equal proportions. Where necessary, they appeared to possess the experience and authority to overcome barriers in order to gain entry to library services. This suggests that other nurses, perceived to be weak and lacking in political influence in local hierarchies, are less able to negotiate access. However, it seems that some library service staff, perhaps ambivalent about their own status within this medically dominated environment, themselves reflect and comply with the traditional hierarchies of health care.

9.6 The impact of informal information networks
Informal information exchange is as important to CNSs as to other groups of health care staff. The impact of this should not be underestimated. CNSs used their peer groups, allied health staff and medical staff. Medical Consultants were seen as particularly fruitful sources of information. Other important sources were membership of national specialist groups, loose groupings on a local and regional basis and self-help/support groups. Personal and departmental subscriptions to specialist and general journals were another component of the informal information network. CNSs used unsolicited information from drug and product companies with the accompaniment of a degree of scepticism. Patients themselves were valued sources of information, particularly those with experience of chronic conditions.

Taken together these sources provide a rich vein of information support that is often far more easily accessible than traditional library services. The main advantage of this network is convenience but the significant disadvantage is incompleteness and a non-systematic approach to the collection of research evidence. There is no doubt that the role of the CNS, described in Chapter 1,
demands a rigorous and systematic approach to collecting, analysing and applying information. Library services should examine their role in the broader information picture. While the exchange of information between colleagues will always be important, desktop access to electronic sources of information including the main databases and full text journals could lessen reliance on ad hoc networks and partial information.

9.7 Information technology and information skills

- The CNSs in this study appeared to be 'information technology poor'. There was very limited access to computers. Even where NHS IT infrastructures are underdeveloped it might be anticipated that senior staff would be at an advantage. CNS computer access does not appear to be a priority. This seems surprising in the light of the seniority and significance of their roles. Access to e-mail and the Internet is inadequate for staff whose clear remit is to implement research-based care. While improved access to computer technology is not a complete panacea, it would nonetheless ease considerably access to the literature of nursing.

- The uniqueness of the CNS role and a commitment to support colleagues locally and nationally with evidence-based information is severely hindered by poor access to technology. Widespread desktop access to e-mail and specialist Internet discussion lists would enhance the CNS information base.

- Developments in the provision of web-based access to databases, full text collections and the ability to provide password access on any machine is an important development which could give CNSs instant access to research evidence if there were readily available personal computers.

- The development of the National Electronic Library for Health (NELH), still at a very rudimentary stage of conception, could be one way of providing immediate access to a large collection of titles. However, the potential costs resulting from the any negotiation of a national agreement may make this unlikely in the foreseeable future. Other full text services are increasingly available in the higher education sector but costs are likely to inhibit use on a wider scale in the NHS.
Information skills teaching received while on educational courses can be very influential. It can open up the full range and potential of resources available as well as highlighting library services that may be underused or misunderstood. Information skills teaching programmes need to be sufficiently flexible to meet the needs of all participants. Most NHS libraries provide excellent personal service and support when it is requested on an ad hoc basis. Better provision of advertised information skills training and Internet courses at different levels could help to produce independent and competent searchers. This will become increasingly vital with the development of Internet-based database services from remote providers.

Students trained since the introduction of Project 2000 (United Kingdom Central Council of Nursing, Midwifery and Health Visiting 1986) in the early 1990’s usually received fairly intensive information skills training at the outset of their course. Through a series of academic assignments, these students have ample opportunity to reinforce and develop their information seeking skills. Furthermore, they are likely to become the first computer literate generation of nurses. It is not possible to conclude as a result of the CNS study what impact this new information literacy will have, but it can be assumed that a more confident grasp of the technology of information will dissolve information barriers faced by nurses trained in earlier years. However this is dependent upon NHS computer provision for nurses being made widely available to ensure the maintenance and development of IT skills.

Older CNSs lacked confidence in using electronic databases. Furthermore, some senior nurses may experience more diffidence and a greater unwillingness to admit this in public arenas. LIS staff need to be sensitive to such groups and make alternatives, such as mediated searches and selective information dissemination services, available to those not able to search for information independently. CNSs are more likely to be at a disadvantage in the less personal environment of large higher education libraries. The appointment of a designated NHS information specialist could ensure that NHS needs are not submerged by the demands of undergraduate use.
9.8 User – provider tensions: local access and regional strategies

There is a conflict between the need for CNSs to satisfy their information need at a local level and broader regional library strategies. This was a tension between the micro perspective of CNSs concerning what was available to them at the local library level and the remote access policies developed by library managers. This endorses attitudes of nurses in the EVINCE study (Davies et al 1997) and raises issues associated with resource allocation in library services. Nursing staff regarded some local library procedures and policies as irrational. In order to protect resource funding NHS libraries within the region developed strategies to share resources and to make them easily available beyond the local NHS library environment. For example, in considering the purchase of journal titles, library managers took local demands into account but an important factor in the decision-making process was the availability of the title elsewhere in the Region.

The development of centres with a remit to provide an effective document delivery service to other parts of the Regional network inevitably weakens local collections. The document delivery service could provide a rapid response to interlibrary loan requests from users who had a need for a specific paper and could work to the advantage of users with competent information searching skills. This service was less advantageous for users who used journals for updating and those who relied on browsing. The ability to find material in a serendipitous fashion, the unexpected location of material from an unexpected source, is lost.

During the period of this study there was limited availability of full text electronic journals. The poor overall NHS IT infrastructure means that for the time being nurses have very little alternative to print collections. Access to electronic resources in the workplace via NHSNet and remote access via the Internet at home should begin to remove the main obstacle to information use, the time required to visit a library in person. However, when the IT infrastructure is in place and nursing staff have widespread access to technology, library services must have a strategy to manage the potentially dramatic cultural shift from print to remote access.
There is a need to explicate the library management policies described above and provide a persuasive rationale, particularly for mature user groups such as CNSs. However, the identification of a diverse group of nurse specialists in order to target services is difficult for library managers because they work across acute, community and mental health sectors and cover a wide spectrum of specialities.

9.9 Role modelling: CNSs as library champions
Explicit institutional approval of the use of library services was regarded by Library Managers as vital in enticing nursing staff into libraries, but also in reinforcing the concept of information seeking as an integral part of their normal role and not simply as an optional extra or "luxury". Gaining the support of nursing managers was crucial in ensuring library visits were part of new staff orientation programmes. CNSs are in a position to act as role models for good information use practice in addition to expert clinical practice.

There appears to be considerable potential for developing relationships with individual CNSs to promote wider use of library services by nurses in general. CNSs have more access to nursing staff on a daily basis compared to other nursing managers who do not have clinical contact. Library Managers generally had a policy of encouraging independent use of library services such as electronic databases while CNSs felt that nursing staff had insufficient time for information seeking and were willing to undertake such activity on behalf of junior staff. It was clear that CNSs were aware that this approach could de-skill junior staff and some tried to encourage independent library use. More dialogue between Library Managers and CNSs about adopting more consistent approaches could be fruitful.

9.10 Suggestions for further research
Information need and use studies have largely treated nurses as a homogenous group and have not attempted to distinguished roles, grades or stage of practice in terms of information use. Some studies have singled out midwives and psychiatric nurses but other groups may also repay investigation. Future research programmes may find it fruitful to examine specific nursing roles and specialisms to determine whether these are significant factors in information use. Library services would benefit from being able to target services at
particular groups. Nursing roles are in a state of flux but among the roles that could be investigated are Practice Development Nurses, Health Visitors and CPNs (Community Psychiatric Nurses). Lecturer Practitioners may be a valuable source of influence as well as intensive users of library services. Specialist areas of care may also repay further research, such as intensive care, cardiac nursing, oncology and palliative care. The new role of Nurse Consultant, if it becomes established on a wide basis across most Trusts, could be usefully compared with that of the Clinical Nurse Specialist.

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Appendices
Appendix I  Postal questionnaire. Pilot study

QUESTIONNAIRE

You and Your Role
1  What is your job title?

2  Are you male or female? Please tick
   Male
   Female

3  Which age range are you in? Please tick
   21-30
   31-40
   41-50
   51-60
   over 60

4  How would you describe your post? Please tick
   Line management
   Staff position

5  What is your current grade? Please tick
   E Grade
   F Grade
   G Grade
   H Grade
   I Grade
   Other

6  What is your area of speciality?

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Appendix I  Postal questionnaire. Pilot study

7. How many years have you worked in this specialty? Please tick

<table>
<thead>
<tr>
<th>1-5 years</th>
<th>6-10 years</th>
<th>11-15 years</th>
<th>16 years or more</th>
</tr>
</thead>
</table>

8. Do you have any of these qualifications? Please tick

<table>
<thead>
<tr>
<th>RGN</th>
<th>DN</th>
<th>RMN</th>
<th>Dip HE(Nursing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNMH</td>
<td>1st Degree</td>
<td>RSCN</td>
<td>Masters Degree</td>
</tr>
<tr>
<td>RM</td>
<td>Ph D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HV</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Do you have any other specialist qualifications? Please list below giving ENB course number if appropriate.

10. Which work location applies to you? Please tick

<table>
<thead>
<tr>
<th>Community</th>
<th>Hospital</th>
<th>Combined hospital/community</th>
<th>Other (please specify)</th>
</tr>
</thead>
</table>

11. Do you spend any of your time on direct patient/client care? Please tick

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>
Appendix I  Postal questionnaire. Pilot study

12 If you spend some of your time on direct patient/client care how much time would you spend on this activity in a normal week? Please tick

<table>
<thead>
<tr>
<th></th>
<th>Up to 10%</th>
<th>11 - 25%</th>
<th>26 - 50%</th>
<th>51 - 75%</th>
<th>More than 75%</th>
</tr>
</thead>
</table>

General information needs
13 Please indicate your main reasons for seeking information by placing a circle around the appropriate points on the scale

<table>
<thead>
<tr>
<th>Sources of Information For Direct Patient Care</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF YOU ARE NOT INVOLVED IN DIRECT PATIENT/CLIENT CARE PLEASE GO TO QUESTION 21.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14 When you require information for patient/client care which sources do you use? Please tick

<table>
<thead>
<tr>
<th>Source</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Medical notes</td>
<td></td>
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<tr>
<td>Case notes</td>
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<tr>
<td>Local procedure documents/protocols</td>
<td></td>
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<tr>
<td>Laboratory reports</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Computenced information system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Verbal information from nursing colleagues</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Verbal information from other colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit based books and journals</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Personal collection of books and journals</td>
<td></td>
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<tr>
<td>Books &amp; articles from nursing colleagues</td>
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<td></td>
</tr>
<tr>
<td>Books &amp; articles from medical colleagues</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hospital library</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15 Please indicate your reasons for seeking information for direct patient/client care by circling the appropriate point on the scale

<table>
<thead>
<tr>
<th>Reason</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirm knowledge</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Unfamiliar or unusual conditions</td>
<td></td>
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<td></td>
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<tr>
<td>New products</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>New ways of providing care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16 Can you describe the last occasion which caused you to use the library for information in connection with direct patient/client care?
Appendix I  Postal questionnaire. Pilot study

17  When was the last occasion on which you used the library for information in connection with direct patient/client care? Please tick

<table>
<thead>
<tr>
<th>Today</th>
<th>Less than 1 month ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yesterday</td>
<td>Less than two months ago</td>
</tr>
<tr>
<td>Less than seven days ago</td>
<td>Less than 3 months ago</td>
</tr>
<tr>
<td>Less than 14 days ago</td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>

18  Did the information affect the way in which you delivered that care? Please tick

Yes
No

19  Please explain your answer to Question 18 above

20  Could this information have been obtained from other sources available to you? Please tick

Yes
No

Please comment

Access to information

21  Do you have access to a local specialist health sciences library providing any of the following? Please tick

Nursing journals
Nursing books
Borrowing facilities
Obtaining Inter Library Loans
Literature searches (by library staff)
Own literature searching (CD-ROM)
Other (Please specify)
Appendix I  Postal questionnaire. Pilot study

22 How far is your nearest specialist health sciences library from your work base? Please tick

<table>
<thead>
<tr>
<th>On site</th>
<th>1 - 5 miles</th>
<th>6 - 10 miles</th>
<th>11 - 15 miles</th>
<th>15+ miles</th>
</tr>
</thead>
</table>

23 Organising time for your library information finding process. Please circle the appropriate numbers on the scale

<table>
<thead>
<tr>
<th>I set aside regular time to visit the library</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>I obtain information from the library as the need arises</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>There are occasions when information is required for patient or client care but I don't have time to search for it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

24 Would you be prepared to be interviewed regarding information you have provided in this questionnaire? Any information so provided would be treated confidentially

Yes
No

Thank you for your help in completing this questionnaire.

Please return this form in the envelope provided to
Jean Yeoh
Tutor Librarian
St George's Hospital Medical School
Cranmer Terrace
London SW17 0RE

As this is a pilot survey I would be grateful for your comments on this questionnaire.

a How long did it take you to complete this questionnaire?------------------------------------------
Appendix I  Postal questionnaire. Pilot study

b  Were there any questions where the meaning was not clear? If so please specify the questions concerned and comment on each one

c  Any other comments on the questionnaire

Thank you for your help
Appendix II  Semi-structured interview schedule. Pilot

Interview Schedule

<table>
<thead>
<tr>
<th>Name</th>
<th>Tel</th>
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</thead>
<tbody>
<tr>
<td>Address</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Interview date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
</table>

Refer to incident in questionnaire regarding library use to find information for patient care

CRITICAL INCIDENT
1 Library use for patient care info since then? Describe including
   - When
   - What for
   - Kind of information
   - Libraries used
   - How was info found - browsing, organised strategy
   - Was required info found
   - How did it impact on care
   - Other sources consulted apart from lib
   - How did information affect knowledge levels

OTHER FACTORS TO EXPLORE
2 Access issues
   - Distance
   - Time factors - clinical hours, time set aside, job description
   - Access to other resources - libraries, company information, bench collections, personal

3 Length of time in speciality
   - Base knowledge levels
   - More routine work
   - Changes in type of info needed - experience

4 Specific needs for info use as result of being CNS rather than ward based

5 Changes in speciality - new developments, static

6 Aspects of work apart from DPC generating library use
   - Teaching - who - type of info required
   - Audit Patients
Return to: Jean Yeoh, St George's Hospital Medical School, Cranmer Terrace, London SW17 0RE (Phone 000 000 0000) by 31st July 1996.

Name: 
Job Title: 

<table>
<thead>
<tr>
<th>Speciality:</th>
<th>Grade:</th>
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</tbody>
</table>

1. Personal Visit / Phone / Letter (circle method of obtaining information)

2. Date

3. Name of library or information service (please tick)
   - St George's Library
   - Other (please specify)

4. What were you looking for?

5. Why did you need this information

6. How important is this information to your work? (please tick)
   - Very important
   - Important
   - Not very important
Appendix III Information Use record sheet. Pilot

7 Do you think this information will have any impact on patient care? (please tick)
   Yes  
   No  

8 Please comment on your answer to Question 7 above
## Appendix IV: Table of returned Information Use record sheets

**LOGSHEET - INFORMATION USE MAY - JULY 1996**

<table>
<thead>
<tr>
<th>ID</th>
<th>Method</th>
<th>Date</th>
<th>Service</th>
<th>Aim</th>
<th>Reason</th>
<th>Importance</th>
<th>Impact</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>visit</td>
<td>29/5/96</td>
<td>Geo</td>
<td>1. Journal scanning&lt;br&gt;2. Articles on lung function testing</td>
<td>1 updating&lt;br&gt;2 updating- extending role</td>
<td>Important (2)</td>
<td>Yes</td>
<td>Enables me to do lung function on patients in the clinic and at home providing a better service. By understanding the results, makes it easier to determine treatment.</td>
</tr>
<tr>
<td>34</td>
<td>visit</td>
<td>3/11/96</td>
<td>Geo</td>
<td>Nurse practitioner information-lit search 7 finding already identified articles</td>
<td>Decide on suitability to attend NP course</td>
<td>Important (2)</td>
<td>Yes</td>
<td>Easier to treat/diagnose patients - more comprehensive care</td>
</tr>
<tr>
<td>Visit</td>
<td>Date</td>
<td>Author</td>
<td>Description</td>
<td>Updating</td>
<td>Importance</td>
<td>Notes</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>34</td>
<td>5/7/96</td>
<td>Geo</td>
<td>Journal updating - BMJ, Lancet, British Journal of Nursing, NT, Advanced Nursing</td>
<td>Updating</td>
<td>Very important</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>36</td>
<td>11/6/96</td>
<td>Geo</td>
<td>Specific articles I have refs for and general look</td>
<td></td>
<td>Important</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>20/6/96</td>
<td>Geo</td>
<td>Specific book from Audit commission &quot;What seems to be the matter, communication between hospital and patient</td>
<td>Presentation at managers meeting</td>
<td>Very important</td>
<td>Yes</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>36</td>
<td>26/6/96</td>
<td>Geo</td>
<td>Perusing books only</td>
<td></td>
<td>Nil</td>
<td>Nil</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>Visit</td>
<td>Date</td>
<td>Category</td>
<td>Notes</td>
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</tr>
<tr>
<td>62</td>
<td>Visit</td>
<td>14 6 96</td>
<td>Geo</td>
<td>Case management and the neonatal nurse</td>
<td>Better organisation and administration of nursing care on the ward</td>
<td>Very important</td>
<td>Yes</td>
<td>Provide more comprehensive patient-centred care Coordination and delivery of care that is systematic and better organised Evaluation of care and development of nursing practice to enhance and improve care Involvement of patient will improve</td>
</tr>
<tr>
<td>62</td>
<td>Visit</td>
<td>19 6 96</td>
<td>Geo</td>
<td>Parenting skills</td>
<td>Development of nursing assessment of parent infant interaction and parenting skills Improve nurses’ skill and knowledge in this area - at present only opinions given not based on objective observation, therefore inconsistent</td>
<td>Very important</td>
<td>Yes</td>
<td>More objective assessment and the nursing assessment tool will also be used as an educational tool for parents learning how to interact with their babies Patients (i.e. mothers) will become more involved in their care Views of parents’ skills will be more consistent and treatment can be better tailored to their individual needs</td>
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</tr>
<tr>
<td>62</td>
<td>Visit</td>
<td>3 7 96</td>
<td>Geo</td>
<td>Information on nappy rash, childhood diseases and ailments that babies may suffer from</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Develop protocol for baby unit protocol on baby care issues</td>
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<td>Very important</td>
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<td>At present nurses lack knowledge of the care of well babies in mother and baby psychiatric units. Practice is based on personal experience, unsubstantiated views and opinions. Development of research based practice and protocols will guide nurses in this area of practice and provide consistent information to users (i.e. mothers)</td>
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<td>37</td>
<td>Phone</td>
<td>25 6 96</td>
<td>Geo</td>
<td>DoH Circular DH(86)1</td>
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<td></td>
<td>Family planning service report on under age sex and provision of HIV/Contraception education</td>
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<td>Because in family planning an integrated service HIV + family planning will provide a seamless service to under 16's</td>
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<tr>
<td>45</td>
<td>Personal</td>
<td>May 1996</td>
<td>RCN</td>
<td>Information on scabies</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td>1 Project 2 Day to day enquires on the management of somebody/ outbreak with scabies</td>
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<td></td>
<td></td>
<td>Very important</td>
<td>Yes</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>1 How contagious is scabies 2 To barrier nurse until treatment has started 3 Washing clothing linen 4 Treatment of close contacts 5 Incubation period</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Personal</td>
<td>May</td>
<td>RCN</td>
<td>Information on bar soap</td>
<td>liquid soap</td>
<td>I am trying to implement the change from bar soap to liquid soap at Springfield Hosp</td>
<td>V important</td>
<td>yes</td>
</tr>
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<tr>
<td>45</td>
<td>Personal</td>
<td>May</td>
<td>RCN</td>
<td>Information on ?</td>
<td></td>
<td>I am going to write and introduce a leaflet for the population of Merton Sutton and Wandsworth</td>
<td>v important</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Appendix V  Letter to Directors of Nursing

Dear

Clinical Nurse Specialists use of information and patient/client care

I am a working librarian and a part time research student undertaking a Ph D under the supervision of the Department of Information and Library Studies at Loughborough University and I am undertaking research investigating the relationship between information use by Clinical Nurse Specialists and patient or client care. This research proposal has been approved by the Nursing Research Ethics Committee of St George's Healthcare Trust (copy attached).

Nurses often experience difficulties in finding time to use library services and in many parts of the country access to libraries is difficult. However the role of Clinical Nurse Specialists in advanced clinical management, education, research, practice development and quality suggests that they could be influential role models in their use of information to underpin professional practice.

I am writing to ask if you are able to supply me with a list of Clinical Nurse Specialists employed in your Trust. As part of my research I would like to conduct interviews with Clinical Nurse Specialists concerning their information use in relation to patient care. I anticipate that interviews would be in the region of 45 minutes and would be with prior consent of individual nurse specialists.

Thank you for any help you are able to give in providing a list of Clinical Nurse Specialists. I enclose a stamped addressed envelope for your reply.

Yours sincerely

Jean Yeoh
Tutor Librarian
Appendix VI  Interview confirmation letter

Addressee  Date

Dear Ms,

Thank you for agreeing to be interviewed in connection with my research.

I am undertaking research investigating the use of information by Clinical Nurse Specialists, the kind of activities which might generate information use (excluding patient data) and how this relates to professional work. This involves interviewing a number of CNSs in North Thames. The interview discussion will focus around the kind of information you usually use for your work, how you obtain it and how your role as a Nurse Specialist affects your information use. This is part of a Ph D being undertaken with the supervision of Loughborough University.

I will meet you at 9 00a m on Tuesday 18th August 1998. The interview should not last longer than 60 minutes.

Thank you for your help and I look forward to meeting you. Please get in touch if you have any queries about the interview or any problems about the arrangements (Tel xxxxxxx)

Yours sincerely,

Jean Yeoh
Education & Training Libraran
Appendix VII Interview Schedule

Interview Schedule

<table>
<thead>
<tr>
<th>Name:</th>
<th>Tel:</th>
<th>Code:</th>
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<table>
<thead>
<tr>
<th>Job Title:</th>
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<tr>
<th>Address:</th>
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<table>
<thead>
<tr>
<th>Phone call to arrange interview:</th>
<th>Letter:</th>
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</thead>
<tbody>
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</table>

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<th>Post interview let.:</th>
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<table>
<thead>
<tr>
<th>Interview Date:</th>
<th>Location:</th>
<th>Time:</th>
</tr>
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<td></td>
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</tr>
</tbody>
</table>

1 Male / female

2 Age range 21-30, 31-40, 41-50, 51-60

3 Years in specialty 1-5, 6-10, 11-15, 16+

4 Grade E, F, G, H, I

5 Qualifications (undertaking) 1st Degree, Masters, PhD

6 Qualifications Current 1st Degree, Masters, PhD

7 Work location Community, Hospital, Combined

8 Direct patient contact Yes / No

9 Time on direct patient contact <10%, 11-25%, 26-50%, 51-75%, >75%

CRITICAL INCIDENT

1 Last incident of library use for patient care information
   When
   What for
   What kind of information required
   Libraries used
   Strategies for finding information - browsing, organised strategy
   Perceived impact on patient care
   Other sources consulted apart from library
   How did info affect knowledge level - confirming, new
   Typicality of incident - if not what is
OTHER FACTORS TO EXPLORE

2 Access issues
   Distance
   Time factors - clinical hours, time set aside, job description
   Access to other resources - libraries, company, bench collections

3 Length of time in Speciality
   Greater base knowledge levels - less or more info need/use,
   different
   Familiarity
   Changes in type of information used, intensity of use
   Tacit knowledge/vs info based

4 Specific needs for information as result of being a CNS - changes
   Expectations of others, colleagues, medical
   Comparisons in info use - previous roles

5 Changes in speciality - impact on information use

6 Aspects of work apart from DPC generating use
   Teaching
   Audit
   Patients
   Publication /conferences

7 History of library use / impact of courses

schedule sam
16/02/98
Appendix VIII Letter to Library Managers

Dear

Managing the evidence: the context and processes of information use by Clinical Nurse Specialists

I have been conducting research with Clinical Nurse Specialists in the North Thames Region  This is in part fulfilment of a PhD under the supervision of Loughborough University and I am now asking for your support and help

The purpose of the research is to examine the advanced practice role, the social and organisation frameworks within which CNSs operate and the inter-relationship of these with information use  It aims to investigate the processes by which CNSs access and use the formal literature of nursing CNSs are relatively autonomous in their practice and are able to exert considerable influence on nursing care

The first phase of data collection involved in-depth interviews with Clinical Nurse Specialists in a range of specialisms  I would like to enlist your help for the second phase of data collection  This involves a group discussion with 10-12 Library Mangers from North Thames based around the findings of the study  If you agree to take part I will send you a summary of the findings

The group discussion will be tape recorded to be consistent with the CNS interviews that were also recorded  This is to enable verbatim transcriptions to be made  All contributions will be anonymous  I enclose an outline of the proposed programme with this letter and a form to return if you are willing to participate  You will be assisting me in my data collection but I also hope you will find the research of interest and relevance to library service provision

The discussion will take approximately 2 hours and for anyone interested there is a tour of one of the new King's College Information Services Centre

If you have any quenes or need further information I can be contacted by telephone or email as above

Yours sincerely

Jean Yeoh
Managing the evidence: the context and processes of information use by Clinical Nurse Specialists

A group discussion of the findings of research in North Thames

Tuesday 27th June 2000

Venue
Room 1.80 (Meeting room)
Information Services Centre
Franklin-Wilkins Building
King's College London
Stamford Street
(by Waterloo station)

Programme
9.45 - Coffee
10.00 - Discussion
12.00 - Tour of the Information Services Centre.
12.30 - Close
Appendix X Summary of findings for Library Managers

Managing the evidence: the context and processes of information use by Clinical Nurse Specialists

Summary of Findings

Location of the study and methodology
The study was based in the North Thames April 1994 administrative region. Study participants were selected from lists provided by Directors of Nursing and were located in community, general district hospital, teaching hospital, specialist centres and mental health. Grounded theory methodology guided the conduct of the study and data was collected in the form of in-depth interviews with CNSs in their workplace. Tape recorded interviews were then transcribed verbatim. Interview scripts were analysed, coded and the data was assigned to categories. The methodology for the study was chosen to allow the perspective of the CNSs themselves to be central. CNSs were not asked about individual library services.

The main category emerging from the data was Managing the Evidence. The main categories and subcategories are shown in the chart below:

### Managing the Evidence

<table>
<thead>
<tr>
<th>Clinical Practice</th>
<th>Teaching</th>
<th>Research &amp; Publication</th>
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<table>
<thead>
<tr>
<th>1. Role Definition</th>
<th>2. Experience &amp; Knowledge</th>
<th>3. Information Interfaces</th>
<th>4. Enabling Frameworks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Knowledge Base</td>
<td>2.1 Changing Experience</td>
<td>3.1 Wider World</td>
<td>4.1 Access</td>
</tr>
<tr>
<td>1.2 Nature of Knowledge</td>
<td>2.2 Bigger Canvas</td>
<td>3.2 Networks</td>
<td>4.2 Workload &amp; Intentions</td>
</tr>
<tr>
<td>1.3 Dissemination</td>
<td>2.3 Self Reliance</td>
<td>3.3 Professional Domains</td>
<td>4.3 Obstacles &amp; Logistics</td>
</tr>
<tr>
<td></td>
<td>2.4 Meeting Expectations</td>
<td></td>
<td>4.4 Resources &amp; Services</td>
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</table>

The three areas of Clinical Practice, Teaching and Research & Publication were seen as key functions of the CNS role. CNSs were concerned with managing the evidence of nursing in order to perform these roles. Teaching consumed about half of their working time. Clinical practice activities were more likely to relate to procedures...
Appendix X Summary of findings for Library Managers

and systems of care rather than direct patient care. A small number of CNSs were very actively involved in research and publication and most regarded this as an area they should develop in the future.

1. Role Definition
This category examines the kind of knowledge needed by CNSs. They have to be open to the fluid nature of evidence and the impact of differing perspectives. A major responsibility of the CNSs was to disseminate and share their knowledge base and advanced clinical skills to improve overall areas of practice.

1.1 Role definition: knowledge base
CNSs used medical and nursing literature in about equal proportions. However, access to nursing literature was still regarded as important. Some specialists felt there were gaps in the British nursing journals which could be filled by American journals. American titles were not always available in libraries and medical journals were used as a substitute in these cases.

Lack of confidence in the ability to use databases and undertake literature searches meant that some CNSs restricted themselves to a small range of titles reflecting their specialism. Some CNSs received information from drug companies but they were generally aware of the limitations of relying on this source. There was also a need for social care information on areas such as benefits, housing, and legal issues.

1.2 Role definition: nature of knowledge
CNSs expressed an awareness that perspectives on issues and practices could differ and that certainties were elusive. They generally felt that undertaking higher degrees provided a firm foundation in order to acquire an understanding of the research base of practice. There were tensions between the intuitive or tacit knowledge of expert practitioners and demonstrable research-based practice, but CNSs were aware of the dangers of relying purely on previously acquired knowledge and experience. Patients themselves were regarded as essential sources of information.

1.3 Role definition: dissemination
Some CNSs had important national roles in dissemination to health consumers and to other health professionals as well as to local nursing staff. They were aware of issues of "spoon feeding" nursing staff and depriving nurses of their own information seeking skills. However, they also felt that many nurses did not have time to seek out information themselves and part of the CNS role was to provide support for this.

2. Experience and knowledge
This category looks at how CNSs have changed their information use as a result of moving into this role, the need to take a more strategic view, a greater reliance on personal information seeking skills and the pressures caused by raised expectations from others.
Appendix X Summary of findings for Library Managers

2.1 Experience and knowledge: changing experience
The experience of being a CNS has altered the mode of functioning in terms of information use. An important change was the realisation that, even for those who had previously been in senior positions of authority, there was now more pressure to give proper consideration to the research justification for making changes in practice. There was also more time to seek out literature because CNSs were not tied to restrictive daily routines. Undertaking academic courses of study had developed an appreciation of literature use and forced them to develop a competence in literature searching.

2.2 Experience and knowledge: a bigger canvas
CNSs developed a more strategic focus and a more political role. There was a need to consider what might be happening in the future and to consider issues in depth. The development of innovative approaches to practice often meant that CNSs went back to basic nursing procedures to reapply them to specialist areas.

2.3 Experience and knowledge: self-reliance
In addition to developing good information seeking skills CNSs felt they had to acquire negotiating skills to ensure access to library services. For example, CNSs felt that library services were inconsistent in the way they dealt with literature search requests.

2.4 Experience and knowledge: meeting expectations
Managers, medical staff, patients and nursing colleagues had high expectations of CNSs. These expectations were often unrealistic but nonetheless contributed to pressure on CNSs to demonstrate exceptional knowledge and practice.

Patients and clients, especially those with chronic conditions, are extremely knowledgeable about their condition. Home access to the Internet had increased this and CNSs were expected to know about these sources. Medical colleagues felt CNSs should be able to discuss patient issues at a different level to other nurses. Sometimes CNSs had to face the combined raised expectations of nurses and patients.

3. Information interfaces
This category examines the way in which CNSs interact with the broader information interface including information exchange between CNS and other health professions, exchanges between CNSs and engagement with issues at a national level.

3.1 Information interfaces: professional domains
CNSs were more likely to be viewed as legitimate sources of information than other nursing staff and possessed the underpinning knowledge to argue a case. Yet there
was a feeling that nursing knowledge was undervalued and that medical staff had to be dealt with tactfully if there were points of difference

3.2 Information interfaces: networks
CNSs used a wide variety networks, formal and informal, to exchange information. Peer group contact was very important. Such networks tended to operate through personal contact. There was little reference to electronic discussion lists and few CNSs had access to email.

3.3 Information interfaces: wider world
As a result of their autonomy, CNSs had more opportunities to become engaged with professional activities at regional, national and international levels. Involvement in the wider world included writing for publication, presenting at conferences and actively participating in regional and national committees. Some CNSs had international reputations in their field and had contributed to substantive textbooks, written journal articles and were journal editors. Those CNSs who were involved in national activities gained the additional advantage of seeing pre-publication papers. Nurse Specialists who had not become involved in this area saw publication as an aspect of professional activity which legitimised the post of CNS.

4. Enabling frameworks
This category looks at the ways in which CNSs cope with the pressure of their workload, their approach to information collection and establishing priorities.

4.1 Enabling frameworks: workload and intentions
CNSs mainly performed their role with little or no administrative support and often dealt with a great deal of routine paperwork. Heavy workloads meant that opportunities for information use were unpredictable. Using libraries was regarded as a pleasurable aspect of their work and as a luxury not available to other nursing colleagues. Problems of access such as geographical distance were not perceived as barriers and the issue seemed to be personal motivation rather than physical access.

In spite of having more freedom to manage their time, CNSs were more likely to undertake updating and general reading outside work hours. Library use was intermittent and generated by specific problems and projects.

4.2 Enabling frameworks: obstacles and logistics
Some CNSs were prepared to travel to libraries and decisions about this were a balance between cost and inconvenience. Factors in the decision making process included availability and cost of document delivery services and the ability to find a major proportion of articles needed in a single visit. Opening hours of libraries were seen as a deterrent to use. Those who had the Internet at home tended to use it for work-related activities.
Appendix X Summary of findings for Library Managers

4.3 Enabling frameworks: access
While some CNSs did not experience problems in gaining access to library services in Postgraduate Education Centres, uncertainly about the availability of NHS and higher education services was an issue of concern. Some CNSs felt they had been conferred with privileges not always available to nurses in general because of their higher status. The legacy of the closure of nursing libraries and their move into higher education was seen as reducing the level of service. Most CNSs regarded Trust libraries as good for their size but some were prepared to travel some distance to meet their needs. The ability to view full text articles was regarded as important when CNSs had large-scale projects to undertake. Applying for interlibrary loans was viewed as too complicated and too expensive.

4.4 Enabling frameworks: resources and services
CNSs working in specialist/tertiary centres were satisfied with the range of specialist journals available although they were not particularly nursing orientated. Conversely, nurses working in general trusts had access to basic nursing titles but not to specialist American journals. CINAHL was regarded as the database of first choice for literature searching reflecting a preference for nursing sources where they existed. Little use was made of the Cochrane Library.

Pharmacists and Drug Information Services were highly regarded. Librarians were generally highly regarded although a few CNSs referred to unhelpful gate-keeping activities. These incidents were viewed as the result of personalities rather than policies.

Access to IT facilities was poor or non-existent. There was uncertainty as to whether they access to the Internet in Trust libraries. Those CNSs who had access to the Internet at home tended to use it for work related activities. There was evidence of poor Internet navigation skills and awareness of specific health resources such as PubMed. CNSs were conscious of being at a disadvantage compared to some of their clients in terms of Internet access.

Changes arising from changes in the education of health professionals were perceived as raising barriers of varying difficulties. In some cases on medical teaching hospital sites CNSs needed to use medical and nursing sources. There was felt to be a lack of clarity about which services were available to nurses as result of changes in educational provision.

Speed of response by library services was seen as a priority because demands of clinical work made information need unpredictable. Interlibrary loans were usually required urgently. For example a 2-week response time was seen as being too long.
Appendix XI Discussion guide sheet for Library Managers

Discussion Guide Sheet: Library Managers

1 Welcome and introductions

2 Perceptions of CNSs in local Trusts
   • Awareness/knowledge of existence
   • Role of CNSs
   • Identification of CNSs information use

3 Knowledge of nursing staff users/non-users
   • Roles/specialisms

4 Access to services policies
   • Access policies
   • Differential provision of services
   • Awareness of service policies/publicity
   • Opening hours/24 hour access

5 Access to services geographical issues
   • Community users/ other users where distance is a barrier
   • Special services for users at a distance
   • Remote access to databases
   • Links to clinical areas

6 Use of services in other libraries and national centres

7 Resources
   • Availability of nursing literature
   • Specialist nursing journals
   • Journals holdings policies
   • Database access - CINahl, Medline, Cochrane

8 Databases - searching and training
   • Search skills
   • Training - what is on offer, scheduling
   • Mediated searches
   • SDIs

305
Appendix XI Discussion guide sheet for Library Managers

9 Document delivery
- Policies
- Charging issues/limits
- Response times

10 Internet
- Access in libraries - policies - availability
- Training
- Home use

11 Impact of broader issues
- Changes in HE nursing
- New contracts
- Clarity for users

12 Any other issues?
<table>
<thead>
<tr>
<th><strong>Appendix XII</strong></th>
<th><strong>Glossary</strong></th>
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<tbody>
<tr>
<td>BNI</td>
<td>British Nursing Index</td>
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<tr>
<td>CINAHL</td>
<td>Cumulative Index to Nursing and Allied Health Literature</td>
</tr>
<tr>
<td>CNS</td>
<td>Clinical Nurse Specialist</td>
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<tr>
<td>EBM</td>
<td>Evidence Based Medicine</td>
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<tr>
<td>EBN</td>
<td>Evidence Based Nursing</td>
</tr>
<tr>
<td>EBP</td>
<td>Evidence Based Practice</td>
</tr>
<tr>
<td>ENB</td>
<td>English National Board. One of the roles of the ENB has been to validate curricula, a process now undertaken with universities</td>
</tr>
<tr>
<td>EVINCE</td>
<td>Establishing the value of information to nursing continuing education</td>
</tr>
<tr>
<td>GRATEFULMED</td>
<td>Version of Medline made available on the Internet free of charge by the US government with advanced search facilities aimed at health professionals</td>
</tr>
<tr>
<td>LIS</td>
<td>Library and information services</td>
</tr>
<tr>
<td>LISA</td>
<td>Library and Information Science Abstracts</td>
</tr>
<tr>
<td>MEDLINE</td>
<td>Medline is the main medical database</td>
</tr>
<tr>
<td>NDU</td>
<td>Nursing Development Unit</td>
</tr>
<tr>
<td>NELH</td>
<td>National Electronic Library for Health</td>
</tr>
<tr>
<td>NP</td>
<td>Nurse Practitioner</td>
</tr>
<tr>
<td>NUD IST</td>
<td>Non-numeric Unstructured Data, Indexing, Searching and Theonsing</td>
</tr>
<tr>
<td>PAMs</td>
<td>Professions Allied to Medicine e.g. Physiotherapy, Occupational Therapy, Radiography</td>
</tr>
<tr>
<td>PREP</td>
<td>Post Registration Education and Practice</td>
</tr>
<tr>
<td>Project 2000</td>
<td>Title of report introducing significant changes to nursing education</td>
</tr>
<tr>
<td>PSYCHLIT</td>
<td>Database used by health professionals, especially those working in mental health</td>
</tr>
<tr>
<td>PUBMED</td>
<td>Version of Medline made available on the Internet free of charge by the US government with basic search facilities aimed at health consumers</td>
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<tr>
<td>RCN</td>
<td>Royal College of Nursing</td>
</tr>
<tr>
<td>RCT</td>
<td>Randomised controlled trials</td>
</tr>
<tr>
<td>SDI</td>
<td>Selective dissemination of information</td>
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<tr>
<td>UKCC</td>
<td>United Kingdom Central Council for Nursing Midwifery and Health Visiting. This professional regulatory body will be replaced by a new body in 2001 called the Nursing and Midwifery Council (NMC).</td>
</tr>
<tr>
<td>WWW</td>
<td>World Wide Web</td>
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